



**BALANCING AUTONOMY
AND CONTROL:
THE CASE OF
PROFESSIONALS IN
SINGAPORE**

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Foreword

This sociological study by Professor Stella R. Quah is one of a series which examines the development of professions as a key to understanding the different patterns in the modernization of Asia.

In recent years there has been much glib talk about "technology transfers" to the Third World, as though knowledge and skills could be easily packaged and delivered. Profound historical processes were thus made analogous to shopping expeditions for selecting the "appropriate technology" for the country's resources. The MIT Center for International Studies's project on the Modernization of Asia is premised on a different sociology of knowledge. Our assumption is that the knowledge and skills inherent in the modernization processes take on meaningful historical significance only in the context of the emergence of recognizable professions, which are communities of people that share specialized knowledge and skills and seek to uphold standards.

It would seem that much that is distinctive in the various ways in which the different Asian societies have modernized can be found by seeking answers to such questions as: Which were the earlier professions to be established, and which ones came later? What were the political, social and economic consequences of different sequences in the emergence of professions? How well did the professions maintain standards, and how appropriate were the barriers of exclusion? What is the effect on recruitment of the political elite and on their style of politics for specific professions to have high status and others low status? How does it happen that emphasis upon the same professions for achieving the same objectives in modernization can have dramatically

different consequences in different societies? (For example, in both Japan and India the legal profession was encouraged early in order to produce government officials, yet India became a litigious society but Japan did not.)

Other planned studies in the series include the experience of Japan, China, the Philippines, India, and Indonesia. The project has been made possible by a grant from the Rockefeller Brothers Fund. It will also include a general book on Asia's modernization by the project's director.

Lucian W. Pye

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Introduction

The aim of this paper is to analyze the role of four selected professions in Singapore's historical development and nation-building efforts. Given the large variety of professions found in the labour force of Singapore today, it is imperative to select only a few for detailed analysis when time and research resources are at a premium. Consequently, four professions have been selected for this study based on two criteria namely, the importance given to a profession by development planners in Singapore and/or the status of a profession as a traditional profession. Engineering and architecture are included based on the first criterion, while medicine and law represent the classical or traditional professions. Moreover, these four professions have a longer history than other occupations in the development of Singapore although data on some of these four fields are less accessible and available than for other more recent occupations.

The discussion will be divided into four sections. The first section shall review briefly the main concepts used currently in the analysis of the professions, discussing some relevant explanatory approaches. The second section will provide a brief historical background of the development of the selected four professions in Singapore including the circumstances surrounding the establishment of these professions, their growth,

organization and other relevant characteristics.

The third section will deal with the input of professionals in Singapore's economic development and modernization since independence, emphasizing aspects such as the major changes in the structure of the professions, professional ideology and channels of influence. The fourth and final section shall draw some inferences from the Singapore situation and outline its similarities and differences with other nations in Southeast Asia.

Some relevant concepts

The well-known interest of sociologists in the study of the professions (Ritzer, 1977:41) has produced a wealth of concepts, hypotheses and data particularly from the American and European continents. A point was reached when this western' bias led Johnson to lament that "the sociology of the professions...today stands almost alone in ignoring the third world" (1973:281). The situation has not changed much since then; there is still a gap of information on the professions in Third World countries. My approach will be to select a few relevant concepts and assumptions from the literature and use them as a framework for the analysis of the role of architecture, engineering, law and medicine in Singapore's modernization process.

The questions of knowledge, its definition and boundaries, who possesses it and who does not, are at the core of the analysis of professions everywhere. Over thirty years ago a provocative paper on the social functions of ignorance was published in the American Sociological Review. The ideas expressed by its authors Wilbert E. Moore and Melvin M. Tumin (1949) remain crucial for the understanding of the status and roles of the professions in modern societies. The most relevant of the functions of ignorance identified by Moore and Tumin is "as preservative of privileged position." Here a dichotomy is created between ignorance on the part of the outsider or consumer of services and knowledge and secrecy on the part of the specialist or service provider (1949:788-789). Other researchers had identified this phenomenon earlier (cf. Carr-Saunders and Wilson, 1933:104) but Moore and Tumin's concept facilitates a more systematic analysis.

Although understandably restrained by the theoretical straitjacket of functionalism, Moore and Tumin managed to use their concept to identify some ways in which professionals attempt to augment and maintain their control over the monopoly of specialized knowledge. Two of such "devices" are the use of "specialized and possibly esoteric vocabulary," and "instruments and techniques not intrinsically required for the solution <of the consumer's problem> but seemingly so" (1949:789). Moreover, specialists do not only have to guard their monopoly of knowledge from consumers but also from "potential competitors." And the most common device for this purpose is "trade secrets and their protection through the control by the specialists themselves of

training and thus access to the privileged positions" (1949:789). The study of the professions has been expanded by innumerable contributions since the time of Moore and Tumin's paper. Yet, the social function of ignorance remains one of its main underlying premises even though different schools of thought have emerged.

For the purpose of this study, a useful classification of studies of professions is one based on conceptual approaches. This classification is summarized by Ritzer (1977) who examines the three basic approaches used currently in the sociological analysis of the professions namely, the "process approach," the "structural-functional approach," and the "power approach." The latter being the most recent of the three orientations. (1977:43).

The process approach follows the historical development of an occupation searching for six main characteristics that would "transform" or already have transformed it into a profession. These characteristics are: (a) full-time engagement in the practice of the occupation; (b) a change of name to sharpen the boundaries of its exclusive domain; (c) the setting up of a national association; (d) the establishment of a training school or its equivalent; (e) a code of ethics; and (f) the seeking of legal and public support and recognition (Ritzer, 1977:46-48).

The structural-functional approach analyzes the "distinctive characteristics" and structure that differentiate the professions from other occupations. Six such characteristics are identified by this approach. They are: (a) the possession of, or claim over a general and systematic body of theory; (b) a norm of autonomy i.e., freedom from external control; (c) a norm of altruism or the claim of being devoid of self-interest; (d) a norm of authority over clients, or the need for the specialist to have his client's trust; (e) a distinctive occupational culture transmitted through socialization of students or recruits; and (f) the recognition by the law and the community of the preceding five characteristics or claims (Ritzer, 1977: 48-56).

Unlike the other two approaches, the power approach focuses on two aspects of power i.e., "the power needed by an occupation to acquire professional recognition" and "the power such an occupation wields once it has achieved that position" (Ritzer, 1977:43). The power approach identifies three main features of such acquisition and retention of professional power namely, (a) a margin of indetermination or the degree to which a task can be routinized; (b) control over areas of uncertainty that is, the consumer's or client's uncertainty regarding the nature and/or possible solution to his/her problem; and (c) ideology or how the professions justify their "privileged status" used to expand their power and to deal with internal and external threats (Ritzer, 1977:56-62). Within the context of the power approach, power is defined as

the ability of an occupation <its leaders> to obtain and retain a set of rights and privileges and obligations from societal groups that otherwise might not grant them (Ritzer, 1977:56).

An important clarification is in order. Professional expertise per se is usually given social recognition in most modern societies. High prestige scores given to professional occupations by populations studied in Europe and the United States give evidence of such social recognition. But the power approach deals with something more than the deserved recognition of expertise in a given area of knowledge. Indeed, a profession is said to have power if it succeeds in overcoming potential resistance from other groups in the community to its expanding influence over aspects of social life beyond the boundaries of the profession's expertise.

In this connection, one important common denominator in all three approaches is the recognition of the manipulation of ignorance by the professionals in order to attain or preserve their privileged position. Indeed, such manipulation is hinted by three of the six characteristics given by the process approach namely, the change of name, and the setting of a national association and a training school.

In a more explicit manner, three of the six features identified by the structural-functional approach deal with the manipulation of the client's ignorance: the claim of possession of a systematic body of theory, and the norms of autonomy and authority over the client. The power approach is more emphatic in this respect. All three of the features identified but

particularly the first two i.e., the margin of indetermination and control over areas of uncertainty deal directly with the professionals' attempt to contrast their knowledge with the ignorance of outsiders. The power approach position is succinctly put by Ritzer thus:

the professions often engage in a systematic effort to create the illusion that there is something distinctive about their knowledge. Sometimes a profession might even go further and artificially produce a distinctive body of knowledge and deny others access to it in order to improve their position. (1977:49).

After reviewing the three current approaches in the study of the professions, Ritzer proposes an "integrated" approach which would combine features of the process and power approaches and a modified structural-functional approach. This integrated approach would emphasize three aspects of the analysis of the professions. These aspects are:

(a) Interpreting the characteristics of professions in the structural-functional approach not as real but as either traits derived from the power that professions already have, or traits that they do not possess but have been able to convince others that they have (Ritzer, 1977:63). In this connection it has been said that the description of six characteristics seen by the structural-functional approach as defining a profession "do not tell us what a profession is but only what it pretends to be" (Larson, 1977:xii). (b) Investigating the structural factors that "greatly reduce" the professions power, following the premise that professionals, far from possessing the power people think they have or they themselves claim to have, actually depend on

the "society's dominant elites" to obtain and retain such power (Ritzer, 1977:64). The influence of ideology in determining what occupations are professions, the need for elite or state sponsorship to attain and maintain professional status, and the exaggerated nature of professional attributes and privileges have been also identified by Freidson (1977) and Larson (1977) among others. (c) Acknowledging that the actual and perceived power of the professions varies not only among different groups in society but also across time and geographical areas (Ritzer, 1977:63-66).

To these points I would add that the degree of power of the professions depends also on the political and economic structure of the society in question. Indeed, several researchers foresee a decline in the power of the professions that is, a process of "deprofessionalization" as a result of three main changes taking place in modern societies. These changes are: a decrease in the level of consumers' ignorance; a consequent de-mystification of professional activities (less indetermination, less uncertainty); and the "proletarianization" of professions as employees of large public or private corporations or institutions. The latter face an increasing public demand for democratic accountability (Haug, 1973; Oppenheimer, 1973; Stone, 1976; Ritzer, 1977:63-67). As it will be seen later, there is no consensus on the process of deprofessionalization. On the one hand, the current emphasis on technology is giving preponderance to the role of professionals; on the other hand, Singapore data suggest not a full process of "deprofessionalization" but a significant decrease in the level of consumers' ignorance and de-mystification of professional

activities.

This issue of the real or potential decline in the power of the professions leads us to a third type of studies which is also significant in this discussion. The analysis of professions has invariably contrasted professionals with other social groups such as consumers, government bodies or any of the "non-professional" occupations. But perhaps the two most revealing angles of analysis are obtained when professionals are seen in juxtaposition to managers at the organization level, or to governments and decision-makers at the national level. In both cases, all groups involved are seen as parties in a process of confrontation, cooperation or even compromise resulting from their respective efforts to consolidate either their authority over others or their autonomy and self-determination or both.

These two angles of analysis are complementary. The first one looks at professionals as employees in organizations which include private corporations and institutions, ministries, government bodies and government-owned corporations. The second one sees professionals as potentially decisive pressure and interest groups which could and do have an impact on policy making. With their increasing dependence on technology for decision-making, governments and corporations are facing a corresponding increasing influence of professionals. How this process may take place and what could be its outcome are questions that have been explored by researchers such as Freidson (1973), Tuohy (1976), Ritzer (1977) and Lansbury (1978) among

others. They have posed, separately, three arguments that are worth considering in this study.

The first argument is that professional monopoly of the knowledge market is curtailed by the "rise of a highly interdependent technology and welfare state" which serve as a watchdog of the professionals' input broadening their social responsibilities and assuring the citizens' "right of access" to professional services (Tuohy, 1976). In addition to the Canadian case discussed by Tuohy, other examples of this trend are the Professional Standards Review Organizations in the United States and Economic Monitoring in West Germany. Both cases involve the medical profession (Stone, 1976). More recently, the "cost containment law" has been designed in West Germany to limit the influence of physicians, to centralize the health services further, and to create more participatory mechanisms for the citizens (Landsberg, 1980).

The second argument on developments that may restrain the professionals' quest for autonomy and market control, is hinted by Freidson (1973). He assumes that within an organization, there is an inverse association between the transformation of an occupation into a profession and the management's capacity for "imperative coordination" in the Weberian sense. The possible outcome being, for the remaining of this century at least, that professionals may lose control of their work and become "technical workers" under management control.

The analysis of professionals versus management is further advanced by Landsbury (1978) who conducted an empirical test of three basic assumptions on the authority relations between professionals ("service management") and management ("line management") in a large British corporation. Landsbury's assumptions followed the same basic argument of Freidson's hypotheses: an increase in "professionalism" of the claims of autonomy, more decision-making power, and control over the content of their work by professionals, will create not only more "incompatibility" with the bureaucratic principles of the organization's line management, but also will increase the conflict between these two groups and, if line management becomes more dependent on the expertise of professionals, the latter will rapidly "encroach" themselves as a "technostructure" upon the executive function of management (1978:xiii).

The data collected by Landsbury, however, rejected these hypotheses. Nevertheless, his study produced evidence of two other relevant assumptions. One is on the heterogeneity of professionals. Landsbury reports that the professionals in his case organization do not form a homogeneous block. He identifies three main types namely, "careerists," "functionaries," and "academics" based on their commitment to their own career, the organization, and the advancement of their field of knowledge, respectively. More importantly, conflict was observed more among the various professionals groups themselves than between professionals and managers (1978:155).

One may argue that the professionals analysed by Landsbury were "new" or "non-traditional" professionals that is, computer specialists, operations researchers and systems analysts. But the heterogeneity of professional groups in general, including the traditional professions, has been recognised by some scholars who use it as an argument to refute the classical functionalist perspective. Larson (1977), voicing the views of Freidson and other researchers, stresses the presence of "different ties with a ruling class" and "changing coalitions" among factions within a profession as well as between professions (1977:xv). And Freidson sees each profession as embracing its own paradigm i.e., "a taken-for-granted conception of what the issue is and how it is solvable." This influences of course the "political activity" of the professions whereby "each appeals to the superior importance of one paradigm over another" (1973:31). This phenomenon underlies the common competition between professions for jurisdiction over a particular area of expertise.

The second and related assumption supported by Landsbury's (1978) data is that there is a lack of "collective consciousness" among professionals. He found the professionals in the corporation lacking a sense of belonging to a "class." It is possible that the characteristic collective consciousness implied in the functionalist and power approaches (i.e., a distinctive occupational culture and an ideology, respectively), has been exaggerated. If it exists, it may be found sometimes within a profession and not across professional groups as a whole. Considering the rapidly changing political, social and

economic dimensions of modern societies, it is expected that whenever a collective consciousness' is found, its duration and the composition of the professions involved may vary from group to group and from society to society.

Underscoring the importance of a collective consciousness, Landsbury goes back to one of his original hypotheses and suggests that conflict between professionals and management "is likely to occur where the former represents a unified source of expertise which challenges the legitimacy of the latter's authority" (1978:156).

Although many power theorists agree with this hypothesis of confrontation, others feel that in governmental agencies and corporations, professionals may either share the organization's goals and identify with them or are able to influence the re-definition of organizational goals so that these goals become undistinguishable from those of the management and in fact, reinforce each other (Mosher, 1978:145; Anderson et.al., 1980).

In addition to the aspects proposed by Ritzer (1977) in his integrated approach and the focus on the problem of collective consciousness and homogeneity of professionals, another aspect of interest in this study is the "channels of professional influence" used by the four professions in Singapore. In his relevant discussion of the role of professions in the American public service, Mosher (1978) states that professional associations are not the only or even the main vehicle used by professionals to "initiate or modify or veto policy proposals or

affect them in their execution" (1978:144). It is important to see whether the same argument applies to Singapore. The concept of professional influence may help to unveil the role of the professions in the modernization of Singapore through their impact on policy-formulation and policy implementation. Accordingly, Mosher's five "channels of professional influence will serve as another frame of reference in the analysis of the professions in Singapore.

These five channels as identified by Mosher (1978:145-146) are: (a) the election or appointment of professionals to high political or judicial; (b) the effective control or monopoly of the significant managerial and operating positions of administrative agencies by individual professions; (c) the professionals who operate within agencies which they do not dominate and which may be in fact largely controlled by another profession; (d) the bringing of ideas, modes of thought and pressures upon political executives and legislative bodies and their appropriate committees by professionals through indirect extragovernmental channels (i.e., media, professional associations, labor unions, etc); and (e) the influence of professionals at one level of government on the operations and policies of another level through, or in alliance with, their counterpart professionals at another level.

The Task

The preceding pages have presented a brief overview of the relevant conceptual premises in this study. Based on those premises, this paper attempts to probe three general assumptions on the role of four professions in Singapore. These assumptions or hypotheses refer to (a) the structure of the professions; (b) their ideology; and (c) their channels of influence.

More specifically: (a) regarding the structure of professions, it is assumed that the characteristics of the professions as outlined by the process, structural-functional and power approaches are not fully applicable to all the four professions. And even when these characteristics are observed, they do not necessarily occur together neither do they remain in effect continuously. However, I do not share Johnson's (1973:285) extreme position. He asserts that the characteristics of the professions in the Third World are fundamentally different from those of the professions in developed countries. Hopefully, evidence from this analysis will shed some light on this issue.

(b) In terms of ideology, it is assumed that in Singapore the four professions are more likely to be homogeneous within each group than across groups. If there is any kind of collective consciousness (ascertained indirectly in this study) among these professions or within a given profession, it is more likely to be "stratum consciousness" than "class consciousness." The distinction being that stratum consciousness is the perception of common characteristics and identification with, and commitment

to, stratum interests and ideology; class consciousness would be a type of stratum consciousness based on economic criteria such as wealth and prestige derived from wealth (Morris and Murphy, 1974:160-161).

(c) The third and final assumption is that in Singapore, professionals do exert influence upon policy-formulation and policy-implementation but more as individuals than as a group. Is it assumed that professionals use channels of influence other than--and in addition to--their own professional associations. Of the five channels identified by Mosher (1978) the first three are the most commonly used. They are: (a) through appointment or election to high political or judicial office, and managerial and executive positions in the public sector, mainly during the past ten to fifteen years, as a result of the political leadership's "search for talent"; (b) through managerial and executive positions in the private sector; and (c) through agencies, both public and private, as consultants. It is further assumed that the social and political emphasis on paper qualifications and meritocracy currently prevalent in Singapore, has facilitated access to these various channels of influence by individual professionals.

But before proceeding, a note on the data sources used will help to assess the findings realistically. The three assumptions guiding this analysis will be tested with data from various sources. Some of them are published material on official and unofficial views of professionals and government representatives; other sources are personal communications with practitioners and administrators. The nature of the project, its timetable and scarcity of resources, all precluded the use of personal interviews with a representative sample of practitioners in the four professions. This is a major shortcoming of the study. On the positive side, the views of elected and appointed leaders and spokesmen of the professions presented in official or formal situations are a reliable source of information on these professions' position as collectivities, regarding relevant issues. In addition, official and historical documents and census statistics are data sources that complement the picture and provide quantitative bases for comparisons between and across professions.

Main Historical Features

Confronted with the vastness of historical material on the development of medicine, law, engineering and architecture as professions in human history, one feels compelled to set explicit boundaries both in time and depth, for the necessary historical account of the development of these professions in Singapore. The purpose of a historical background in the present discussion

is twofold. Firstly, to search for either common characteristics or deviations' in the development of these professions in Singapore in comparison with their historical development in England. Secondly, to test the three assumptions outlined above during the historical period before Singapore attained independence i.e., from the onset of British rule in 1819 until 1965.

