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John Scott
Department of Sociology
University of Leicester

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There has, for a long time, been a rather strange mis-match between the prevailing social theories of wealth and business power and certain rather obvious features of the real world. The dominant theoretical framework has been that of managerialist theory, which has, for a long time, been a very important point of reference for many of the major debates in sociology. While it has been given a ritualistic scrutiny at various points in the social science curriculum it has remained generally unchallenged. The assumed separation of 'ownership' from 'control' has acquired the status of taken-for-granted knowledge (Zeitlin 1974). This holds true not only in sociology but, perhaps even more so, in economics, law and political science. In all these disciplines this managerialist framework has dominated in social analysis.

Managerialism holds that ownership in large companies has become increasingly irrelevant to business decision-making. Companies that have grown in size have had to raise capital from larger numbers of individuals through the stock exchange system. As a result, shareholdings in companies have been dispersed to larger and larger groups of people, and, therefore, no individual or family can own a significant controlling block of shares in a large company. Managerialists are arguing, then, that both the Marxist and the old liberal model of capitalist control in business have been superceded. The capitalist, owner entrepreneur has disappeared, and wealthy families and business dynasties have been replaced by salaried managers as the principal agents of business decision-making. Managerialists argue that we need new understandings of 'managerial capitalism' and managerial organizations.

I began my research in Scotland during the early 1970s, looking at some of the events surrounding the development of the North Sea oil industry. These developments seemed to run directly counter to the whole managerialist tradition. The newspapers and the television were full of reports on the ownership structure of exploration and production companies operating in the North Sea. New banks and investment companies were being formed, and many of the most prominent figures in the business world, were drawn from the old established business dynasties and landed families. This brought home the rather obvious discrepancy between the managerialist theories that social scientists used to understand the nature of power within the economy and my rudimentary factual observations of what was going on in Scotland.

It seemed, therefore, that the rather bald contrast that had been set up between family capitalists, on the one hand, and salaried managers, on the other, was rather too crude. Managerialist theory provided an inadequate set of concepts for understanding the structure of power in business. There are a whole series of intermediate groups between the classical family entrepreneurs and the salaried managers, these groups showing varying degrees of ownership and of executive position. Even when we are dealing with salaried managers in large companies, it does not seem correct to say that ownership has become irrelevant to control - ownership is clearly an important factor, an important constraint on what managers can or cannot do.

The principal alternative to this managerial position was rooted in a Marxist framework and provided a rather different picture of capitalist development. The argument here was that there had, indeed, been some kind of transformation of the old family entrepreneurs, but there had also been a parallel rise of bank and financial shareholdings. The financial institutions were themselves controlled by certain of the old capitalist families, and through these financial shareholdings - through their ownership and control of banks and other financial institutions - the major capitalist families were able to control large numbers of industrial and commercial companies. The managers who were apparently the dominant forces in these companies were merely the subordinates in a system of 'finance capital'. According to the orthodox Marxist position, then, the surviving business dynasties have become 'finance capitalists' with extensive interests and power throughout the economy.

This alternative picture did seem to point to a number of very important and quite interesting characteristics of the modern world. In particular, it recognized the growth of financial institutions and of their corporate shareholdings. It also suggested the possibility that there could be powerful business dynasties which hold important positions in 'financial interest groups' and other kinds of corporate groupings, rather than having a simple focus on individual corporations. But it was clear that there were certain fundamental problems with the Marxist position and that the only way forward was to undertake some research that would try to explore these issues.

It is rather strange that there has been so little research into these topics in Britain. There has been the path-breaking work of Florence (1951) in the early 1950s, and Theo Nichols (1967) had undertaken a small-scale study of ownership and ideology, but there had been no sustained investigation since that of Florence. The main exceptions had been a number of 'elite' studies that had looked at the social background and recruitment of economic elites. These studies were, however, disconnected from the existing work on ownership and control. The small scale study of ownership and control in Scotland that I began in 1973 was intended to be a rapid case study investigation to examine some of these issues: almost 20 years later, I am still struggling with the same theories and the debates that surround them. The aim was to outline the baseline development of Scottish capital as it existed before the first world war to and relate this to similar cross-sectional data for the 1930s, the 1950s and the 1970s (Scott and Hughes 1980).

