Social Support Networks
A critical review of models and findings

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Introduction

Recent years have witnessed a remarkable growth in the number of studies which explore the relationship between the structure of people's social networks of friends, relatives, neighbours and associates on the one hand and, on the other, various aspects of individual wellbeing and hardship. The underlying proposition common to these studies is that if we want to understand why some people, but not others, utilise antenatal clinics, obtain good jobs, avoid becoming depressed, and so on, we should look for answers not in the individuals themselves, nor in social systems, but rather in the social networks in which people are embedded. The proposition is well put by Fischer (1976:100):

> It is a cardinal principle of sociology that people neither truly experience nor act on the environment as separate individuals; instead, their experiences and actions are mediated by social networks.

A corollary of this view is that, if we want to learn how particular social systems or social structures affect individual wellbeing, we should do so by looking at ways in which societal processes help to shape personal social networks. A further corollary, posited mainly in some circles of social work and psychotherapy, asserts that intervention aimed at helping individuals overcome particular problems is best carried out via the individual's social network. Alongside social network analysis we now find network-based intervention and 'network therapy'.

In Part One of this monograph I hope, firstly, to bring some order to this rapidly growing field by identifying and evaluating the major explanatory models in use and summarising important findings. The models concerned have their origins in disciplines as diverse as anthropology, sociology, social psychology and social psychiatry, so part of the object here will be to formulate an inter-disciplinary synthesis. Secondly, I shall try to present a theoretical critique of the social network perspective as applied to the study of social support, arguing that, while it provides us
with a useful theoretical framework for answering one set of questions, for another, equally important set, its value is descriptive rather than explanatory.

The structure of Part One is as follows: in Chapter One, I trace the reasons behind the growth of the social network perspective (since these reasons help to explain why researchers have asked the kind of questions they have asked), and outline important elements of that perspective. Chapters Two and Three deal with the two main sets of questions to which a social network perspective gives rise: firstly (Chapter Two) how do particular kinds of network structure affect personal wellbeing? Secondly (Chapter Three), how do social factors such as incomes, values, and mobility affect the structures of personal social networks? Chapter Four is a very brief guide to literature on service delivery through 'natural networks' (Collins and Pancoast, 1976) and 'network therapy', and Chapter Five is a summary.

Part Two of the monograph is concerned with methodological issues involved in research on support networks. It contains a discussion of the problems involved in collecting and analysing support network data and a review of solutions that have been proposed to deal with these problems.

The monograph also contains an appendix: a checklist, in which literature is classified according to the kinds of empirical, theoretical or methodological information it contains. The appendix is set out so as to provide a ready reference for readers wishing to pursue particular questions further.

Although, throughout the monograph, I attempt to incorporate studies and findings from many countries, particular emphasis is given to Australian research literature. At the same time, and because of limitations of time and space, I have neglected many studies from third world societies on the grounds that their findings are not readily applicable to Australian conditions. Only those third world studies which seemed to have broader theoretical or methodological implications have been included.
Part 1  
A critical review of models and findings
The basic idea underlying the social network perspective is, to quote Mitchell's early definition, that of a social network as a specific set of linkages among a defined set of persons, with the additional property that the characteristics of these linkages as a whole may be used to interpret the social behaviour of the persons involved (Mitchell, 1969:2).

In some ways this concept is hardly new. Simmel (1964) explored the implications for social behaviour of different structures of relationships, and much later Radcliffe-Brown (1940) attempted to make the network concept a central one in social anthropology. But for these and other writers, the social network was essentially a suggestive metaphor rather than an analytical concept. It was only in the 1950s and 1960s, largely as a result of the work of social anthropologists such as Barnes (1954; 1969a), Bott (1971) and Mitchell (1969), that the network concept came to be used analytically (Hannerz, 1980: 163-201). The formulation of concepts used to describe networks as structural entities, such as size and density (the ratio of existing links in a network to the number of possible links), and others to describe particular relationships, such as multiplexity (i.e. the existence of two or more types of content in a relationship), made it possible for the first time to analyse and compare systematically the properties of social networks. Since that time, developments in computer technology have further facilitated the analysis of network data (Wolfe, 1978).