To depart from a broad perspective, a note of interest on the history of these professions is provided by Larson (1977). She sees the development of modern medicine, law, engineering and architecture, as historically dependent on certain features of the social structure in continental Europe which were different from those of the "Anglo-Saxon" societies of England and the United States. Larson argues that in continental Europe these professions owe their advance to the bureaucratic principles and state intervention of strong centralized governments: engineering and architecture in Napoleonic France; law in Prussia; modern medicine in Tsarist Russia. In all these cases, the political authority planned and/or propelled the development of these professions for the benefit of the state, and there was little if any difference between professionals and bureaucrats. In contrast, the present market-oriented autonomy and other current features of the professions originated, according to Larson, in the "laissez-faire capitalist industrialization" that took place in England and the United States (1977:xvii-xviii). Perhaps Larson is correct when one thinks of England and the United States only. But British colonies in the nineteenth century did

not necessarily follow the same pattern in the development of their professions. Rather, some measure of state intervention was applied to bring to Singapore professionals needed for the building of the colony's infrastructure, to help in its management, and to look after the health of the colonial personnel, among other things.

The territory known now as Singapore was first taken under British domain in 1819 and Singapore only attained self-government in 1959 and independence in 1965. Therefore, the historical development of the four professions in England is directly relevant to their situation in the Republic of Singapore today. More specifically, the current structure and functions of these professions would be expected to follow British patterns. Indeed, in Singapore and other British colonies in the nineteenth century, the influence of the British empire took two general forms. One was the "outflow of professional migrants" from England as either settlers (the pioneers of private enterprise in the professions), or consultants on contract with the colonial government. The other form of influence was through the inflow of students from the colonies in search of professional training in England (Johnson, 1973:286). As it will be seen later, the latter commenced in Singapore only during the final years of the nineteenth century while the former was practically a permanent feature throughout the colonial period.

Nevertheless, the influence of English professional styles reached the British colonies under a set of circumstances which Johnson believes created a unique "character" in the colonies' professions. He argues that a new type of "institutionalised occupational control" by the state took place. Johnson labels it "corporate patronage" where "it is the client--a powerful, corporate client--which regulates the profession rather than the members of the occupation themselves" and this is of course opposite to professionalism. Furthermore, Johnson asserts that "where corporate patronage prevailed," the professional ideology involving the principles of autonomy and authority "never developed" although this ideology of professionalism was "not unimportant" (1973:285).

Two viewpoints are in contrast here. First, Larson's (1977) assumption of the development of the modern ideology of professionalism due to the laissez-faire capitalism in England and the United States, would lead us to expect a similar development in the British colonies. Migration of professionals and students both ways plus the influence of British professional associations would reinforce such an expectation. Yet, Johnson's (1973) views appear to refute such a development in favour of corporate patronage. The British Crown, it seems, applied the state intervention principles seen in continental Europe to its colonies while allowing a more market-oriented and flexible development at home. Yet, historical accounts of individual professions do indicate the presence of state intervention in England albeit unevenly applied among professions through time.

Data from the historical backgrounds of medicine, law, architecture and engineering in Singapore indicate in fact a dual development. There was a decisive government intervention in the shaping of the structure and functions of these professions. But, at the same time, the private sector offered opportunities for the manifestation and strengthening of some or all of the classical characteristics of professions including a professional ideology. There was also a complex network of relationships between professionals and the government bureaucracy which contributed to the stability and permanence of the dual development of government intervention and professional ideology.

Specific examples of this will be provided in this section by describing the highlights of the four professions' history individually. While all the above features of dual development can be found today, the present section on the historical background shall be limited to the period from the foundation of Singapore by Sir Stamford Raffles in 1819 to 1965, when Singapore attained independence. This will prepare the ground for the discussion on the professionals contribution to Singapore's modernization since independence.

Medicine

In 1815, four years before Raffles acquired the island of Singapore as a British port in its East-Indies trade network, the Apothecaries Act was passed in the British Parliament. This Act stressed the need for "regular medical education" to be given to medical practitioners in England in order to protect the health of the community. This was a significant step towards reform of the medical profession since, up to that time, there were four different groups of practitioners--physicians, surgeons, apothecaries and druggists--and it has been said that "no coherent structure existed. Chaos reigned." (Carr-Saunders and Wilson, 1933:77-78).

In Singapore, the representative of the British Crown was the East India Company. The Company had set up its Medical Department in Penang which had been under British domain before 1819. It appears that up to 1826 the medical needs of the British settlers were taken care of by the Company's Medical Department in Penang. The Senior Surgeon had already been exploring the possibility of training apprentices as assistants and his plans were approved by the Company in 1822 (Lee, 1978:3-4). In 1826, Penang, Malacca and Singapore were incorporated into the "British Settlements of Prince of Wales Island, Singapore and Malacca" or Straits Settlements, with Penang as the capital where the headquarters of the Company's Medical Department remained. This new arrangement of the settlements prompted an administrative reorganization of the Medical Department to meet new demands.

Thus, two years later, in 1828, the Department included two levels of personnel namely, the "superior branch" and the "subordinated native branch" of the medical profession. The "superior branch" was reserved for British practitioners who occupied the three top administrative positions i.e., Surgeon Major, Surgeon, and Assistant Surgeon. The medical subordinate ranks were open to both British and Eurasians (Lee, 1978:7-9). It was the latter's presence that seemed to justify the label "native" for this subordinate level.

In general, the origins of the medical profession in Singapore were clearly marked by state intervention or corporate patronage to borrow Johnson's (1973) term. The control of access to medical practice was very much in the hands of the British Crown represented by the Medical Department of the East India Company. It was the Company which introduced the first "western" physicians to the Malayan archipelago to perform primarily military duties as army surgeons. Later on, by necessity, the service was expanded to the care of the British civilian population (Lee, 1978:3) or, more exactly, to the "white administrative personnel" in the settlements (Johnson, 1973:287). In 1827 the General Hospital, hitherto a military and civilian hospital, was declared a separate hospital for civilian patients, including "natives" and requiring Europeans to pay higher fees than other patients (Lee, 1978:25-26).

The medical needs of the local population were met at the time by an assortment of healing sources, the most common of which were traditional healers in combination with the self-prescription of traditional remedies. A few charitable institutions founded by "Chinese philanthropists" were also available to the indigent. The Thong Chai Medical Institution was one of these. The government provided the land for its building in 1892. Free medical treatment was given "to the poor of all races" using the sinsehs' skills in traditional Chinese medicine (Turnbull, 1977:116-117). At the government level, some medical care was also provided by the Medical Department's subordinated native branch comprising the Sub-assistant Surgeon, apothecaries, assistant apothecaries and apprentices, all of whom could, technically, assist the local population in emergency situations and serious conditions. But the former were few and mostly from India, that is, "Indo-Britons" or "Eurasians" in addition to Caucasians (Lee, 1978:8). The language barrier thus faced by these assistants when attending the local population was readily observed by the Senior Surgeon. His plan for the recruitment and training of local personnel and the upgrading of the branch to "Subordinate Medical Establishment" was presented and received government approval in 1853 (1978:12-13).

Parallel to the development of the government's Medical Department throughout the nineteenth century, was the emergence of opportunities for the creation and expansion of a private sector of medical services. The salaries paid by the East India Company to the higher and subordinate Medical Establishment were low and the conditions of service poor. Their discontent reached the press and a newspaper reporter wrote in 1845 that "the advantages held out to well-educated Eurasians in the several mercantile houses here render persons of this class perfectly indifferent to remaining in Government employ" (Lee, 1978:11).

One year later, one of the apothecaries resigned from the government service "and promptly set up private practice and became the principal marine surgeon here and in good practice among the natives" (Lee, 1978:11). Low salaries and poor working conditions also led the Government physicians to conduct private practice concurrently in order to supplement their income. The Government apparently allowed this as "compensation" for their low pay. Understandably, this flexibility was detrimental to the quality of medical care provided at the Government hospitals. The press criticised this situation strongly in 1869 as "a most pernicious system" indicating that doctors "visit the hospitals at stated hours, issue their orders and the apothecary and his apprentice do the rest" (Lee, 1978:69).

The setting up of private practice was already common among European physicians who were not in government service and had the perspicacity of appreciating the gap in health services and the poor quality and organization of the government medical services. One of the earliest signs of this trend towards private practice is a newspaper advertisement put up by a British surgeon to this effect in 1834 (Lee, 1978:28). A private hospital was already functioning in 1837 but according to Lee's (1978) description of the situation, private medical services were more expensive than the public hospitals. Such a cost difference is still found today. There were complaints of high fees charged by the private hospital but at the same time, a certain recognition of the physicians right to such high fees was manifested in a newspaper editorial in 1837: "only a charge wich is but moderate for an European practitioner in this country may be much more than a sailor's hard-earned pitance can bear" (1978:29).

The prestige attached to medical practice hinted in this editorial must be assessed with caution. Why would medicine be perceived as a prestigious occupation in the early years of the colony? The English press was addressed to the educated minority, primarily Europeans. Accordingly, it appears that to some extent, the regard for higher education in general, and for a medical degree in particular, was brought to Singapore by the Europeans and adopted first by the local groups who had most interaction with the former. Nevertheless, among the local population, individuals who possess healing skills have traditionally been regarded with higher deference than most other gifted or skilled

people. Furthermore, among the Chinese for example, intellectuals or scholars have historically been considered members of the elite in society. In other words, the set of values and traditions of the immigrant groups that formed the Singapore population at that time, already included the assignation of high prestige to the practice of healing skills and the recognition of the importance of education to attain status in society.

The periods of colonial rule and intermediate stages before independence, produced a considerable number of acts and ordinances dealing with and regulating the medical profession. From 1866 to 1965, twenty-nine such pieces of legislation were passed and/or amended. They dealt with matters such as medical registration, medical education, medicines and advertising (Srinivasagam, 1972:3-131). Medical registration was, however, the most discussed issue. It began with Ordinance 9 of 1905 which was repealed in 1907 by Ordinance 11. The latter was amended five times between 1907 and 1946 and finally repealed by the Ordinance 23 of 1953 which itself underwent some amendments before 1965. In the 1953 Ordinance, the Medical Council was formed as the gatekeeper of the medical profession. The Council consisted of fourteen physician members, four of whom represented the government, four the universities (one in Malaysia and one in Singapore), and six the physicians in private practice.

Despite the signs of corporate patronage or state intervention, one can observe an interesting albeit indirect manifestation of the physicians' "norm of autonomy" already in the last part of the nineteenth century. Comparing the control that government could exert upon professional people in the colonial service, the press commented in 1870 that physicians were in "an entirely different position" from engineers and accountants. The latter two categories of professionals could not be allowed to conduct private practice while the physicians' work "is left to their consciences." Based on this belief, the press suggested an increase in the government physicians' salaries so that "the allurements of private practice" would be "removed" (Lee, 1974:70). Assuming the newspapers voiced the general beliefs of the educated population in the colony, these comments convey the community's conviction that the content of work of the medical profession should be entirely determined by the doctors themselves.

In fact, by the end of the nineteenth century, as more local young men from well-to-do Baba or Straits Chinese families completed their secondary English education, their parents' ambition was to send them to England to obtain a degree in medicine or some other profession. Medicine had already attained a high status in their eyes. Lim Boon Keng was one of the first of such young men to return to Singapore with a degree in medicine and promptly became a community leader. He was member of the Legislative Council from 1895 to 1905, "founder of the Straits Chinese British Association, member of the Chinese Advisory

Board, and first to enroll in Britain's support in the Chinese Volunteer Company in 1901." He also founded the Philomatic Society, strengthened Confucian morality among the Chinese community, was a co-publisher of the Straits Chinese Magazine, and with another medical colleague, Dr Yin Suat Chuan, "launched a campaign to discourage opium smoking" (Turnbull, 1977:106-117).

Turnbull's (1977) historical description of the events and people in Singapore at the turn of the century confirms the assumption that individual professionals, and in this case physicians, did use several channels of influence. Although the higher ranks of the colonial government were restricted to Europeans, young local professionals like Lim Boon Keng

became leaders in the professions and took their place alongside wealthy merchants as legislative councillors, municipal councillors, and justices of the peace. The English-educated professional Asian elite provided a new type of leadership and began a subtle westernizing and modernizing of Singapore society...opening the way for the Asian community to assimilate and accept western medicine, the British judicial system and European educational methods. (1977:120).

It was precisely this local intellectual elite who was responsible for the establishment of the medical school in Singapore in 1905. This was a crucial year in the development of the medical profession: the registration of medical practitioners had been legislated earlier in the year thus serving as an appropriate prelude to the opening of the first medical school. A brief note on some relevant background events is in order before proceeding. In 1835 the Madras Medical College was founded and served for the rest of the century as the training center where

young Singapore applicants were sent before being posted to the upper ranks of the Subordinate Branch of the Medical Service. The lowest rank of apprentices usually received on-the-job training since 1822 but without much success (Lee, 1974:7-16).

In other words, during the nineteenth century medical education in Singapore was entirely dependent on British facilities either in England or in India. England itself was only in 1832 reforming the Oxford University Bachelorship of Medicine and the profession there was trying to put its own medical house in order (Carr-Saunders and Wilson, 1933:79). It was not until 1905 when the King Edward VII College of Medicine originally named "The Straits Settlements and Federated Malay States Government Medical School" (Colony of Singapore, 1953:22) was founded. There was some reluctance on the part of the colonial government to open a medical school; it was considered to be an extremely complex task and when they finally agreed they hastened to label it "an experiment." In fact, an attempt was made in 1889 by the colonial authorities to set up a medical school "to train assistant surgeons to treat the natives and to assist the European Medical officers in their routine duties." But only two students applied and the idea was thus abandoned (Kanagaratnam, 1965:20).

This time, the school was to be a higher educational institution for the training of medical doctors. Its opening was the happy outcome of a strong lobbying by the leaders of the Chinese community. They surprised the British authorities with their prompt donation of \$87,000 instead of the \$71,000 that the government had requested as a precondition to their approval; the money was needed for the School's building fund (Turnbull, 1977:120). With the college, Singapore and the rest of the Straits Settlements obtained a certain degree of control over the training of its own physicians. The first batch of six graduates emerged in 1910 out of an original group of 23 first year students (Kanagasatheram, 1965: 39) and the Licentiate in Medicine and Surgery was recognized by the British General Medical Council in 1916 (Tay, 1965:10; Colony of Singapore, 1953). The production of graduates remained modest until the 1950's with an average of about fourteen graduates per year (Kanagaratnam, 1965:22). In 1953 there were 34 graduates and the figures reported by Lim (1965:13) indicate an annual average of 61 graduates from 1953 to 1965.

In terms of the power relations between the colony and England, to say that the Medical College had a certain degree of control may, in fact, be an overstatement. The teaching staff and the curriculum were British, and the General Medical Council in London remained the supreme source of professional approval and recognition throughout the colonial period since its creation by the Act of 1858 as the "General Council of Medical Education and Registration of the United Kingdom" (Carr-Saunders and Wilson,

1933:83-84). The teaching staff was at first only part-time practitioners from government service and the private sector. Full-time teaching staff was assigned to the school later in 1920 when it was upgraded to the "King Edward VII Medical College" (Turnbull, 1977:120; Colbourne, 1965:63; Chen, 1965:32).

Yet, from the perspective of power relations between physicians and laymen, physicians were in control of medical education in England, and thus in Singapore. The membership of the General Medical Council was dominated by physicians. Before 1926 "no layman had ever sat upon the Council" and in 1932, out of 38 members only five were Crown appointees, the remaining being appointed by medical corporations, medical schools and private practitioners (Carr-Saunders and Wilson, 1933:84). This means that the path taken by medical education in the colony was steered by physicians locally following the patterns established in England. This practice continued with increased emphasis as the medical profession consolidated its power in the 1940's and 1950's (Colony of Singapore, 1953) and to some extent, has remained the norm during the Republic's life.

It must be kept in mind that since its inception in 1905, the medical school--which became the Faculty of Medicine of the University of Malaya from 1949 to 1959 and then of the University of Singapore--has been a government institution and has depended on government hospitals for teaching facilities (Colony of Singapore, 1953:22-23; Tham, 1981). In 1928 a Medical Research Committee was appointed by the Governor of the Straits

Settlements to explore the need for medical research, its scope and cost in the Settlements. The Committee gave a positive report on the work of the Medical College in Singapore and the Institute for Medical Research in Kuala Lumpur, both of which were staffed with government-appointed physicians and scientists. The Committee also recommended the emphasis on "research applied to Malayan problems" leaving "the field of pure research" to "the laboratories in Europe" (Medical Research Committee, 1929:3).

The Faculty of Medicine depended heavily on British standards and approval in the organizing of curriculum and seeking recognition for the basic degree of Bachelor of Medicine and Bachelor of Surgery <MBBS> in 1950 and the establishment of the School of Post-Graduate Medical Studies in 1960. This dependency has been loosened somewhat during the past twenty years, with the Faculty taking charge of training for the degrees of Master of Medicine and Master of Science in Public Health (Tham, 1981:145-147). But the ties with the British system still remain represented not only in the membership to British professional medical associations or societies by individual physicians, but also in the system of external examiners. Occasionally, however, some of those examiners have been invited from countries outside the Commonwealth.

Although the physicians' control of medical education was more or less established since 1905, they did not set up a national professional organization until 1959 when the Singapore Medical Association <SMA> was formed. This was not the first association however. The Alumni Association was created in 1923 by the graduates of the King Edward College and was very active as "sponsor and campaigner" for the upgrading of the College into the University of Malaya. The Alumni unsuccessfully requested the Colonial Governor to set up the university and to raise the status of the graduates from "assistant surgeons" to medical officers at the same level with the European physicians (Chen, 1965:32). By that time the "powerful" Straits Medical Association was already functioning with an exclusive European membership. This association supported the Governor's refusal of the Alumni Association's request mentioned above (Chen, 1965:33).

Considering its reported activities, the Alumni Association was a de facto professional association for local physicians. On the other hand, the accounts provided by Gwee (1968) and Chen (1965) give the impression that the Straits Medical Association was also known as the Malayan Branch of the British Medical Association. The latter was in turn the immediate predecessor of the Singapore Medical Association. This last change was rather significant in the unification of the medical profession in Singapore hitherto divided into local and European factions represented by their respective associations. According to Gwee (1968) the British Medical Association gave its full support to the change in name and transferred the assets of the Malayan Branch to the new SMA.

The Alumni Association contributed to the merger by converting its journal into the official publication of the SMA, the Singapore Medical Journal. SMA opened with a total membership of 320 (Fong, 1982:133). The main objectives of SMA remain the same since 1959 and are

to maintain the honour and interests of the medical profession...to foster and preserve the unity and aim of purpose of the medical profession...to voice its opinion and to acquaint the Government and other bodies with the policy and attitude of the profession (SMA, 1977:1).

From SMA sprang other affiliated medical societies. In 1962 SMA approved the formation of the Society of General Practice (Koh, 1982:9). Both SMA and the Society of General Practice as well as other medical societies have served as channels of professional influence since their inception, within the boundaries established by government intervention.

Law

The history of the legal profession in Singapore shares several features with medicine. To begin with, its origins are traced to the British Crown's establishment of the English legal system in the territories administered by the East India Company when Raffles founded Singapore. The official document reflecting this event is the First Charter of Justice of 1807 (Wee, 1980:lvii). By the time Raffles acquired Singapore in 1819, the legal profession was relatively well established in England, in comparison with the other three professions. The administration

of justice and other matters of the state were almost entirely in the hands of legal experts or professionals. The Bar was already organized into four Inns of Court (Carr-Saunders and Wilson, 1933:29-43).