The most significant thing to emerge from Marxist writing and the works of those who were influenced by this approach was the recognition of intercorporate networks. Zeitlin (1974), for example, pointed to the need to explore the inter-weaving and intersecting chains of connection which link companies to one another. The modern business enterprise could not be treated as a sovereign unit of decision-making, as its operations were embedded in complex networks of relations. In my research, I aimed to explore these business networks.

It was clear from the Scottish research that the regional dimension was important. Scotland was an autonomous regional economy which was, nevertheless, firmly embedded in a wider national and international structure. In the middle of the 1970s I began to look beyond Scottish capital to the ownership and control of British companies. This put the Scottish research into its national and global context, and also broadened the methodological aspects of the research. My work formed part of a collaborative ten-nation study which looked at business organization in Europe and the United States. This research generated comparative models of the patterns and level of inter-connection in these economies (Stokman et al. 1985, Scott and Griff 1984).

It was through the Scottish research that I first started to look at interlocking directorships, one of the subjects that has been explored in American research on business power. An interlocking directorship exists when a particular person sits on the board of two companies and so creates an 'interlock' between them. Interlocks have been widely used in the United States as ways of charting the structure of economic power. The structure of these interlocks, the 'social networks' that emerge, gives a 'map' of the structure of capital and power in business. The 1970s was a period in which there had been a massive growth of technical research on social networks and a number of new techniques became available. Because of the easier availability of computer programs, it was possible to apply these to the study of interlocks and shareholdings.

I had already made some attempt to examine patterns of shareholdings in the Scottish research. This had showed that the structure of capital in large companies did, indeed, involve extensive and interweaving chains of investment. It was not the case, as Berle and Means (1932) and earlier writers had suggested, that share capital had been dispersed to a large anonymous mass of individuals. Shares were owned principally by large financial institutions - banks, insurance companies and pension funds - and each of these institutions held shares in many different companies. This meant that interlocking directorships between companies were complemented by interweaving or interlocking shareholdings. It seemed possible, therefore, to apply the same kind of techniques of social network analysis to the pattern of shareholdings as had already been applied to the board level connections between companies.

I began some comparative research on Britain, the United States and Japan and tried to investigate these networks of shareholding directly and this enabled me to approach some of the core issues in the debate between managerialist and Marxist theories (Scott 1986; see also Scott 1985). Both theoretical frameworks assumed a rather uniform pattern of capitalist development. They assumed that all capitalist economies would show a similar structure. For the managerialists, this was a structure of isolated and sovereign managerial enterprises which comprised the 'visible hands' of the corporate system. For the Marxists on the other hand, it was a pattern of finance capital, with corporate business groupings organized around the major banks. Even a cursory examination of the comparative evidence showed that there was no single pattern. There were a number of important national variations, and it was important to try and explore these further. The techniques of social network analysis could be used to provide a description of the variations, and research could then proceed to explore ways of explaining them.

Social Network Analysis

Social network analysis is a method for handling relational data of any kind: the various contacts, ties, connections, group attachments, and meetings that people have and which relate one person or group to another (Scott 1991). It is centrally focused on the *structure* of data, and it stands in contrasts to the techniques of survey analysis and similar procedures that are more quantitative in approach. Although it is often seen as a highly mathematical approach, and it does, indeed, have mathematical foundations, it involves a *qualitative* focus on the structure of social relations.

The ideas of social network analysis can be traced back to some of the early concerns of people like Simmel in his writing on the dyad, the triad and small groups. Radcliffe-Brown, in his analysis of social structure, made a major contribution to this area, and it was developed very rapidly in small group research and in social anthropology. There was a big expansion of research in the 1960s and 70s, particularly in the United States, when people began to apply much more rigorous mathematical approaches, using computer technology, to the development of social network analysis. Nevertheless, the basic ideas of social network analysis are really very simple and straightforward, and they have a wide range of applications.