More recently, some proponents of the social network perspective have attempted to broaden its applicability by talking, more abstractly, of ties or linkages between nodes, rather than persons, in a social system (Wellman, 1980:2). The nodes may be persons, but they may also be groups, corporations, political parties or other institutions, depending upon the researcher's analytical framework and interests. Similarly, the
The social network model

links may be ties of social interaction, kinship, or friendship, but they might also refer to relationships of domination, exploitation, etc. In studies of social support networks the node is usually the individual or the family, and the links usually refer to interpersonal ties of one sort or another.

Why are social networks relevant to the study of social support? Two groups of reasons must be considered: the first are intellectual reasons, to do with the social network model; the second are pragmatic reasons, having to do with the social and political climate in which interest in informal support systems has grown. I shall deal briefly with each in turn.

One important reason for the growth of social network analysis in general is that the model of the social network is held, by its proponents, to correspond more closely with the structure of social relationships in complex societies than do other analytical frameworks. The social network model, in other words, is regarded as a superior way of describing social reality. To clarify what is meant here, it is necessary to contrast the social network model with the two main alternative approaches used in social explanation. The first of these is the categorical approach: individuals (or groups, or other social entities) are categorised in terms of variables such as occupation, age, income, socio-economic status, etc., and researchers attempt to build explanations on the basis of observed correlations between independent and dependent variables. Clearly, some aspects of social behaviour can be explained partly in terms of differences in income, age, etc. and for this reason, social network analysis often incorporates these and other categories. But a categorical analysis does not usually help in describing or explaining the processes through which differences in occupation or age affect behaviour, the reason being — as Fischer indicates in the earlier quotation — that people do not behave as atomised members of particular categories. They behave as members of social networks.

The other framework traditionally employed in social analysis is the study of groups: family, village, neighbourhood, etc. Whatever the unit, the assumption underlying this approach is that significant aspects of social behaviour can be explained by studying the groups within which people are embedded. Much of the early impetus for social network analysis took the form of a reaction against this assumption. Social anthropologists in particular, faced with the breakdown of small-scale social boundaries and the increasing scale and complexity of the societies they were studying, argued that the analysis of social processes in groups was not wrong per se but inadequate for an understanding of social behaviour (Srinivas and Béteille, 1964). Migration studies drew attention to the importance, not just of the immediate social milieu of migrants in the host city or country, but of the ties migrants maintained with their native villages or towns (e.g. P. Mayer, 1968; Gutkind, 1965b, MacDonald & MacDonald, 1964). Most influential of all, perhaps, was
Bott's (1971) study of twenty London families. She argued that families' social environments were best understood, not as groups of people, or as the local area in which the families lived, but rather as networks of relationships. Some of these relationships might be based on kinship, others on locality, others on occupation. Some of a particular family's friends might know each other, others might not.

Bott saw the network as standing at a mid-point between the individual, or the family, and the wider society, shaped both by forces in the wider society and by choices made by individuals. Fischer et al (1977) have adopted a similar perspective in advancing what they call a 'choice-constraint' model of social behaviour (Jackson, Fischer and Jones, 1977: 42-43), according to which people build networks of relationships by exercising choice, but under socially-imposed constraints. In choosing to interact socially with a particular colleague, for instance, or to seek help from a neighbour rather than a relative, individuals weigh up the perceived rewards (e.g. companionship; services) and costs (e.g. travel time involved in visiting), acting in terms of 'bounded rationality' — that is, in the face of incomplete information. However, the contexts within which choices are made, and the rewards and costs associated with particular choices, are affected by social factors such as occupation, income, ethnic background, sex, and place of residence. A shift of job or residence, for instance, imposes new costs on maintaining one set of ties, but opens opportunities for the formation of new ones. A woman leaving the workforce on becoming a mother is likely to find that the maintenance of workplace-based relationships demands more time and effort, while neighbourhood-based ties with other mothers may become both easier to build and more relevant to current needs. McCall and Simmons (1978), in proposing an 'interactional' model of social behaviour, conceptualise the totality of these constraints as forming an 'interaction opportunity structure'.

