Political Economy of International Migration
Indian Physicians to United States

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The number of immigrants from India, as well as other Asian countries, to the United States has drastically increased since the passage of the Immigration and Nationality Act of 1964, which overturned a previous restriction on immigration from Asia. Of the limited amount of literature written on the influx of Indian, most have focussed on domestic concerns: how new immigrants have been assimilated or discriminated against in the new place (Saran and Eames 1980, Fisher 1980). There is, however, much evidence to suggest that an international perspective is needed to fully understand this recent movement of Indians to the United States.

The purposes of this paper are 1) to present a theoretical framework to explain this phenomenon within the context of the international political economy, and 2) to apply this framework to the migration of Indian physicians to the United States for the period between the mid-60s to the mid-70s. This study is part of a larger project by the researcher on a comparative study on the international migration of physicians and nurses from Asia, mainly from India, Korea (republic) and the Philippines.[1] (This article has been reprinted from South Asia Bulletin, Vol II, No 1, 1982.)

BEFORE presenting the theoretical framework, previous theories on international migration should be briefly mentioned.[2] The first major theory deals with 'push' and 'pull' factors operating separately at the countries of origin and destination of migration. The weakness of this theory lies in its failure to see the complex relationship between the two sides of migration. Moreover, the theory tends to focus on individual motivations to migrate. The second theory is the 'equilibrium' theory from a neoclassical economic model. This explains international migration as a natural process of the movement of people to reduce existing inequalities in the supply and demand of labour, as well as in the incomes between the countries of origin and destination. However, this approach cannot explain non-economic variables such as immigration laws. Furthermore, this ignores the fact that international migration, on many occasions, resulted in unequal development, as in the case of migration to western Europe (Paine 1974).

Literature is increasingly available on international migration from a new perspective (Bach 1978, Bonacich and Hirata 1980; Castells 1975; Petras 1981; Burawoy 1976; Portes 1978). This perspective tries to see the international migration of labour within the context of 'core-peripheral' relationship. In other words, immigration serves as a deliberate tool to further the economic development of developed countries (DCs), while emigration is caused by the distorted development of less developed countries (LDCs), influenced by the dominance of DCs over LDCs.

The following study is based on the above approach and tries to examine the validity of the approach by applying it to a case study on the migration of physicians from India to the United States.

The basic variables for the proposed theoretical framework are as follows:

1) The labour need for the economic development of DCs;
2) The role of the labour sector in DCs;
3) The role of the governments of DCs;
4) The labour surplus caused by the failure of LDCs in economic development;
5) The role of the governments of LDCs;
6) The role of the labour sector in LDCs;
7) The cultural, economic and technological hegemony of DCs over LDCs.

DCs with successful economic growth up until the early 70s required a larger labour force in construction, services and professional fields. Also, a 'dual labour market' (Piore 1979), which produced a division in the primary and secondary sectors of industries, as well as in occupations, existed. Foreign labour filled the absolute shortage of labour, and the shortage created by the dual labour market as well.

The labour sector in DCs was very sensitive to immigration, particularly when domestic economies were declining. Fears of competition with foreign labour and lowering effects on salaries by foreign labour were aroused. This pressure from the labour sector in relation to the labour needs for economic growth was the concern of DC governments. As a result, from time to time, DC governments accommodated the above counter pressures, and manipulated the import of foreign labour with various legislations and regulations.

In response to the labour needs of DCs, LDCs filled these needs with their labour surpluses. In fact, the emphasis on gross national products for development plans in LDCs, by and large, neglected unemployment problems. Second, the neglect on the economic development of rural areas caused severe problems in urbanisation. Furthermore, the emphasis on the expansion of capital-intensive industries with the assistance of foreign capital and technology resulted in a retreat in the development of indigenous industries. As such, emigration pressure from various segments of the dislocated population rose.

The governments of LDCs either ignored or encouraged the emigration of their own people. Indeed, emigration

served as a safety-valve for the acute unemployment situation in LDCs. Furthermore, remittances sent by emigrants from abroad became indispensable for LDCs to acquire the foreign exchange needed for their development strategies and debts in foreign loans. Generally speaking, however, the labour sector as a collective in LDCs was weak in influencing government policies. Therefore, the labour sector had nearly no influence on emigration itself. Nevertheless, in the administrative and professional sectors (including the medical profession) entrenched personnel successfully maintained their positions by excluding new entrants. In the general context of slow development, these frustrations faced by recent graduates forced many of them to emigrate.

Aside from the above framework, an understanding of the cultural, economic and technological hegemonies of DCs over LDCs which had a tremendous impact on migration from LDCs to DCs should be incorporated. Through these hegemonies, the flow of capital, technology, information and goods from DCs to LDCs apparently contributed to the emigration of people from LDCs to DCs.

The following piece of information is significant in order to grasp the above concept. The US Government recently began to concern itself with international migration in terms of its foreign policy, because most countries with high emigrant populations were major recipients of US foreign assistance, major partners of US trade and targetted areas of US direct investment [US Agency for International Development 1980; Morrison 1980]. Moreover, most countries of emigration were of the more developed countries among LDCs. This fact may suggest that the process of economic development in those countries was much related to the emigration of their own people despite, or because of, their intimate relationship with the United States.

Before concluding this section, two points should be mentioned. First, freedom to leave countries was granted, freedom to enter other countries was not. In this respect, the economic advantage of DCs over that of LDCs greatly influenced the direction of international migration.