The central idea involves a distinction between 'points' and 'lines'. The points in a network refer to the agents, the individuals, or the groups, and the lines refer to the social relationships that connect them. In this way, a researcher can very easily represent people by points on the page and can connect them up by drawing lines. This results in an intuitively meaningful picture of the structure of a particular interorganizational network, kinship network, political network and so on. That basic idea can be found in many early studies of economic elites, where companies are represented by points and the interlocking directorships by the lines. There are certain obvious limitations to these diagrams: while it is possible to draw a diagram fairly easily for 10 or a dozen companies, it is simply not possible for 250 companies. Social network analysis provides a more formal way of handling these data. It carries the same information as the diagram, but in a more precise form. This is where the mathematical basis of social network analysis comes in, and, in particular, the mathematical theory of graphs. Graph theory is a mathematical approach that can be applied to studying relationships between points and lines and can generate a whole complex of ideas that can be used for studying social networks.

The nature of social network analysis can be illustrated by looking at some of its main concepts. I shall look at density, centrality, clique, and position. The *density* of a network is the general level of linkage among the points: how compact or condensed the network is. This has been very important, although, perhaps, a rather limited comparative measure of the overall structure of networks. It is possible to say, for example, that the network in country A is rather dense compared with the much looser network found in country B. This idea of density goes back to some of the very early social network research of Elizabeth Bott (1957), where she talked about the loose knit nature of various kinship networks. Density is, therefore, an important structural measure for social networks.

Another important concept is that of *centrality*, which refers to the 'popularity' of a particular point. In this sense, the best connected points in a network can be regarded as its most central points. This is the old sociometric idea of the 'star' within the small group: the person who is the focus of attention is the centre of that network. It is possible, for example, to identify central and peripheral points within a network. This idea has been very important in studies of business power, where researchers have looked at the centrality of banks in corporate networks. Bank directors tend to have more directorships than anybody else in the corporate world, and this puts the banks themselves into a central location within the network. Where density is concerned with the overall structure of networks, centrality is concerned with the characteristics of particular points.

The third important idea that I want to consider is the idea of the *clique*. The sociometric idea of the clique emerged in the Hawthorne experiments in the United States during the 1930s. In the Roethlisberger and Dickson account of the experiments a concept of the 'clique' was developed. Their usage of clique was rather loose, and it is still used very widely to refer to almost any kind of sub-grouping within a network although, strictly speaking, the idea of a clique has a very precise definition. What the idea of a clique points to is the fact that we can differentiate networks according to whether or not they contain tight and cohesive sub-groups It is possible to discuss whether some networks form a rather seamless web, whereas others have a much more 'granular' structure being organized around particular sub-groups.

The final concept that I think is central to social network analysis is the idea of the *position*, These are categories of points that have similar patterns of connections within a network. They do not necessarily have the *same* connections, but they are *similar* to one another. Examples of positions might be roles or classes. In terms of roles, for example, fathers all have similar relations to their children but they do not all have relationships to the same children. It is possible, then, to identify the position of the father, the position of the child, and certain structural relations between fathers and children. Whereas the idea of the clique indicates a tightly-knit group of mutually interlinked individuals, the idea of the position indicates a category of agents who may or may not be connected with one another but who do have certain similar types of relations to other positions. In corporate networks, for example, it is possible to identify dominant and subordinate positions.

Intercorporate Networks

I have already suggested that interlocking directorships are one of the most important types of intercorporate relations to have been studied. They are important however, mainly, because they are so easy to study, compared with other intercorporate relations. Researchers can collect information in the library from business directories and *Who's Who* - they are all published every year and are easily accessible. They can start drawing impressive diagrams and can come up with structural models that seem to tell us something about the nature of economic power. The more sophisticated studies make it clear that interlocking directorships, whatever their intrinsic importance, are *indicators* of other types of power relation. They indicate, for example, the degree of closeness between the companies concerned, with the sharing of a director somehow expressing that closeness. What, clearly, has to be done is to investigate those other power relations themselves rather more directly. Interlocking directorships can be important sources of power and so can be important power relations, but researchers have to try and investigate the other power relations that can exist in corporate economies.

