

Causality Chains in the International Migration Systems Approach

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Published online: 1 August 2007
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Abstract Research into international migration lacks a commonly accepted theoretical framework, which would facilitate the accumulation of knowledge. This article aims to be a first attempt to construct such a framework and to incorporate causalities in the international migration systems approach. The author presents a theoretical framework in which four groups of factors acting on international migration are distinguished: economic, social, political and “linkages.” The causalities in this framework are derived from different international migration theories. The various positions of these whole theories within the framework are shown as causality chains. In a way, these causality chains form the time dimension of an international migration system

Keywords International migration · Migration systems · Migration theory

Introduction

Several theoretical models have been proposed to explain (part of) the international migration puzzle. However, according to Massey et al. (1994, 1998), research into international migration lacks a commonly accepted theoretical framework, which would facilitate the accumulation of knowledge. This article aims to be a first endeavor to construct such a framework.

Rather than focusing on a particular theory, the international migration systems approach discussed by, among others, Kritz and Zlotnik (1992) tries to integrate the key aspects of the different migration theories. The central idea of the systems approach is that the exchange of capital and people between certain countries takes

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place within a particular economic, social, political, and demographic context. The surplus value of this approach is that in contrast to other migration approaches, it takes feedback effects into account and that it is applicable to all migration types (Lebhart 2005). A disadvantage of this approach is that hardly any causalities¹ are distinguished. In this article, I present a theoretical framework in which four groups of factors acting on international migration are distinguished: economic, social, political, and “linkages.” This framework can be seen as an attempt to incorporate causalities in the systems approach. The causalities are derived from the following theories of international migration: neoclassical economic theory, dual labor market theory, the new economics of labor migration, relative deprivation theory, world systems theory, network theory, and institutional theory. By showing the various positions of the whole aforementioned theories within the framework it will become clear which theory covers which part of the framework. Moreover, it will become clear which theories consider international migration to be a temporal phenomenon and which theories consider international migration to be an ongoing phenomenon.

Theories of International Migration

Massey et al. (1993, 1998) and Schoorl (1995) distinguish theoretical approaches of international migration into two categories: theoretical approaches explaining the *initiation* of migration and theoretical approaches explaining the *continuation* of migration. In this theoretical overview a similar distinction is also made. Neoclassical economic theory, dual labor market theory, the new economics of labor migration, and world systems theory try to explain the initiation of migration. An example of an indicator that causes an international migration flow between two countries is wage difference between these two countries. It is a mistake to assume that the initiation of international migration flows (e.g., a wage difference) acts only in a short space of time. Wage differences between countries may persist for decades. This initiation of migration may instigate international labor flows that persist as long as these wage differences continue. International migration itself may even exacerbate the initiation. Income inequality, for instance, may initiate migration from a country. Subsequently, if remittances or return migration cause increased inequality in the sending society, emigration leads to more emigration. Network theory and institutional theory attempt to explain the course of international migration flows over time. These theories try to clarify, for instance, why international migration flows may increase if the initial incentive to migrate has diminished. However, international migration flows on a large scale and in a disproportionate direction cannot persist, at least not over the long term, solely on the basis of mechanisms identified in the theoretical explanations for the course of international migration flows over time. At least one of the mechanisms described in the theoretical approaches that try to explain the initiation of migration or physical danger in the sending country have to be involved too. The comparison between

¹ The definition of causality is a philosophical problem (see, e.g., Heylighen 1989). However, most philosophers seem to agree that causality is a relation in which a cause precedes an effect.

Turkish and Italian chain and return migration after labor migration to and from Germany is illustrative. Economic prosperity in Germany was considerably higher than in Turkey and Italy. This induced many Turkish and Italian workers to migrate to Germany. The *Anwerbestopp* of 1974 ended the labor migration from Turkey and Italy to Germany. Since 1974 migration flows between Turkey and Germany have been much more disproportionate (more migration from Turkey to Germany than the other way round) than migration flows between Italy and Germany. This difference cannot be accounted for by employing theories explaining the course of international migration over time. The main reason lies in the extent to which the initial cause of (labor) migration to Germany prevailed in Italy and Turkey after 1974. Italy largely reduced its economic backwardness vis-à-vis Germany in the 1970s and 1980s, while Turkey's economic backwardness in relation to the German economy increased. In addition, Turkey, in contrast to Italy, has been a politically unstable country.

Theories Explaining the Initiation of International Migration

The oldest theory of migration is neoclassical economic theory. According to this theory, wage differences between regions are the main reason for labor migration. Such wage differences are due to geographic differences in labor demand and labor supply, although other factors might play an important role as well, e.g., labor productivity, or the degree of organization of workers. Applying neoclassical economics to international migration, it can be said that countries with a shortage of labor relative to capital have a high equilibrium wage, whereas countries with a relatively high labor supply have a low equilibrium wage. Due to these wage differences labor flows take place from low-wage to high-wage countries (Borjas 1989; Massey et al. 1993, 1998; Bauer and Zimmermann 1995).

Dual labor market theory argues that international migration is caused mainly by pull factors in the developed migrant-receiving countries. According to this theory, segments in the labor markets in these countries may be distinguished as being primary or secondary in nature. The primary segment is characterized by capital-intensive production methods and predominantly high-skilled labor, while the secondary segment is characterized by labor-intensive methods of production and predominantly low-skilled labor. Dual labor market theory assumes that international labor migration stems from labor demands in the labor-intensive segment of modern industrial societies (receiving countries) (Piore 1979; Massey et al. 1993).

Stark and Bloom (1985) argue that the decision to become a labor migrant cannot be explained only at the level of individual workers; wider social entities have to be taken into account as well. Their approach is called the new economics of labor migration. One of the social entities to which they refer is the household. Households tend to be risk-avoiding when household income is involved. One way of reducing the risk of insufficient household income is labor migration of a family member. Family members abroad may send remittances. According to the new economics of labor migration, these remittances have a positive impact on the economy in poor sending countries as households with a family member abroad lose production and investment restrictions (Taylor 1999).

Relative deprivation theory argues that awareness of other members (or households) in the sending society about income differences is an important factor with regard to migration. Therefore, the incentive to emigrate will be higher in societies that experience much economic inequality (Stark and Taylor 1989).

World systems theory considers international migration from a global perspective. This approach emphasizes that the interaction between societies is an important determinant of social change within societies (Chase-Dunn and Hall 1994). An example of interaction between societies is international trade. Trade between countries with weaker economies and countries with more advanced economies causes economic stagnation, resulting in lagging living conditions in the former (Wallerstein 1983; Amankwaa 1995). This is an incentive for migration.

Theories Explaining the Course of International Migration Flows Over Time

As a result of large inflows of international migrants, migrant networks may be formed, involving interpersonal linkages between (migrant) populations in origin and destination areas. Migrant networks may help potential migrants of the same ethnic origin, for instance, by contributing to financing the journey, helping to find a job or appropriate accommodation, or by giving information about education possibilities or access to social security (Esveldt et al. 1995).

As international migration occurs on a large scale it can become institutionalized. According to institutional theory, a large inflow of international migrants induces profit and nonprofit organizations, which can be legal or illegal, to provide, for instance, (clandestine) transport, labor contracts, (counterfeit) documents, dwellings, or legal advice for migrants (Massey et al. 1993).

A Theoretical Framework Based on the International Migration Systems Approach

An international migration system consists of a group of receiving (core) countries that are linked to a set of sending countries by relatively large flows and counterflows of migrants (Fawcett and Arnold 1987; Massey et al. 1993). Countries in a migration system are not only connected by people but also by other types of linkages (Fawcett 1989). Kritz and Zlotnik (1992, p. 3; see Fig. 1) distinguish the latter into historical, cultural, colonial, and technological linkages. A migration system is situated within a particular context. Kritz and Zlotnik differentiate the social, political, demographic, and economic contexts.