Whereas categorical analysis focuses on the individual and his or her attributes (age, income, etc.) and has little to say about social relationships, network analysis directs attention away from individual people, towards the relationships between people. Moreover, it treats relationships not as isolated dyads, but as parts of structures. As Barnes (1972:3) puts it, a network model enables us 'to discover how A, who is in touch with B and C, is affected by the relation between B and C'.

Another strand which has contributed to the growth of the network perspective, and one which is relevant to the study of support networks, is the increasing interest shown by social scientists in the social distribution of resources, material and non-material. Previously sociologists and anthropologists alike, particularly proponents of the 'structural-functional' model of society, had stressed the importance of shared norms and values in the maintenance of social systems. The social network model has helped researchers to examine the ways in which individuals' access to scarce resources is subject to constraints over and
above the constraints imposed by norms and values (see especially Boissevain, 1974). As Wellman puts it, a network analytical perspective directs attention to 'the social distribution of possibilities: the unequal availability of resources such as information, wealth and influence, and the structures through which people have access to such resources' (1980:8).

If we adopt a 'choice-constraint' model of social networks and behaviour, and combine with it a focus on 'the social distribution of possibilities', then two major questions emerge for empirical investigation: firstly, that of the ways in which particular personal social network structures facilitate or hinder the individual's access to resources of various kinds; secondly, that of how social factors which have their origin in the wider social structure, such as occupation, income and type of neighbourhood, affect the structures of personal social networks. It is around these two questions that the greater part of this monograph is organised.

One point which should be clarified at the outset is the question of the theoretical status of the social network model. Some social scientists (e.g. Barnes, 1972; Kapferer, 1973; Fischer, 1977) see the concept of the social network as essentially descriptive. For network analysis to attain explanatory power, they argue, social network analysis needs to be linked to a sociological theory such as exchange theory (Blau, 1964). For others (e.g. Thompson, 1973), social network analysis amounts to, or has the potential to become, a theory of social behaviour. The position I adopt in this monograph draws to some extent on both views: I shall argue that, in considering the effects of different support network structures on individual wellbeing, the social network model has explanatory, or theoretical, power. That is to say, we can use the social network model not only to describe an individual's social support, but to account for the effectiveness or lack of effectiveness of that support. On the other hand, in looking at the effects of social structure on personal social networks, the social network model serves as a descriptive tool. If we want to know why social networks have particular structures, we will not find the answers by looking at the networks themselves. Instead, we will have to look at the social contexts in which network-links are formed, and at the kinds of opportunities and constraints generated by these contexts. (In a recent article, Feld (1981) has made some suggestions as to how attributes of social contexts (which he calls 'foci') can be analysed in order to explain the structures of social networks.) Many attempts to explain social network structures are less useful than they might be because they lack a broader framework.

To avoid terminological confusion, I shall speak of the 'social network model', the term 'model' here referring to a set of interrelated concepts or variables which are held to be useful for descriptive and/or explanatory purposes. Following this approach, we may speak of models for which explanatory power is claimed as theoretical or explanatory models.
and those for which descriptive powers only are claimed as descriptive models (Lin, 1976; Abell, 1971).

**Social and political influences**

As suggested earlier, the recent growth of interest in informal support networks owes its impetus not only to intellectual developments in the social sciences, but also to social and political factors. Much of the research carried out recently has been motivated by a desire to reform the relationship between formal and informal support structures.

Informal support networks are portrayed, sometimes by implication and sometimes explicitly, as more responsive to real human needs than the bureaucratic structures of the modern welfare state (Caplan, 1974; Collins and Pancoast, 1976; Parker, 1978; Hadley and McGrath, 1979). They are also seen as being more cost-effective. Part of Collins and Pancoast's (1976) argument for greater use of 'natural networks' in service delivery is based on a conviction that such a policy would enable social workers to deliver more services, more economically, to people who are often not reached by more formal delivery systems. Gourash (1976: 420) suggests that a greater understanding of the functions of informal support networks might enable the administrators of formal agencies to direct their limited resources more efficiently. Berger and Wuescher (1975) argue that further research on support networks is needed as a basis for monitoring and evaluating therapeutic interventions.