I have suggested elsewhere (Scott 1991a) that it is possible to identify a number of different intercorporate relations. Specifically, we can identify personal relations, capital relations and commercial relations, each of which can occur at a number of different levels within the economy: at the level of 'people', the level of 'enterprises' and the level of 'sectors'. I will say just a little about each of these three types of intercorporate relation, and I will try to indicate how we can study these different kinds of relationships at those various levels.

Personal relations are the relations that involve some kind of direct contact between individual people and which, therefore, involve a sharing or exchange of people. The interlocking directorship is one particular example, where there is the sharing of people between two enterprises. Other examples would be kinship relations within business, where interpersonal links are derived from a common interest in a business enterprise. Further types of personal relations in business studied are friendship relations, club affiliations and so on, in so far as these establish links between companies.

Capital relations are those links between agents that result from shareholdings and/or from relations, of lending and borrowing. These links are much more difficult to study than interlocking directorships. They include family portfolio investments, where families invest in a number of different companies; institutional shareholdings, where banks and insurance companies invest in a number of companies; and bank lending relations, which create links between the bank and those who borrow from them. In all these cases, investments and lending create capital relations between the companies, banks, and families concerned.

Finally, we can identify *commercial relations*, which are the direct trading links that result from ordinary buying and selling operations on the market. These are the relations involved in cartels, trust and so on. Whereas personal and capital relations are centrally involved in the structure of *control* within economies, commercial relations are much more tied to the structure of the market itself and should not be regarded as control relations. This distinction between market relations and control relations has an obvious affinity with - and equally obvious differences from - Williamson's (1970) distinction between market and hierarchy.

Systems of Modern Capitalism

Both Marxist theory and managerialist theory assume that because all capitalist economies have fundamental common characteristics, they would also show a common pattern of development. Initially, I assumed the same thing. I assumed that the basic structure of intercorporate relations would be similar in all the leading capitalist societies. A comparative study, however, discloses a number of significant variations in network structure. While it might be possible to identify a very general pattern that is common to all capitalist economies, that pattern takes a different form in each national economy. A pressing task for research was to identify the principal variants and to relate them to the underlying pattern. It became clear that such a task must be both comparative and historical.

The underlying trend that can be identified is a move away from 'personal' forms of ownership, and entrepreneurial capital, towards more 'impersonal' forms of control. Impersonal forms of control, involving banks, financial institutions and other corporate investors, have increasingly become the dominant features of capitalist business. This is not to say that personal, entrepreneurial ownership has disappeared. It has simply become less significant and it is no longer the dominant element in advanced capitalist economies. This trend, like all trends, is uneven in its development, but it does seem to be a universal feature of all advanced capitalist economies. There are, however, a number of different paths from personal ownership to impersonal control. Each country begins its capitalist development at a different point, and so follows a distinct path of development. The particular path followed depends on the specific historical circumstances, the cultural and political context of economic development, and the location of the economy in the global political economy.

While these processes might seem to imply that each economy must be regarded as unique, as *sui generis*, this is not the case. Similarities in cultural and political structure, and similarities of international context over-ride historical particularity to create a limited number of paths of development. It is possible, I think, to identify five ideal typical paths of capitalist development, resulting in distinctive systems of modern capitalism. These five types are the Anglo-American, the German, the Latin, the Japanese and the Chinese.

The Anglo-American system is that which prevails in many of the largest capitalist economies. It is the pattern which is found in the United States, Britain, Canada, Australia and New Zealand. This system developed from a very strong basis of entrepreneurial capital and a strong well-established stock exchange system for corporate finance. Those are the two points of origin of this Anglo-American system. Under these circumstances, and under the influence of an English system of company and commercial law, the move away from entrepreneurial capital leads to a structure of institutional capital. In such a system, shares are held by financial institutions: banks, pension funds, insurance companies, unit trusts and so on. I have described this as a structure of polyarchic financial hegemony (Scott 1985). The financial institutions are hegemonic in the flow of capital, but the system is polyarchic in character because of the many different and competing institutions involved.