The difference between other linkages and the context of a migration system is rather vague. Mabogunje (1970), for instance, does not speak about technological linkages, but about the technological context. The economic context is hard to distinguish from the technological linkages as more prosperous countries are expected to have relatively more advanced technological linkages (e.g., intercontinental airports, large harbors or an elaborated telecommunication network). It is not hard to imagine that some international migration scholars see the aforementioned technological linkages as a technological context in which, for

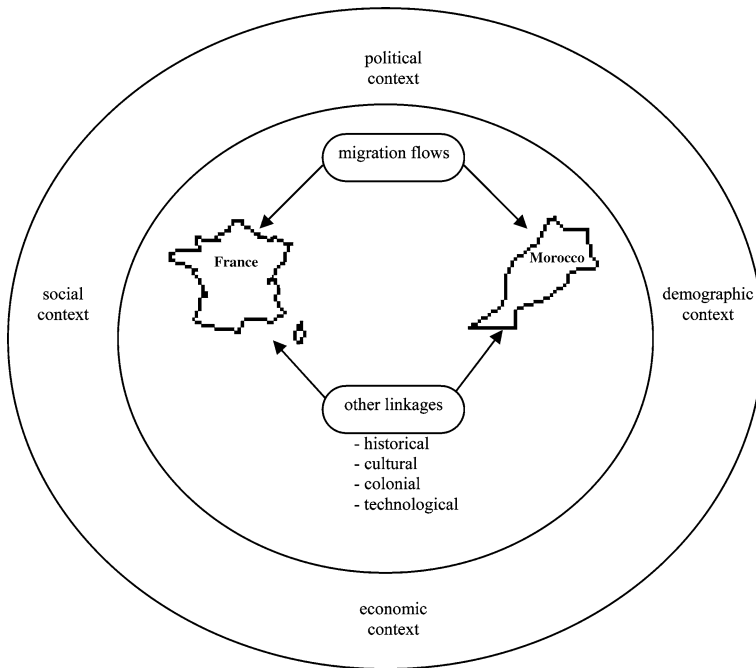


Fig. 1 Two countries in a systems framework of international migration

instance, cultural linkages and migration flows may exist. An international migration system has a spatial and a time dimension (Kritz and Zlotnik 1992). The specific countries in the system form the spatial dimension. Countries in the same migration system need not be geographically close because historical and technological linkages play at least as significant roles as geographical distance. Countries may belong to more than one migration system (Massey et al. 1993). Changes in the context of a migration system and changes in the linkages between countries form the time dimension of a migration system. This dimension is essential to flow and counterflow dynamics. In addition to external causes, changes in the context of a migration system and changes in the linkages between countries may also be caused by international migration itself. A large proportion of migrants in the country's population may influence the social, political, demographic, and economic contexts and the linkages between countries. As we saw in the previous section, network theory and institutional theory try to explain the course of international migration flows over time. According to the international systems approach, institutional and network theory are examples of how the context of an international migration system or linkages in an international migration system change because of international migration flows itself.

The systems framework of international migration, which is presented in Fig. 1, does not depict causalities. In the theoretical framework, depicted in Fig. 2, causalities are located between international migration and its determinants. These

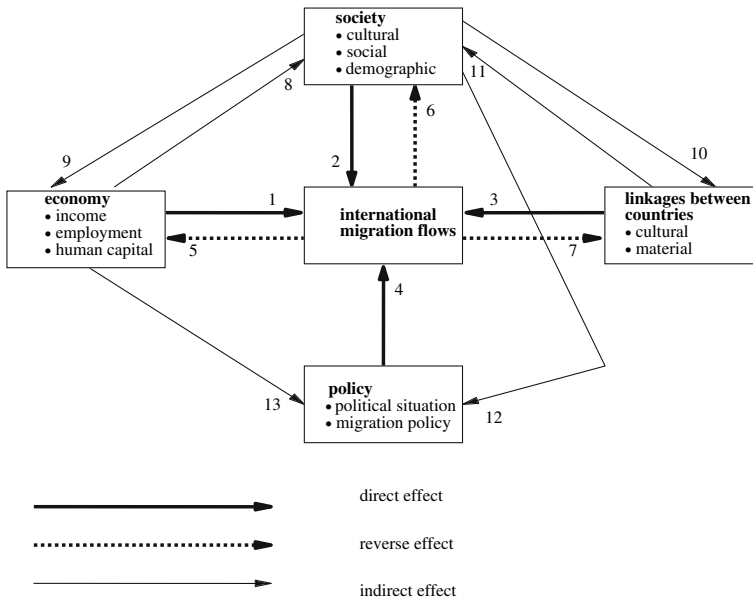


Fig. 2 Theoretical framework

determinants have been divided into four categories: economy, society, policy, and linkages between countries, which are derived from the systems approach to international migration presented by Kritz and Zlotnik (1992, p. 3).² The categories may be further divided into components that act on international migration. In general, economic, social, and political factors have impacts in both sending and receiving countries. The causalities in the framework can be direct, reverse, and indirect. Direct effects are straightforward effects of the determinants of international migration. These are the effects of the context and other linkages on migration flows in a migration systems framework. Reverse effects are subsequent effects of international migration on the various determinants, i.e., the feedback mechanisms in a systems framework. Indirect effects are effects between the different categories that subsequently have an impact on international migration. Indirect effects can be seen as effects between the different contexts and/or the other different linkages in a systems framework. Direct effects are described in detail in the next section. Reverse and indirect effects are considered in the section in which the theories introduced earlier will be situated within the theoretical framework. Some reverse effects have gained on importance in the last decades as new technologies of communication and transportation have enabled migrants to remain more active in the communities of their origin (Levitt et al. 2003; Spaan and Van Naerssen 2005). These activities, which are indicated with the umbrella term “transnationalism,”

² Contrary to Kritz and Zlotnik, I do not distinguish a separate demographic context (category): this context is classified under the society category.

may be economic (e.g., remittances) or sociocultural (e.g., via transnational networks) in nature.

Three components of the economy category can be identified: income, employment, and the amount of human capital. Following Fielding (1993), society is comprised of cultural, social, and demographic components. The cultural component is related to lifestyles and ethnicity. The social component concerns both inequality and cohesion in societies. The demographic component relates to the age and sex distribution of the population. Within the policy category two components may be distinguished: the political situation and migration policy. The “linkages between countries” category consists of cultural and material linkages. Cultural linkages include, for instance, the colonial past or sharing the same language. Material linkages determine the distance between countries (also in time) or the costs of moving between countries. The different components of a particular category may have an opposite (positive or negative) effect on international migration or on (components of) the other categories. International migration may also exert opposite effects on the different components of the categories. Hence, the final direction of influence is determined by the relative strength of each of the components. Therefore, no positive or negative signs are displayed in Fig. 2.

Direct Effects

In this section, a detailed description is given of the direct effects on international migration. The arrows (1 through 4) in Fig. 2 represent these direct effects. Often the direct effects do not cover the full impact of a component within a category as certain components affect international migration indirectly by way of other components as well. Therefore, to account for the full impact of a component on international migration, one should take into account not only direct effects, but also indirect effects.

Economy → International Migration [1]³

From an economic point of view, the amount of (human) capital determines the labor market position of individual workers, which in turn determines their employment status and income level. If, for instance, the supply of low-skilled labor is higher than the demand for low-skilled labor, the wages and opportunities for employment for low-skilled workers are relatively low. Neoclassical economics can be used at the microeconomic level of individual choice to explain the phenomenon of international migration. From this perspective, Massey et al. state:

In this scheme, individual rational actors decide to migrate because a cost-benefit calculation leads them to expect a positive net return, usually monetary, from movement. International migration is conceptualized as a form of investment in human capital (Massey et al. 1993, p. 434).

³ The numbers between square brackets (1 through 4) correspond with the numbers accompanying the arrows in Fig. 2.