The Act of 1729 was the expression of efforts towards reform of the profession prevalent in England in the early eighteenth century. It amalgamated attorneys and solicitors and provided them with a "professional consciousness." This event indirectly triggered a movement towards self-government and around 1739 a voluntary association was formed under the label "The Society of Gentlemen Practisers in the Courts of Law and Equity" or "Law Society" for short. After undergoing some transformations this association was upgraded to the Law Society proper in 1825 and incorporated by the Crown in 1845. The Society's purpose was "promoting professional improvement and facilitating the acquisition of professional knowledge" (Carr-Saunders and Wilson, 1933:45-47). The Law Society however, represented only one of the two branches of the legal profession in England namely, the solicitors. The other main branch was the barristers. This separation represented a division of labour that still remains today: the solicitor was concerned with "general practice" of law as he was the first professional a lay person would see for legal advice. The "specialist" was the barrister who would attend referrals "of cases being taken into court or when a second opinion is desired" (1933:10).

While solicitors in England formed their first professional association in 1739, barristers have a longer history of professional organization. Already in the fifteenth century they had the Inns of Court which served both as educational institutions and voluntary associations. The Inns consisted of benchers or readers, barristers and students (Carr-Saunders and Wilson, 1933:36-37). The educational role of the Inns had declined by the first decade of the nineteenth century: the students were expected to do their own self-instruction by reading the legal books and gaining practice "from attendance to court" (1933:48).

In 1832 the Commission of Inquiry on Legal Education indicated that only a Doctor of Laws from one of the English universities may be appointed as advocate. Twenty years later, in 1852, the Council of Legal Education was set up by agreement between the four Inns of Court (1933:30). This was a breakthrough in the process of unification of the barristers. A more decisive step in this direction was taken in 1883 when the Bar Committee was established by the Bar to represent all its members as a profession. This Committee was reconstituted into a new body, the Bar Council, in 1894, receiving increasing legal and social recognition as "the accredited representative of the Bar" with the duty of dealing "with all matters affecting the profession <the barristers> and to take such action thereon as may be deemed expedient" (1933:16-17).

These developments of the legal practitioners in England had some influence on the features taken by the legal profession in Singapore, but there was no identical evolution in the Colony as shall be seen shortly. In 1923 Raffles issued a regulation establishing courts and appointing magistrates. About the same time, in a report to the British Government, he suggested that "the general principles of British law should be applied to all, equally and alike, without distinction of tribe or nation... <depending on the> local circumstances and conditions" (Soe, 1978:1-2). The latter qualification led him to include a clause in a memorandum stressing the prevalence of Muslim law for the Malays in matters regarding religion, marriage and inheritance (Bartholomew, 1976:87). But it was actually in 1826 that, by means of the Second Charter of Justice, the English law "became part of the law of Singapore" (Soe, 1978:3).

The First and Second Charters of Justice of 1807 and 1826 respectively, only provided the foundations for the development of the legal profession. The latter grew rather slowly during the first half of the nineteenth century. According to the available historical accounts, there was only one professional lawyer in the Straits Settlements--Penang, Singapore and Malacca--with the position of judge or "Recorder." He was stationed in Penang where all the subsequent recorders had their headquarters until 1855 (Soe, 1978:3).

Matters of law were not in the exclusive hands of lawyers in those early days. The Court of Judicature during this period involved not just professional lawyers as judges but also lay people i.e., the Governor and three Resident Councillors (Soe, 1978:3). By 1867 the Legislative Council of the Straits Settlements included the Chief Justice, the Attorney General, and a majority of non-lawyers: the Governor, the Official Commander of Troops, the Lieutenant Governor of Penang, the Colonial Secretary, the Colonial Engineer and four unofficial Europeans (1978:4). It is not clear whether the four unofficial Europeans were lawyers themselves or not.

As it was noted in the development of the medical profession, there are clear signs of state intervention in the origins and evolution of the legal profession in Singapore. The first professional lawyers arrived as judges representing the British Crown through the East India Company. A related feature was the monopoly of the legal profession by British practitioners (Pillai, 1980:1). Unfortunately, the available information is insufficient to determine whether private practice began simultaneously with the presence of government lawyers and if so, how widespread it was. Wee (1980:lviii) indicates that "in the early years there were a mere handful of men trained and educated in the law as attorneys or barristers who practiced law in Penang, Singapore and Malacca." It is likely that the common practice in the early and perhaps mid-nineteenth century was for the Court to appoint a lawyer to defend plaintiffs. This could be either because of the scarcity of lawyers in private practice or

simply as an early version of legal aid, that is, assisting an indigent plaintiff to acquire the legal counsel to which he was entitled. These assumptions are based on Wee's (1980:lviii) reference to a case when the Court "enrolled" a lawyer "under the Second Charter" to defend "a local plaintiff."

An outstanding feature of the development of the legal profession in the Straits Settlements was its sharp contrast with England in terms of the division into two branches, barristers and solicitors. The legal profession in Singapore has been, since its origins, "a fused profession" which means that a lawyer could--and still can--practice both as an advocate and solicitor (Wee, 1980:lviii-lix). Perhaps the best explanation for this difference is that the Recorders or judges appointed under the ~~Second Charter of Justice to the Court of Judicature, later known~~ as the Supreme Court, were "professionally trained as common lawyers" and in consequence, "they interpreted <the Charter> in the only way they knew how," bringing with them "the mental habits and attitudes of common lawyers" (Bartholomew, 1976:102).

Another difference between the colony and England was the pace of evolution of professional organization among lawyers. The nineteenth century witnessed in Britain a decisive move towards professional self-control and representation among barristers and solicitors. In contrast, no specific legally recognized organization of legal professionals appeared in Singapore before independence in 1965. Yet, before Independence, various legal measures were taken to control and regulate the practice of law

in Singapore. These acts and ordinances represent again the implementation of state intervention. From 1866 to 1964 some twelve pieces of legislation are found in the Tables of the Written Laws of Singapore, dealing with the legal profession (Srinivasagam, 1972:3-131). The matters covered by these legal measures involved the advocates and solicitors costs and other aspects of the practice of the profession. The Advocates and Solicitors Costs Ordinance of 1886 was repealed in 1907; the other acts and ordinances were passed from the 1930's onwards.

Legal education in Singapore developed later than medical education. The King Edward College of Medicine was founded in 1905. But the first university-level teaching of law only began when the Law Department was opened at the University of Malaya in 1956, half a century later. Nevertheless, the efforts towards legal education may be traced back to the last years of the nineteenth century when local Baba Chinese families had begun to appreciate the value of English education as a source of power and prosperity in the colony. They initiated the trend of sending their sons to British universities to obtain professional degrees (Turnbull, 1977:104-105). The first two graduates in this group returned to Singapore in 1893: one, Lim Boon Keng, had a degree in medicine; the other was Song Ong Siang, who had a degree in law. This pair represented "the new group of Chinese professional men who came to challenge the apathy towards education" among the bulk of the local population (1977:105).

This pattern continued until mid 1950's. Students would go to Britain either as Queen's Scholars or with their families's financial support to "read law at a university or proceed directly to the Inns of Court...and the bar examinations. For all practical purposes this was the only known form of legal education in both Malaysia and Singapore" (Cheang, 1973:53). But the majority of the legal professionals practising in Singapore were nevertheless British. Jonhson's (1973:286) twofold mode of influence of Britain over its colonies is thus supported by the case of the legal profession in Singapore: flow of students to England and predominance of British practitoners locally.

Analysts of the history of legal education in Singapore agree that the Allen-Braddell report presented to the University of Malaya in 1955 was the most immediate stimulus for the organization of a systematic, higher level training of lawyers in Singapore (Sheridan, 1961:3; Cheang, 1973:53-54; Pillai, 1980:2). This report outlined the basic features of a programme on legal education for Singapore. The reasons for the University's request of a study on this problem which outcome was the Allen-Braddell report, are less clear. Cheang hints that there was a mood of "dissatisfaction" (1973:53)--most likely, I believe, among the professional lawyers themselves than among the public--regarding the manner in which law was practiced in Singapore. Considering that the new graduates were educated in England, they would arrive with little knowledge "about local law" (1973:53). The importance of grasping the "local" features of law practice has also been stressed by Bartholomew (1976) and, apparently, was a

strong basis for agreement among interested parties in 1955, leading them to accept the suggestions of the Allen-Braddell report.

But one cannot overlook other important circumstances surrounding the presentation and acceptance of the report. The winds of independence from British rule reached momentum in the early 1950's, after a relative recovery from the effects of the Japanese occupation. In 1955, the first local government was formed and David Marshall, a lawyer, was elected as Chief Minister. A new outspoken figure, the People's Action Party (PAP), had surfaced in the political arena the previous year. The PAP was founded by a group of local intellectuals led by a Barrister-at-Law, Lee Kuan Yew, who had been practising law since 1951 as advocate and solicitor in the private sector as well as legal adviser to several trade unions. As it would be expected, the British were reluctant to accept the consequences of the independence movement (Chan, 1976:34). Against this background, the acceptance and implementation of the recommendations stated in the Allen-Braddell report represented both a concession on the part of the British colonial government--by not opposing it-- and the first serious move towards autonomy from British professional paternalism on the part of the local lawyers.

With all its positive aspects, the Allen-Braddell report had pessimistic overtones: it foresaw a very slow development of the department. Its forecast of enrollment in legal education was rather conservative i.e, between 10 to 15 students per year. The actual number of first graduates emerging in 1961 was 22 (Sheridan, 1961:3; Pillai, 1980:2). In fact, this has been the lowest number of graduates since 1961 and 1962. Considering the number of law graduates from 1961 to 1979 (cf. Pillai, 1980:3), the annual average up to 1965 was 35 graduates. This average increased to 58 between 1966 and 1970; and to 96 graduates per year from 1970 to 1979.

Discussing legal education in Singapore, the first Professor of Law and Head of the Law Department, L.A. Sheridan, had a more optimistic view of the future in 1961. He foresaw a continuous increase in law students and believed that the role of lawyers was multifold involving jobs in the public and private sectors, teaching at the university, holding executive positions and, in general having access to "all branches of activity" (1961:2-3). His estimation of the future for legal practitioners was rather close to the actual development of the profession as will be seen later.

The basic structure of legal education suggested in the Allen-Braddell report was implemented and has been maintained practically unchanged until recently (Pillai, 1980:2). The curriculum of the four-year LL.B. course was divided into three phases: introductory, general and specialization, with changes and additions taken place over the first five years (Sheridan, 1961:18). The Department of Law was later upgraded to the Law Faculty which then functioned as "the standard route for entry to the legal profession" (1961:22). Two other routes have also been used; holding a degree from England, Scotland or Ireland, or by way of "articleship" that is, attachment to a practising lawyer for at least five years (Pillai, 1980:5-6).

Regarding the influence of lawyers as professionals, one may say that lawyers, in a more definite manner than physicians, exerted their influence in policy decision-making in Singapore before Independence. By the very nature of their profession, lawyers appointed in the government service held important positions as judges, Chief Justice, Attorney General. There were also other channels of influence. As mentioned earlier in connection with physicians, local young lawyers who obtained their degrees in England acted as de facto community leaders upon their return. Moreover, lawyers appeared to be more inclined than other professionals to participate actively in politics perhaps because, among other things, "the experience of politics ...forms the context of constitutional law" (Sheridan, 1961:7). Some outstanding political leaders in Singapore were lawyers as indicated earlier and they played a significant role in the

process of attaining self-government and later independence. A distinction must, of course, be made between the influence exerted by lawyers as individuals on one hand, and the influence of the legal profession as a collectivity on the other hand. The former can be documented most of the time, but the latter is difficult to substantiate empirically. This issue of the professionals' use of channels of influence shall be taken up again in more detail later on.

Architecture and Engineering

The historical backgrounds of architecture and engineering in Singapore are closely intertwined; this will become apparent as the discussion develops. For this reason the two professions will be dealt with together in this section. As in the case of medicine and law, looking into the background of architecture in Singapore, one is inevitably led to the origins of architecture in England. The first Englishman "to call himself an architect" was John Shute who in 1563 expressed his idea of the ideal architect. Shute believed that the ideal architect should be a learned man and an artist, versed in philosophy and medicine among other things. In reality, however, those involved in architectural design and work were free-masons, foremen, surveyors and other related workers (Kostof, 1977:180).

Carr-Saunders and Wilson (1933:176) see the beginning of architecture as a profession taking shape later in the seventeenth century. They acknowledge that it was a slow process because during the seventeenth and eighteenth centuries architects were almost undistinguishable from builders and contractors. The identity of architects as a distinct profession began with the "growing commercialization of building" including the introduction of new construction materials and the higher sophistication of building techniques of the Gothic revival. These events gave rise to four "distinct societies" of architects between 1791 and 1834 (1933:177).

In consequence, when Singapore was founded in 1819, there were already two professional associations of architects in Britain namely, the Architects' Club founded in 1791 and the London Architectural Society founded a few years later in 1806 (Carr-Saunders and Wilson, 1933:177-178). During the next fifty years of Singapore's life under British rule, two more professional associations were set up in London. One was the Architectural Society in 1831; the other one was the most "professional" of all, the Institute of British Architects founded in 1837 and renamed the Royal Institute of British Architects or RIBA in 1866. Judging by Carr-Saunders and Wilson's (1933:178) description of RIBA's aims, this association falls well within the type of professional association delineated by the process and structural-functional approaches. Yet, other sources indicate that RIBA was not truly representative of the majority of British architects and the boundaries of the

profession remained diffuse as "the liason between the architect and builder continued in many instances until 1936" (Kostof, 1977:194). The latter appears to be a more realistic appraisal of the professional identity of architects than the one provided by Carr-Saunders and Wilson above. Incidentally, RIBA is still a working model for Singapore's association of architects as will be discussed later.

It would be expected that the concern for professionalism manifested in the birth of these organizations in Britain, would influence directly the architectural profession in Singapore. But this did not happened. Perhaps due to the remoteness of Singapore from London in those days, the development of the architectural profession was rather slow, comparatively speaking. The first architect to practice professionally in Singapore was G.D. Coleman who arrived in 1822 as a government consultant "to advise on the development of the south bank of the Singapore River (Seow, 1979:4).

Interestingly, Coleman is also referred to as an engineer by Raffles' Malay writer and tutor (Abdullah, 1973:110). This is the first sign of the joint development of the two professions in Singapore during most of the nineteenth century. Throughout this period and even until 1927, a colourful assortment of practicing "architects" could be found in the Colony. Most of them were amateurs engaged in other occupations such as real estate people, building contractors and traders; but there were also surveyors, army officers trained in engineering, engineers-architects and

priest-architects who came either on government service or church duty to begin building the infrastructure of the island (Seow, 1979:4). Thus, during this period in Singapore, the identity of the architect as a professional was diffused or generally linked to building contractors or engineers, reflecting to some extent one aspect of the profession's situation in Britain.

The joint practice of architecture and engineering is then a salient feature of the development of these professions. Kostof (1977:192-193) reports cases of important contributions made by British architects to engineering and vice-versa. Nevertheless, engineering seemed to have a more solid "professional" character than architecture in the early nineteenth century. On the one hand, the British military forces counted engineers and engineering training as part of their logistic strength. On the other hand, the first indication of a "consciousness of common interests" among people practising the skills of engineering was the foundation of the Society of Civil Engineers in Britain in 1771. The term "civil" was meant to differentiate them from military engineers (Carr-Saunders and Wilson, 1933:156-157). Their increase in numbers and the need to solve increasingly complex problems, prompted the creation of a more professional body in 1818, the Institution of Civil Engineers which was legally recognized by the Crown in 1828. One of the main original purposes of the Institution was to make the boundaries of the profession clearer. But success was elusive. Almost a century later, in 1927, another British professional association, the Association of Consulting Engineers, stated that "it is quite

impossible to draw any hard and fast line between the professional services rendered as an architect and those rendered as a 'civil engineer'" (Carr-Saunders and Wilson, 1933:155). Moreover, it was not until about 42 years after its creation that one of the Institution's fundamental aims became to organize and regulate engineering training (Carr-Saunders and Wilson, 1933:157-158; Kostof, 1977:192).

It is not surprising then that the first architectural firm to open in Singapore, Swan & Maclaren, was formed around 1880 by two surveyors and incorporated the names and services of two engineers, A.A. Swan and J.W.B. Maclaren. It was only after almost ten years of service that this firm engaged "its first trained architect" (Seow, 1979:4; Seow, 1973).

Despite the joint practice of their trade, the background of architecture and engineering differs in terms of the efforts to organize and control professional training. Engineering was considered a practical field, intrinsically bound to empirical testing. The first manifestations of systematic academic training of the subject in England were the Department of Engineering of the King's College set up in 1838 and the chairs of engineering in Glaslow, Edinburgh and Cambridge established between 1840 and 1875 (Carr-Saunders and Wilson, 1933:158).

In contrast, architecture was generally perceived as an "art" and thought of as a special gift with which only certain people are endowed. Thus it could not be taught (Carr-Saunders and Wilson, 1933:180). This perspective prevented the advent of systematic training in architecture before mid-nineteenth century. In contrast to France where systematic instruction had been provided by the Ecole Polytechnique since 1795, English architectural education was irregular and mainly based on "articled pupilage" throughout the eighteenth and most of the nineteenth centuries. The King's College and the University College of London began providing specialized instruction in the 1840s but mainly "in the technical aspects of design." The first professor of Architecture appointed in 1841 was also the first Secretary of RIBA (Kostof, 1977:198). The Architectural Association was in fact the first body to implement in the 1860s the "modern concept of systematic study tested by examination as the basis for architectural education" (1977:199). And only until 1887 the idea of a qualifying examination for membership of the RIBA became a by-law in the Institute's constitution (Seow, 1973; Carr-Saunders and Wilson, 1933:180).

Compared to this progress, architectural and engineering training as systematic fields of knowledge developed rather late in Singapore. In its report on the system of English education in the Colony, a Commission of Enquiry stated in 1902 that the suggestion to set up special schools "for the training of boys in Engineering, Surveying, Medicine, Assaying etc.," was too premature. They argued that the evidence collected by the

Commission showed "that there is not, at present, a sufficient demand for such a separate institution or institutions" (Wong and Gwee, 1980:47). Yet, in the Supplementary Report signed by five of the eight members of the Commission, the former emphasized the need for the provision of professional education in Engineering and Medicine which were fields "mostly needed in the Colony" (1980:54-55). This clear disagreement on the needs of the Colony could have been the outcome of two different and opposite perspectives i.e., the colonizers' and the locals'. Indeed, the only local member of the Commission was among the five who wrote the Supplementary report. Significantly, he was Lim Boon Keng, a physician who was mentioned earlier as a pioneering leader of the local community. The Supplementary Report apparently did not have an immediate effect upon policy makers. In consequence, the first local professional architects were trained abroad, mainly in England, as a result of the passing of the Architects Ordinance of 1926. Then, after the First World War, Singapore students obtained their degrees from other countries as well i.e., New Zealand, Australia, Canada and the United States (Seow, 1979:4).

This dependence on overseas universities for the training of engineers and architects--as well as lawyers, physicians and other professionals--marked the second phase of the historical development of these professions in Singapore. The first phase as hitherto described, was the monopoly of professional practice by British and other European practitioners with the exclusion of local talent. The initiative of forming a group of local professionals was taken by the Baba Chinese as indicated in the

discussion of the medical profession. But their first concern was with medicine and law. Only after the 1926 Architects' Act, the first two local students, both Chinese, went to England for their degree in architecture and returned to Singapore to practice in 1935 (Seow, 1979:4).