At the same time, interest in informal networks has been promoted by groups advocating 'grass-roots' social changes. Many of the action groups and self-help groups that have sprung up over issues such as tenants' rights, child care, gay rights and conservation have adopted a strategy of mobilising and maintaining support through informal networks.

Current interest in informal support networks, in short, is associated ideologically with a distaste for what are seen as large, impersonal institutions, and a desire to promote smaller 'mediating structures' (Berger, 1976). It reflects conservative, reformist and occasionally revolutionary versions of an essentially pluralist view of society, and it carries potential political implications of both a conservative and reformist nature: on the one hand, greater understanding of informal support structures could be used (at least in principle) to help make formal service delivery less alienating and ineffective for recipients. On the other hand, it could also be used as an ideological justification for cutting back on existing formal services.
2 Effects of social support networks on wellbeing

Walker, MacBride and Vachon (1977:35) define an individual's support network as 'that set of personal contacts through which the individual maintains his social identity and receives emotional support, material aid and services, information and new social contacts'. Researchers investigating the relationship between network structures and access to resources have postulated a number of explanatory models, and in this section I shall try not only to review major findings, but also to look critically at the dominant models. I shall outline, firstly, what might be called the 'stress-buffer' model, and secondly, the closely related 'social bonds' model. Having criticised these, I shall then discuss a less well-established, but in my view preferable, theoretical framework which has been labelled a 'feedback/access' model (Hammer, 1981).

The social network as stress-buffer

Much of the recent literature on social networks and wellbeing is epidemiological in nature, and utilises a model based on the concept of the social network as a stress-buffering mechanism. According to this perspective, a person's wellbeing is to a large extent determined by the interplay of two psychological processes: the incidence of stressful life events (or 'stressor situations') and the availability of social support (Dean and Lin, 1977; Caplan, Cassel and Gore, 1977). Stressor situations can take various forms, ranging in scale from natural disasters to the loss of a job by an individual. Lieberman and Glidewell (1978:407-408) distinguish three relevant categories of events:

1 relatively unexpected crises, such as separation, divorce, unemployment, demotion;
2 transitions associated with life-cycle changes, such as marriage or the birth of a child, and
3 *role-strains*, that is, the often chronic strains embedded in particular roles or relationships, such as work overload or marital strains. The effects of stressful events are said to be mediated by the individual's social environment, seen in terms of his or her network of supportive relationships. Some networks may aggravate the stressor effects; others will provide a 'buffer' against them (Dean and Lin, 1977: 404). Most of the research based on this model consists of a search for correlations between stressful events, social support variables, and wellbeing. Much of the research has an overtly pragmatic aim: it is argued (e.g. by Andrews *et al*, 1978:308) that, whereas the incidence of stressful events themselves, such as job loss or the death of a loved one, often cannot be prevented, psychotherapeutic intervention can feasibly be directed towards bolstering people's support networks. Such a viewpoint has significant ideological implications, insofar as it casts an aura of natural inevitability over phenomena like environmentally-based stress and stresses induced by unemployment which, from a different perspective, can be seen to have a societal rather than 'natural' basis. However, not all of the studies of this genre incorporate these assumptions.

The psychosocial processes by which social support is held to provide a buffer against stress are not always defined clearly. The most influential model postulates a 'feedback' process. Caplan, Cassel and Gore (1977) cite both biological and social-psychological evidence to argue that, among humans, stressful life events create a situation in which the individual cannot obtain meaningful information about whether or not his or her actions are having the desired consequences. Caplan (1974) has carried the same line of thought a stage further to argue that, in contemporary large-scale urban societies, where much interaction takes place between strangers, individuals do not receive at a societal level the feedback necessary to confirm or correct their expectations about others, about the consequences of their actions, or even about how they themselves are perceived. Where feedback is absent, susceptibility to ill-health increases. In today's society, feedback can only be provided by smaller-scale networks of supportive relationships, within which the focal individual is regarded as a unique individual rather than as the occupant of a particular role. Support systems, according to Caplan, have three purposes: they help the individual to mobilise his or her psychological resources; they share tasks; and they provide material help to the individual (1974:6).