Second, the relationship between DCs and LDCs was mutually interdependent, although not under equal terms. DCs had an overwhelming amount of power over LDCs through the movement of various factors such as capital, technology, military and information. Through this, the world economy became more and more systematically integrated into a global unit. In this respect, international migration cannot be comprehended if considered in isolation from the above perspective.

International migration was sought after in DCs as a cheap and substitutable labour source to alleviate the labour shortage. At the same time, multinational corporations left DCs in search of a cheaper labour force in the LDCs. Thus, the concept of an international division of labour is crucial for understanding contemporary immigration in the context of the political economy of DCs and LDCs.

The following is a case study of the migration of Indian physicians to the United States from the mid-60s to the mid-70s. This case could be considered as part of the 'brain drain'. Although the theoretical framework discussed earlier does not specify the migration of high level manpower, such migration can be similarly regarded as a phenomenon of international labour migration due to the role it has played [Portes 1978]. Thus, the framework discussed will be used to analyse the following case study. The reason why physicians are of particular interest is that, more data and literature is available for this group than for other occupational groups, and second, that the number of physicians who came to the United States is remarkable.

The period from the mid-60s to the mid-70s was particularly chosen for study because it was during this time that, in a historical context, the international migration of physicians was most prominent. This means that beginning in the early 60s this migration phenomenon became acute and declined after the mid-70s. This case study, thus, focuses around this period; however, on certain occasions, as needed, the period prior to and after the mid-60s to mid-70s will be touched upon.

Magnitude of Immigration From India

In viewing the immigration of Indian physicians to the United States, it should be understood that this phenomenon is only part of the general trend of the emigration of Asian Indians to other parts of the world during the 60s and 70s. One major trend was the immigration to DCs, mainly the United States, the United Kingdom and Canada.[3] Another trend which became important recently was the immigration to the oil-producing Middle East [McCarthy 1979]. With this in mind, the magnitude of the migration of Asian Indians, particularly of physicians, will be described later.

As Table 1 shows, the number of Indian immigrants to the United States has been considerable since the passage of the Immigration Act of 1965. Prior to 1965, the immigration of Asians in general was severely restricted under the McCarran-Walter Act of 1952. Among various occupational categories, professionals and technical workers were the largest. This was, of course, due to the preference for professional immigrants in the immigration law. As a matter of fact, Table 1 shows that a significant number of Indian immigrants was admitted under the third preference of the immigration law, which includes professionals, scientists and artists, although, since the mid-70s, more non-professionals are tending to immigrate. (See Table 1)

In addition to the immigration statistics, the number of

exchange visitors and students was significant. The reason for this was that physicians who were exchange visitors were, first, potential immigrants, and second, performing duties and work in similar areas as were immigrant physicians. As for students, they were important because many stayed in the United States to seek employment opportunities after completing their studies.[4] Table 2 indeed, indicates the magnitude of the numbers of Indian exchange visitors and students, as well as those who adjusted their statuses to immigrants while remaining in the United States. (See Table 2)

However, as both Tables 1 and 2 clearly show, a declining trend existed in the immigration of professionals and of those adjusting from non-immigrant statuses to permanent residents. This was mainly due to the further influx of relatives of US citizens and immigrants, and partly due to a restriction on the admittance of professional immigrants, particularly physicians, as will be discussed later.

Regarding the Foreign Medical Graduates (FMGs) receiving US licenses for the first time, their proportions to the total number of those receiving licenses rose from 5.1 percent in 1950 to 22.4 percent in 1968 [Kabra 1976:600].

In terms of Indian physicians, unfortunately, no chronological data, except for some fragmented data, is available. For example, a survey of Indians in the New York Metropolitan Area in 1978-79 showed that 16 percent were doctors [Leonhard-Spark and Saran 1980: 154]. New York State was the state which the largest number of new Indian immigrant, 24.1 percent between 1970-76, declared as their destination upon arrival [US Immigration and Naturalitation Service: 1970-76]. This fact implies the existence of a significant number of Indians immigrant physicians in the United States. Also, Table 3, although not of a recent period, shows the magnitude of these numbers. This data, particularly in 1972, illustrates the existence of a significant proportion of Indian physicians to the total number of immigrant and exchange visitor physicians in the United States. (See Table 3).

In short, although accurate data on the number of Indian physicians in the United States is not available, the magnitude of immigrants, as well as exchange visitors apparently increased greatly after 1965. A study in India by the Council of Scientific and Industrial Research also revealed in 1973 the significance of the outflow of Indian doctors, along with scientists and engineers [Kabra 1976:75].

US Need For Foreign Medical Graduates

In 1970, the percent distribution of professionals in the United States was 14.6, while those in 1950 and 1930 were 8.6 and 6.8 respectively [Chen 1980 : 144]. This change in occupational distribution was partly a consequence of the demands for human capital by modern industrial sectors to sustain a high level in economic growth, and of great financial support in research and development from the government [Thomas 1968: 40-43].

In relation to the medical field, as Table 4 illustrates, total expenditure per capita and percent of the gross national product for health and medical care were increasing. What were the factors influencing the increasing expenditures for health care in the United States? Sorkin [1977:2], in answering this, states that the growing expenditures were mostly attributed to the utilisation of health care services and to inflation, but little to population growth because it was proportionately low. [See Table 4].