The systematic training in architecture and engineering began about a quarter of a century later, with the establishment of the Singapore Polytechnic in 1958. It included the Schools of Engineering and Architecture. During the initial years of these schools, the emphasis was on providing "a steady supply of middle level technological expertise" (Tham, 1981:140) rather than higher professional training. The objective was to produce technicians needed for the implementation of industrial development policies. The academic high level training of professional architects and engineers actually began with the incorporation of these schools into the University of Singapore in 1968 (Motta, 1982). It must be noted, however, that its predecessor, the University of Malaya founded in 1949, had been reorganized in 1958 into two "largely autonomous divisions" one in Singapore and the other in Kuala Lumpur. Under this arrangement, the Faculty of Medicine and the Department of Law remained in Singapore while engineering was transferred to the Kuala Lumpur division (University of Malaya, 1962:7).

Government intervention was the key element in the development of the medical and legal professions in Singapore. This is also true of architecture and engineering. Coleman, the first architect-engineer to practice in Singapore, arrived in Singapore to occupy the position of Government Surveyor first, and later became Government Superintendent of Works. Incidentally, as in the case of physicians, Coleman divided his time between government and private practice during the eighteen years that he worked in Singapore (Seow, 1979:4). Engineers were brought in as government employees to plan and direct the construction of roads, bridges, public buildings, water works, irrigation, light houses, sanitation and other public works. During the second half of the nineteenth century the Public Works Department was set up and became the nucleus of government engineers. In 1905 the Public Works Department was headed by A. Murray, M.I.C.E. He had two posts, as Colonial Engineer and as Surveyor General (Straits Settlements, 1905:632). The initials M.I.C.E. after his name indicate his membership in the Institute of Colonial Engineers. This suggests an inclination among the British engineers in the colonies to maintain professional links among themselves and with their counterparts in England. The Public Works Department is also significant in that the first official distinction between the fields of architecture and engineering may be found in the staff list of the Department in 1905. It included Colonial Engineer and Architectural Assistant as two separate jobs or designations (1905:653). This, of course, involved different ranks of employees and it is possible that

colonial engineers still did architectural work.

The influence of the colonial government up to this time consisted mainly in introducing the fields of architecture and engineering and their practitioners to the island. But a turn towards direct government intervention or control of the professions took place in 1927 when the Architects' Act of 1926 came into effect. This Act made mandatory the registration of architects and restricted registration to those who were practicing the profession and "were properly qualified or had sit for an examination conducted by the Board of Architects, Singapore" (Seow, 1979:4). It is particularly noteworthy that this government regulation is considered among the first of its kind in the world. In England the registration of architects was officially regulated only in 1931 (1979:4).

Nevertheless, the government regulations on the professions of architecture and engineering from 1866 when Singapore was a Crown Colony until 1965 when it became a Republic, are rather limited compared to regulations on the medical and legal professions during the same period. An analysis of the written laws of Singapore during this period (Srinivasagam, 1973:3-131), shows a total of 29 acts or ordinances on the medical profession and twelve acts and ordinances on the legal profession. In contrast, there are only three acts and ordinances dealing with architecture and none dealing exclusively with engineering. The Architects' Act of 1926 was repealed in 1941 with Act 23 where a provision was included to the effect that "persons holding

engineering qualifications could register under the Architects Act" (Attorney-General, 1971:33-34). The inclusion of engineering registration here was an expected step in a society where the legacy of the nineteenth century still kept the two professions amalgamated in practice.

Yet, the existence of legislation in general, and the Architects' Act in particular, should not be interpreted solely as an indication of government intervention. Three years before the Act, in 1923, the Society of Architects was founded in Singapore (Fong, 1982:19) thus signaling the implementation of an incipient professional identity--although these professionals were Europeans. Indeed, a distinguished local architect interprets the passing of the 1926 Act as the culmination of the efforts of architects themselves to obtain legal recognition and to be given legal protection to their titles, their work and the regulation of their fees (Seow, 1973:15). This, as well as other similar cases of professional bodies lobbying to attain legal recognition, illustrate a mutual-benefit process: the government gets control over important aspects of the profession's activities and, at the same time, the profession benefits from the legal recognition that the acts and ordinances represent. Who gains more depends, of course, on the particular case and specific stipulations of the legislation in question.

Moreover, there is always the probability of overlapping in the membership of these two parties i.e., the government and the profession. Professionals as individuals may influence government decisions through their official and unofficial positions. During the colonial period, the Colonial Engineer was a member of the Legislative and Executive Council of the Straits Settlements (Soe, 1978:4-5). His professional duties were combined with policy-making activities as illustrated by the case of F.J. Pigott who was Colonial Engineer, Head of the Public Works Department of the Straits Settlements, and a British civil servant for 34 years fifteen of which were spent in Singapore. In his Annual Departmental Report he indicates that the Colonial Engineer had the title and the duties of Surveyor General and "considerable additional duties arising out of the war." The most important of these were "Chairman of the Priority Indent Committee, the Committee of Inquiry into Conditions of Employment and Supervision of Skilled Labour of the Singapore Harbour Board, the Advisory Committee on Shortage of Engineers and kindred trades" and "Licencing Officer" for skilled labour as well as chairman of a committee on traffic control (Straits Settlements, 1920:342-343).

The period 1819 to 1965 has been reviewed so far. Although broad brush strokes have been used in this brief historical background of the professions, they are, I hope, sufficient to indicate the presence of some of the features described by the process, functional, and power perspectives in the study of the professions. They also point to the main differences and

similarities with the professions in England during the colonial period, and a certain hint of professional identity reflected in their incipient organizational patterns.

Professionals and National Development

The concern of this section is to probe the three assumptions established earlier <cf. page 15> on the role of architecture, engineering, law and medicine as professions in Singapore after independence or, more specifically, from 1965 to 1980. To recapitulate, these assumptions are represented by the following questions: (a) has the structure of these professions changed, and if so, in what way, and what is the "production" of professionals like since independence?; (c) are there any manifestations of professional ideology?; and (d) what channels of influence do these professionals use ?

Major changes and present structure

The most fundamental change occurring in Singapore between 1965 and 1980 was the attainment of independence after the prolonged period under British rule, the four years of self-government and almost two years as part of the Federation of Malasia. In 1965, Singapore found itself as a Republic, totally in command of its own destiny and yet constrained by the serious problems of size, lack of natural resources, security against external aggression and internal problems of cohesion among a highly heterogeneous population. The People's Action Party which

was in power, wasted no time in reinforcing and implementing the economic development plans that it had begun drafting since 1961 and creating legislative measures to meet the new situation. It was clear to policy-makers and to the public in general that the best and, realistically, the only natural resource of Singapore is its people. In consequence, the need to improve the efficiency and skills of the labour force has been emphasized throughout these past seventeen years and it involves, as a vital part of this drive, the production of highly skilled professionals. It is worth pointing out that this drive to build up a skilled labour force has no parallel in the history of the professions in Singapore before 1960.

The legislation covering the medical, legal and architectural professions up to 1965 dealt with professionals from both Malaysia and Singapore. Thus, changes or modifications had to be made. Architects had set up a professional association in 1923 i.e., the Society of Architects as mentioned earlier. Its successor, the Federation of Malaya Society of Architects was functioning when independence took place. It was then dissolved and two new professional associations were created, the Malaysian Institute of Architects or Pertubohan Akitek² Malaysia, <PAM>, and the Singapore Institute of Architects, <SIA>, each with new constitution and by-laws.

It may be recalled that medical practitioners had already created their own association in Singapore in 1959, the Singapore Medical Association, <SMA>, and were thus less affected by independence in this respect. But the SMA was considering the merger with its counterpart in the Federation of Malaysia in 1965. The plans were subsequently abandoned (Chong, 1968:5) but "much against their wishes" (Gwee, 1968:35). As for the other two professions, both the Law Society and the Institution of Engineers Singapore, <IES>, were created after 1965, completely within the national boundaries of Singapore. While the political separation of Singapore from the Federation of Malaysia prompted these new arrangements in the professions' structural organization, it did not break the communication between professionals across the Causeway. On the contrary, it is significant that all four professions have maintained their ties with their counterparts in Malaysia in terms of mutual consultation, organization of professional conventions and other related activities.

It is relevant to mention at this juncture a different dimension of the link between professionals in both countries. Many of the Singaporean and Malaysian professionals who are over forty years of age and whose first university degree was obtained at the former University of Malaya, tend to maintain a friendly, old boys' relationship among themselves. Some of the present political leaders in both countries, for example, are former university classmates; class reunions and informal contacts are frequent. Their friendship and close ties represent an intangible

yet invaluable asset to the harmonious relations between the two countries. It is feasible to argue that in terms of political channels of influence, informal friendly contacts among individual professionals from both countries may be more effective than formal professional meetings or conventions.

Another aspect of professional life affected by independence was professional education. The need for professional education served jointly by the University of Malaya and the University of Singapore had to be met now solely by the latter. In general, it may be possible that, during that critical period, the sentiments of most professionals were represented in the comments made by the former President of SMA on the political separation of Singapore from Malaysia:

At heart, all doctors of both territories remained one, they still maintained a great deal of contact and their constitutions were, in fact, counterpart of one another, and they enjoyed reciprocal privileges, including the receipt of the journals of both associations. (Gwee, 1968:35).

From these remarks one may infer that there was a professional identity, at least among physicians, that surmounted political boundaries between the two nations.

From the historical description made earlier we know that by 1965 Singapore had already a comprehensive legislation on the medical and architectural professions: the Medical Registration Act and the Architects' Act, respectively. The following year the Legal Profession Act was passed, and four years later, in 1970, the Professional Engineers Act was approved in Parliament.

Amendments have been made to all these Acts from time to time since 1965, following a dual principle: state intervention in controlling to some extent the activities of professionals and the provision of legislative means to facilitate and expedite the professionals' contribution to the economic development efforts of the nation.

Legislation also helps to sharpen professional boundaries. A case in point is the common registration of architects and engineers under the former Architects' Act of 1941. When the Professional Engineers Act of 1970 was passed, it included among those entitled to registration, a person who "is registered under subsection (2) of section 6 of the Architects' Act <that is, engineers> and who makes application for registration within twelve months" after the date of the coming into operation of this Act (Republic of Singapore, 1970a:6). But this section was repealed later by the Professional Engineers (Amendment) Act 1977 (Republic of Singapore, 1977:73), thus making explicit the differences in qualifications required for registration as an architect or engineer. Yet, a trace of the old partnership remains in the current legislation whereby a representative of each profession seats in the gatekeeping body of the other as will be seen later.

There are some fundamental similarities in the legislation that are directly relevant to the understanding of the role of the four professions. Firstly, in all four cases, specific qualifications are listed as sine qua non of registration into the profession. Such qualifications, however, are not a monopoly of university degree holders in all professions. For architecture, in addition to holders of a Bachelor of Architecture degree from the university or a diploma from a polytechnic or other institutions approved by the Board of Architects, the latter can also set up qualifying examinations for other applicants. In the case of engineers, in addition to a degree of Bachelor of Engineering from a university, or a Diploma in Engineering from the Singapore Polytechnic, the other avenue of admission into the Register is the passing of examinations approved by the Board of Engineers after the candidate has satisfied the Board that he is qualified to sit for the examination. For registration as a physician, a university medical diploma or any other medical degree granted by any "corporation, college or other body" could be accepted provided that the Ministry of Health and the Singapore Medical Council approve it (Attorney-General, 1971:195-198). Admission into the legal profession requires the degree of Bachelor of Laws, a prescribed period of pupillage, attendance to instruction courses and the passing of examinations prescribed by the Board of Legal Education. Presently, another traditional avenue of access into the profession, is the occupation for at least five years as articled clerk. This avenue has been used less frequently than

others (Fillai, 1980).

The second similarity in legislation is related to the first. All four professions have a gatekeeper prescribed by legislation. The term gatekeeper is borrowed from Stone (1976) and, in the present context, refers to a body which screens entry into the profession and keeps the professional house in order. The gatekeeper of the architectural profession is the Board of Architects. Its functions are to keep a register, hold or arrange qualifying examinations, regulate ethics and conduct of architects, and arbitrate in disputes involving members of the profession (Republic of Singapore, 1976:219). The engineers' gatekeeper is the Professional Engineers Board, which has the following main functions: keeping a register, approve or reject registration, regulate professional conduct and ethics, and arbitrate in disputes involving engineers (Republic of Singapore, 1970a:4).

For the medical profession, the Medical Council serves the function of gatekeeper, together with the Registrar of Medical Practitioners who is also the Director of Medical Services. The latter is, in any case, an ex-officio member of the Council. An additional function of the Council is to regulate professional ethics and conduct (Singapore Law Revision Commission, 1970:153-165; Attorney-General, 1971: 195-207).

As for lawyers, they have two gatekeepers. One is the Board of Legal Education which is in charge of registration, professional training, education and qualifying examinations. The other is the Law Society which roles are: to uphold and regulate professional ethics, conduct and discipline; to serve as consultant to the government "in matters affecting legislation and the practice of law in Singapore"; and interestingly, "to represent, protect and assist members of the legal profession in Singapore and to promote in any manner the Society thinks fit the interests of the legal profession in Singapore" (Republic of Singapore, 1970b:28).

The latter feature of the legal profession's gatekeeper deserves special attention. This is the only one of the four professions whose professional association has been created by legislation. The Law Society's functions include representing the profession and promoting its interests. These objectives are also those of the Singapore Medical Association <SMA>, the Singapore Institute of Architects <SIA>, and the Institution of Engineers Singapore <IES>. All three are the national professional associations representing the respective practitioners. And none of the three has been set up by legislation, although they all are, of course, legally registered in the Register of Societies and two of them, the SIA and the IES, have legal representatives in their respective gatekeeping bodies.

This point leads us to the composition of the gatekeepers. Who are the members of these bodies or how are they appointed, may be seen as an indication of the level of state intervention and control or "corporate patronage." Table 1 illustrates the membership of all the four professions' gatekeepers in terms of their mode of election or appointment.

For the Board of Architecture and the Board of Professional Engineers, the majority of the members are government appointees: five out of nine in the former and nine out of ten in the latter where three of these nine come from a list of nominees given by the IES.

The situation is different for the legal and medical professions. Only four of the ten members of the Board of Legal Education, and none of the members of the Law Society are government appointees. The Medical Council has five government appointees out of a total of thirteen members. Correspondingly, these two professions have more representatives elected by the professionals themselves than architecture or engineering.

Another feature of interest regarding the composition of the gatekeepers is the presence of university representatives. There is only one in the Board of Architects and none in the Board of Professional Engineers, while the Medical Council has two. The Board of Legal Education, being specialized in matters of training and qualifications, does have the highest number of

Table 1
Membership of Gatekeeping Bodies

| MEMBERS | BOARD OF ARCHITECTS | BOARD OF PROFESSIONAL ENGINEERS | MEDICAL COUNCIL | BOARD OF LEGAL EDUCATION | LAW SOCIETY |
|---|------------------------|---------------------------------------|--------------------|--------------------------------|----------------|
| Appointed by Government directly | 5 | 6 | 5 | 4 | — |
| Appointed by Government from nomination by professional association | — | 3 | — | — | — |
| University representative | 1 | — | 2 | 3 | — |
| Representative of the members of the profession | 2 | — | 6 | 3 | 10 |
| Representative of other profession | 1 | 1 | — | — | — |
| TOTAL | 9 | 10 | 13 | 10 | 10 |

Source: Based of information from the respective Acts
(Republic of Singapore 1970a; 1970b; 1976; 1977)

university representatives. The membership of the Law Society is revealing. It clearly indicates the Society's role as a national professional association and illustrates the higher degree of autonomy that the legal profession has and correspondingly, the lower level of government control and intervention, compared to the other professions. Indeed, if one were to see government intervention as a continuum, the legal profession would be at the lowest level of intervention followed by medicine, while the engineering profession would be found at the highest level of intervention, preceded by architecture.

For lawyers, this is expected. Autonomy is perceived as an inalienable right of the profession mainly because in their view, "an independent Bar is a respected Bar, the cornerstone in any democratic society" (Tan, 1981:2). But they are not satisfied. A Chief Justice complained recently that the Law Society "is not represented in the Faculty of Law" and thus, in his opinion, the profession has no control "over the curriculum content to achieve the objective of a professional qualification" (Wee, 1980:lix). The fact that the Board of Legal Education involves representatives from both the Law Society and the Faculty of Law was not mentioned.

There appears to be a dual built-in system in the structure of three of the professions that establishes, maintains and reinforces the codes of ethics and discipline. On the one hand, each of the four legislated gatekeepers i.e., the Board of Architects, the Board of Professional Engineers, the Law Society and the Medical Council, are expected to fulfill these functions. On the other hand, three of the national professional associations i.e., SIA, IES, and SMA, include within their respective constitutions the same aim of withholding their code of ethics and professional conduct. But architects have a unique arrangement: training and checking qualifications is another issue taken by both their legislated gatekeeper and their professional association (Singapore Institute of Architects, 1981:7-8; Fong, 1981:69; Singapore Medical Association, 1977:1-2). This dual system is best integrated in the legal profession: the same body, the Law Society, performs both roles i.e., gatekeeper and professional association.

It is opportune to mention at this juncture that the Law Society is not a member of the Singapore Professional Centre (SPC) while the other three professions are. The SPC was created in 1970. It aims at "promoting and enhancing the status of professional bodies in Singapore," and "encouraging high standards of professional conduct and ethics" (Fong, 1981:7). But there is no evidence so far, of a definite influence of the SPC on policy-making and policy-implementation in Singapore. The activities of SPC since its inception suggest that it tends to function more as an organizer of local conventions and seminars

for its members than as an active channel of professional influence. In terms of organizational structure, the legal profession has then three main features that set it apart from the other professions. These features are, the role of its professional association as a legalized gatekeeper, the association's fully elected membership, and its absence from the Singapore Professional Centre.

Although in Singapore the roots of architecture, engineering, law and medicine can be traced back eighty or ninety years, it has been during the past fifteen years that the decisive steps have been taken to consolidate their position and structure as professions. During this period they have established or reorganized their respective national associations; have lobbied the government and succeeded in the setting up of higher level training schools at university level; and have obtained legal recognition. Correspondingly, the professions' efforts towards higher training have coincided with the government's economic policy of building Singapore into the professional service center of the region; and legislation on the professions has, to some extent, satisfied both parties: it gives legal recognition at the same time that it represents a measure of government control, particularly through the gatekeeping bodies.

Current Professional Talent

Let us turn now to the description of the professional talent that Singapore has been able to put together after independence. One may approach this description from two angles: firstly, by looking at the general picture of the four professions and comparing it with all professional and technical workers in the labour force and the total population; and secondly, by focusing on the specific features of architects, engineers, lawyers and physicians. In both cases, the time dimension will be introduced when comparing the situation in 1970 and 1980 in order to identify trends and significant changes.

From a general perspective, the increase in the number of people involved in the four professions is higher than the increase in the size of the labour force engaged in all professional and technical occupations from 1970 to 1980. While the proportion of workers in professional and technical occupations remained around eight per cent of the total working population, the proportion of people in the four professions increased from 9.7 per cent of all professional/technical workers in 1970 to 11.0 per cent in 1980 as illustrated in Table 2.