Caplan distinguishes various kinds of support system. The most basic is the network of family, friends and neighbours which provides guidance, self-validation, assistance in coping with chronic problems and occasional help in the event of emergencies. However, when unusual kinds of help are required, the individual may draw upon a second level of support by seeking information or assistance from people recognised in the local community as informal care-givers. These can be of two kinds: 'general-
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ists', who are regarded as knowledgeable on a wide range of matters, and 'specialists', who often gain their reputation through having themselves coped successfully with particular kinds of problems. Another set of support systems consists of organised, non-professional and usually voluntary service groups. Again, these are of two kinds: 'generalist' bodies such as Rotary and veterans' groups, and 'specialist' mutual-help bodies like Alcoholics Anonymous and Parents without Partners. Finally, Caplan includes religious denominations as a distinct kind of support system, asserting (with respect to the U.S.) that they 'are the most widely available organized support systems in the community and probably cater on a regular basis to more people than all the others' (1974:25).

The proposition that one's personal wellbeing and capacity to cope with crises are somehow related to the structure and quality of one's network of relationships is of course not a new one in social science; Durkheim's early classic (1952), for instance, made precisely this point with respect to suicide, albeit not in network analytic terms. However, it is only fairly recently that evidence has begun to be gathered about the range of effects of personal network structure. Pilisuk and Froland (1978:275) and Kaplan, Cassel and Gore (1977:49) review a number of studies which, they conclude, indicate that the incidence of suicides, homicides, car accidents, alcoholism, tuberculosis, schizophrenia and proneness to accidents can all be related to the presence or absence of support networks. Henderson (1980) reviews several studies which link psychiatric disorders to attributes of support systems, while Ratcliffe (1978; 1980) has published an extensive classified bibliography of studies which investigate associations between social networks and health.

In general, the findings of these epidemiological studies are suggestive rather than conclusive. For example, Tolsdorfs (1974) study of 10 male hospitalised schizophrenic patients and a matching group of 10 non-psychiatric patients found that members of the two groups did not differ significantly in network size, but that the schizophrenic group's networks contained a significantly higher proportion of kin, and fewer multiplex relationships (relationships characterised by more than one type of content) than the matching group's networks. However, Sokolovsky et al (1978), who studied samples of ex-psychiatric patients living in a New York S.R.O. hotel, as well as residents with no psychiatric history, found that ex-schizophrenic patients with residual symptoms formed smaller networks than others, as well as fewer multiplex ties. Moreover, the authors found an association between small network size and high rates of rehospitalisation. Both studies found that people formerly or currently diagnosed as schizophrenic tended to form few relationships in which they provided resources to others.

The stress-buffering effects of social support networks on the consequences of unemployment were investigated by Gore (1978), who used as her sample 100 married males in blue-collar jobs who had been laid off as
a result of two plant closures in the U.S. Gore found no significant association between level of support and the length of time it took to find another job, or between level of support and degree of economic deprivation. However, she found that, while unemployed, those who lacked social support exhibited more severe health-related problems than those who had support. Also, those without support reported a higher level of perceived economic deprivation than those with support.

The effects of differing support systems among the aged have been studied by several researchers. Brody et al (1978), for example, found that the presence or absence of a spouse or children had far more bearing on whether disabled aged people were institutionalised than the level of disability. Lowenthal and Haven (1968), in a study of 280 aged persons in San Francisco, found that the presence of a confidant appeared to act as a buffer against the social losses associated with ageing, such as widowhood and retirement. However, it did not act in this manner against the effects of serious illness.