The pattern of the intercorporate networks in the Anglo-American economies, particularly that of shareholdings appears as a seamless web. There is very little evidence of any tight group structure of the kind that would be expected on the basis of a Marxist theory of finance capital. On the other hand, the very existence of these webs of connection between companies undermines conventional managerialist theory, which sees the corporation as the sovereign unit of economic decision-making.

Within the economies of the Anglo-American system, a number of family and entrepreneurial firms do survive among the very largest companies, but they have become increasingly less important. Typically, the proportion of family owned companies in the largest 250 companies is around a fifth. The figure is slightly lower in the United States itself because American companies are that much larger than those in, say, Britain, and the possibility for a family to own a significant controlling block of shares in a company is that much more limited. It is also the case that surviving family shareholdings in the United States tend to be minority holdings rather than majority shareholdings.

In terms of both majority and minority ownership, family capital has remained an important feature of these economies, and families also remain important as shareholders in those companies that are controlled by the big financial institutions. The dispersal of shareholding to financial institutions has not completely eliminated family capital. Between a third and a half of all top enterprises in Britain and the United States had a significant influence or actual control by wealthy families. This involved either a direct controlling stake or a family holding of one to two per cent of the share capital (Scott 1986). In the latter case of small family shareholdings, there was often family representation on the board of directors, and so a degree of family influence remained in these impersonally-controlled companies. The family dynasties of the past had not disappeared, but they were playing a rather different role within the system.

The largest enterprises were, nevertheless, characterized by a dispersed pattern of shareholding, a pattern in which shares were held by financial institutions. This involves what I call 'control through a constellation of interests'. This was not managerial control but nor was it bank control as depicted by Marxism. An investigation of the 20 largest shareholders in these big firms shows that they collectively hold anything up to 50 per cent of the shares in a company, but no single shareholder has a large enough stake to out-vote all the others. The 20 largest shareholders dominate the capital structure of the company, but they are a very diverse group involved in intense competition with one another. They are not a unified and cohesive controlling group.

The constellations through which control is exercised dominate both the existing capital and opportunities for new issues in these companies. They structure access to loan capital and they will intervene if they are unhappy with the way in which the management is operating.

It is interesting that some sophisticated writers have developed the managerialist perspective in a similar direction. Edward Herman (1981), for example, holds that large corporations are subject to 'constrained management control'. He has moved away from the idea of management control as originally proposed by Berle and Means (1932) and holds that capitalism the degree of autonomy that managers have in decision-making in modern capitalism is tightly constrained by the interests of the shareholding institutions. The concept of 'control through a constellation of interests' is, however, preferable to that of 'constrained management control' because it emphasizes the position of those who exercise constraint rather than the autonomy of the managers. To continue talking about management control is to carry over many of the other assumptions of managerialist theory that must be dispensed with. Despite differences of terminology, however, there does seem to be an emerging consensus about the nature of control in large companies: a significant degree of constraint over managerial discretion is exercised by constellations of shareholding interests.

An examination of these patterns of control shows a distinctive network of capital and personal relations. In the network of capital relations, the large institutions are entwined with one another through long chains of shareholdings, and they are linked to smaller institutions and to numerous subordinate manufacturers and retailers. There is a seamless and diffuse web of connections with a moderate level of density and a distinction between two structural positions: the *hegemonic* position occupied by the large financial institutions and the *subordinate* position of the industrial and retailing concerns. In the network of personal relations, the directors of the large financial institutions, and particularly the banks, comprise a pool of potential directors for other companies. This is not a simple case of bank executives accumulating directorships, as would occur in a situation of 'bank control'. Industrialists who sit on bank boards are also attractive to other industrial companies as directors.

Those who are associated with banks, this pool of directors, create two network phenomena. First, there is the phenomenon of 'bank centrality'. In the British, American, Canadian and Australian economies it is the banks which are central to the structure of interlocking directorships. Secondly, there is what Michael Useem (1984) has called an 'inner circle' of mutually connected people who dominate the big boards and comprise what he calls the 'leading edge' of business decision-making.