Traditional investments in human capital are schooling, on-the-job training, acquiring information about the economic, political or social system, and investments to improve emotional and physical health (Becker 1962). Sjaastad (1962) states that migration may also be viewed as an investment in human capital. Massey et al. (1993, p. 435) defined a function that reflects when migration is a sufficient investment in human capital to induce employees to migrate:

$$ER(0) = \int_0^t [P_1(t)P_2(t)Y_d(t) - P_3(t)Y_o(t)] e^{-rt} dt - C(0)$$

$ER(0)$: expected net return to migration just before departure at time 0

$P_1(t)$: probability of avoiding deportation from the area of destination

$P_2(t)$: probability of employment at the destination

$P_3(t)$: probability of employment in the area of origin

$Y_d(t)$: earnings if employed in the region of destination

$Y_o(t)$: earnings if employed in the region of origin

r : discount factor

$C(0)$: sum total of the costs of movement (including psychological costs).

If the expected net return to migration has a positive value, the rational actor migrates; if it is negative, the actor stays. If the expected net return to migration has a positive value for several destinations, the actor migrates to where the expected net return is the highest. Adding psychological costs to the equation is an improvement over using only economic variables. However, these costs are not only limited to the one-off costs of moving, but apply to the whole period of migration. Furthermore, international migration can involve psychological gains. Some people experience the tension and adventure entailing migration as pleasant. Richmond (1993) argues that there is no evidence that people are more inclined to “natural inertia” than to a “natural wanderlust.”

An important economic incentive for migration is the threat of insufficient family income. This uncertainty is determined by private insurance markets, governmental programs, and by the possibility for a household to get a loan (Massey et al. 1993). In most developing countries the majority of the population is dependent on farm income. Farm income is often highly fluctuating due to natural or human hazards. There is also a risk that the price of the crop will drop below the expected level. Therefore, in developing countries the most important component of private insurance markets is the availability of crop insurance. The most important governmental program is installing and maintaining a social security system. If both crop insurance and social security are available, the risk of an insufficient household income is low. In this case the incentive to migrate is also low.

Not only labor migration but also migration for other motives (such as family reunification and formation, return migration, and retirement and asylum migration) are partly determined by economic indicators. Family migration is most likely to be relatively larger when the differences in economic conditions (e.g., level of wages or certainty of family income) between the country of destination and the country of

origin are larger. The higher the income in a receiving country, the more dependents may come over to live on one salary. Retirement migration (of natives) is relatively higher when the economic circumstances in the country of origin are favorable. The relationship between economic determinants and return migration is rather complex. Shrinking economic differences between destination and origin countries can be an incentive for return migration. On the other hand, a high income in a receiving country provides the possibility for older (labor) migrants to return to their countries of origin. In the latter case return migration can be seen as a form of retirement migration. Asylum migration, finally, seems to be less determined by economic factors—a sincere asylum migrant has no economic motives underlying his decision to migrate. Nevertheless, the choice of a certain country of destination can be affected by economic factors. Moreover, it would be very naïve to assume that no asylum request is a cover for economic gain.

Society → International Migration [2]

The society category consists of three components: culture, social structure, and demography. The impacts of these three components are largely different.

The cultural component entails ethnic and lifestyle influences in both sending and receiving countries. The effect of ethnic composition of host countries on the level of return migration as well as family migration is obvious. In more general terms, the ethnic composition of a potential receiving country may affect international migration because of the existence of migrant networks. Ethnic groups in a certain country can form migrant networks, which can be seen as a form of social capital. As these networks may lower the costs of migration and the risks of unemployment⁴ and expulsion, the expected net returns of migration to a country in which a relative large migrant network is present are relatively higher (Boyd 1989; Massey et al. 1993, 1998; Bauer and Zimmermann 1995). Lifestyles in potential receiving countries too may have an effect on the volume of immigration. In some societies the native population may be less open towards foreigners than in other societies. Therefore, apart from the positive effect of a large proportion of migrants in the country's population in the form of social capital, a large inflow of migrants from a certain ethnic origin can have a negative effect on the expected net returns of migration as well. After all, a large influx of strangers can increase xenophobic reactions against foreigners (Jandl 1994). Another negative effect of a large proportion of migrants of a particular ethnic origin in the country's population is that these immigrants have more difficulties learning the language in the receiving country because they usually live in linguistic enclaves, and as such they are less exposed to the language of the receiving country (Chiswick and Miller 1996).

The social component concerns the degree of inequality and cohesion in sending and receiving countries. The relative deprivation of an individual or household has a positive effect on the incentive to migrate. Hence, we may expect that a society with large income differences experiences larger emigration than a society with small

⁴ Here the society category affects the volume of international migration actually indirectly via the economy category.

income differences. Cohesion in the sending country is also an important determinant of migration. Social unrest is a characteristic of little cohesion in a society, which may lead to emigration (i.e., asylum migration). In addition, the amount of cohesion in both the sending and receiving countries may affect return migration. Often, return migration is the reverse move undertaken by a former labor migrant. Waldorf (1994, 1996) states that the extent to which a migrant in the host society (the original receiving country) has assimilated has a negative effect on his or her intentions to return. This assimilation (which is positively influenced by duration and negatively by age) can be seen as a form of cohesion. According to Waldorf, “ties to home,” a form of social capital, are an important determinant of return migration as well. These “ties to home” can be seen as cohesion in the country of origin (the original sending country).

The demographic component pertains to the age and sex distribution of the population in sending and receiving countries. Obviously, the age distribution in sending countries has an impact on retirement migration. Moreover, the age distribution of the migrant population is important too: it may determine the level of return migration. Finally, the sex distribution of the (migrant) population in both sending and receiving countries may have an impact on the incidence of family formation and reunification migration.⁵

Linkages Between Countries → International Migration [3]

With regard to linkages between countries, a distinction may be drawn between cultural and material linkages. Regional amenities (the mildness of the climate and the scenic value of the landscape) will be discussed here as well, although literally these factors do not relate to linkages between countries.

Cultural linkages between countries can exist by virtue of a common colonial past through which the same culture is spread in these countries (e.g., the Commonwealth of Nations). These linkages facilitate migration decisions. For instance, (psychological) costs due to assimilation in the receiving society will be lower than when a common culture is missing. Moreover, cultural linkages often ensure that human capital is not lost in the event of international migration. Comparable educational systems, for example, enable mutual recognition of certificates. In general, the less human capital is lost, the higher the net expected returns of migration. A special form of a cultural linkage between countries that preserves human capital is common language. The labor participation of Moroccans and Turks in the Netherlands in 1982, for instance, was about half of the labor participation of the French-speaking Maghreb immigrants in France (Lakeman 1999). English, French, Spanish, Russian, Chinese, Arabic, Hindi, and Malay, respectively, are spoken by more than one hundred million people. In addition, all these languages are used by speakers of many other languages, i.e., they are used as

⁵ The direct effect of the demographic component on international migration is mostly relatively small. However, the indirect effect of this component (especially via the economy category) may be very large as the demographic composition of the population may largely affect on the quantity and quality of the labor force. The reverse effect of international migration on the demographic composition of the population may, of course, also be considerably large.

a medium of international communication. Portuguese, German, and Japanese respectively also are spoken by more than one hundred million people but they are less employed as a medium of international communication. Swahili, by contrast, is less spoken but it does serve a connecting function. Finally, the English language has increasingly become the global *lingua franca* (De Swaan 1995). In general, countries in which widespread languages are spoken are more attractive to international migrants. International students in particular are strongly influenced by linguistic factors (Baumgratz-Gangl 1990).

The most obvious material link between countries is geographical proximity. The idea that the volume of migration is determined by distance comes from the “spatial gravitation” tradition (Öberg 1997). In a spatial gravitation model the volume of migration between two regions (countries) is determined by the populations in both regions and by the squared distance between these two regions. In the spatial gravitation tradition, a special type of migration is border migration. In border regions intraregional migration, e.g., from large cities to surrounding rural towns, can cross international borders. Geographical distances are fixed, but costs of moving and travel time may vary between countries and over the years. In general, the costs and time of travelling between two countries have decreased over time. Especially since the Second World War material links have increased dramatically due to increased transport technology (Nierop 1995). One can think here, for instance, of frequent or cheap flight connections between countries. A third material link between countries is realized through international telecommunication. In particular, psychological costs of international migration are being reduced by advanced facilities for international telecommunication.

Other factors having an impact on international migration with a strong regional element are climate and the landscape. Generally, countries with a pleasant climate and a scenic landscape are attractive destination areas in the case of retirement migration.