In a study of a general urban population, Andrews et al (1978) investigated the relationship between social support and psychological wellbeing among a sample of 863 respondents in Sydney. However, in their research design they postulated the presence of another mediating variable between stressful events and social support on the one hand, and mental health on the other: namely, 'coping style'. This they operationalised, somewhat crudely, by distinguishing between what they deemed to be 'mature' and 'immature' responses to two hypothetical issues: firstly, how one might respond if an in-law whom one disliked came to stay at one's home for the week-end, and secondly, how one might respond if threatened with the sack for a mistake actually made by one's friend (Andrews et al, 1978:309-310). While the study revealed an association between the variables, it was not of the kind anticipated. Rather than social support and coping style mediating between stressful events and psychological impairment, the authors found that social support and coping style appeared to affect psychological wellbeing independently of the degree of stress.

Social networks and social bonds

Another explanatory model, closely related to the 'stress-buffer' perspective, is the 'social bond' model developed by Henderson and his colleagues at the Social Psychiatry Research Unit in Canberra (Henderson, 1977a; Henderson and Byrne, 1977; Henderson, 1980a; Henderson et al, in press). Theoretically the 'social bond' model draws on Bowlby's (1977) attachment theory, social network theory, and on Weiss's categorisation of six important provisions of social relationships: attachment, social integration, reassurance of worth, opportunity for nurturing others, reliable alliance, and availability of help and guidance (Weiss,
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The Henderson group has carried out several studies in Canberra. In one of these (Henderson et al., 1978a), they compared a sample of non-psychotic psychiatric outpatients (N=50) with a healthy control group (N=45) and found that, compared to the controls, the patient group had fewer contacts with people outside their primary groups, fewer 'attachment figures' and a lower level of perceived social support. Although they spent as much time as the controls interacting with others in their primary group, proportionately more of this time was described as unpleasant. Henderson and others have also carried out studies of non-clinical Canberra populations (Henderson et al., 1978b; 1979; 1980) which indicate the presence of an association between neurosis and lack of social ties.

**Review of epidemiological studies**

Epidemiological studies of this kind are clearly useful for the light they cast on inter-relationships between social and biological processes in the etiology of illnesses but, from a sociological point of view, they are open to four criticisms: the first three concern the conceptualisations of support networks, stressful events and social support respectively, while the fourth concerns the underlying concept of the individual as a social actor. I shall deal with each in turn.

Although the 'stress-buffer' and related models attach considerable importance to the social network as a mediating mechanism, few studies based on these models actually gather data on network structures, apart from some indications of network size. (Two exceptions, among studies cited above, are those by Tolsdorf (1976) and Sokolovsky et al. (1978).) Properties such as the social heterogeneity or degree of clustering of networks are rarely examined, despite the existence of both theoretical grounds and empirical evidence to suggest that these factors have important social consequences, as we shall see below.

Instead of analysing network structures, most of these studies gather data on the perceived availability of support and on the number of relationships used to meet certain needs. Andrews et al. (1978), for example, assessed social support by means of a three-part questionnaire, comprising items about neighbourhood interaction, the availability of informal support for crises and participation in voluntary organisations. Gore (1978) used a 13-item scale which covered such topics as the respondent's perception of whether or not his wife, friends and relatives were supportive. The Henderson group's 52-item 'Interview Schedule for Social Interaction (ISSI)' asks respondents about the number of people with whom they share strong affectual attachments, and about the perceived adequacy of these relationships. Other questions elicit information about the number of friends and acquaintances with whom respondents have contact, and about the perceived adequacy of these
relationships. In a similar vein, respondents are asked about the number of relationships currently available for the provision of each of Weiss's six 'provisions', outlined above. All of these research instruments tap important aspects of respondents' perceived social environments, but they do not furnish data on the structures of respondents' social networks.

The second criticism concerns the conceptualisation of stressful events. The need for a survey instrument which can detect the prevalence of stressful events in large samples has inevitably led to crises being represented as single events, such as 'death of a spouse'. For some stressful events, such as the sudden onset of illness, this may be appropriate but, as Walker, MacBride and Vachon (1977) point out, many crises (including bereavement) typically pass through several distinct phases, each of which generates distinct needs. A support network that may be helpful during one phase may be less helpful, or even a burden, at a later phase. A dense, local network of kin and neighbours, for example, may provide valuable emotional support immediately following the loss of a loved one, but may make it very difficult for an individual to adjust his or her identity and life-style to the new circumstances. Yet the capacity to adapt to changed circumstances is no less a part of wellbeing than the ability to withstand the initial onslaught of a stressful event, and is no less related to the person's social network. The 'stress-buffer' model, however, makes little provision for examining adaptation processes.