It is clear that the structure of personal and capital relations does not result in the formation of tight corporate groups of the kind depicted in the Marxist theory of finance capital. Shareholdings are not structured into 'cliques', and they are not associated in a one-to-one way with directorships. There are, however, what have been called bank-centred 'spheres of influence'. Around the major banks are formed, in an unintentional way, loose groupings of companies that shift in membership and show a high degree of overlap, but, at any one time, are, nevertheless, an important focus for the communication of information between the various concerns. These bank-centred spheres of influence seem to be an important characteristic of all the Anglo-American economies.

I will be much briefer on the other patterns of modern capitalism. The 'German' system is found in Germany, Austria, Switzerland, and, in a slightly different form, in Scandinavia. This pattern developed in economies which combined a rather weak entrepreneurial system with a weak stock exchange, and in which 'universal' banks played a central role in capital mobilization. The result was a bank-sponsored system of industrialization, and the banks have subsequently maintained this leading role in the economy. The intercorporate network shows bank centrality in a much stronger form than is found in the Anglo-American system, and it is bank centrality in terms of shareholding as well as directorships. There are company groupings around the major banks and these overlap far less than is the case in the bank-centred spheres of influence of the Anglo-American economies. In the German system, each bank is associated with a particular group of industrial companies and the overall network both of capital and of personal relations has a very strong vertical, hierarchical structure to it. There is, then, very considerable evidence for the existence of bank control of the kind depicted by Hilferding (1910), who was after all writing about the German system and was generalizing this to other capitalist economies.

The 'Latin' system is that which exists in France, Belgium and Italy. It developed in economies having a fairly strong base of entrepreneurial capital but a rather weak stock exchange system and a much weaker banking system than existed in the German economies. For these reasons, family holding and investment companies, centred around the major family groups, became the focus for the mobilization of capital from related families and other families in their locality. Interweaving minority shareholdings create financial groups centred around the investment holding companies. This holding system means that company groups do have some of the characteristics of financial groups in the Marxist sense. This is not a system of bank control in that vertical, hierarchical sense; it involves a much more horizontal and granular network structure.

The fourth pattern that I identified was the Japanese. In Japan, a pattern of state-sponsored industrialization occurred and the powerful *zaibatsu* developed as the most important agents in the business system. The wealthy families set up companies to hold shares in subordinate production enterprises and by moving into new industries they created very powerful business groupings. These groups were tied together through majority shareholdings and were linked to the family company at the top. The system in Japan was associated with a very weak stock exchange - and the stock exchange in Japan is still an institution for racketeers and gangsters rather more than for the mobilization of investment capital. The family groups, therefore, set up their own banking and insurance facilities in-house: they formed their own family bank, made their own insurance company, and these would provide services to the companies within the family group. The American occupation authority at the end of the Second World War dispossessed the wealthy families from their positions at the top and it made 'holding companies' illegal. The groups lost their heads, the wealthy families, and there was some attempt to disperse the various companies so that they operated separately. Gradually during the 1950s, however, the companies established much closer links with one another so that the old groupings were re-established but on a new basis. This new basis involved minority shareholdings and reciprocal links rather than links to a particular family.

The Japanese economy has a very characteristic structure today. There are much lower levels of family enterprise than in either Britain or the United States, about a seventh of the largest companies are family owned, and these are found mainly in areas like retailing and construction. One reason for this low level of family enterprise is, of course, that the American occupation removed most of the wealthy families from positions of power in business. But family enterprise had never been very important in Japan outside the charmed circle of the *zaibatsu*. Japan also did not experience the emergence of institutional share ownership of the kind that exists in the Anglo-American economies. Instead, there is a system of what Japanese writers have called 'corporate capital'. It is not simply banks and insurance companies that invest in other companies, industrial companies also invest in one another. These holdings are direct stakes aimed at control and influence, rather than fiduciary or trustee holdings on behalf of pensioners and others.