The most significant reason for the greater utilisation of health care services was the introduction of the centralisation of the health care system in the United States since the second world war. In the public sector, the basic change occured in 1966 with the Social Security Amendments to implement Medicare and Medicaid. Thus, the public expenditures for health care and the rate of total expenditures drastically increased since then, as seen in Table 4 [Sorkin 1977: 2].

In the private sector, total expenditure rose sharply due to a big expansion in health insurance plans, which were sucessfully resisted by the American Medical Association (AMA) before the second world war (Kim 1981: 150)

Another aspect of the demand for physicians was due to a maldistribution of physicians in the health service system in the United States. This meant, for example, that native physicians tended to choose suburban areas as sites for their more profitable private practices. Therefore, it left 4,000 to 6,000 unfilled positions per year in the inner-city hospitals [Mick 1975: 15, 18 and 19].

However, despite the fact that a drastic increase in the demand for physicians existed in the United States, the AMA failed to respond positively. It maintained a restrictive attitude towards the expansion of medical schools, as well as towards the expansion of national health services [Hock 1970: 27]. The physician/population ratio actually declined from 1950 to 1960 as seen in Table 4. In fact, such a 'cartel-like guild' attitude was intended to keep the income of the physicians high [Adams and Dirlam 1968: 260]. As already evident, although the AMA is not a labour group, it played a similar role as the labour sector described in the theoretical framework of this study. In short, the AMA pressured for the maintainance of the prestige and high incomes of US physicians by attempting to retain a monopoly on the labour supply.

Thus, facing a severe shortage of physicians, the import of FMGs (Foreign Medical Graduates) was needed, particularly for intern and residency positions in hospitals. As a matter of fact, during the mid-70s, one third of all the medical graduates in the United States were FMGs, which included many Indians. The result was to divide the physician population of this country, ie the United States, into two classes: natives and FMGs [Mick 1975: 14 and 17].

Moreover, it was natural that the import of FMGs was desired because it was quicker and cheaper than producing native medical graduates [Reddy 1974: 376]. It should be added that FMGs were faced with problems in state licensure and underemployment. This meant that many FMGs failed the state licensure examinations which allowed them to practice their professions, and that many worked in lower-skilled jobs such as technicians and assistants.[5]

Considering the shortage of physicians caused by the expansion of health care services and the reluctance of the AMA to produce physicians according to the proportionate need in the United States, the US government passed various provisions so that foreign professionals, mainly Asians remaining in the United States, could become immigrants, even before 1965.[6] Otherwise, Asian professionals were unable to become immigrants under the McCarran-Walter Act of 1952, which barred the admission of large numbers of Asian immigrants. Consequently, in 1965, despite the reluctance on the part of public opinion to admit non-white immigrants, other pressures from the government and business communities succeeded in changing the McCarran-Walter Act in order to receive more professional immigrants. Interestingly, this change was paralleled with the expansion of higher educational systems in many Third World countries. According to the new immigration law which became fully effective in 1968, professionals were, categorized under the third preference [Public Law 89-236]. It is needless to say that the influx of FMGs, including Indians, into the United States partially relieved the shortage of physicians, particularly in hospitals in this country.

In addition to the major change in immigration laws, other legislation in regard to the migration of physicians should be mentioned. First, the screening test for FMGs in 1958 by the Educational Council for Foreign Medical Graduates (ECFMG) was established. The test was administered in various countries outside of the United States, and FMGs had to pass the tests in order to be employed in the United States. Second, the Mutual Educational and Cultural Exchange Act of 1961, which provided the exchange Visitor Program, was modified in 1970 in a manner so that the two year foreign resident requirement for exchange visitors before they were eligible to become immigrants, was eased. This amendment [Public Law 91-225] offered incentives to exchange visitors to adjust their statuses. In fact, the number of adjusted FMGs became the major group of new immigrant entries, as Table 1 suggests [Stevens, et al 1975: 440].

However, the trend surely changed after the United States tightened the entry of FMGs with the Health Professionals Educational Assistance Act of 1976, under the Congressional assumption that there was no longer a shortage of phyicians in the United States. This act applied to both FMG immigrants and exchange visitors. Behind this legislation, pressure existed from the various bodies of the American medical profession not to rely on foreign physicians. English language ability and the quality of performance in the delivery of health care were reasons given. Thus, the influx of FMGs to the United States were severely interrupted. Of course, this new legislation greatly affected various hospitals in need of FMGs [Stevens et al 1978: 273-275]. It should be added that due to several health legislations after 1963, the rate of increase in the number of US medical graduates switched from 0.8 percent for the 1956-66 period to 4.8 for the 1966-73 period [Sorkin 1977: 87-103]. Therefore, by the late 70s, it was expected that US medical graduates would absorb the shortage. Thus, it can be said that the role of FMGs was temporarily to fill the shortage created by the delay in a sufficient production of US medical graduates.

As already clear, in addition to the US need for FMGs, various legislation and regulations similar to a 'tariff policy' [Thomas 1968: 40] played a significant role in the supply and demand of physicians in the US market. The international migration of FMGs to the United States was manipulated by different interest groups such as hospitals and the AMA (a quasi-labour group), and the government, as well. The next question to be asked, then, is, "Why did many FMGs in the United States come from particular countries such as India?"