Policy → International Migration [4]

Two components are important in the policy category: the general political situation in a country and migration policies. The political situation in sending countries has an impact on the amount of emigration. First of all, political tension can result in outbursts of violence and civil war. Through violence between groups of citizens (e.g., ethnic conflicts), violence between the state and its citizens (e.g., oppression of a certain population group or uprisings against the ruling authorities), or violence between states (wars), the safety of individuals may feel endangered and they may have to seek refuge. This physical danger can come about by persecution or arbitrary violence, but also by starvation. Often, migration is the only possible escape from this situation. In addition, the government of a sending country can influence the extent of emigration explicitly by policy measures. Within international political relations, sending countries can use the migration issue to achieve other goals. In exchange for attempts to limit emigration, for instance, they may be able to extort increasing or continuing aid or better trade conditions from receiving countries (Hamilton 1997).

Another important determinant of international migration is the immigration policy of potential receiving countries (ICMPD 1994; Martin 1994). Due to the introduction of more restrictive immigration policies, such as the tightening of border checks, immigration flows often drop, at least temporarily. Immigration levels, however, are not only influenced by policy measures of the receiving country itself, but also by policy measures of other potential receiving countries. Stricter entry requirements of one particular country can lead to increasing immigration levels in other potential receiving countries. In addition, the search and eviction policy of illegal foreigners can determine the amount of (illegal) migration. Finally, receiving countries may try to influence international migration by resorting to policies like international aid or the promotion of international trade and investments in sending countries (Muus and Van Dam 1998).

The immigration policy of potential receiving countries and the political situation in sending countries are in considerable part determined by society (arrow 12 in Fig. 2). Although this is actually not part of the direct effect of policy on international migration, it is briefly discussed here. As far as the indirect effect of society on political factors is concerned, lifestyles and ethnic composition may influence both the political situation (e.g., the extent of violence to which inhabitants are exposed) in sending countries and the entry requirements in potential receiving countries. The social component of society is of importance for the political situation in sending countries. As mentioned before, the degree of cohesion in a society is indicated by the extent of violence in a society. A society with relatively high cohesion has relatively little violence. According to Wallerstein (1983), the degree of inequality also has a bearing on the level of violence. He states that a high level of income inequality in a country correlates with a high level of violence within that country. Furthermore, the extent of violence in sending countries has an impact on the entry requirements in receiving countries with regard to asylum migration. If the political situation in a particular sending country deteriorates, potential receiving countries will relax entry restrictions for immigrants from that particular country.

Synthesis

In the previous section, the direct effects of the theoretical framework depicted in Fig. 2 were described. These effects are based on some key aspects of several theories. The current section shows how the full theories of international migration, from which various effects have been identified, can be fitted into the theoretical framework. Combinations of the arrows in Fig. 2 depict the causality chains of neoclassical economic theory, dual labor market theory, the new economics of labor migration, relative deprivation theory, world systems theory, network theory, and institutional theory in the framework. In a way, these combinations of arrows form the time dimension of an international migration system. The combinations of arrows that indicate the positions of the theoretical approaches to explain the initiation of migration have one of the four categories (economy, society, policy, or linkages between countries) as the starting point. The combinations that indicate

network theory and institutional theory have international migration itself as the starting point.

Neoclassical Economic Theory

According to neoclassical economic theory, real wage differences between countries give rise to two flows whereby a new international equilibrium is created in which real wages are of the same level in all countries. The first is a flow of low-skilled labor from low-wage countries to high-wage countries. The second is a capital flow from high-wage countries to low-wage countries. This capital flow comprises mainly labor-intensive industrial capital and will be accompanied by high-skilled labor migration. This mechanism leading to equilibrium is well presented by Öberg (1997: 24, see Fig. 3).

Both net labor migration and net capital flows will be equal to zero when a new equilibrium is achieved. Thus in this view, net international labor migration is a temporal phenomenon.

Within the theoretical framework, the causality chain [1–6–9–1] (see Fig. 4) reflects the process as postulated by neoclassical economic theory.

Here, wage differences between countries are the point of departure. Due to these differences labor flows arise from low-wage countries to high-wage countries (arrow 1). In general labor migrants are relatively young. Therefore, it is most likely that labor migration will have an aging impact on the sending society and a rejuvenating impact upon the receiving society (arrow 6). Furthermore, in the long run international migrants may have a rejuvenating impact on the demographic composition of receiving societies due to their higher fertility rate (Hjarnø 1996). In the Netherlands, for example, the total fertility rate among Moroccan and Turkish women is much higher than among Dutch women. The relatively high fertility rate among these migrant groups gives rise to a (slightly) higher fertility rate for the total population of the Netherlands (Penninx et al. 1994). According to Coleman (1999), long-term high emigration may retard the modernization (decline) of fertility in sending societies. Mass emigration may be a partial alternative to the reduction of fertility. This may be one of the reasons why traditional emigration countries like the Irish Republic and Portugal had less sharp declines in fertility than other

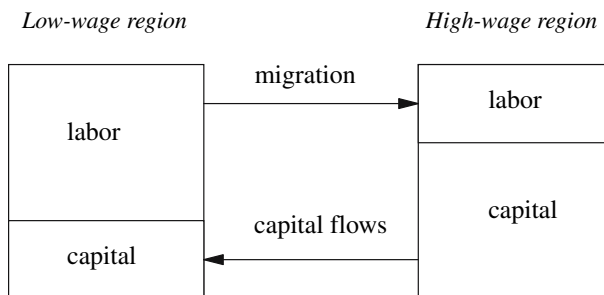
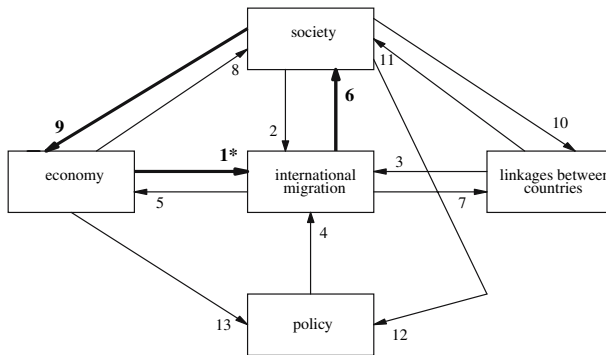


Fig. 3 Neoclassical mechanisms leading to equilibrium



* starting point

Fig. 4 Neoclassical economic theory [1–6–9–1]

Western and Southern European countries in the twentieth century. Thus, the changing demographic composition reduces the difference in the amount of human capital between sending and receiving countries (arrow 9).

Although neoclassical economic theory is used to explain migration flows between countries, it is particularly appropriate with regard to internal migration. In contrast to international migration, internal migration is often less curbed by policies. Currently neoclassical economic theory can be used to explain international migration flows within the European Union as these flows are also less encumbered by restrictions.

Keynesian economic theory is critical of the neoclassical view on (international) migration. In Keynesian theory, labor supply depends not only on the real wage, but also on the nominal wage. This distinction stems from the different views on the role of money in the economy. In the neoclassical point of view money is solely a medium of exchange. The Keynesian point of view is different, because here money is not only a medium of exchange but also a medium of saving. Because of this latter function of money, potential migrants are also attracted to high nominal wage regions. In addition, intentions to re-migrate or to send remittances further increase the importance of the nominal wage level compared to the real wage level. As a result, there may not be a new international equilibrium, as hypothesized by neoclassical economic theory. Nevertheless, in Keynesian theory, migration is an equilibrium recovering mechanism too. However, in this theory international migration removes unemployment differences rather than real wage differences (Hart 1975; Van Dijk 1986).

Dual Labor Market Theory

The dual labor market approach divides the labor market into a primary and a secondary segment (Piore 1979). The primary segment is characterized by a capital-intensive method of production; the secondary segment is characterized by a labor-intensive method of production. Skilled workers in the primary segment, who are

trained (on the job) to work with advanced capital goods, have more social status, higher incomes and better employment conditions than unskilled workers in the secondary segment. Jobs at the bottom of the labor market are almost always found in the secondary segment.