Table 2
Professionals and Labour Force, 1970, 1980

| YEAR | (A) TOTAL WORKING POPULATION 10 YRS & OVER | (B) PERSONS IN PROFESSIONAL & TECH. OCCUP. | | (C) PERSONS IN THE FOUR PROFESSIONS | |
|------|---|---|-------------|--|-------------|
| | | TOTAL | AS % OF (A) | TOTAL | AS % OF (B) |
| 1970 | 650,892 | 55,899 | 8.6 | 5,434 | 9.7 |
| 1980 | 1,077,090 | 95,145 | 8.8 | 10,479 | 11.0 |

Source: Calculated from Arumainathan (1972a:63, 125-127)
and Khoo (1981b:29, 142-144)

This increase did not occur uniformly however. The fastest growing profession during this decade was engineering. The other three professions increased at a slower pace. This is best illustrated by the number of practitioners of each profession per 10,000 population (cf. Table 3).

In 1970 there were 16.6 engineers per 10,000 population, but in 1980 the number increased to 29.3 per 10,000. The slowest increase was in architecture. It is also clear that among the four professions, engineers are the most numerous, followed by physicians, lawyers and architects in that order. This relative ranking by size has not changed since 1970. The higher number of engineers is the outcome of deliberate government manpower planning to meet the requirements of economic development at a higher level of technology. In fact, the government plans to "increase four-fold the engineering population" by 1985 (Straits Times, 1981a).

As a multi-ethnic nation Singapore is concerned with equal distribution of educational and employment resources. Equal opportunity in education and employment would be manifested in a proportional representation of each ethnic group in each occupational category. But the ethnic distribution among all professional/technical workers and among the four professions, is the most relevant to this discussion. Table 4 presents the respective figures. If one takes the ethnic distribution of the total population as a point of reference, it is expected that the

Table 3
Number of Professionals per 10,000 Population,
1970, 1980

| FOUR PROFESSIONS | YEAR | |
|------------------|------|------|
| | 1970 | 1980 |
| Architects | 1.8 | 2.5 |
| Engineers | 16.6 | 29.3 |
| Lawyers | 1.9 | 4.3 |
| Physicians | 5.9 | 7.3 |

Source: Calculated from Table 2.

ethnic distribution of workers in each occupational category would follow the former closely. A comparison of these figures would then identify deviations or ethnic enclaves.

The ethnic distribution of the total population has not changed significantly from 1970 to 1980. But interesting changes have taken place at the top of the occupational ladder in general and among the four professions in particular. Chinese were slightly over-represented in the professional/technical occupations. But the ethnic category "Others"--involving Eurasians, Caucasians, Arabs, Japanese, and all persons other than Chinese, Malay or Indian--had a more pronounced over-representation. The latter formed only two per cent of the total population both in 1970 and 1980. Yet, they comprised eight and six per cent of all professional/technical occupations in 1970 and 1980 respectively. The Malays, on the other hand, were under-represented in this occupational category. While they comprised fifteen per cent of the total population, only 8 per cent of the professional/technical workers in 1970 were Malays; there were no changes in their distribution in 1980.

A similar pattern of over and under-representation is found among the four professions taken together, but the differences with the total population are even greater in the case of Malays and Others (cf. Table 4). In 1970, only two per cent of practitioners in the four professions were Malays. Although there was an increase in absolute numbers in 1980, Malays amounted to

Table 4
Ethnic Distribution of Professionals and Total Population
1970, 1980 (In percentages)

| ETHNIC GROUP | TOTAL POPULATION | | TOTAL PROF/TECH | | FOUR PROFESSIONS | |
|--------------|--------------------|--------------------|-----------------|-----------------|------------------|-----------------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| Chinese | 76 | 77 | 77 | 79 | 67 | 72 |
| Malays | 15 | 15 | 8 | 8 | 2 | 1 |
| Indians | 7 | 6 | 7 | 7 | 7 | 8 |
| Others | 2 | 2 | 8 | 6 | 24 | 19 |
| Total (N) | 100 (2,074,507) | 100 (2,413,945) | 100 (55,899) | 100 (95,145) | 100 (5,434) | 100 (10,479) |

Source: Arumainathan (1972:6); Khoo (1981a:11);
 Arumainathan (1972:125-127); Khoo (1981b:142-144).

only one percent of all practitioners in these professions. The increase in the number of Malays in this group from 84 in 1970 to 119 in 1980, did not keep pace with a faster increase of practitioners among the other ethnic groups. The Chinese were slightly under-represented and the Indians had a distribution rather close to that of the total population. But the category "Others" shows a marked deviation from the total population distribution: they were highly over-represented. One would expect to find about two per cent of "Others" among the four professions. Instead, they comprised 24 per cent of the total in 1970 and 19 per cent in 1980. A more revealing picture of the ethnic distribution is presented in Table 5 where each of the four professions is seen separately.

Changes occurring between 1970 and 1980 do not follow a uniform trend. Five main characteristics of ethnic distribution can be identified through these figures: (a) Malays continued to be drastically under-represented throughout the decade. (b) Indians are more likely to be found in the legal and medical professions than in architecture or engineering. They are over-represented in the former two, but particularly in law. (c) The over-representation of Chinese in architecture has diminished to some extent, but it has increased in medicine. Meanwhile, Chinese representation in both engineering and law is getting closer to the population distribution. (d) Practitioners from other ethnic groups are clearly over-represented in all four professions but

Table 5.
Ethnic Distribution of the Four Professions
1970, 1980 (In percentages)

| ETHNIC GROUP | ARCHITECTS | | ENGINEERS | | LAWYERS | | PHYSICIANS | |
|--------------|--------------|--------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| Chinese | 89 | 82 | 61 | 68 | 63 | 68 | 78 | 83 |
| Malay | 1 | * | 2 | 1 | 3 | 3 | 1 | 1 |
| Indian | 1 | 3 | 4 | 6 | 21 | 21 | 14 | 12 |
| Other | 9 | 15 | 33 | 25 | 13 | 8 | 7 | 4 |
| Total (N) | 100 (370) | 100 (608) | 100 (3,449) | 100 (7,079) | 100 (392) | 100 (1,032) | 100 (1,223) | 100 (1,760) |

Source: Same as Table 4

not in the same degree. They are less likely to be found in medicine and most likely to be in engineering. The "Others" category which constituted one third of the total number of engineers 1970 went down to one fourth of this group in 1980.

This point leads us to an aspect of ethnicity that is closely related to the dependence on foreign talent, namely, the citizenship status of our professionals. A significant proportion of people in the "Other" ethnic groups are non-citizens. In 1970, 93 per cent of the Chinese, 85 per cent of the Malays and 78 per cent of the Indians living in Singapore were citizens, while 51 per cent of Others were citizens. In 1980 the same pattern remained for Chinese, Malays and Indians, but only 36 per cent of people from other ethnic groups were citizens, six per cent were permanent residents and the remaining 58 per cent were non-residents (Arumainathan, 1972b:28-32).

Considering the four professions individually, one can observe in Table 6 that, during the past decade, the citizenship status of professionals in architecture, engineering, law and medicine, remained relatively stable. The large majority of these professionals are citizens; thus the overall picture is one of reliance on local talent. Yet, a closer look at the changes in each profession between 1970 and 1980 identifies significant differences between law and medicine on the one hand, and architecture and engineering on the other hand. The former two

Table 6
Citizenship Status of Professionals 1970*, 1980**
 (In percentages)

| Citizenship | Architects | | Engineers | | Lawyers | | Physicians | |
|-----------------|--------------|--------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| Citizens | 71 | 67 | 55 | 55 | 79 | 90 | 85 | 80 |
| Perm. Residents | 10 | 13 | 9 | 11 | 12 | 6 | 8 | 9 |
| Non-Residents | 19 | 20 | 36 | 34 | 9 | 4 | 7 | 11 |
| Total (N) | 100 (370) | 100 (608) | 100 (3,449) | 100 (7,079) | 100 (392) | 100 (1,032) | 100 (1,223) | 100 (1,760) |

Source: * Arumainathan (1972b:147-148)

** Khoo (1981b:142-144)

have a higher proportion of citizens than the latter two, with law and engineering displaying the most opposite features. The legal profession manifests a trend towards higher "localization" i.e., increasing proportion of citizens; 79 per cent of the lawyers in 1970 and 90 per cent in 1980 were citizens. In contrast, only 55 per cent of the engineers practising in Singapore in 1970 and 1980 were citizens. The largest proportion of non-residents in all four professions is found among engineers.

This contrast is to be expected because engineering has been the most recently developed of the four professions as part of the manpower planning required to attain higher technological development. As the "production" of local engineers could not be speeded fast enough to meet the demand, Singapore has had to rely heavily on expatriate engineers, and to some extent, on expatriate architects. The large scale public housing programme is not the only source of demand for engineers. Engineering has received a high influx of expatriate talent in all its fields, but particularly in mining (76 per cent), chemical engineering (44 per cent), and mechanical engineering (38 per cent) (Khoo, 1981b:160). It is for this reason that the largest increase in non-citizen professionals is among engineers. Comparing the statistics from the 1970 and 1980 censuses, the number of non-resident engineers increased by 92 per cent from 1,244 in 1970 to 2,393 in 1980. Engineers with permanent residence status increased by 176 per cent during the same period. The group with the next largest increase in non-citizens were architects; they

had an increase of 111 per cent in permanent residents and 80 per cent increase in non-residents. Non-resident physicians increased by 124 per cent and permanent residents by 66 per cent from 1970 to 1980.

In contrast, lawyers present a rather different situation. Their trend is towards a more Singaporean profession as can be seen in Table 6. The increase in the total number of professionals is largest among lawyers. More importantly, this total increase is almost totally due to the 210 per cent increase in citizens among lawyers. Such rapid increase is mostly but not entirely the outcome of internal production. The production of local law graduates has been rewarding: there has been a steady annual increase from 60 in 1970 to 129 in 1979, amounting to a total of 863 graduates emerging from the Faculty of Law during this period (Pillai, 1980:3). If all of them had remained in practice in Singapore, there would be 1,255 lawyers in 1980. But some of the graduates each year are Malaysians who may or may not choose to work in Singapore.

The "localization" of the legal profession has had its advantages, mostly in terms of having practitioners who are fully acquainted with the particular legal problems of Singapore and the neighbouring countries. It must be recalled that this was one of the main arguments brought forward during the profession's lobbying for the establishment of the Law Department at the University of Malaya. Nevertheless, a new perspective has been introduced in the legal circles recently. It was actually a move

by the Monetary Authority of Singapore <MAS> that initiated a re-evaluation of the concept of localization. In mid-1981 the MAS allowed all banks in Singapore to engage the services of foreign legal firms to handle their international financing deals such international loans and offshore banking. MAS's justification for this move--seen by local legal firms as unfair competition-- was that these specialised services are in high demand and their availability will contribute to "keeping with Singapore's development as a financial centre" (Straits Times, 1981f). The underlying premise was that such expertise was not available among the practising lawyers in Singapore and that the presence of foreign legal experts could also contribute to the training and exposure of local lawyers to these specialised areas of the profession. The reaction of the profession to this government move was not positive at first. But in an attempt to strengthen the local assets, the leaders of the profession headed by the Faculty of Law have decided to institute a biennial series entitled "The Singapore Conferences on International Business Law" (Straits Times, 1982a). The legal profession is determined to face up to the competition at an international level and one may expect the "localization" trend to continue.

It is useful to see the changes in these four professions from a more general perspective. Considering the total occupational category of "professional/technical" workers, in 1970, 87 per cent of the labour force in this category were citizens, 5 per cent were permanent residents, and the remaining 8 per cent were non-residents. Ten years later, the 1980 census

reports that 88 per cent of the professional/technical workers are citizens, 4 per cent permanent residents and 8 per cent non-residents. Comparing the latter figures with the citizenship status of individual professions, law has a higher proportion of citizens, medicine has the distribution closest to that of the total occupational group, and engineering shows the most deviant distribution with the highest proportion of non-residents and the lowest proportion of citizens.

Another interesting characteristic of Singapore professionals is their youth. Singapore's population is relatively young: 70 per cent of the population in 1980 were below 35 years of age (Khoo, 1981a:9). In 1970, this age group amounted to 73 per cent of the total population ((Arumainathan, 1972a:1). Correspondingly, the labour force in general, and the professionals in particular, are, on average, younger than their counterparts in industrialized countries. The calculation of the mean age of professionals based on the 1970 and 1980 census figures indicates that professional and technical workers in 1970 had an average age of 33.7 years. There was a rather small increase to 33.9 years for the same occupational group in 1980.

When the four professions are observed individually, some important deviations from these averages emerge. As it may be expected from the recent recruitment drive and influx of new graduates, engineering had the youngest average age in 1980 i.e., 33.5 years, which is a decrease from the 1970 average of 34.9 years. A similar trend towards rejuvenation was experienced by

lawyers: their mean age in 1970 was 36.8 years, decreasing to 35.3 years in 1980. In the case of lawyers the main factor in this decrease was the large production of local graduates as illustrated earlier. In contrast, the medical and architectural professions have become more mature. Physicians had an average age of 36.8 years in 1970 which increased to 38.1 years in 1980. The mean age of architects in 1970 was 34.3 years; it went up to 36.2 years in 1980. A more detailed description of the age distribution of the four professions is presented in Table 7.

The majority of the workers in the professional/technical occupations are young, that is, below 40 years of age. While the nation's first generation leaders may be at the farther side of 50, it has been younger people who through their attainment of higher skills have successfully implemented the economic development policies that have brought Singapore forward. Engineers are a good illustration of this. In 1970, 73 per cent of them were below 40 years of age; this proportion increased to 81 per cent in 1980. For all the four professions, the figures in Table 7 confirm the trends in age distribution discussed above.

Another important feature of the professions is their sex distribution. The presence of females in the total labour force of Singapore has increased from 24.6 per cent in 1970 to 44.8 per cent in 1980. But female labour force participation varies with age, reaching the highest peak in the age group 20-24 and declining steadily from there on. In 1970, 53.6 per cent of women

Table 7
Professionals by Age Group 1970, 1980
(In percentages)

| AGE GROUP | TOTAL PROF/TECH. | | ARCHITECS | | ENGINEERS | | LAWYERS | | PHYSICIANS | |
|-----------|------------------|----------|-----------|-------|-----------|---------|---------|---------|------------|---------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| 20-39 | 79* | 79 | 76 | 68 | 73 | 81 | 63 | 73 | 63 | 61 |
| 40-59 | 21 | 20 | 24 | 30 | 27 | 18 | 37 | 23 | 37 | 35 |
| 60 + | ns | 1 | ns | 2 | ns | 1 | ns | 4 | ns | 4 |
| TOTAL | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| (N) | (55,899) | (95,145) | (370) | (608) | (3,449) | (7,079) | (392) | (1,032) | (1,223) | (1,760) |

Source: Arumainathan (1972b:114-115); Khoo (1981b:124-125)

ns : Not specified. The 1970 census used "50 and over".

* : Including 2,757 persons below 20 years of age.

in this age group were working; this proportion increased to 79 per cent in 1981. Nevertheless, only 10 per cent of the total female labour force was in professional or technical occupations in 1980. It is not surprising then to find that women are also a minority among the practitioners in the four professions. Yet, the sex distribution in these professions is illuminating (cf. Table 8)

Female participation in all four professions has increased since 1970; speedily in law and architecture, slowly in medicine, and at the slowest pace in engineering. The fact that an increase, however small, has taken place is more remarkable if one considers two things. Firstly, there was no change in the proportion of women in the total category of professional and technical occupations. Secondly, the bulk of the females in these occupations are in traditionally "female" jobs namely school teachers and nurses. Indeed, 43 per cent of all female professional and technical workers in 1980 were school teachers and 24 per cent were nurses.

The social class background of people entering into these professions is another relevant characteristic meriting attention. In Singapore, education is heralded as the principal means of social mobility; in fact, one of the documented signs of this is that education has reduced the influence of ethnicity on occupational distribution. Moreover, meritocracy is the working

Table 8
Sex Distribution of Professionals 1970, 1980
(In percentages)

| SEX | TOTAL PROF/TECH. | | ARCHITECTS | | ENGINEERS | | LAWYERS | | PHYSICIANS | |
|--------------|---------------------|-----------------|--------------|--------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| MALES | 61 | 61 | 90 | 80 | 99 | 97 | 85 | 66 | 79 | 71 |
| FEMALES | 39 | 39 | 10 | 20 | 1 | 3 | 15 | 34 | 21 | 29 |
| TOTAL (N) | 100 (55,899) | 100 (95,145) | 100 (370) | 100 (608) | 100 (3,449) | 100 (7,079) | 100 (392) | 100 (1,032) | 100 (1,233) | 100 (1,760) |

Source: Arumainathan (1972b:125-127); Khoo (1981b:160-161).

principle in granting young people access to higher education. Only applicants with the highest school examination results are admitted into the university (Chen, 1973; Pang, 1976). A survey conducted in 1976 indicated that "45 per cent of first year students at the University of Singapore had fathers who had never attended school or had only primary education," and in general, the majority of the students "are from lower-middle income and working class background" (Pang, 1978a).

Nevertheless, Pang (1978a) reports that law and medical students "are more likely to come from higher income families" than students in other fields including architecture and engineering. His survey data on family income show that engineering students are "the most likely to be from less well-off families." They are also more likely to come from Chinese-educated families. In contrast, law and medical students come in greater proportions from English-educated families. Perhaps one of the reasons for this is the inclination among children of physicians and lawyers to take up the profession of their parents. Furthermore, if one has close relatives that are physicians or lawyers, they may also influence, wittingly or unwittingly, the young person's career choice. About half of the first year students in Pang's (1978b) survey rated their family and relatives as an important influence in their career choices. Other case studies have confirmed this among lawyers and physicians (Chua, 1978; Heng, 1978).

Apart from the background characteristics of professionals such as ethnicity, citizenship, age and sex distributions, and social class, there are three features that indicate the professions' link with the economic structure of the nation. These features are employment status, placement in economic sectors, and income distribution. Employment status refers to the relation that professionals may have with other producers or providers of services in the economy: professionals are either employers when they have paid assistants or subordinates working for them in the provision of professional services; or professionals may be non-employers if they are self-employed i.e., when they set up their own practice but have no paid employees; or professionals may be employees themselves, performing their services for a corporation or a service provider body either in the public or private sector of the economy. The employment status of the four professions in 1970 and 1980 is illustrated in Table 9.

The overwhelming majority of the workers in professional and technical occupations are employees. This situation has not changed in the past decade: employees formed 93 per cent of all workers in this occupational category in 1970 and 94 per cent in 1980. However, a detailed look at each of the four professions brings their differences from the main occupational group to the surface. Lawyers and physicians have, in that order, the highest

Table 9
Employment Status of Professionals 1970*, 1980**
 (In percentages)

| EMPLOYMENT STATUS | TOTAL PROF/TECH. | | ARCHITECTS | | ENGINEERS | | LAWYERS | | PHYSICIANS | |
|----------------------|---------------------|-----------------|--------------|--------------|----------------|----------------|--------------|----------------|----------------|----------------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| | EMPLOYERS | 2 | 3 | 18 | 20 | 3 | 3 | 27 | 37 | 24 |
| NON-EMPLOYERS | 5 | 4 | 5 | 3 | 1 | 1 | 16 | 4 | 11 | 5 |
| EMPLOYEES | 93 | 93 | 77 | 77 | 96 | 96 | 57 | 59 | 65 | 59 |
| TOTAL (N) | 100 (55,899) | 100 (95,145) | 100 (370) | 100 (608) | 100 (3,449) | 100 (7,079) | 100 (392) | 100 (1,032) | 100 (1,223) | 100 (1,760) |

Source: Calculated from

* Arumainathan (1972b:158-159)

** Khoo (1981b:196-198)

Note: Unpaid family workers are included in the total prof/tech. category but excluded from the four professions as their numbers are negligible.

proportion of employers, followed by architects. Engineers, on the contrary, are rather close to the total professional and technical group: only three per cent of them are employers and this situation has remained unchanged since 1970.