Indian Reply To US Need

In India as in the educational expansion of most LDCs, higher education, in particular, was considered very essential for economic development in the face of an increasing importance of human capital. In fact, the annual growth rate in college enrollments and the total expenditures in higher education were 10 to 13 percent in the 50s and 60s [Ilchman 1974: 121]. Any attempts to restrict admissions in higher education was avoided because they were unpopular and politically unwise [Tobias 1968: 39]. Moreover, in addition to the inability of the Indian government to control the output of graduates due to its decentralised system in higher education [Domrese 1970 : 226], several five-year development plans failed to absorb the graduates into the Indian domestic labour market, leaving severe unemployment [Puttaswamaiah 1977: 79-106]. In short, the lack of coordination between education and human power planning caused educated unemployment, which led to the emigration of many educated people from India.

With regard to physicians in India, the situation was the same, although not as severe as for scientists and engineers [Ghosh 1979: 281]. The expansion of medical education in India after the nation's independence was great, particularly during the Third Five-Year Plan between 1961 and 1966. According to Mathur [1971: 76, 77 and 93] actual annual intake of medical students rose from [illegible] in 1951 to 11,106 in 1968, along with a tripling in the number of medical colleges. And, the estimated surplus of

doctors in the future supply and demand of doctors in India, utilising various methods to estimate projected numbers, were 13,000 in 1971, and 32,000 in 1976.[8] Nonetheless, as long as a shortage of physicians in terms of a physician/population ratio existed, the production rate of medical graduates was expected to be larger than the growth rate of the population in India according to Indian planners [Tobias 1968: 140]. How could this contradictory phenomenon be explained?

One explanation lies in the maldistribution of physicians in India. This meant that most physicians refused to work in rural areas or public services because of lower remunerations and the lack of facilities available in those areas. Physicians were concentrated in big cities and developed areas where higher income was expected. [Marthur 1971: 61]. In the economic sense, the purchasing power of medical services in rural areas could not meet the expectations of medical graduates in terms of the expected high incomes and the cost for training these physicians. In addition, the lack of logistical facilities in rural areas and public services created a reluctance among physicians with specialized training to work there. Therefore, a mere consideration of the physician/population ratio in India, as a whole, could not be a sufficient indicator in planning the output of physicians. As Gish [1975: 5-7] describes, the maltraining and malutilisation of physicians should also be regarded as being important in understanding this unequal distribution between city and countryside.

In short, a lack of coordination between the desire to expand the production of medical graduates and an inability on the part of the country to utilise these graduates, along with the maldistribution of physicians caused unemployment problems for physicians, mainly in the major cities of India. Nonetheless, the employment concern of Indian economic development was treated as a minor problem. The emigration of Indian physicians, therefore, could be seen at least, as an alternative to resolve the unemployment problem by individual physicians seeking prospective jobs in other countries.

In terms of the employment structure of professionals in India, particularly that of physicians, it is not clear how the government viewed the emigration of their professionals. However, it should be mentioned that, as Banerjea [1975: 192] notes, favouritism, nepotism and seniority in appointments and promotion affected the younger professionals. Through the use of favouritism and nepotism, only those having political and personal ties with the hiring selection committees and promotion personnel tended to be selected. Thus, the qualifications of those seeking appointments or promotions were of secondary concern. Of course, this type of practice was also common in other United
were the professional structure inherited from a British model also limited the opportunity for juniors, or younger generations, in terms of positions, as well as income [Dandekar 1968: 217-219]. Thus, the conflict between seniors, or established generations, and juniors, was serious, and many young professionals could not better their opportunities in India. In effect, 'elite feudalism' [Khadria 1978: 103] maintained the status quo of established professionals and prevented the incorporation of increasing professionals. Such negative factors, of course, facilitated the emigration of professionals, including physicians.

Upon considering the factors influencing the emigration of professionals, what were the responses of the Indian government? The situation of a brain drain was repeatedly discussed by LDCs. Yet, there was no definite assessment in regard to whether the migration of high-level manpower was a loss to the countries which produced emigrants, and how the LDC governments could prevent their people from leaving their countries.

India was not an exceptional case. Although India tried to discourage the 'brain drain,' it was actually not among the most urgent issues needing to be resolved, as will be described later. There were more acute problems caused by underdevelopment. The government, overall, could not effectively control the exodus of its high-level manpower.

It was only in 1958 that the Indian government took concrete action in establishing the Scientists Pool for qualified Indians abroad. The objective of the pool was to provide temporary placement for persons returning from abroad with high qualifications, mainly in science, technology and medicine, until they could find permanent posts in India [Abraham 1968: 88-90]. However, the pool system proved to be ineffective in encouraging qualified persons abroad to return home because it did not coordinate its efforts with existing employment opportunities and conditions in India [Domrese 1970: 250; Abraham 1968: 105-6; Tobias 1968: 190]. Moreover, although the government tried to bring back high-level manpower from abroad, it did not intend to prevent them from leaving India.

Concerning the medical fields, the government did take some actions against the emigration of physicians. One such action was the government banning of tests given by the Educational Council for Foreign Medical Graduates (ECMFG), which screened FMGs for work in US hospitals as interns and residents. Indian physicians, however, were still able to take the tests in neighbouring countries. Another action required medical graduates from state medical colleges in India to serve the public health system in medical fields for a limited period [Abraham. 1968: 110]. These measures were apparently based on the absolute shortage of physicians in India as earlier mentioned, resulting from the low physician/population ratio, and the maldistribution of physicians in the country.

Although not particular to the case of physicians, the role of the Indian government in the emigration of high-level manpower, including medical manpower, is discussed below. As previously stated, the government did not seri-

ously concern itself with the emigration situation. For example, in a report by the Education Commission for 1964-66, a statement indicated that the 'brain drain' issue was over-exaggerated.[9] What were the underlying reasons behind the neglect on the part of the government concerning this very issue?