Piore (1979) gives three possible explanations for the demand for foreign workers in modern industrial societies: general labor shortages, the need to fill the bottom positions in the job hierarchy, and labor shortages in the secondary segment of a dual labor market. The last explanation is also covered by the first two explanations. General labor shortages lead to vacancies in the bottom positions of the job hierarchy. In addition to general labor shortages, there may be specific shortages at the bottom of the job hierarchy arising from motivational problems and demographic and social changes in modern industrial societies (Massey et al. 1993). Motivational problems come about because jobs at the bottom of the hierarchy are often associated with low social status and because the opportunities for upward mobility are generally low. Demographic and social changes in modern societies (i.e., the decline in birth rates and educational expansion) may lead to a relatively small inflow of teenagers who are willing to take jobs at the bottom of the hierarchy in order to earn some money and to gain some work experience. Emancipation of women and the rise in divorce rates too may be of importance here. In modern societies the aim of working women changed from supplementing family income (which can be earned as a part-timer at the bottom of the job hierarchy) into earning primary income. As a result of labor shortages at the bottom of the job hierarchy, employers are compelled to recruit foreign workers. International migrants who eliminate labor shortages in certain branches can contribute to economic growth in receiving countries (Gieseck et al. 1995). Furthermore, international migration can have an impact on economic development in receiving countries because of changing saving and consumer habits or changing forms of investment (Frey and Mammey 1996; MaCurdy et al. 1998).

In theory, the causality chain [9–1–6–9] may reflect the dual labor market theory. Demographic and social changes in receiving societies may cause a decrease in low-skilled labor supply (arrow 9). Subsequently, the wages for low-skilled labor increase, which may result in rising immigration flows (arrow 1). Increasing immigration, then, may act on demographic and social developments (arrow 6), which again may cause changes in the labor supply (arrow 9). This way of thinking, however, is not very realistic. Where salary and employment conditions are concerned, Öberg (1996) states that the gap between developing (sending) and developed (receiving) countries is so large that minor changes in salary and employment conditions have only an indirect influence on international migration through policy measures. Demand for skilled and unskilled labor in receiving countries often determines the entry requirements of these countries (Böhning 1998). Policies concerning search and eviction of illegal immigrants can also be determined by supply and demand of labor. In times of labor shortages, receiving countries lower their entry criteria (arrow 13), which enables more potential immigrants to enter these countries (arrow 4). These migrants cause an increase in low-skilled labor supply (arrows 6 and 9). Thus, the causality chain [9–13–4–6–9] rather than [9–1–6–9] is the best reflection of dual labor market theory (see Fig. 5).

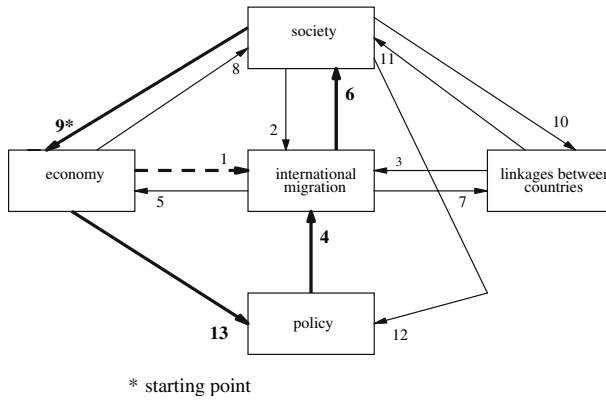


Fig. 5 Dual labor market theory [9–13–4–6–9]

The New Economics of Labor Migration

According to the theory of the new economics of labor migration, labor migration has to be studied within wider social entities: i.e., households. Within the entity of the household, the (un)certainty of household income is the main determinant of labor migration. Migration of a household member is a way to spread the risk of insufficient household income.⁶ Within the theoretical framework this relation is indicated by arrow 1, which acts as the trigger of the process (see Fig. 6). Subsequently, the household member abroad may send remittances, which may increase (the certainty of) the household income (arrow 5). Moreover, the theory of the new economics of labor migration states that remittances have a positive effect on macroeconomic development in sending countries. This perspective on the impact of remittances upon sending economies is called the “developmentalist” perspective (Taylor 1999). International labor migration then is, according to the new economics of labor migration, a transient phenomenon.

In the literature, however, there is no consensus on whether remittances have a positive or a negative influence on the sending economy. In addition to the “developmentalist” perspective, Taylor (1999) also distinguishes the “migrant syndrome” perspective on the impact of remittances upon sending economies. If labor outflow and consequently remittances experience great ups and downs, the economy of sending countries faces considerable adaptation difficulties like inflation or “Dutch disease” (Knerr 1993). The term “Dutch disease” is used when a country’s apparent good economic fortune ultimately proves to exert a net detrimental effect (O’Toole 1998). Because of the (possibly) disturbing effect of remittances on the economy of sending countries, the certainty of sufficient income of more households in the sending region may be reduced, leading to more labor migration.

⁶ Splitting up the household for labor migration is, of course, only temporary. After migration of a household member, often family or return migration follows.

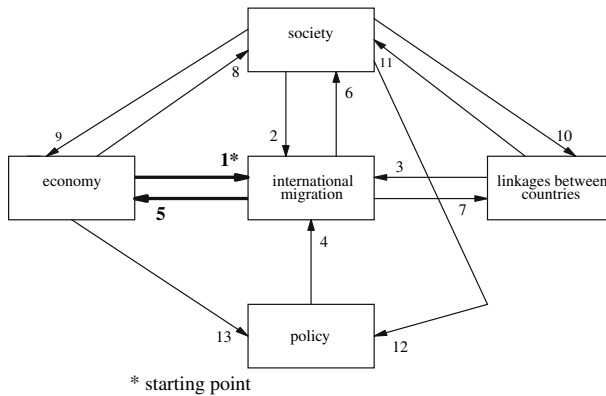


Fig. 6 The new economics of labor migration [1–5–1]

Migration in the context of the relative position of a household in the sending society may be seen as a second aspect of the new economics of labor migration (Massey et al. 1993). Here, the sending society is the wider social entity in which international migration is studied. Relative deprivation theory, which is the subject of the next subsection, is the theoretical linchpin of this aspect of the new economics of labor migration.

Relative Deprivation Theory

Relative deprivation theory states that the relative income position of a household or an individual is an important determinant of international migration. In this section two causality chains are described, both of which have the degree of inequality in a society as the starting point.

The causality chain [2–6–2] reflects the relative deprivation theory and the impact of remittances within the theoretical framework (see Fig. 7). Similar to the literature on the effect of remittances on economic growth, the literature on the effect of remittances on inequality in the sending society (arrow 6) offers no consensus as to whether this effect is positive or negative. Some studies (e.g., Stark et al. 1988; Docquier and Rapoport 2003) suggest that the effect of remittances on the degree of inequality is not monotonic. They suggest that the inequality in a society in which many people receive remittances from family members abroad follows an inverse U-shaped curve. In the short run remittances may increase inequality, while they may decrease inequality in the long run.

Another consequence of migration which may have, in turn, an impact on inequality is human capital formation. Within the theoretical framework, the causality chain [2–5–8–2] reflects relative deprivation theory and the role of human capital formation (see Fig. 8).