Institutional capital is far less important in Japan than it is in Britain and the United States, and it is related to variations in the forms of citizenship which emerged in these countries. The particular forms of citizenship that emerged in Britain and in the United States involved ideas of welfare provision that led to the creation of large funded pension schemes. The Japanese idea of citizenship is radically different: pensions are much lower and are paid directly out of the current income of the companies. There is no system of pension fund investment to create the massive scale of institutional investment that you find in Britain and the United States.

The structure of corporate capital in Japan involves reciprocal shareholdings between companies, resulting in an 'alignment' of companies into strong, coalitions. The network of capital relations shows the largest enterprises to be tied together through reciprocal, cross-shareholdings into very tight interest groups. The network of personal relations is very similar in structure, though less dense. The density of the network is, in fact, much lower than in either Britain or the United States, but the interlocking directorships are, for the most part, contained within each of the business groups that are defined by the shareholdings. The so-called Presidents' Clubs are also an important focus of group organization. The presidents, the chief executives, of the firms within a particular group will meet together on, say, the first Thursday of every month, and this is an important way for them to coordinate the activities of the group.

The overall structure of the Japanese intercorporate network is very granular. There are the big six groups, Mitsubishi, Mitsui, Sumitomo and a number of smaller groups that have a similar structure but form rather less extensive groups. The 'little six' groups are Nissan, Toyota, Nippon Steel, Tokai, Tokyu, and Serbu. All have the same structure in so far as they have in-house banking and financial services, cross shareholdings and coordinated decision-making. The big six and the little six groups together accounted for about three fifths of all the large enterprises in Japan during the 1980s.

The final system that I identified was the Chinese system. A growing number of interesting papers have appeared on Taiwan, Singapore and Hong Kong, and they have documented some characteristic patterns of network relations in these economies (Wong 1985, 1988; Numazacki 1986, Hamilton et al. 1987). The emergent systems of business organization are, as yet, characterized by a relatively low level of impersonal ownership, reflecting their late industrialization. Personal, family ownership remains the dominant feature in these economies. They have, nevertheless, shown signs of change as their businesses have grown in size. A particularly important feature of their recent development has been the formation of business groups. But, while Japan shows the existence of large and powerful business groups subject to impersonal ownership, the Chinese economies have smaller and more personal forms of business organization. The differences between the Japanese and Chinese systems, within what is often described as a common 'Confucian' cultural world, must be seen as related to differences in family patterns. Differences in the traditional family systems in China and Japan have resulted in very different patterns of family enterprise and, therefore, different patterns in their business networks. The Chinese economies have shown a structure of loose overlapping groups of family enterprises, tied to one another through personal relations rather than through capital relations. These groups are constantly shifting and breaking down, with new groups emerging because the family inheritance is dispersed amongst the sons of businessmen rather than being retained for a single inheriting eldest son.

Research on Hong Kong, however, has already begun to suggest the direction in which the Chinese economies may move. Gilbert Wong (1989) has shown that the expansion of ethnic Chinese companies during the 1960s and 1970s has produced a number of large and powerful groups, such as those of the Li and Pao families. These families have sought stock exchange listings for their companies and so may avoid the fragmentation that Wong Siu-lun has shown to be characteristic of smaller Chinese companies. Instead, these companies might be expected to experience a pull towards minority control and the forms of impersonal ownership which already characterize the older colonial companies.

What forms of impersonal ownership might emerge is not yet known, but some of the implications for network structure have already become clear. The network of interlocking directorships among the top 125 Hong Kong companies became more extensive and inclusive over the 1980s, but it also became less cohesive and less centralized (Wong 1989). Such a system seems closer to the Latin system than it is to either the Japanese or the Anglo-American. At this point, however, I reach the limits of my speculation, and I must leave clarification to the further research that I hope will be undertaken.

Conclusion

Five routes to modern impersonal control have been identified, each showing a characteristic mixture of 'family' influence and depersonalized 'group' organization. They should be seen as ideal types, and there are a number of important variations. Particular economies must also be expected to change their pattern over time. There is, for example, some evidence that the Canadian and Australian economies during the 1980s have adopted elements of the 'Latin' system alongside the Anglo-American system. A number of entrepreneurial investment groups have become much more important than they were during the 1970s (Carroll and Lewis 1991). This formation of a holding system of investment companies alongside a system of institutional capital has always been characteristic of the South African economy.