It appears that there were two major reasons for the neglect. One was that the government was unable to tackle the problem of unemployment, in general, and of its educated people in particular. This implied that the issue was 'overflow' not 'brain drain' [Baldwin 1970: 358]. Whether or not it is appropriate to use the term 'overflow,' it is definite that the emigration of high-level manpower, including physicians, served as a 'safety-valve' against the acute unemployment situation [Blaug 1969: 161]. It was also true that educated unemployment was a political threat to the state because the educated were influential enough to address their own concerns.

Another reason was related to the foreign exchange reserve. India, as one of the developing countries, received a large amount of foreign capital through foreign assistance and direct foreign investment in order to develop its economy. Nevertheless, in doing so, India became largely reliant on foreign capital historically from the United Kingdom and contemporarily from the United States. It is needless to say that foreign exchange was also required to pay off debts accumulated through foreign loans, and the import of oil, machinery and technology.

In relation to the emigration issue, the governments refusal to grant foreign exchange for the operation of the Association for Service to Indian Scholars and Technicians (ASSIST) in the United States and the United kingdom, which was to coordinate Indian high-level manpower from abroad and provide placement in India, implied a priority set on foreign exchange by the government [Tobias 1968: 192]. Such concerns were reflected in the control of foreign exchange acquired through the Reserve Bank of India. And in the case of medical graduates, they were able to receive foreign exchange conditionally [Domrose 1970: 246 and 247]. In short, as Blaug [1969: 159] states, the 'brain drain' was unfavourable, but the foreign exchange problem was worse.

Along with the decline in foreign exchange reserve, the importance of remittances sent by Indians abroad began to play a significant role in acquiring foreign exchange, as Table 5 illustrates.[10] Various measures taken by the government to encourage the emigration of Indians into the Middle East were such an example [Nadkarni 1978]. In respect to the emigration to the United States, the situation was not clear, but a large amount of remittances to India was, naturally, expected.[11] (See Table 5).

In sum, the overall policy of the government regarding the emigration of professionals consisted in posing few or no obstacles to their leaving the country. There is no doubt that, unlike the Soviet Union, the Indian government did not want to be scrutinised over the human rights of people to leave the country freely by heavily taxing the people [Bhagwati 1976: 13]. To the contrary, as in the case of the emigration to the Middle East, the government even encouraged the emigration of its own people whether they were labourers or professionals due to acute unemployment and the lack of foreign exchange in India.

US Indian Linkage

It has, thus far, been argued that the emigration of Indian physicians to the United States was caused mainly by US demand, and partly by a surplus of physicians in India resulting from the underdevelopment of the country. Also mentioned was that population movement as such was directly promoted by immigration legislation in the United States. However, in the final section of this paper, the linkage between the two perspectives, the United States and India, will be discussed. In fact, the US-Indian political economy is a basis for understanding the migration.

Beginning in 1956 through the Second and Third Five-Year Plans, the Indian government emphasised the expansion of the public sector by introducing heavy industries.[12] As a matter of fact, the development of industires in the production of goods, particularly steel, machinery chemicals, was accelerated during this period. On other hand, this tendency to place an intensive emphasis on the heavy industries of the public sector caused reactions in the Indian economy, as a whole. For example, by ignoring other sectors of the economy, eg agriculture and small enterprises, such problem as stagnant agricultural production and the existence of widespread manual industries were perpetuated. This situation led to an imbalance in trade because India had to import agricultural goods as well as machinery and equipment, and to maintain its investments throughout the Five-Year Plans. In addition, by neglecting light industries, where its strength was, India's exporting powers were weakened. Therefore, Table 6 illustrates the trade deficit expanded from the late 50s to the late 60s. However, the domestic market which was to absorb the output of newly built heavy industries remained weak. This was due to the continuing existence of the widespread poor segments of the Indian economy, which was perpetuated by the industrialisation policy. As a result of this gap between the primary and secondary sectors of the economy, India, lacking the capital to import goods and to maintain its industrialisation policy, began to rely on foreign capital, either in the form of aid or direct investments. (See Table 6).

In looking at Table 6, it is obvious that the proportion of Indian import from the United States increased from 13.1 per cent in 1955-56 to 38.0 per cent in 1965-66, also that the United Kingdom underwent a decline in its influence.

Such a shift in influence from the United Kingdom to the United States was a clear manifestation of the US hegemony over India during this perod, as well as over other Asian countries. Table 7 illustrates the magnitude of US foreign aid throughout the world. To be sure, India was the largest recipient of US foreign aid throughout the mid-50s to the late 60s. Of course, this was due to the economic potential and strategic importance of India as noted by the US agency for International Development [1966: 106]. The US share in foreign aid to India was the largest, at 51 per cent, not mentioning the share from the World Bank, which was primarily US controlled [Ito 1972: 126]. (See Table 7).

While Indo-US economic relations were deepened through trade and aid, direct foreign investment in India also was outstanding beginning in this period. The US share increased 9 per cent in 1955 to 27 per cent in 1968, while that of the United Kingdom declined from 83 percent to 41 percent in 1955 and 1968 respectively [Ito 1972: 151]. This meant that India ceased to be a monopolised market for the United Kingdom, while the United States became more influential. In fact, as Table 8 shows, US investment in India, through US affiliations and rupee companies controlled by US capital, as well as technological collaborations, increased tremendously beginning in the 60s (See Table 8).