Employment status also reveals the professionals' level of autonomy over the content and structure of their work. Professionals who are employers or non-employers are likely to enjoy a higher level of autonomy compared to those who are employees. Consequently, the figures in Table 9 are indicative of a trend towards higher levels of autonomy among lawyers and physicians. Not only the proportion of employers increased in both groups from 1970 to 1980, but also the concomitant decrease in the numbers of non-employer practitioners hints a trend towards expansion of professional service corporations, partnerships and other larger systems of practice.

The same trend is found among architects but it is rather modest in comparison. Engineers have an even lower degree of autonomy if not over the content of their work, at least over its structure. Ninety-six per cent of engineers are employees in public or private bodies or corporations. One may expect that, as employees of large bodies, engineers have to follow the goals and methods of the organization. Yet, if the engineers themselves form part of the management, their autonomy may be substantially strengthened and their own influence may be felt both inside and outside of the organization. The repercussions of such influence on the larger society are of course related to the size and

importance of the organization where they work. This is an aspect of professional influence which shall be taken up again later on with respect to all the four professions.

The second feature that provides information on the professionals' link with the nation's economy is their placement on the various sectors of the economic structure. Data on this link are taken from the 1970 and 1980 censuses. Therefore, the nine sectors used in the census classification based on the international standard industrial classification of all economic activities are followed in Table 10. The category "Other services" includes medical, educational, public administration, community and other social and personal services (Khoo, 1981b:19-25).

Considering that the four professions cover only 11 per cent of all workers in professional and technical occupations (cf. Table 2), the deviations in economic sector distribution presented by these professions are interesting. Engineers are the most widely distributed across sectors of the economy, followed by architects. Lawyers tend to concentrate in financial and business services, but are still more widely distributed than physicians whose primary focus is, expectedly, on "Other services".

Table 10
Distribution of Professionals by Economy Sector, 1970*
and 1980** (In percentages)

| ECONOMY SECTOR | TOTAL PROF/TECH. | | ENGINEERS | | ARCHITECTS | | PHYSICIANS | | LAWYERS | |
|---------------------|---------------------|-----------------|----------------|----------------|--------------|--------------|----------------|----------------|--------------|----------------|
| | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 | 1970 | 1980 |
| AGRICULTURE/FISHING | # | # | # | # | -- | -- | -- | -- | -- | -- |
| MINING/QUARRYING | # | # | 3 | # | -- | -- | -- | -- | -- | -- |
| MANUFACTURING | 9 | 17 | 42 | 48 | 2 | 1 | # | # | # | 1 |
| UTILITIES | 1 | 1 | 9 | 4 | 1 | 1 | -- | -- | # | # |
| CONSTRUCTION | 2 | 3 | 12 | 10 | 18 | 9 | -- | -- | -- | -- |
| COMMERCE/TRADE | 3 | 4 | 6 | 5 | 1 | 1 | 1 | # | # | 1 |
| TRANSP/COMMUNIC. | 4 | 9 | 13 | 12 | # | 1 | -- | # | 1 | 2 |
| FINANCIAL/BUSINESS | 6 | 13 | 6 | 16 | 57 | 78 | # | # | 83 | 87 |
| OTHER SERVICES | 73 | 52 | 9 | 4 | 21 | 9 | 99 | 99 | 14 | 9 |
| TOTAL (N) | 100 (55,899) | 100 (95,145) | 100 (3,449) | 100 (7,079) | 100 (370) | 100 (608) | 100 (1,223) | 100 (1,760) | 100 (392) | 100 (1,032) |

Source: Compiled from * Arumainathan (1972b:180-183)

** Khoo (1981b:230-235)

Note: # less than 1 per cent.

The range of engineering fields from systems analysis to mining, partly explains their presence in more sectors of the economy than the other professionals. Some changes have been taken place since 1970 however. Engineers are not the only ones moving into financial and business services; lawyers and architects appear to be following the same path. It is possible that this trend is a reflexion of national economic policies addressed to transform Singapore into not just a high technology centre but also the financial centre of the region. Indeed, only a mere six per cent of all professional and technical workers were in financial and business jobs in 1970; this proportion doubled to 13 per cent in 1980.

Finally, the professionals' income level is the third aspect of their link with the economic structure. Architects, engineers, physicians and lawyers are among the top income earners in Singapore. Figures on the average income of the top earners in 1979 include lawyers in second place after sharebrokers who head the list; engineers occupy the lowest rank among top earners (Straits Times, 1981a). All the four professions were included in the list of the top three earners in various companies and professions. Their rank with respect to each other according to this report is as follows:

| | | | |
|--------------|--------------|--------|--------|
| Sharebrokers | S\$1,576,305 | annual | income |
| Lawyers | 843,028 | " | " |
| Physicians | 491,359 | " | " |
| Architects | 206,543 | " | " |
| Engineers | 166,421 | " | " |

The report indicates that these figures actually represent the minimum earnings of these people; if other cash and material benefits were included, the above figures would be higher because "the true benefits often total 15 per cent or more of quantified earnings" (Straits Times, 1981a). The same relative ranking is found when the annual mean income is considered. Table 11 gives the relevant figures taken from a survey of employment of graduates in twelve fields in 1980 (Internal Revenue Department, 1982). Among the four professions, lawyers receive the highest mean annual income and engineers the lowest. But comparing all four professions with practitioners in other fields, the former still occupy the top income levels.

The income ranking of the four professions merits further attention. When the years since graduation are used as an indicator of length of career, the earnings of practitioners in the four professions take a new dimension. For all professionals, the longer their experience, the higher their earnings. But is it only after the sixth year of practice that the ranking observed in Table 11 appears. This correlation between length of career and earnings is presented in Table 12. If one compares fresh graduates in all four professions during their first five years of practice, physicians are the top income earners. Lawyers are at the bottom of the scale during the first three years after graduation, reach the second position between their third and fifth year and become the top earners after their sixth year of

Table 11
Professions' Annual Mean Income in the
Public and Private Sectors, 1980

| PROFESSION | PRIVATE SECTOR | PUBLIC SECTOR | BOTH SECTORS |
|------------|----------------|---------------|--------------|
| LAWYERS | \$676,734 | \$48,957 | \$62,845.5 |
| PHYSICIANS | 75,019 | 39,852 | 57,435.5 |
| ARCHITECTS | 57,777 | 38,130 | 47,953.5 |
| ENGINEERS | 43,963 | 32,084 | 38.023.5 |

Source: Internal Revenue Department (1982:22-23)

Note: Exchange rate as of January, 1983: US\$1 = S\$2.20

Table 12
Professions' Annual Mean Income by
Years After Graduation, 1980

| PROFESSION | YEARS AFTER GRADUATION | | | | | |
|------------|------------------------|------------|----------|----------|----------|-------------|
| | LESS THAN 3 | 3 - 5 | 6 - 9 | 10 - 14 | 15 - 19 | 20 OR MORE |
| LAWYERS | \$18,604 | \$30,632.5 | \$59,348 | \$75,419 | \$91,713 | \$166,780.5 |
| PHYSICIANS | 27,503 | 32,821 | 49,208.5 | 63,999.5 | 75,984.5 | 76,685.5 |
| ENGINEERS | 21,658.5 | 27,234.5 | 35,668.5 | 47,212 | 56,480 | 73,024 |
| ARCHITECTS | 22,717 | 28,713.5 | 39,853 | 53,126.5 | 73,667.5 | 82,883 |

Source: Calculated from Internal Revenue Department (1982:22-23)

practice.

The other important part of the story is the income gap between the public and private sectors. As illustrated in Table 11, the private sector provides higher monetary rewards for professionals than the public sector. This gap is narrower during the first years of professional practice in all four professions and increases progressively for all as the years of practice increase. The greatest mean difference in annual income for all professions occurs among lawyers with twenty or more years of professional experience. Senior lawyers in the private sector receive a mean annual income of S\$218,695 compared to S\$92,536 earned by their public sector colleagues with the same years of experience. The corresponding mean annual income among physicians with twenty or more years of experience in the public and private sectors are S\$84,228 and S\$64,703 respectively. For senior architects the figures are S\$112,818 in the private sector and S\$64,512 in the public sector. Senior engineers present the narrowest gap with a mean annual income of S\$79,884 and S\$60,665 in the private and public sectors respectively (Internal Revenue Department, 1982:39-40).

The lower rewards given in the public sector are neither unique to Singapore nor are they a new phenomenon. The complaints of low salaries in the medical service, for example, can be traced back to the British colonial period in the Eighteenth century. The current statistics just discussed convey clearly the size of the problem today. A continuous exodus in search of

greener pastures from the government service into the private sector, has affected all four professions. Yet, the case of physicians and lawyers has received more public attention. The medical service, in particular, has attracted the concern of policy-makers who have so far designed and implemented several measures to minimize the brain drain to the private sector. Some of these measures are part-time consultancy appointments of private specialists (Chua, 1973); more frequent promotions of medical officers (New Nation, 1977:9) and salary increases (Goh, 1980); higher intake of medical students at the university (Chew, 1981); and a greater reliance on the private sector to serve the medical needs of the population (Goh, 1981) under the new principle that the move of physicians from the public to the private sector is not a loss to the nation.

It is more difficult to find solutions to the exodus of lawyers from the public to the private sector. Pay increases for judges and professional allowances given to legal service officers are some of the measures taken by policy-makers. But, acknowledging that disparities between the two sectors are practically impossible to solve, the Prime Minister manifested in Parliament that one last resort solution to the problem of recruiting good lawyers into the public sector would be to appoint foreign judges (Lee, 1981).

Overall, the gap between the public and private sectors has been reduced. The government has taken definite steps to improve the competitiveness of the public sector in recruiting professional manpower. The most recent step was the salary revisions recommended by the National Wages Council (NWC) in 1981. The NWC's recommendations were implemented in April 1982 giving the public sector employees "substantial wage increases" (Ministry of Trade and Industry, 1982:57-58). Since 1972, all public officials receive "a thirteen month non-pensionable allowance, which is comparable to the bonus in the private sector" (Quah Jon, 1982:56-57). But competitiveness may not be the only reason for the periodic improvements in salary and working conditions for public sector employees. It has been said that this government move has also the purpose of reducing "the need to be corrupt among civil servants" (Quah Jon, 1982:57).

Despite these efforts, however, the public sector cannot afford to compete dollar for dollar with the private sector to attract professionals. The Prime Minister acknowledged this when announcing the latest salary increases for political leaders, judges and members of Parliament:

It would not be possible for the government to pay what top men <are> being paid in banks or what lawyers or medical practitioners let alone sharebrokers, <are> earning. Nonetheless, the government has taken cognizance of the changed circumstances under which it is competing for top-ranking talent for the public sector, especially for political leadership. (Straits Times, 1981a).

This reference to income of professionals rounds up the discussion of professional input.

Collective consciousness and channels of influence

The term collective consciousness refers, in the present context, to the extent to which professionals manifest an identification with and commitment to their profession's interests and ideology. And ideology encompasses what practitioners in a profession think of themselves as a group, how they define their role in society, and how they justify their status in the community, among other things. Furthermore, the use of channels of influence by professionals may be seen as an expression or implementation of their ideology. Thus, the three issues of collective consciousness, ideology and channels of influence shall be discussed together in this section.

Landsbury (1978), Freidson (1973), Larson (1977) and others have pointed to the heterogeneity of professionals and their tendency to form and change coalitions. The Singapore data provide some evidence of those characteristics. Although the initial intention was to search for the simple presence or absence of a collective consciousness among professionals, the data suggest that collective consciousness is not a monolithic concept. It comprises at least three dimensions which apply to all four professions. These dimensions are tentatively labelled the expertise dimension, the work-base dimension, and the external competition dimension. As I see it, rifts or dissensions in any or all of these dimensions would reduce the level of collective consciousness within a given professional group. The expertise dimension refers to the division of professionals into

generalists and specialists. These two groups may clash with respect to their claims upon a particular or distinct area of expertise and/or the corresponding rights and privileges upon clients or consumers of their services. The work-base dimension focuses on the possible distinction that might arise between practitioners of the same profession working in the public and private sectors. A public versus private sector dissension could stem from salary differences, differential access to high technology equipment and research facilities, and even a perceived preferential treatment in the allocation of projects. And the external competition dimension deals with the possible distinction between local and foreign practitioners of the same profession. A dissension may occur here when local practitioners oppose the presence of foreign colleagues on grounds of unfair competition in the service market, or for reasons similar to those mentioned in the work-base dimension. Let us consider the situation of each profession in relation to these dimensions of collective consciousness.

Lawyers tend to see themselves as a profession with unique characteristics which go beyond the mere professional expertise in matters of law. Greeting new lawyers at the Bar in 1982, a supreme court judge told them "we lawyers are the harbingers of civilization...because it is obviously true that without law, there cannot be civilization" (Ghows, 1982). There is also a feeling of pride among legal practitioners of being part of a respected profession. The Attorney General explained such perceived respect by the fact that the legal and medical

professions include the leaders of the community as "aspirants to these two professions are taken from the very best school leavers" (Tan, 1981a:1-2).

Two things require clarification at this point. Firstly, regarding the quality of school leavers applying to the Law Faculty, the government decided in 1979 to divert some of the applicants wanting to enroll in medicine to other fields; it was felt then that most of the top students would continue to go to medicine thus depriving other professional areas of talent. The most common alternatives taken by students who were asked to change their choice of medicine were engineering and law. Since then, the official policy of the National University of Singapore has been to accept "no more than 15 per cent of the cream' of university applicants" into medicine and dentistry (Sunday Times, 1981; Wong, 1983). Moreover, admission into the Law Faculty has no special requirements compared to other fields; the applicant must have obtained "good passes at the GCE A' level examination" and high proficiency in English (Economic Research Centre, 1981a:27-28). The General Certificate of Education (GCE) "A" level is obtained at the end of four years of secondary school and two years of pre-university or junior college. This is a more flexible requirement than those for entry into architecture, engineering and medicine, all of which specify good passes in certain required subjects. Interestingly enough, the Prime Minister--himself a lawyer--has referred to the younger generation of lawyers as "the least able of our students. The able ones...have chosen to do medicine or engineering" (Lee,

1981b).

Secondly, the perception of high prestige may not be, at present, very accurate. For example, during the past three years there has been a series of court cases against lawyers for breach of trust, mismanagement of clients' monies and other offences. Most of the cases and proceedings have appeared in the press, and readers' letters to the editor complaining about lawyers' high fees and other shortcomings are common (cf. Straits Times, 1981d; Sunday Times, 1982a; Straits Times, 1982c; New Nation, 1981a; New Nation, 1982a; Singapore Monitor, 1982a, 1982b, 1982c). Such a public venting of negative views reflects the public's increasing awareness of the every-day, business-like aspects of legal practice, and the profession's weaknesses and strengths.

There are other interesting features of the legal profession's ideology. Aiming at further frontiers of domain, one of the profession's leaders manifested that lawyers make excellent diplomats as they possess "the ability to obtain, analyse and evaluate information...<and the ability> to negotiate and settle disputes." He also defines diplomacy as a branch of politics (Rajah, 1975:10-11). It follows, then, that lawyers may see themselves as highly suited for the business of politics. Moreover, the profession is now in the process of widening its boundaries to include activities related to public administration and business administration. The process has begun by introducing "non-law" subjects in the Law Faculty's curriculum

(Straits Times, 1981b; Faculty of Law, 1981). This move is, in part, in recognition of the fact that some practising lawyers are de facto involved in public or business administration appointments due to the nature of their jobs. The forecast by Sheridan twenty years ago was accurate: he foresaw lawyers branching into multifold activities (Sheridan, 1961).

Lawyers also perceive themselves as the last bastion of British tradition in Singapore, although this is not necessarily a positive trait in the minds of some practitioners. One of them complained recently that "no other profession in Singapore is so burdened with English custom as our legal system" (Winslow, 1982). He was referring particularly to the dress code which requires lawyers, in our tropical climate, to wear wigs and dark suits in court. An attempt to introduce more suitable garments in 1974 was reversed in 1978 "by a rule of the Law Society in consultation with Chief Justice." The re-introduction of the conservative dress rule shows that the majority of lawyers perceive it as an important, distinctive symbol of their profession. A recent tax relief for lawyers' black clothes (Singapore Monitor, 1982e) has given societal recognition to the importance of symbolic clothing to lawyers.

Up to now there has been no noticeable dissension along the expertise dimension of lawyers' collective consciousness. Due to the historical tradition of common law in Singapore discussed earlier, there are no obvious cleavages between solicitors <generalists> and barristers <specialists>. Most practitioners have joint degrees. A suggestion to establish an official distinction between barristers and solicitors following England and other countries, was made by the Chief Justice in 1980 (Wee, 1980), but it has not found supporters so far. Yet, recent developments triggered off by the issue of foreign competition, have changed the situation to some extent as will be seen in the discussion of the external competition dimension.

The work-base dimension does reveal some strain among lawyers working in the public sector when they compare their salaries with those of their colleagues in the private sector. The income gap favours the private sector lawyers who, as indicated earlier, are the best paid practitioners in all the four professions. The Prime Minister has acknowledged in Parliament that "it is not realistic to expect lawyers at the peak of their earning capacity to give up their lucrative practices <in the private sector> for appointments to the bench" (Lee, 1981b). Lawyers working in the public sector see themselves literally doing a public service by not going into private practice. Younger practitioners have, however, the advantage of gaining working experience and establishing contacts while in the public sector. Both factors can prove rather valuable once they opt for a job in the private sector. And the pay gap actually

reverses in favour of beginners who get their first job with the government because "the government pay the best salaries for green' graduates" (Lee, 1981b).

But it is in terms of the external competition dimension that the legal profession manifests a potentially serious dissension. As the earlier discussion on the localization' of the profession revealed, there was a virtual monopoly of legal practice by local lawyers until recently. This monopoly was discontinued by the government's decision to allow foreign legal firms to bid for contracts in Singapore. The initial reaction of local lawyers to the government's initiative was at best a combination of mixed feelings and negative assessments. Some saw it as a direct threat to their own practices. But after some soul searching and a realistic look at the situation, the legal profession has apparently accommodated to the government's decision. The profession has decided to improve and prepare itself for competition with foreign legal firms. External competition has the edge of specialization over the local practitioners. Thus, improvement efforts have taken place both at the institutional level with the involvement of the Legal Society and the Faculty of Law, and at the individual level. The latter is manifested in a new trend towards specialization as the Attorney-General recently explained:

"a noticeable increase in the number of lawyers specialising in branches of the law that concern international transactions is a welcomed development. There is a definite discernible trend even among general practitioners of a desire to choose one's own field of specialisation" (Tan, 1983).

Regarding the three dimensions of collective consciousness among physicians, there have been dissensions at the work-base dimension due to salary differences in the public sector and access to high technology equipment; and, occasionally some problems arise at the external competition dimension when the presence of foreign physicians is seen with reservation. But these are only minor problems at present. Today, the most serious dissension may be identified at the expertise dimension. Indeed, it appears that the physicians' classical collective consciousness as a unified body of dedicated fighters against disease is more ideal than real in Singapore today. The ideal unity of the profession is officially stated in the medical code of ethics. One of the leaders of the profession invoked such ideal recently when he declared that the code of ethics of the Singapore Medical Association <SMA> "is more than just a set a rules...it is a philosophy...a guide to superior professional behaviour" (Lim, 1981).