Being high-skilled is an incentive to emigrate from a less developed country. An outflow of relatively high-skilled workers is called a “brain drain.” Until recently the dominant view on the outflow of high-skilled workers was that it reduces

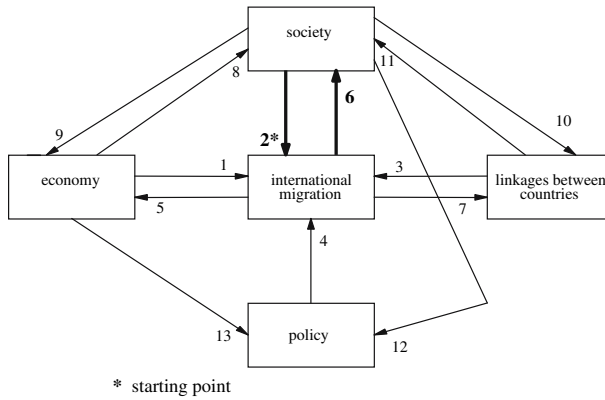


Fig. 7 Relative deprivation theory and the role of remittances [2–6–2]

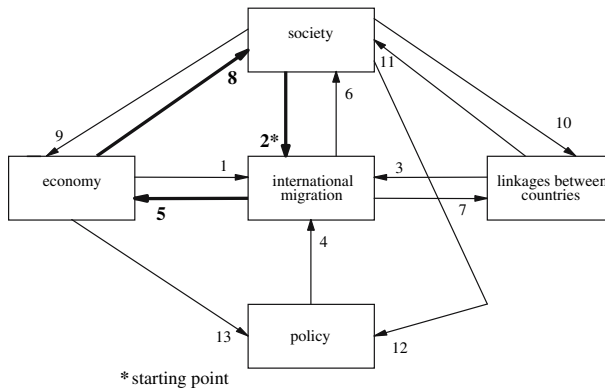


Fig. 8 Relative deprivation theory and the role of human capital formation [2–5–8–2]

production in a sending area because the loss of human capital has a negative effect on total production. This view ignores the positive effect of emigration of high-skilled workers on incentives for human capital formation in sending areas. An overlapping generations approach does not ignore this effect of a brain drain (Mountford 1997; Vidal 1998).

The life cycle of individual workers can be divided into two periods. In the first period they invest in human capital formation and in the second period they try to capitalize on their investments (Vidal 1998). A large number of successful high-skilled emigrants may serve as an example for potential migrants who are still in the first human capital accumulating period of their life cycle. The surplus value of education on the labor market in receiving countries is higher than the surplus value of education in the labor market of sending countries if differences in wages for skilled labor between receiving and sending countries are higher than differences for unskilled labor. The possibility for emigration may increase the incentive to amass

more education (human capital) in this case (arrow 5). However, we must take into account that the opportunity cost incurred in pursuing education in the first stage is loss of income from wage labor. Further, we must take into account that both education and migration involve costs. Educational expansion may result in more equal opportunities where the final achieved educational level is concerned, as school choices and performances at older ages are less determined by (the socioeconomic status of) parents than at younger ages (Mare 1981, in SCP 1994).⁷ More educational equality leads to more income and status equality (arrow 8) as educational attainment has a positive impact upon occupational status and income (Blau and Duncan 1967; Van Eijck 1996). Subsequently, more equality (less relative deprivation) in a country may have a mitigating effect on international emigration (arrow 2).

Mountford analyzed models in which the interaction between income distribution, human capital accumulation, and migration was expressed. He concluded that

when human capital accumulation is endogenous and when successful emigration is not a certainty, the interaction between human capital accumulation decisions, growth and income distribution can lead to the result that a brain drain, either temporary or permanent, may increase the long run income level and income equality in a small open economy (Mountford 1997, pp. 302–303).

World Systems Theory

World systems theory is based on the contention that capitalism is a historical social system. Wallerstein (1983, p. 18) defines historical capitalism as the system in which the endless accumulation of capital has been the economic objective or “law” that has governed or prevailed in fundamental economic activity. The drive behind capital accumulation forced capitalist countries to search for new natural resources, new low-cost labor and new outlets. It was within this context that capitalist countries also started to colonize overseas areas. In order to stimulate the economic exchange between colonies and the mother country, transport connections were created. Colonization has also led to cultural exchanges between the overseas colonies and the mother country. However, these two types of exchanges were not equal. With respect to economic exchange a large net flow of capital from the colonies into the mother countries resulted. After decolonization political dependencies disappeared but the economic dependencies of the former colonies, which are regarded as peripheral countries in the world system, remained and were often even strengthened. These peripheral countries produce predominantly primary commodities and their export base is often dependent on only a few products. In this way peripheral countries suffer from the instability of world producer prices. Since the world producer prices are determined by the core countries, peripheral countries

⁷ Educational expansion, however, only leads to less inequality if the educational system is organized as an open school system with ample transferring opportunities. If early school transitions are definitive (no detours via lower school types are possible, i.e., a closed school system), educational expansion may end in larger inequality of educational opportunities (Boudon 1974).

deal with unfavorable terms of trade that result in slow economic expansion and a growing economic dependence on core countries (Amankwaa 1995).

This view of international trade is highly controversial, however. According to modern economic thinking, international (true) free trade can *reduce* migration between developing and developed countries (Gosh 1992; Mouhoud 1997). Free trade leads to an increase in the export of labor-intensive goods from low-wage to high-wage countries. This increase in the export of labor-intensive goods causes an increase in the employment of unskilled workers in low-wage countries. Further, this export increase results in a decrease in the income of unskilled workers in high-wage countries when there is wage flexibility or an increase in unemployment when there is wage rigidity. The export of capital-intensive goods from capital-rich to capital-poor countries also equalizes income and employment conditions between countries. Decreasing income and employment differences between countries, in turn, decrease international migration.

The philosophy behind the current anti-globalization movement is in large part based on the tenets of world systems theory. Thus, the ongoing debate about the pros and cons of globalization is to some extent summarized in these two opposing views on the effects of free trade for developing countries.

World systems theory may be seen as an explanation for the existence of differences in economic development that determine the volume of international migration directly (arrow 1) or indirectly (e.g., arrows 8 and 2). However, as the explanation of differences in economic development is rather controversial, I use world systems theory mainly as an explanation for the existence of linkages between countries that are located over large geographical distance. In other words, world systems theory can be used to explain the existence of migration flows that are determined by arrow 3 in the theoretical framework (see Fig. 9). Linkages between countries may also have an indirect influence on international migration via the society cluster. Cultural linkages can influence lifestyles within countries. In addition to the direct impact of large groups of immigrants on the native population and vice versa, the exchange of culture can also occur “at a distance.” Television programs, for instance, provide information about other cultures by which a local

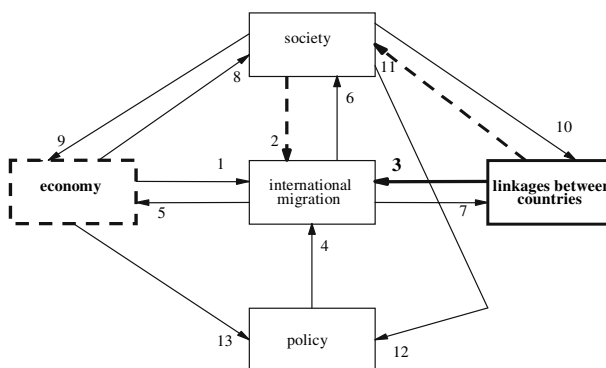


Fig. 9 World systems theory

culture can be influenced. Culture may have an impact on the attitude towards migrants. In addition, it may have an impact on the supply of labor. In post-modern societies, for example, people often prefer to work part-time because spare time, next to income, is also considered important. This indirect influence of (cultural) linkages on international migration can be depicted by the arrows 11 and 2.

Network Theory

Migrant networks help potential migrants, for instance, by contributing to financing the journey, helping to find a job or appropriate accommodation, or by giving information about education possibilities or access to social security (Esveldt et al. 1995). Networks consist of interpersonal ties. These ties can be intimate (e.g., family or friends) or more noncommittal (the so-called “weak ties”). Both intimate and weak network ties may play a part in migration (Davis et al. 2002). However, the importance of the part they play may differ for different migration types, different origin groups, and men and women. Bagchi (2001), for instance, found that weak ties play a more important role than intimate ties in high-skilled labor migration to the United States. The importance of weak ties appeared to be larger for male high-skilled labor migrants than for their female counterparts. It may be obvious that intimate ties are relatively more important for, for instance, low-skilled labor or family migrants. If we put network theory in the context of the microeconomic level of individual choice, we may say that networks lower the costs of migration and increase the probability of employment at the destination and decrease the probability of deportation. In other words, the presence of this form of social capital enlarges the expected net return to migration. This is reflected in the causality chain [6–9–1–6] (see Fig. 10).