India did not take a policy of export expansion until the early 60s. Capital flowed mainly from the United States in the form of aid and private investment, which became indispensable for the increase and/or maintenance of the output of Indian industrialisation. A huge deficit in the balance of payments in India made it difficult to pay loans previously received. The situation was aggravated by the Indo-Pakistan War of 1965, along with the temporary stoppage of US aid. With this crisis in India, India changed its development policy after 1965 by devaluating the rupee, relieving economic control by moving towards liberalisation, implementing the 'green revolution' and emphasising the development of the private sector. Needless to say, this modification was to accommodate a strong outside pressure, primarily the World Bank, belonging to the Aid-India Consortium, led by the United States. In this respect, having already relied on foreign collaboration from the United States in particular, the Indian economy hence became deeply involved within the US hemisphere.

Important, particularly for understanding the migration of physicians, is the factor of the hegemony of US technology over that of India. As Kabra [1976: 53] explains, technological 'colonialism' became a common feature in India through the instrument of multinationals. Since multinationals utilized their own technology which was under continual change and was brought from abroad for commercial use, it was impossible for India to keep up and digest the imported technology. As a result, large-scale industry, with foreign collaboration, slowed down the development of the indigenous technology of India. Therefore, Indian telent became isolated and was not able to contribute to the country's own technological development [Ray 1971: 2061]. As long as India depends on multinationals for capital and technology, India will continue to rely on the imported technology of the United States.

Of course, in addition to the monopolisation of technology by the United States, the gap in the absolute amount of expenditures and the percentages to the gross national product (GNP) in Research and Development between the United States and India, 34 billion dollars, or Rs 26,000 crore (3.4 percent of the GNP), and Rs 150 crore (0.43 percent) respectively in 1971-72, perpetuated the existing US hegemony in technology [Banerjea 1975: 190-191].

As such, the technology of the United States, which was not available in India, became attractive to Indian professionals, including physicians, who wanted to pursue further research and training. Several surveys do indicate convincingly that professionals who leave their countries and live in the United States permanently do so largely for the research facilities and logistical supports available only in the United States [Oh 1977; Cortes 1974].

However, it was not only individuals who sought US technology but institutions in India as well. This point needs clarification since India, from its colonial period, modelled itself after the United Kingdom. Yet, as the United States came to lead the world in technology, US influence on Indian educational and research institutions became apparent. A typical example was the Indian Institute of Technology, Kanpur, established through the assistance of the United States [Sreenivasan 1978].

In relation to the medical field, the case of the All-India Institute of Medical Sciences was notable because it received 6 million dollars for its construction from the US government. Among private foundations concerned with public health and medical research, the Rockfeller Foundation was most active with its grant to the Indian Association for the Advancement of Medical Education [Sodeman 1971: 168-170], and provision of funds for teaching and research equipment to many medical colleges and institutes in India. Family Planning was clearly a very important project of the Foundation [Mukherji 1978: 170-71].

The introduction of US methodology and equipment for teaching and research no doubt led individual students and graduates to seek higher education in the United States. Also, needless to say, studyabroad programmes encouraged by the Indian government were another factor. Ironically the purpose of absorbing and importing western technology through the study-abroad programme was not well achieved due to the large number of students who did not return home.

The fact that graduates of elite institutions, such as IIT Kanpur, went abroad and returned with prestigious positions, suggests that, although these graduates were not

TABLE 1

Indian Immigrants, Professionals, Exchange Visitors and Students to the United States, 1960-1978.

YEAR	Immigrants	Exchange Visitors	Students	Professionals, Technical and	Percentage of total immigrants
1960	391	1,337	1,591	118	30.2
1961	421	1,579	1,947	139	33.0
1962	545	1,567	2,029	167	30.6
1963	1,173	1,879	2,104	595	50.7
1964	634	2,029	2,025	220	34.7
1965	582	2,073	2,558	198	34.0
1966	2,458	1,782	2,535	1,424	57.9
1967	4,642	2,527	3,158	2,474	53.3
1968	4,682	2,507	4,048	2,189	46.8
1969	5,963	2,244	4,670	2,889	48.4
1970	10,114	2,242	5,392	5,171	51.1
1971	14,310	2,402	5,683	7,543	52.7
1972	16,926	1,969	4,071	8,171	48.3
1973	13,124	1,540	4,266	4,941	37.6
1974	12,779	1,427	4,714	4,812	37.7
1975	15,773	1,812	3,495	6,156	39.0
1976*	17,487	1,000	2,649	6,408	36.6
1977	18,613	1,021	2,329	5,762	31.0
1978	20,753	1,009	3,202	4,731	22.8

*The numbers do not include those admitted between July 1 to September 30, 1976 since the physical year of the Immigration and Naturalization Service changed from July through June to October through September in 1977.

Sources: a. U.S. Immigration and Naturalization Service (1960-1977)
b. U.S. Immigration and Naturalization Service (1978).

TABLE 2

Adjusted Indian Immigrants.