It is also interesting to look at the influence that Japanese expansion will have on other economies. Japanese companies have expanded into other East Asian economies and the Pacific rim economies. This is likely to produce further changes in Australia and in New Zealand in response to this Japanese challenge. There is a need to relate the intercorporate networks found in particular national economies to the global political economy within which they are embedded.

Perhaps I can indicate two further areas where this will be important. I have been looking at some of the developments in Eastern Europe and the former Soviet Union, with the drive towards the market economy, and capitalism. It is instructive to speculate about what system of modern capitalism might emerge in these economies. It is very clear that, in most cases, there has been an attempt to completely eradicate the Communist period and to go back to what existed in the 1930s and, in Russia, before 1917. Hungary and Czechoslovakia, were, until the inter-war period, elements in an extended 'German' system, the old Austro-Hungarian world which was dominated by German banks. Their businesses had a very similar structure of ownership and control to that that which existed in Germany. Perhaps those countries will now move in that same direction. It is fairly clear that the German banks are well-poised to play that kind of role, and the experience of Eastern Germany is instructive as Eastern German industry became incorporated into the modern German system. It is more difficult to speculate what might happen elsewhere in the former Soviet bloc. The Baltic States might move in a 'Scandinavian' direction, a variant on the German system. The Ukraine and Poland might form some other variant on the German model, but it is very difficult to predict what is going to happen. One of the most interesting aspects of this research is to see whether totally new patterns of capitalist development, and new forms of network structure, might emerge.

Presenting this paper to an audience in Hong Kong, I cannot end without speculating - or, at least, raising some questions - about the future of the 'Chinese' system. The year 1997 will, of course, bring major changes to Hong Kong and the wider region. What might be the implications if mainland China were, before then, to follow Russia and abandon the Communist road? Such a prospect is no longer unthinkable. If China were to follow a similar line, what forms of business enterprise would emerge? Already Deng's economic reforms have established 'special economic zones' and 'open cities' along China's south and east coast. These pockets of capitalism - officially described as 'socialism with Chinese characteristics' - are transforming the Chinese economy. Shanghai has a stock exchange and millionaire speculators, while foreign capital from Hong Kong, Taiwan, Korea, and Japan is financing the factories that operate in these areas. What will happen in these areas if the political structure were to crumble as it did in the former Soviet Union? Would the business system that I have described as 'Chinese' come to prevail across the mainland, or would a totally different system develop. I have no concrete answers to give to these questions, I can simply leave them for discussion and further exploration.

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《企業交連與社會網絡分析》

（中文摘要）

目前社會學有關財富與社會權力的分析，往往依賴經理主義或新馬克思主義的理論。作者認為兩種理論皆片面地突出了經濟體系內某些組別的影響力，（例如是新興的受薪經理階層、或金融資本家）忽略了現代企業經營決策的複雜性，而其中最重要的一個現象，就是企業之間各式各樣的關係網絡。

作者進一步介紹了社會網絡分析的一些重要概念，例如認清企業群內重要的「點」，和聯繫各點的「線」，那一「點」位處各種交往的中心，各「點」之間互相往還的密度，與及那些「點」有集結的現象等。作者運用這些工具，勾劃出各國企業群在個人關係、資本關係和商業關係上聯繫的網絡。他指出資本主義世界都大略有一種由「個人企業」轉化成「非個人化企業」的控制方式。但由於各國發展的步伐和條件不同，它亦存在著頗為紛異的網絡狀況。作者歸納出當代五種最重要的企業網絡模式：英美式、德國式、拉丁式、日本式和中國式。在不同的模式底下，家庭企業、股份公司和金融組織有各自獨特的組合和聯繫的方法。

作者最後就日本的經濟擴張和東歐集團劇變對企業網絡模式所帶來的影響，作出有趣的推斷。