Network theory tries to explain why international migration is an ongoing phenomenon. International migrants change the ethnic composition in receiving countries (arrow 6). As a result of large inflows of international migrants, migrant networks may be formed. These networks enhance the probability of employment and a decent income (arrow 9). Together with lower costs of migration, the

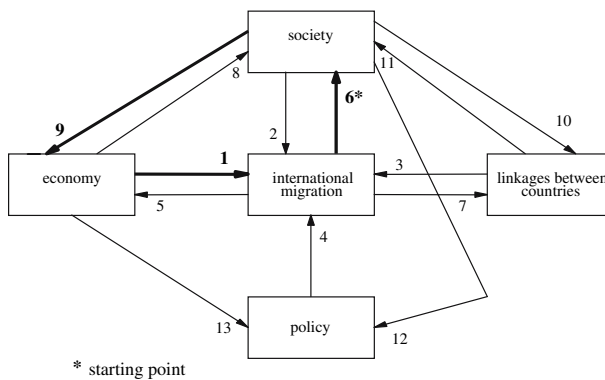


Fig. 10 Network theory [6–9–1–6]

increased probability of employment and a decent income enlarge the expected net return to migration. This enlarged expected net return to migration increases the volume of international migration (arrow 1), thereby increasing the migrant population (arrow 6).

Institutional Theory

In a wider sense the concept of institutions may be used to mirror the structure of the entire social environment in which individuals have to make choices. De Bruijn, for instance, reserves the concept of institutions not only

for such contextual entities as universities, organizations and firms, which are generally—also in common language—perceived as institutions ... [but also for] more abstract social constructs such as democracy, religion, policy and gender systems or bodies of knowledge (science, ethnophysiological knowledge systems) (De Bruijn 1999, p. 122).

Considering institutions in a wider sense, the entire systems approach to international migration may be seen as an institutional approach. Arrow 4, for instance, represents the political and legal constraints and opportunities of international migration. Following Massey et al. (1993) I use institutional theory with regard to profit and nonprofit organizations, which can be legal as well as illegal. These organizations provide services and support in terms of (clandestine) transport, labor contracts, (counterfeit) documents, dwellings or legal advice for migrants. These organizations are often embedded in migrant networks. In the theoretical framework institutional theory is reflected by the cycle [7–3–7] (see Fig. 11).

Similar to network theory, institutional theory tries to explain why international migration is ongoing. Large international migration flows strengthen material linkages between countries. If, for instance, travelling between the sending and receiving countries increases, cheap and frequent flight connections will be

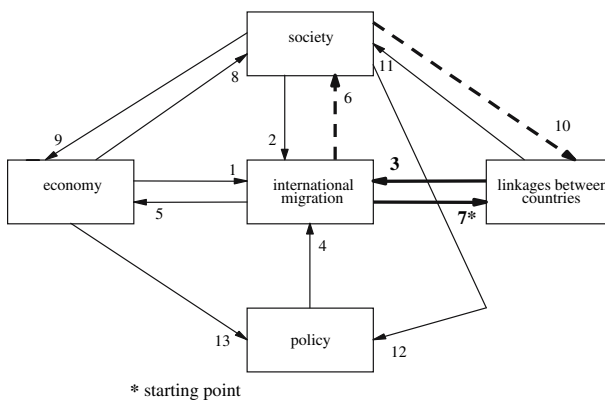


Fig. 11 Institutional theory [7–3–7]

established. In this way, moving costs of future migrants will become lower (arrow 7). Subsequently, such lowering costs of mobility may lower the threshold that deters potential migrants from migration (arrow 3). The cycle [7–3–7] reflects the mechanism initiated by institutions that are involved in the physical mobility of migrants. Institutions may also be working with already settled migrants (i.e., voluntary organizations that help migrants to settle down in the host society). These institutions strengthen cultural linkages between countries (arrow 10). They lower, for instance, the (psychological) costs because of assimilation in the receiving society. So with respect to institutions that are engaged with already settled migrant populations, the arrows 6 and 10 may replace arrow 7 in the cycle [7–3–7].

Conclusion and Implications of the Framework

The purpose of this article was to provide a first attempt at constructing a commonly accepted theoretical framework of international migration. The causalities in this framework were derived from different international migration theories. The various positions of these whole theories within the framework were shown as causality chains. Actually, the reflection of these causality chains was an attempt to visualize the time dimension of an international migration system.

International migration scholars may use the theoretical framework of international migration that is constructed in this article to indicate which factors are relevant for the migration flow (type) they are studying. Furthermore, scholars may use the framework to determine whether this particular (net) migration flow is a temporal or ongoing phenomenon. Finally, a detailed analysis of the causality chains that are applicable to a particular migration flow may be used to forecast the course of this migration flow over time.

Acknowledgments This research was financed by the Netherlands Organization for Scientific Research (NWO grant 510-03-904). The author thanks Rob van der Erf, Nicole van der Gaag, Frans van Poppel, Leo van Wissen, Frans Willekens, and two anonymous referees for their comments.

References

- Amankwaa, A. A. (1995). The world economic system and international migration in less developed countries: An ecological approach. *International Migration*, 33(1), 95–113.
- Bagchi, A. D. (2001). Migrant networks and the immigrant professional: An analysis of the role of weak ties. *Population Research and Policy Review*, 20(1–2), 9–31.
- Bauer, T., & Zimmermann, K. F. (1995). Modelling international migration: Economic and econometric issues. In R. Van der Erf & L. Heering (Eds.), *Causes of international migration* (pp. 95–115). Luxembourg: Office for Official Publications of the European Communities.
- Baumgratz-Gangl, G. (1990). *Mobility of students in Europe: Linguistic and sociocultural conditions*. Luxembourg: Office for Official Publications of the European Communities.
- Becker, G. S. (1962). Investments in human capital: A theoretical analysis. *Journal of Political Economy*, 70(supplement), 9–49.
- Blau, P. M., & Duncan, O. D. (1967). *The American occupational structure*. New York: The Free Press.
- Böhning, R. (1998). Top-end and bottom-end labor import in the United States and Europe. In H. Van Amersfoort & J. Doomerik (Eds.), *International migration: Processes and interventions* (pp. 71–85). Amsterdam, Netherlands: Het Spinhuis.