In reality, during the past few years a rift within the profession has become more noticeable, threatening serious dissension. It began with two controversial and related problems haunting the profession for a long time namely, the division of labour between general practitioners and specialists, and the issue on advertising. In 1977 the Ministry of Health published the booklet Guide on Medical Advertisements to serve as additional information to the Medicines (Medical Advertisements) Regulations put into effect the same year and to the Medicines (Advertisement and Sale) Act of 1969. These regulations

prohibit, among other things, "advertisements of individuals offering medical skill or service" (Ministry of Health, 1977:5). The law explicitly prohibits the naming of the diseases treated but not the reference to speciality in nameplates and signboards used in physicians' clinics.

On the other hand, the SMA's ethics code on advertising stipulates that only the physician's name should appear in his/her clinic's signboard. In 1980, the SMA announced that such a code might be revised considering that "at least 150 members contravene it and the association has no punitive power" because a breach of this regulation is neither a "heinous" offence nor professional misconduct. The main rationale for a regulation against advertising through signboards has been, the SMA declared, to prevent "unfair" competition (Straits Times, 1980). One year later, the SMA dedicated its 12th national convention to a self-assessment of the profession, including ethical issues. The SMA's code on advertising was brought up as one of those issues by the Director of Medical Services, Ministry of Health, and by the past president of SMA. Both speakers emphasized the need for the profession to abide by the code and to refrain from using signboards to call undue attention to their qualifications (Straits Times, 1981e). Nevertheless, the Director of Medical Services was of the opinion that the inclusion of specialities on the nameplates and signboards is beneficial to the public as it provides useful information and, in his view, it does not constitute advertising.

Up to that time, the differences in opinion regarding advertising and jurisdiction of general practitioners versus specialists had been kept within the confines of the medical profession. But the mass media took up the convention's discussions to the public thus triggering a stream of informal debates in the press among physicians voicing opposite views. The debate has not ended and the dissention within the medical profession has aggravated. The basic problem was and still is, a conflict of interests between general practitioners, who are against the physicians' specialities being mentioned on signboards and nameplates; and specialists, who argue that their speciality must be included on signboards and nameplates because the public has the right to be informed and will find it easier to get access to specialists. Both factions seem to agree on the need for a clear division of labour in medicine; but they disagree on the boundaries. General practitioners see themselves as the patient's point of entry into the health care system. The general practitioner or family physician--as they are labelling themselves now--is then responsible, in their view, for referring the patient to a specialist if he deems it necessary (Wong, 1976; Leong, 1981; Ho, 1981). Accordingly, there is a feeling among general practitioners that if specialists include information about their qualifications and area of specialization on their signboards and nameplates, patients might go directly to them, bypassing the general practitioner's clinic. More importantly, general practitioners explain that this would not be in the best interest of the patient who, as a lay person, would not know what

is wrong with him and what type of care he needs. In other words, the assumed ignorance of the patient is their main justification for their position in this argument. Specialists disagree: they believe specialities should be shown on signboards and nameplates and even more, they think that an official directory of specialists should be provided to the public. Specialists have the tacit backing of the government; the Director of Medical Services, reflecting the government's position, has manifested that if patients want to see a specialist, "the cost of medicine must not be made expensive by a middle person" (Sunday Nation, 1982).

This conflict within the profession has reached a more serious stage with the involvement of the professional associations and the medical profession's gatekeeper. The SMA presented two proposals to the Singapore Medical Council: one is to prohibit the display of specialities on signboards and nameplates, and the other is to prepare an official register of specialists for the sole use of the medical profession (Sunday Nation, 1982) The majority of the SMA members are general practitioners although the number of specialists has increased over the years. The above proposals were jointly presented by the SMA and the Association of Private Medical Practitioners of Singapore <APMPS>, which was only formed in January, 1981 to represent both general practitioners and specialists in the private sector and who are members of SMA.

The APMPS representatives signed the join memorandum first and called an extraordinary general meeting some days later to discuss it. The president of APMPS reported after the meeting a unanimous approval of the proposal and the basic ideology of its members: the patient is free to seek health care anywhere he chooses but, he will do well if he goes to the general practitioner first because laymen do not have the knowledge required to make a good choice of specialist. Furthermore, in an implicit reply to the government's position he added that

The general practitioner/family physician is the first person whom the patient should consult when he has a medical problem...<the family physician is not> a "middleman" levying on an extra charge for doing little or nothing...The association appeals to the public not to regard doctors as tradesmen selling a product.

Doctors are professionals with an ethical duty to the patient and a social duty to the community. (Loo, 1982).

The president of the SMA expressed exactly the same position in the name of the association. He emphatically asserted that "we are neither tradesmen nor shopkeepers. We are trained and qualified professionals" practising at all times "in accordance to our ethical code and in the highest traditions of the profession" (Yong, 1982a).

Despite these vows, the profession in general and the SMA in particular, are still facing serious dissension. Because the majority of SMA members are general practitioners, specialists feel that their voice is not heard and their position not represented by the SMA; some of them have indicated that specialists might withdraw from SMA and form their own association. The SMA president acknowledged that this is the first time ever in the history of the association when a group of its members openly dissent with the association's position. As he sees it, a complete reorganization of SMA is necessary to maintain its character as the national professional association truly representing all medical practitioners. Therefore, a constitution review committee has been formed and is presently working on this problem (Yong, 1982b).

Naturally, something more than the representativeness of the association is at stake. One of the objectives of SMA is to keep the profession united. The medical profession has managed to maintain a unified front for about 21 years. Now, differences in

perception of roles and squabbles over jurisdiction have caused it to split into factions, each arguing its case in terms of professional conduct and ethics. It could be said that there is no longer a unified collective consciousness. The latest developments indicate that the unified collective consciousness prevalent during the past two decades among the medical profession may be crumbling and is in urgent need of restoration.

The development and changes in professional ideology do not depend exclusively on the internal dynamics of the professional groups concerned. The social environment within which they live and work does play a part as well. For example, before 1959, the main dissension among physicians was in terms of the external competition dimension. The opposing parties were local versus British <expatriate> physicians. The public's sympathy with the local physicians was justifiable then in terms of the well-known principles of independence from British tutelage and equality between local and expatriate physicians. But the situation is different now. Health care consumers in the 1980s do not see eye to eye with the medical profession. The latter's constant claim of their norm of altruism does not appear to be substantiated with deeds judging by the part that general practitioners are playing in the current controversy. In fact, public opinion expressed in letters to the press and editorials, perceives physicians as any other professionals namely, selling a product or service in the market. And people feel that those who need a service should receive information on the range of services available and how to obtain them. The alledged norm of altruism

by the medical profession is beginning to be questioned.

A similar trend has begun to appear regarding the legal profession. It has been a rather slow process, but the average Singaporean is steadily becoming more aware of his/her rights as a consumer of professional services. The Law Society disclosed in its 1983 Annual Report that during the period October 1982 to September 1983, it received "41 fresh complaints against lawyers" (Straits Times, 1983b). Interestingly, however, dissatisfied consumers of legal services in Singapore refer their complaints to the Law Society of Singapore instead of bringing their complaints against a lawyer directly to the High Court on their own name as it is technically possible (Low, 1983). One possible reason for this is the consumers' ignorance of this technical avenue. Another interpretation is that the consumers trust the objectivity of the Law Society in its role as the watchdog of the professional conduct of lawyers.

In contrast to law and medicine, the professions of architecture and engineering have a more restricted and realistic ideology; it might be perhaps because the collective consciousness of these two professions are still in the process of formation. Apart from these common features, the two professions differ from one another in several aspects of their ideology and consolidation as professions. One of these aspects is that engineering has enjoyed a decisive government sponsorship that architecture has not had. Architecture has established itself as a profession mainly on its own efforts. Indeed,

engineering was propelled by the government in the late 1960s and early 1970s as part of the national economic development plans. Manufacturing, construction and public utilities, all of which require mechanical, civil and electric engineers, increased their GNP contribution from 10 per cent in 1959 to 28.4 per cent in 1971; and the latter two sectors of the economy provided the needed infrastructure for further industrial development (Goh, 1973:12,16).

As the economy improved in the late 1970s, the emphasis on technical expertise included other branches of engineering such as mining, metallurgic and systems engineering. The latter speciality, although represented only by a small minority of engineers, served to give prominence to the profession in 1979, again, this time, due to a government's move. The Minister for Education, Dr Goh Keng Swee, formed a team of young professionals to evaluate Singapore's educational system and present proposals for improvement. This education study team comprised twelve members under the chairmanship of the Minister himself. Eleven of the twelve members were systems engineers (Straits Times, 1979). The education study team was the public introduction of the engineering profession as a group of able trouble-shooters whose skills easily qualify them to handle matters such as manpower planning, defence policy and educational policy, all of which are work well beyond the commonly known boundaries of engineering. Further help to encourage engineers to seek work in non-engineering fields is the fact that between 30 to 40 per cent of all engineers are employed by the government and "the most

scholastically able" of these are given scholarships for post-graduate degrees and thereafter bonded by the government to serve in the civil and military service in jobs that include posts as "administrators and educators" (Ministry of Science and Technology, 1977:3; Lim and Pang, 1981:61). The education study team assembled by Goh in 1978 and 1979 is again a good illustration of this grooming of engineers by the government. The team members, ranging in age between 24 and 33 years old, were selected, among other things, because of their scholastic ability and their assumed versatility in problem solving (Straits Times, 1979). Their previous work at the Ministries of Defence and Finance had included policy formulation. Most of them were promoted after 1979 to positions of more responsibility at the Ministry of Education, the Public Service Commission, and the Ministry of Defence; their current work involves policy formulation, manpower planning and resource planning.

But government's influence is not the only factor bringing engineers outside their realm of expertise. In fact, as part of their professional ideology, some engineers themselves profess the conviction that they can and should move "away from narrow specialized fields" and develop a "multidisciplinary" outlook (Gudgeon, 1977). This conviction is not restricted to Singapore. A leading American engineer exhorted his colleagues recently to raise their educational standards and search for knowledge in other areas such as arts, humanities and politics (Florman, 1982).

It is difficult to ascertain precisely how widespread is this opinion among engineers in Singapore. But if one assumes that holding management positions is an expression of the engineers' inclination to go beyond their professional field, then some interesting information is available. Data from a national survey of engineering manpower (Ministry of Science and Technology, 1977), indicate that 48.6 per cent of the engineers were occupying senior managerial or managerial positions in their jobs. This trend is more common in the private sector: 61 per cent of engineers in the private sector were in managerial positions compared to 21 per cent of engineers in the public sector (1977:22-24). This national survey also found that the majority of engineers wanted to attain further training; but, most importantly, 40 per cent of these wanted to take business courses; eight per cent were interested in courses related to education and computer science; and only 52 per cent wanted additional training in engineering (1977:31).

Whether engineers see themselves as a unified profession is another issue difficult to establish directly with the available data. In comparison with the medical profession, it is possible to say that engineers have a more unified collective consciousness. But some qualifications are in order. The engineering profession shows some dissension at the expertise dimension of collective consciousness; very low dissension at the work-base dimension; and a more serious dissension with respect to the external competition dimension.

Regarding the expertise dimension, a senior engineer and managing director of a private corporation told his colleagues in Singapore recently that there is a lack of "engineering ethos." He explained that many engineering graduates with limited experience leave the profession or are over-anxious to work in non-technical areas of engineering firms (Hardy, 1981). Experience in management seems to have a special attraction for engineers perhaps because it takes them beyond the boundaries of their profession. There is then one first division of engineers: those in engineering fields and their colleagues in non-engineering fields.

A more explicit division in terms of expertise is that represented by paper qualifications, in other words, the generalist versus specialist division. Among the current practitioners in Singapore, one finds diploma holders who are graduates from one of the polytechnic schools; general degree holders i.e., university graduates with a Bachelor's degree; and engineers with a university post-graduate qualification i.e., either a Master or a Ph.D. degree. In addition, membership in professional bodies either local, foreign or both, add to an engineer's professional qualifications. It has been estimated that engineers with a diploma are more likely to be in engineering-related jobs than the others (Lim and Pang, 1981:61).

Despite these differences in academic or paper qualifications, there appears to be among engineers a pragmatic attitude that prevents or at least diminishes dissension. Some engineers feel that a colleague with only a diploma can demonstrate above average ability in the practice of the profession thanks to years of experience in the field. Conversely, specialization by means of a higher degree does not automatically propel one's career. It can actually restrict the engineer's clientele. The Institution of Engineers Singapore <IES> and the Board of Professional Engineers have recently stipulated that when an engineer registers as specialist he is only allowed to practice in the particular field specified in the registration papers. Civil engineering alone has several sub-specialities covered by this regulation (Leong, 1983).

But this pragmatic attitude is not shared by all engineers concerned neither is it applied all the time. Differences in paper qualifications are felt at the worksite although they have not been expressed as major rifts in the IES. For example, an engineer with a diploma and several years of work experience may find himself under the supervision of a degree holder fresh from the university. One such practitioner declared that

under such circumstances it is only human that relations and communications are strained. The older Polytechnic graduate is left with two choices, play down his role to avoid showing up the other party's inexperience or resign. (Economic Research Centre, 1981).

Formal dissension among engineers might increase in the future because of differences in qualifications. The government has

established the Nanyang Technological Institute <NTI> to train practical engineers thus assigning to the Faculty of Engineering at the National University of Singapore, the task of training engineers geared to research and consultancy services. The next generation of graduate engineers will then bear two additional distinct labels which may affect their employment prospects, salaries and career development. The NTI administration in an effort to dispel the public's concern, has stressed that its engineers will not be "second rate" just because they will be practice-oriented (Singapore Monitor, 1982d).

On the work-base dimension of collective consciousness, is important to recall that there is a gap in salaries between the public and private sector. Yet, both sectors appear to offer positive alternatives to engineers engaged in engineering-related jobs. While the private sector offers higher earnings, it also requires longer working hours; individual responsibility for projects; and, unless the engineer owns or belongs to a large corporation, the projects are not usually of large scale or challenging. In contrast, the public sector's emoluments are lower but the engineer is usually involved in team work; there is a corresponding shared responsibility for projects; and the nature of some government projects may be of large scale, unusual and challenging (Leong, 1983). In general then, the choice between a private or public sector's job depends on the engineer's subjective definition of job satisfaction.

In fact, there is an implicit collaboration between practitioners in both sectors. A former president of the Association of Consulting Engineers Singapore, has manifested that the development of the profession at the national level requires the continuous sharing of efforts among engineers in the public and private sectors, not just in infrastructure projects but also in research and development projects. Such collaboration will in the long run benefit the profession's image at the international level (Gudgeon, 1977).

Perhaps one indication of perceived differences--not amounting to dissension--along the work-base dimension is the preference expressed by some engineers working on non-engineering jobs in the public sector, to be called administrators rather than engineers (Straits Times, 1979). They perceive a fundamental difference between themselves and their other colleagues on account of the administrative and managerial duties they perform in the public sector; this self-perception may be reinforced among those engineers involved in policy formulation in government agencies. But, as mentioned earlier, the inclination towards managerial positions appears to be common among engineers in both sectors (cf. Hardy, 1981).

A potentially more serious rift can be identified between local and foreign engineers along the third dimension of collective consciousness i.e., the external competition dimension. Keeping in mind that the engineering profession in Singapore does maintain links with engineering professional

bodies in other countries, it would be expected that their collective consciousness would include foreign engineers as colleagues. This assumption applies to the other three professions of course. But a situation similar to that found in law occurs in engineering. Some antagonism may be detected among local engineers with respect to foreign colleagues who set up practice in Singapore or bid for local projects, particularly government projects. A case in point is the forthcoming construction of Singapore's Mass Rapid Transit System. The government and some local construction companies are concerned with the difficulties they see in finding good quality engineers to do the job. Some of the construction companies have already said that they might have to resort to employing foreign engineers (Straits Times, 1983). The government's acceptance of foreign engineering firms' biddings for this and other local projects are labelled as 'unfair' by some local engineers. The government remains firm in its principles of free market and open competition: if local engineers want to succeed in their biddings against foreign competitors, then their project proposals must be competitive that is, of high quality and reasonable cost (Goh, 1982). It is too soon to expect an official reaction from the IES to the challenge of external competition. But if the reaction of the legal profession has set a pattern, then engineers will seek higher skills and accept the challenge of foreign competition both as individuals and as a profession. A relevant development is the government's active recruitment of foreign engineers to strengthen the teaching staff of the new Nanyang Technological

Institute and the Faculty of Engineering of the National University of Singapore (New Nation, 1981b). But expatriate lecturers and professors are not perceived as competition. On the contrary, the general feeling seems to be that Singapore must learn from advanced engineering knowledge in other countries.

The issue of collective consciousness among architects takes a similar tone to that of engineers on two of its three dimensions, the work-base and the external competition dimension. Architects differ from the other professions in terms of the expertise dimension. Dissension here is practically negligible although, as in engineering, there are diploma holders who graduated from a polytechnic, general degree holders and some practitioners with post-graduate degrees. If there are any serious problems, they are kept within the confines of the profession, away from the public view. There have been no open disputes between generalists and specialists in architecture, comparable to those occurring among physicians. Neither has there been a large exodus of architects into management similar to the move observed among engineers.

But architects are not too different from the other professions in the work-base dimension of their collective consciousness. They face the same contrast in salaries between the public and private sectors. As in the case of lawyers, fresh architecture graduates find the government service a positive work base during their first few years of practice due to the experience and contacts that will become important later on when

they go to the private sector individually or in partnership practices. The drawback is the same as for lawyers; they will have to accommodate to the lower salaries. Still, architects just as physicians, lawyers and engineers, have rather good prospects of increasing earnings concomitant with their age and, consequently, with their experience. In general, it is reasonable to conclude that for architects, the differences between the private and public sectors do not constitute a major rift in the profession; one sector is seen as complementary to the other.

The external competition dimension is perhaps the only one that indicates some dissension in collective consciousness among architects. Nevertheless, the differences between local and foreign architects tend to be under-emphasized compared to other professions. This is mostly because external competition is not new for architects. The president of the SIA acknowledges that local architects are used to foreign competition as the government has had for a long time "an open door policy of allowing foreign professionals to practice here" (Chen, 1982a). But being used to competition has not prevented architectural and engineering firms from complaining of excessive competition from foreign consultants in the awarding of local projects (Singapore Professional Centre, 1978:14).

This problem, together with the current construction boom in Singapore, prompted the profession's gatekeeper with the approval of the Ministry of National Development, to add some flexibility to architectural practice by means of the new Architects' Rules (Republic of Singapore, 1982b). The rules permit architects to have a more comprehensive control of their designs by taking charge of the building process themselves. This approach is known as the design and build' concept already used in other countries. This change could increase the capability of local architects to compete with foreign colleagues for local projects.

Yet, the permission to design and build has not received an enthusiastic response from local practitioners. Both leading and regular members of the profession look skeptically at the presumed benefits of the concept. Some argue that it infringes ethical principles: "It's like a lawyer acting for both parties. How can they assure their clients that they are giving...the best deal or full value for money?" (New Nation, 1982b). Others feel that the role of the architect in large design-and-build corporations, is reduced to that of a mere employee. To prevent this, he has to become a full partner holding a substantial proportion of the corporation's shares, but some practitioners believe that very few architects could afford the expense (Chen, 1982a; New Nation, 1982b).