YEAR	Total adjusted	Status of entry			
		Students	Spouses and children of Students	Exchange Visitors	Spouses and Children of Exchange Visitors
1966	1,789	1,015	184	47	11
1967	2,822	1,703	345	83	52
1968	2,276	1,383	410	73	40
1969	2,779	1,567	525	117	73
1970	3,886	2,242	752	143	63
1971	6,144	2,925	955	836	554
1972	7,810	2,940	852	1,636	1,047
1973	4,823	1,332	260	1,264	814
1974	3,962	1,703	374	406	299
1975	4,188	1,901	497	266	181
1976*	4,463	2,009	540	333	219
1977	4,146	1,576	417	492	364
1978	4,430	1,996	440	277	218

* See the footnote in Table 1. Sources: Same as Table 1.

TABLE 3

Physicians and Surgeons Admitted to the United States as Immigrants and Exchange Visitors.

Countries	1962 Im.	1963 Im.	1964 Im.	1965 Im.	1965 Exch.	1966 Im.	1966 Exch.	1967 Im.	1967 Exch.
All countries	1,797	2,093	2,249	2,012	849	2,549	896	3,325	1,234
Argentina	94	116	151	140	47	115	—	126	47
Canada	280	467	440	380	314	393	339	449	300
Columbia	75	90	158	82	30	80	—	116	21
Cuba	120	156	229	201	—	150	1	162	1
Germany (Fed).	73	71	82	75	157	81	155	91	167
India	12	16	8	11	352	40	444	87	842
Japan	8	35	4	11	359	31	423	40	533
Korea (Rep.)	18	19	10	11	247	35	291	70	217
Mexico	70	97	77	110	127	119	131	86	160
Phillipines	119	101	63	66	572	259	754	550	657
U.K.	119	154	165	147	153	187	174	206	539

TABLE 4

National Health Expenditure (in million dollars)

	1950	1955	1960	1965	1970	1975
Total expenditures	12,027	17,330	25,856	38,892	69,201	122,231
Percent of GNP	4.5	4.5	5.2	5.9	7.2	8.4
Private expenditures	8,962	12,909	19,461	29,357	43,810	71,361
Public expenditures	3,065	4,421	6,395	9,535	25,391	50,870
Percent of total expenditure	25.5	25.5	24.7	24.5	37.0	41.6
Number of Physicians	233	255	275	305	348	409
Rate of population per 100,00	149	150	148	153	166	188
Population (1000)	151,326	165,069	179,979	193,526	203,806	213,032

Source : U.S. Bureau of the Census (1977 : 11, 94, 104)
U.S. Bureau of the Census (1965:11).

TABLE 5

Indian Private Transfer Payments*

YEAR	AMOUNT
1955/56	408 million Rupees.
1960/61	826 million Rupees.
1965/66	949 million Rupees.
1970/71	1,364 million Rupees.

* Private transfer payments include maintenance remittances, receipts of missionaries, remittances of savings, migrants, transfers, and since 1964 receipts of pensions, retirement benefits on private account.

Source : India (Republic). Central Statistical Organization (1974: 233-238)

TABLE 6

Value of Imports into Exports from India, by Principal Countries (million Rupees).

Imports of Merchandise

	1955/56 (%)	1960/61 (%)	1965/66 (%)	1970/71 (%)
Total	7,744	11,216	14,085	16,342
Canada	110(1.4)	199(1.8)	305(2.2)	1,172(7.2)
Germany (Fed.)	651(8.4)	1,225(10.9)	1,371(9.7)	1,075(6.6)
Iran	245(3.2)	296(2.6)	341(2.4)	916(5.6)
Japan	383(5.0)	608(5.4)	793(5.6)	834(5.1)
U.K.	1,998(25.8)	2,172(19.4)	1,501(10.7)	1,268(7.8)
U.S.A.	1,016(13.1)	3,276(29.2)	5,348(38.0)	4,530(27.7)
U.S.S.R.	72(0.9)	159(1.4)	832(5.9)	1,061(6.5)

Exports of Merchandise

	1955/56 (%)	1960/61 (%)	1965/66 (%)	1970/71 (%)
Total	6,034	6,324	8,016	15,24[illegible]
Japan	301(5.0)	349(5.5)	5717(7.1)	2,021(13.3)
U.K.	1,644(27.2)	1,707(27.0)	1,448(18.1)	1,700(11.2)
U.S.A.	853(14.1)	998(15.8)	1,470(18.3)	2,068(13.6)
U.S.S.R.	33(0.5)	288(4.6)	929(11.6)	2,098(13.8)
Trade Deficits	-1,710	-4,892	-6,069	-1,098

Source: India (Republic), Central Statistical Organization (1974: 206-211)

TABLE.7

Major Recipient Countries of U.S. Government Foreign Aid, 1955-1975 (in millions of dollars).

	1955a	1960a	1965a	1970a	1975b
Total, net	4,909	4,590	5,052	5,695	8,681
Brazil	37	42	153	93	193
China (Taiwan)	109	109	49	14	191
India	118	523	854	434	243
Korea (Rep.)	279	261	167	198	314
Pakistan	67	229	349	242	134
Turkey	97	101	140	88	73
Vietnam (South)	203	186	301	418	—

Source: a. U.S. Bureau of Census (1970: 872-875) b. U.S. Bereau of the Census (1977:859).

TABLE 8

U.S. Investment in India (in millions of Rupees).

1956	470
1960	726
1964	1,660
1968	4,223
1972	4,850
1976	*5,100

Source: Mukerji (1978:126). Complied from the data of the Reserve Bank of India.

*estimated

emigrating, they played a role in perpetuating the trend of modelling the educational system in India along the lines of educational institutions in the US. Naturally, in the case of FMGs, there was an expressed concern in the United States regarding the purchase of pharmaceuticals and equipment by other countries (including India) through FMGs. This meant, when FMGs returned to their home countries, it was expected that they purchase and introduce products from the US into their countries [US Select Commission on Immigration and Refugee Policy 1980 : 216-217].