- Borjas, G. J. (1989). Economic theory and international migration. *International Migration Review*, 23(3), 457–485.
- Boudon, R. (1974). *Education, opportunity and social inequality: Changing prospects in Western society*. New York: Wiley and Sons.
- Boyd, M. (1989). Family and personal networks in international migration: Recent developments and new agendas. *International Migration Review*, 23(3), 638–670.
- Chase-Dunn, C., & Hall, T. D. (1994). The historical evolution of world-systems. *Sociological Inquiry*, 64(3), 257–280.
- Chiswick, B. R., & Miller, P. W. (1996). Ethnic networks and language proficiency among immigrants. *Journal of Population Economics*, 9(1), 19–35.
- Coleman, D. A. (1999). Demography and migration in Ireland, North and South. In A. F. Heath, R. Breen & C. T. Whelan (Eds.), *Ireland North and South: Perspectives from social science* (pp. 69–115). Oxford, England: Oxford University Press.
- Davis, B., Stecklov, G., & Winters, P. (2002). Domestic and international migration from rural Mexico: Disaggregating the effects of network structure and composition. *Population Studies*, 56(3), 291–309.
- De Bruijn, B. J. (1999). *Foundations of demographic theory: Choice, process, context*. Amsterdam, Netherlands: NethurD Publications.
- De Swaan, A. (1995). De sociologische studie van de transnationale samenleving. In J. Heilbron & N. Wilterdink (Eds.), *Mondialisering: De wording van de wereldsamenleving* (pp. 16–35). Groningen, Netherlands: Wolters-Noordhoff.
- Docquier, F., & Rapoport, H. (2003). *Remittances and inequality: A dynamic migration model*. Bonn, Germany: IZA.
- Esveldt, I., Kulu-Glasgow, I., Schoorl, J. J., & Van Solinge, H. (1995). *Migratiemotieven, migratienetwerken en partnerkeuze van Turken en Marokkanen in Nederland*. The Hague, Netherlands: NIDI.
- Fawcett, J. T. (1989). Networks, linkages and migration systems. *International Migration Review*, 23(3), 671–680.
- Fawcett, J. T., & Arnold, F. (1987). Explaining diversity: Asian and Pacific immigration systems. In J. T. Fawcett & B. V. Cariño (Eds.), *Pacific bridges: The new immigration from Asia and the Pacific Islands* (pp. 453–473). New York: Center for Migration Studies.
- Fielding, A. J. (1993). Mass migration and economic restructuring. In R. L. King (Ed.), *Mass migration in Europe: The legacy and the future* (pp. 7–18). London, England: Belhaven.
- Frey, M., & Mammy, U. (1996). *Impact of migration in the receiving countries: Germany*. Geneva, Switzerland: International Organization for Migration.
- Gieseck, A., Heilemann, U., & Von Loeffelholz, H. (1995). Economic implications of migration into the Federal Republic of Germany, 1988–1992. *International Migration Review*, 29(3), 693–710.
- Gosh, B. (1992). Migration, trade and international economic cooperation: Do the inter-linkages work? *International Migration*, 30(3–4), 377–398.
- Hamilton, K. A. (1997). Europe, Africa, and international migration: An uncomfortable triangle of interests. *New Community*, 23(4), 549–570.
- Hart, R. A. (1975). Interregional economic migration: Some theoretical considerations (Part I). *Journal of Regional Science*, 15(2), 127–138.
- Heylighen, F. (1989). Causality as distinction conservation: A theory of predictability, reversibility and time order. *Cybernetics and Systems*, 20, 361–384.
- Hjarnø, J. (1996). International migration, fertility, lifestyles, and social structure. *Yearbook of Population Research in Finland*, 33, 119–135.
- International Center for Migration Policy Development. (1994). *The key to Europe: A comparative analysis of entry and asylum policies in Western countries*. Stockholm, Sweden: Swedish Ministry of Culture.
- Jandl, M. (1994). Is migration supply—or demand—determined? *International Migration*, 32(3), 467–476.
- Knerr, B. (1993). International labor migration: Economic implications for the population in the source country. In IUSSP, *International Population Conference Montreal 1993* (pp. 625–650). Liège, Belgium: IUSSP.
- Kritz, M. M., & Zlotnik, H. (1992). Global interactions: Migration systems, processes, and policies. In M. M. Kritz, L. L. Lim, & H. Zlotnik (Eds.), *International migration systems: A global approach* (pp. 1–16). Oxford, England: Clarendon Press.

- Lakeman, P. (1999). *Binnen zonder kloppen: Nederlandse immigratiepolitiek en de economische gevolgen*. Amsterdam, Netherlands: Meulenhoff.
- Lebbhart, G. (2005). Migration theories, hypotheses and paradigms: An overview. In H. Fassmann, J. Kohlbacher, U. Reeger, & W. Sievers (Eds.), *International migration and its regulation* (pp. 18–28). Amsterdam, Netherlands: IMISCOE.
- Levitt, P., DeWind, J., & Vertovec, S. (2003). International perspectives on transnational migration: An introduction. *International Migration Review*, 37(3), 565–575.
- Mabogunje, A. L. (1970). Systems approach to a theory of rural-urban migration. *Geographical Review*, 2(1), 1–18.
- MaCurdy, T., Nechyba, T., & Bhattacharya, J. (1998). An economic framework for assessing the fiscal impacts of immigration. In J. P. Smith & B. Edmonston (Eds.), *The immigration debate: Studies on the economic, demographic and fiscal effects of immigration* (pp. 13–65). Washington, DC: National Academy Press.
- Mare, R. D. (1981). Change and stability in educational stratification. *American Sociological Review*, 46(1), 72–87.
- Martin, P. L. (1994). Comparative migration policies. *International Migration Review*, 28(1), 164–170.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population and Development Review*, 19(3), 431–466.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1994). International migration theory: The North American case. *Population and Development Review*, 20(4), 699–751.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1998). *Worlds in motion: Understanding international migration at the end of the millennium*. Oxford, England: Clarendon Press.
- Mouhoud, E. M. (1997). The links between migration, free trade and regional integration: Specific characteristics of the CEECs. In G. Biffi (Ed.), *Migration, free trade and regional integration in Central and Eastern Europe* (pp. 361–372). Vienna, Austria: Österreichische Staatsdruckerei.
- Mountford, A. (1997). Can a brain drain be good for growth in the source economy? *Journal of Development Economics*, 53(2), 287–303.
- Muus, P. J., & Van Dam, E. W. (1998). *Comparative research on international migration and international migration policy: Migration from the Maghreb and Turkey to the European Union, and from Mexico, Guatemala and El Salvador to the United States*. Luxembourg: Office for Official Publications of the European Communities.
- Nierop, T. (1995). Globalisering, internationale netwerken en de regionale paradox. In J. Heilbron & N. Wilterdink (Eds.), *Mondialisering: De wording van de wereldsamenleving* (pp. 36–60). Groningen, Netherlands: Wolters-Noordhoff.
- Öberg, S. (1996). Spatial and economic factors in future South-North migration. In W. Lutz (Ed.), *The future population of the world: What can we assume today?* (pp. 336–357). Laxenburg, Austria: International Institute for Applied System Analysis.
- Öberg, S. (1997). Theories on inter-regional migration: An overview. In H. H. Blotvogel & A. J. Fielding (Eds.), *People, jobs and mobility in the new Europe* (pp. 3–22). Chichester, England: Wiley.
- O'Toole, R. (1998). The Dutch disease. *Student Economic Review*, 12(4), 1–6.
- Penninx, R., Schoorl, J. J., & Van Praag, C. S. (1994). *The impact of international migration on receiving countries: The case of the Netherlands*. The Hague: NIDI.
- Piore, M. J. (1979). *Birds of passage: Migrant labor in industrial societies*. Cambridge, England: Cambridge University Press.
- Richmond, A. H. (1993). Reactive migration: Sociological perspectives on refugee movements. *Journal of Refugee Studies*, 6(1), 7–24.
- Schoorl, J. J. (1995). Determinants of international migration: Theoretical approaches and implications for survey research. In R. Van der Erf & L. Heering (Eds.), *Causes of international migration* (pp. 3–14). Luxembourg: Office for Official Publications of the European Communities.
- SCP (1994). *Sociaal en cultureel rapport*. The Hague, Netherlands: SDU.
- Sjaastad, L. A. (1962). The costs and returns of human migration. *The Journal of Political Economy*, 70(supplement), 80–93.
- Spaan, E., & Van Naerssen, T. (2005). Asia and Europe: Transnationalism, multiple linkages and development. *Asian and Pacific Migration Journal*, 14(1–2), 1–9.

- Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. *American Economic Review*, 75(2), 173–178.
- Stark, O., & Taylor, J. E. (1989). Relative deprivation and international migration. *Demography*, 26(1), 1–14.
- Stark, O., Taylor, J. E., & Yitzhaki, S. (1988). Migration, remittances and inequality: A sensitivity analysis using the extended Gini index. *Journal of Development Economics*, 28(3), 309–322.
- Taylor, J. E. (1999). The new economics of labor migration and the role of remittances in the migration process. *International Migration*, 37(1), 63–88.
- Van Dijk, J. (1986). *Migratie en arbeidsmarkt*. Assen, Netherlands: Van Gorcum.
- Van Eijck, K. (1996). *Family and opportunity: A sibling analysis of the impact of family background on education, occupation, and consumption*. Tilburg, Netherlands: Tilburg University Press.
- Vidal, J.-P. (1998). The effect of emigration on human capital formation. *Journal of Population Economics*, 11(4), 589–600.
- Waldorf, B. S. (1994). Assimilation and attachment in the context of international migration: The case of guestworkers in Germany. *Papers in Regional Science*, 73(3), 241–266.
- Waldorf, B. S. (1996). The internal dynamic of international migration systems. *Environment and Planning A*, 28(4), 631–650.
- Wallerstein, I. (1983). *Historical capitalism*. London, England: Verso.