A further aspect that ameliorates serious dissension between local and foreign architects is the profession's regional and international orientation. Many of the present older leaders of the profession have received their degrees abroad i.e, the United States, Europe or Australia just as in medicine, law and engineering. The difference is that architects seem to be relatively more aware of the need to refine and adapt "professional practices to suit local needs" as an important step in gearing their profession to serve regional interests particularly within ASEAN <Association of Southeast Asian Nations> (Choe, 1977). This awareness has begun to permeate the other professions during the past few years, nurtured by the government's intention to build up Singapore as the professional centre of the region.

Lest a misconception has been created, one must not overlook some cracks in the otherwise comparatively strong collective consciousness of architects. The vigilant SIA publicly complained last year of what they thought was a preference given to foreign architects' projects by the Urban Redevelopment Authority <URA>. SIA also urged architects from the United States and Japan to respect the code of ethics of architects in Commonwealth countries, and abstain from submitting in Singapore projects rejected in other countries (Chen, 1982b). The URA denied any preferential treatment and stressed that the nationality of architects or developers is not a criterion in its awarding of projects (Fan, 1982).

When all three dimensions of the architects' collective consciousness are considered and a comparison is made with the other three professions, the general impression is that architects have a more cohesive perception of themselves as a profession. Architects like to portray themselves as coordinators of "multi-disciplinary" teams. The nature of their work requires close interaction with "a multiplicity of consultants and collaborators" including engineers (Foo, 1979:17; Wong, 1979). It is this perception of their professional role that contributes to their sense of unity in their dealings with foreign colleagues and with practitioners in other professions. Moreover, self-assurance without an exaggerated norm of authority over clients is yet another characteristic of architects' ideology. A leading local architect has presented this point simply:

Architecture is basically problem solving. Very often the problem as perceived by the architect is quite different from that of the client's...That is why actual designing is so exciting. There is a constant feedback between client and architect. One doesn't design in the vacuum... (Wong, 1979:16).

The preceding paragraphs have dealt with ideology and collective consciousness in the four professions. Three dimensions of collective consciousness have been identified in all four professions; they facilitate the analysis of dissension. It is opportune now to discuss briefly the implementation of professional ideology that is, the way in which each profession attempts to attain power and to influence decision-making in society. The main assumption is that of the five channels of

influence given by Mosher (1978), professionals in Singapore are more likely to use three i.e., appointment or election to high political or judicial office, managerial or executive positions in the private or public sectors and consultancy work. These channels are used in addition to whatever influence professionals might exert through their respective national professional associations.

As it has become apparent throughout this discussion, all the four professional associations, SIA, IES, SMA, and the Law Society have been active in voicing their members' views and in lobbying for legislative changes, additions or omissions beneficial to their professions. Of the four associations, SMA is the most troubled by discontent of its membership at present. Some older physicians complaint that SMA is not representing the interests of the profession with the same zeal manifested by the former Alumni Association during the colonial period (Ho, 1982). But the activities of these associations must be assessed within the context of active government intervention in Singapore. Government intervention restricts the associations' scope of influence and effectiveness of lobbying. To illustrate, SMA's lobbying has not succeeded in stoping legislation which may be contrary to the medical profession's ideology for example, legislation on abortion, professional secrecy related to drug addiction and use of barbiturates and the bonding of medical students. In view of this, a former president of SMA lamented that

...there seems to be an unfortunate lack of communication between the government and the professional organizations...This lack of communication and understanding is unfortunate as both government and the medical profession have at heart the interest of the people whom they serve...<this happens> not only in the medical profession but in other professions. (Lim, 1979:38).

But what characterizes the Singapore situation is a combination of intervention and flexibility on the part of the government. Lim gives an accurate description of one side of the story. The other side is that notwithstanding government intervention, these associations are consulted by policy-makers from time to time, and asked for their views and suggestions on problems falling within their realm of expertise. It is through this consultancy' that the associations have contributed to policy-making in Singapore.

Regarding other channels of influence, studies on the professions in other countries have documented the common tendency among professionals to seek and maintain "proximity to power" (Larson, 1977:xv). Singapore professionals are not exception. Actually, the small size of the talent pool in Singapore--population size only 2.4 million--increases the probability of a citizen with professional qualifications to get to the top. Such probability is strengthened by the prevailing emphasis on meritocracy as opposed to nepotism or other means of social mobility and by the political leadership's active recruitment of educated Singaporeans to form the second generation of leaders (Quah, 1983).

It is thus not surprising to find professionals in the Cabinet, Parliament, and key posts in statutory boards and other government agencies. The question is, which of the four professions is more represented at the top, and does an individual professional holding a high position actually represent the interests of his profession? There are available data on the first question. But it is rather difficult to assess the second question objectively.

Of the sixteen Cabinet members in 1982, five are professionals. Three of them are lawyers: the Prime Minister, the Minister for Law and the Minister for Home Affairs. The other three are architects: the Minister for Communications and Labour, the Minister for National Development, and the Minister Without Portfolio who is de facto representative of the trade unions. All the judiciary and members of the legal service are, of course, lawyers.

Among the 75 members of Parliament the following professionals are found: three lawyers, one of whom is a university professor and the other two lawyers in private practice; two physicians, both in active private practice, one of them a specialist and Speaker of Parliament; one architect in a management position; and five engineers, three of whom are in private practice, one is the director of a statutory board, and the other is the Minister of State for Education. Law enforcement agencies also have their share of professionals: the Police Commissioner, the Superintendent of Police, one of the two Deputy

Commissioners, and one Assistant Commissioner, are all lawyers. Professionals are found at the helm of statutory boards as well; for example, engineers in the Telecommunications Authority of Singapore and the Public Utilities Board; and architects in the Housing and Development Board, to mention just a few.

Comparing the size of each professional group with the number of these professionals in Cabinet and Parliament, architects have the highest proportion of colleagues in these policy-making bodies. The above listing amounts to five out of 1,032 lawyers; two out of 1,760 physicians; four out of 608 architects, and five out of 7,079 engineers. But these figures exclude the judiciary and the legal service, both entirely in the hands of lawyers. Technically, then, lawyers are the professionals with the closest proximity to power due to this direct channel of influence.

However, such an interpretation of the presence of professionals in high political or judiciary office must be handled with caution. More detailed analysis of direct data--not yet available--is necessary to determine whether these individuals actually represent their professions while in office. Important questions must be answered to test Mosher's (1978) concept of channels of influence; for example, do these high ranking officials protect the interests of their professions in the course of their work? Are they more likely to yield to their own professions' lobbying than non-professional officers or officers from other professions? Anderson and his colleagues

(1980) term this problem a case of divided loyalties that is, the conflict between the commitment to one's profession and his commitment to the office. Unfortunately, it is not possible to address these questions here because of the absence of direct information. Yet, there are two cases that may served as a sign of current trends although they are, of course, insufficient to draw general conclusions. These cases suggest that a professional in a high power position may not necessarily represent his profession's interests.

The first case refers to a lawyer's suggestion that charges against lawyers for criminal breach of trust should not be treated as criminal offences but rather as unethical professional conduct (Straits Times, 1981d). The Attorney-General replied that lawyers should not be immune to criminal prosecution. His position in this matter was that of acting in accordance to the goals and roles of his high judiciary office when he declared

any conduct on their <the lawyers'> part which transgresses the law must be judged in the same manner as like conduct of any other citizen...it is difficult to find acceptable excuse for exemption for lawyers who abuse that <the client's> trust of confidence for personal gain. (Tan, 1981b).

The second case refers to the government's decision to allow foreign legal firms to handle projects for banks in Singapore. It was in fact, a joint decision between the Monetary Authority of Singapore which presented the proposal, and the Minister for Law and the Attorney-General who approved it. Both cases are from the legal profession and may not be typical of what occur in other countries. Suffice it to say at this point, that the channels of

influence concept needs to be tested empirically in every society and for every profession. The indirect data available indicate that the four professions might differ considerably from one another with respect to their access to and use of channels of influence. In Singapore channels of influence are not just taken; they can also be given, facilitated, or withdrawn by the state. In this respect, Singapore data confirm to some extent, two of the three aspects of the professions that Ritzer (1977) included in his 'integrated' approach. These aspects are: firstly, that the professions actually depend on the dominant elites to obtain and retain power. And secondly, the power of the professions varies from one profession to another, over time, and across nations. Furthermore, government intervention is not unique to Singapore. Tuohy (1976) sees it as a feature of welfare states that act as watchdogs of the professionals. In fact, specific state monitoring programmes, mainly for the medical profession, have been devised in Canada, the United States and Germany (Stone, 1976; Landsberg, 1980).

Conclusion

A discussion of the main features of professional talent in Singapore has been completed after reviewing briefly a few relevant concepts, and the historical roots of architecture, engineering, law and medicine in Singapore. It is time now for a recapitulation of the findings and a brief comparison of Singapore with other countries in the region.

The recapitulation of findings brings us to the three assumptions guiding this analysis. First, the four professions present at various periods of their history and with different degrees of emphasis, some of the features of professions outlined by the structural-functional, power and process approaches. Regarding the latter, all four professions involve full-time engagement, have a national association, a code of ethics, and have sought and obtained legal recognition. But the development of the respective training schools has not been solely the outcome of the professions' efforts. The state has played an important part and the factors involved in the establishment of each school vary from profession to profession.

The norm of autonomy or freedom from external control--included in the functional approach--is held more forcefully by the medical and legal professions than by architecture and engineering, although all four professions regard professional autonomy as important. Similarly, the codes of ethics of all four professions express clearly a norm of altruism i.e., the claim of being devoid of self-interest and committed to the community's well-being. Here again, physicians and lawyers are more inclined to declare it publicly and more often than architects and engineers.

The same distinction between physicians and lawyers on one hand, and architects and engineers on the other hand, has been found with respect to the norm of authority over clients. This claim of authority is based on the alledged ignorance of the

client. The manipulation of ignorance by the professionals in order to preserve their privileged position, as Moore and Tumin (1949), Ritzer (1977) and others have indicated, is substantiated by the Singapore data with some qualifications. The medical and legal professions emphasize constantly the need for the client's or patient's trust and recognition of their own ignorance as laymen, as a sine qua non of a successful professional-client or doctor-patient' relationship. In comparison, there is a lesser emphasis on the norm of authority over client and the assumption of client's ignorance among architects and engineers. The former, in particular, tend to perceive the client as an able and informed person who can and should discuss in detail the type of services required with the professional.

The concepts of norm of autonomy, norm of altruism, and norm of authority over clients presented by the functional approach, may all be seen as elements of the concept of ideology introduced by the power approach. More specifically, the findings suggest that a profession's ideology is formed around the practitioners' belief in the currency and importance of these three norms. Furthermore, the very existence of an ideology among professionals promotes the formation of a collective consciousness which is the theme of the second assumption in this study.

This second assumption is that a collective consciousness, or more specifically stratum consciousness, is more likely to be found within each professional group than across professions. The scarce and indirect data available indeed suggest the absence of a collective consciousness embracing all professionals in Singapore. Perhaps the creation of the Singapore Professional Centre <SPC> in 1970 has been the first step in the difficult process of formation of such collective consciousness. Twenty-two professional institutions and associations are members of the SPC. Its membership includes architects, chemists, engineers, dentists, food scientists, marketing experts, physicians, nurses, pharmacists, physiotherapists, town planners, psychologists, radiographers, chartered secretaries, social workers, surveyors, and veterinary surgeons (Fong, 1982). This wide range of occupations and the absence of lawyers are indicative of the frailty of an overall collective consciousness, if it indeed exists.

Yet, the medical and legal professions are becoming more aware of common interests. Indeed, there is a growing eagerness among physicians and lawyers to join efforts in a field that can be rewarding for both professions i.e., legal or forensic medicine. The Medico-Legal Society of Singapore was established some years ago and represents this common interest. Now the Society has moved into the international scene and will host the "1st Asian Pacific Congress on Legal Medicine and Forensic Sciences" in September, 1983, in collaboration with the Ministry of Health, the Law Society, the Academy of Medicine, the SMA, and

the Attorney-General Chambers, and three international organizations. More importantly, the Medico-Legal Society's president, a physician, has announced that the main purpose of this congress will be to form the "Asian Pacific Association of Law, Medicine and Science to coordinate and correlate all medico-legal societies...in the region...<and> to promote the advancement of medico-legal practice" (Chao, 1983). While only specialists in both fields--criminal lawyers and forensic pathologists--are involved, all this activity is a manifestation of the formation of a collective consciousness comprising law and medicine.

A more obvious and decisive collective consciousness is found within each of the four professions. More importantly, the findings suggest the presence of three dimensions of collective consciousness, tentatively labelled the expertise dimensions, the work-base dimension, and the external competition dimension. Each profession presents a distinct picture of collective consciousness along these three dimensions; yet, the traditional' professions i.e., law and medicine, have more characteristics in common in this respect than with the newer' professions of architecture and engineering. The three dimensions of collective consciousness serve to identify possible dissensions among the members of a profession. Dissension has been found in all four professions but it varies in terms of dimension and intensity.

Finally, the third assumption in this study is based on Mosher's (1978) concept of channels of influence and it stipulates that the four professions in Singapore do make use of channels of influence, particularly by means of appointment or election to high political or judiciary office. It is not too difficult to verify the presence of professionals in national policy-making bodies. But whether by occupying these top positions individual professionals actually represent the interests of their respective professions, cannot be ascertained with the available data. Nevertheless, from the findings of this preliminary analysis one may derive the following assumption that could be tested further in future research. In Singapore, the four professions face two factors that may modify substantially the nature of the channels of influence concept. These factors are: (a) strong government intervention in the activities and roles of the professions both through the gatekeeping bodies as well as by means of economic and social policies. A good illustration is the case of engineering; it approximates to Larson's (1977) analysis of the historical development of professions in continental Europe where the political authority planned or propelled the development of certain professions for the benefit of the state. And (b) the second factor is the very likely possibility that once individual professionals are appointed or elected to high political or judicial office, they assume and accept the goals and roles of their new positions giving them priority over their own profession's interests. This may be even more likely for full-time appointments and when one's

political party commitments and loyalty override his professional ideology.

Taken a wider perspective on the reported findings, I must acknowledge that the situation of professionals in Singapore may be quite different from that of other countries in some respects. Singapore has a unique combination of small size; a heterogenous population in religion, ethnicity and language; and a rather distinct political system and pattern of economic development (Quah, 1982; Quah, Chan and Seah, 1983). These differences notwithstanding, the structure and nature of the four professions in Singapore resembles that of their counterparts in developed countries. There are also interesting similarities and differences between Singapore and its Southeast Asian neighbours with respect to the structure and organization of these professions.

In the Philippines, for example, the professions have only developed recently; national associations and codes of ethics are common professional features. A major difference with Singapore is that the Filipino professional associations enjoy a great deal of control over legislation affecting them. A Filipino analyst reports that "laws affecting the professions are not so much government imposed as proposed--sometimes even drafted--by the professions' own associations" (Carino, 1973:81). The Singapore professions do have certain influence on legislation affecting them but, as indicated earlier, government intervention constraints such influence. The role of their gate keepers is in

many respects determined by government intervention.

Carino (1973) indicates that there is a high proportion of female professionals in the Philippines. As may be recalled from the preceding discussion, this marks another difference between professions in the two countries. A third difference between Singapore professionals and their Filipino counterparts, is the extent of brain drain which appears to be considerable in the Philippines, particularly among physicians (Carino, 1973:82). Regrettably, there are no reliable figures that would allow a systematic comparison, but there are indications that Singapore does not face a problem of similar intensity in this regard. A further difference is that higher education in the Philippines is not an active instrument of social mobility. In contrast to the National University of Singapore students, about two thirds of the students at the University of the Philippines have college-educated fathers (Pang, 1978).

Thailand is another neighbour that provides interesting differences. To the extent that Silcock's (1977) description of Thai professionals is accurate, there is a significant difference between Thailand and Singapore. Silcock found in Thailand an indigenised professional set up, where government has little control; codes of ethics are relatively lax; moonlighting is a common practice; brain drain is a serious problem; and national professional associations are not very active or truly representative. Furthermore, Thai professionals tend to have an upper class or aristocratic background (London, 1979:35) and

their presence in the upper ranks of the public bureaucracy and the military is rather noticeable (Dhiravegin, 1975; London, 1979). In Malaysia, the university serves as a means of social mobility to some extent. Data from a study by Singh (1980:61) suggests that comparing the different professions, upper class students are more likely to study medicine and law, while lower class students are more inclined to study engineering. Malaysia presents a trend of appointment of professionals in the top ranks of the civil service. In both respects, the Malaysian situation is closer to that of Singapore than the case of Thailand.

With respect to channels of influence or professionals' proximity to power in Southeast Asian countries, there is not consensus among scholars. Chen and Evers (1978) for example, believe that the professionals in Singapore do not have access to power as a group, although they play a role in national development. Their opinion on regional developments is that professionals, as members of the elite, exerted some power until the 1960s but have withdrawn from power positions since then. Before 1960, they say, there was Ritzal, a physician, at the helm in the Philippines; Sukarno, an engineer, in Indonesia; and Lee Kuan Yew, a lawyer, in Singapore. But other analysts disagree with the presumed withdrawal; they affirm that professionals are still in power. Agpalo (1975), citing the case of the Philippines, indicates that all the Filipino presidents from 1935 to 1971 were lawyers, and most legislators tended to be professionals. Dhiravegin (1975) reports that about 93 per cent of the Thai elites whether military, governmental or business

elites, are college graduates.

Discussing the situation of professionals in the ASEAN region--Indonesia, Malaysia, Philippines, Singapore and Thailand--Shaw (1975) identifies a "development elite" comprising professionals handling high technology and other knowledge areas required for national development. In his view, the governments in all the ASEAN countries are forcefully fostering the growth of this development elite, following the same goal of economic development. Shaw explains that professionals in the development elite occupy top positions in power by virtue of their expertise. Evers and Silcock (1977:16) go further, asserting that professionals in Southeast Asia have made active use of political parties and played a principal role in "the functioning of democratic political systems".

Given the absence of empirical verification, I am inclined to take all these views with some reservation. The question of professionals' proximity to power or actual exercise of power at the national level can only be answered with data from in-depth analysis of the different professions in each of the nations concerned. The situation may vary considerably in each case and even the internal ethnic differences in each nation may have an impact on the professionals' use of channels of influence. For example, Hodgkins's (1972:52) analysis of foreign-trained persons in Malaysia unveiled a difference between Indian, Malay and Chinese professionals regarding their probabilities to get to the top power positions. Ethnicity is indeed a major qualifying

factor in some nations in the region.

Furthermore, it is worth stressing a major weakness of available data on the role of professionals in the region. The fact that members of the political elite or policy-making bodies in a given nation are university graduates, cannot be taken at face value as an indication of a profession's power position. The case of Singapore's professionals highlights the need for more direct evidence before an association of this type is said to exist. The concept of ideology or how professionals justify their privileged status implies that professionals do enjoy a privileged status in the community. It has been amply documented internationally that indeed professionals by their very nature are highly educated people with high incomes and above average social prestige. But do these characteristics guarantee them, as collectivities, access to power positions?

This exploratory analysis has raised a number of questions, but perhaps this one on the extent of professionals' participation in power as collectivities is the most challenging. In this study professionals have been found to be walking on a tight rope between their inherent inclination towards autonomy and the prevailing strong principle of service to the nation under government intervention. They have performed the balancing act well, so far. The current modus vivendi is likely to persist but future developments depend on specific issues and may vary from profession to profession. Concluding this discussion with some questions should not be surprising. The goals set at the

beginning were few and limited. Yet, the complexity of the subject matter became increasingly apparent as the study progressed. In order to remain within the established scope without overlooking important new perspectives, one has to word all encountered gaps into questions, present the most important and hope that they will stimulate further inquiry.

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