In regard to the cultural aspect of migration, the 'colonial' mentality which was formally created through British rule in India should be considered. That is, in India, the British educational model was considered superior to that of the Indian [Munjee 1975 : 17]. A similar attitude was reflected towards US culture after the decline of British influence in India. This indealisation of western culture ignored or downgraded the culture of India. Thus it could be understood why the foreign-educated were considered superior in their fields in India even though they might not have had efficient skills [Munjee 1975: 17]. In looking at the 'neo-colonial' relationship with the United States, the attitude, although difficult to measure, is significant. It is well-known that the 'demonstration effect' which came forth with the influx of western goods stimulated Indian minds. On the other hand, those who went to affluent societies such as the United States became accustomed to the small conveniences of the United States, and thus, did not return [Daendekar 1968: 215].

In addition, 'neo-colonial' ties with the United States contributed to the emigration of Indian phyicians through the network of Asian Indian communties in the United States, and the information flow between India and the United States. For instance, the Directory of Approved Internships and Residencies by the AMA played a significant role in informing FMGs of the opportunities in the United States [Stevens et al. 1978 : 95].

In sum, the United States, backed by an overwhelming flow of capital goods, technology, and information, intervened in India's own economic development and incorporated India within its sphere. With an understanding of this relationship, which was not equal in nature, reasons behind the migration of Indian physicians to the United States can be seen.

Conclusion

In conclusion, it should be emphasised first that the phenomenon of migration is not a separate issue from interdependence under unequal terms between DCs and LDCs. In the case of India, the United States, replacing United Kingdom after the late 50s, exercised an overwhelming influence on India through the movement of capital, goods, technology and information into India. This hegemony of the US over India began to incorporate India within the US sphere. This linkage is the very factor for understanding the exodus of Indian physicians to the United States.[13]

In this respect, international migration can be considered as an analogy to internal migration because after the influx of urban capital and system of production into rural areas, people were pushed out. Today, a similar relationship is exercised at an international dimension. Indeed, the movement of people from LDCs to DCs plays a role in establishing an international division of labour, while still other factors of movement, capital and technology, occur in an opposite direction, as earlier mentioned.

It should be stressed also that DCs are very much responsible for inducing migration from LDCs for the sake of their economic development, and whenever the situation changes, they are able to limit the entrance of immigrants. It is the DCs which have the option to open or close doors to immigrants, and the LDCs and individual immigrants must rely on DC policies, even though individuals may profit from the migration. Thus, the issue of the contribution made to the development of DCs by the international migration of high-level manpower from LDCs has also been discusssed, a phenomenon referred to as the reverse transfer of technology [Kabra 1976; Mainstrean 1974]. Indeed, generally speaking, freedom of mobility is widely acknowledged; however only the freedom to leave countries is granted, the freedom to enter countries is not.

Notes

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1. As part of my project, I have done another case study on Pilipino. See Ishi [1982].

2. For a critical review of previous literature on international migration theories, see Bach [1978] in details.

3. For an overview on Indians abroad, see Tinker [1977].

4. According to Oh [1977: 33], the estimate of the non-return rate of Indian students was 59.5 per cent.

5. Regarding the problems faced by Asian health profesionals in the United States, both California and New York State Advisory Committees to the US Commission on Civil Rights made efforts to address the needs of Asian health professionals. See US Commission on Civil Rights, California Advisory Committee [1975] and New York State Advisory Committee [1980].

6. For a historical development of immigration laws in relation to manpower concerns, see Awasthi [1967] in details.

7. Chen [1980] describes the background of the Immigration and Nationality Act of 1965 in respect to who pressured its passage.

8. The various methods used by Mathur [1971: 80-81] to estimate the supply and demand of doctors are as follows: 1) Supply was estimated from the assumption that no new medical college would be added, and the annual intake capacity of 15,000 would be fully met. 2) Demand was estimated a) from doctor/population ratio norms, b) the relationship between stock of doctors and the growth of national income, c) the relationship between demand for doctors and the stage of economic development-the fitting of the regression curve of doctors on national income to the data of different countries, and d) the component approach.

9. Cited in Pandit [1968: 109]. Also, in Reddy [1974: 375] cited that the Financer Minister of India in 1968 said the brain drain was not a loss to India.

10. The trend of increasing remittances countinued after 1975 when the incentives for non-resident Indians to invest in India were taken by the government [Rele 1976: 270].

11. According to a survey, approximately 60 percent of the Indians in metropolitan New York area send remittances to relatives in India of 100 US dollars or more per month [Thottathil and Saran 1980 : 245].

12. The following argument is based on a study by Ito [1972] in respect to Indian economic development after the second world war.

13. The study on the migration of Indian physicians from India to the United kingdom and the United States, and of British physicians from the United Kingdom to the United States, should be fascinating. Along with the US hegemony on research and development, and the establishment of a national health service system in the United Kingdom, many UK physicians went to the United States while many Indian physicians filled the shortage in the United Kingdom partly caused by the exodus of UK physicians. However, Indian qualifications were only recognised up until 1975. Afterwards, it became difficult for Indian physicians to emigrate to the United Kingdom [Smith 1980: 1-12]. In 1976, the United States also imposed stricter requirements as mentioned in this paper.

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