Social support also tends to be inadequately conceptualised in these studies. Walker, MacBride and Vachon's definition of a support network, quoted earlier, lists five aspects of social support: maintenance of social identity; emotional support; material aid and services; information; and new social contacts. Most of the epidemiological studies, however, concentrate almost exclusively on the provision of emotional resources, while the availability of and access to material resources is all but ignored. The Henderson group's ISSI schedule, for example, makes no reference to material resources. A 26-item classification scheme of informal helping behaviours, designed by Gottlieb (1978), contains 14 items concerning emotional support but only one on material support. This is despite the fact that, among the 40 supporting mothers whom Gottlieb interviewed in order to gather data for the classification scheme, 'financial difficulties' were among the problems mentioned most frequently as being the respondent's current most stressful problem.

Dean and Lin (1977) have argued that empirical studies of the stress-buffering role of support networks to date have been hampered by inadequate theoretical specification of the concept 'social support' and by an attendant lack of adequate measuring instruments. Their solution to the theoretical question, however, is to identify social support with the functions traditionally associated by sociologists with primary groups, that is, with functions that involve the 'expressive' side of social relation-
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ships, such as mutual concern and emphasis on the person as a unique individual rather than as the incumbent of a role. Again, attention is focused on emotional support at the expense of ‘instrumental’ support, such as assistance in finding a job or accommodation.

One exception to this trend, among social scientists working within the epidemiological framework, is the ‘Social Support Interview Schedule’ devised and tested by Barrera (1979; 1980). The schedule is based on six specified categories of social support, two of which are ‘material aid’ and ‘physical assistance (sharing of tasks)’.

Most of the epidemiological work on support networks has been carried out by social psychologists and social psychiatrists interested in such applied issues as community mental health. It may be that they consider mental states, but not material resources, as lying within their scientific purview. However, it is difficult (at least for this layman) to see how either emotional or material resources can legitimately be excluded from any examination of social influences on individual wellbeing, since the consequences of both are so extensively interwoven.

The fourth and final criticism of this group of studies has to do with the model of the individual as social actor which underlies them. In most of these studies, the individual appears solely as the recipient of social support through his or her network, never as the provider of reciprocal services. To adopt the imagery used by Harré and Secord (1972), the individual is allowed to appear in these studies only as someone to whom things happen, not as someone who makes things happen. To criticise this one-sided perspective is not merely to express a philosophical preference for an alternative view. It is, rather, to recognise the importance of what a social network perspective, more than any other perspective, enables us to study systematically: namely, not only the ways in which the alternatives open to individuals are socially structured, but also the ways in which individuals exercise choice, attribute meanings, form coalitions and pursue goals within the constraints socially imposed.

The need to consider both choice and constraint is nowhere more important than in the study of informal support, since such support is by its very nature usually associated with some sort of reciprocated service (rather than being bought, say, in the marketplace), and the ability to receive support is clearly related to the ability to provide it. The criticism does not apply solely to epidemiological studies of support networks. Townsend (1963:62) has criticised much of the literature on the aged on the grounds that the aged appear only as recipients, never as providers, of services — a bias which in his view has helped to foster the popular notion of the ‘burden’ of the aged on society.

In short, then, most of the epidemiological studies undertaken within the ‘stress-buffer’ and related frameworks suffer from a failure to gather data on the structures of social networks,
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b insufficient attention to the temporal dimension of crises,
c undue emphasis on the provision of emotional support, and
d neglect of the individual as a provider as well as a receiver of support through networks.

The feedback/access model of support networks

While social psychologists and social psychiatrists have tended to use the network model in the manner just outlined, a number of anthropologists and sociologists have seen it as a means of exploring the processes through which individuals actively seek not only emotional but also material resources. Whitten (1970a:272) talks of 'social capital' to refer to 'those [social] resources upon which individuals depend, just as they depend on goods and money for their survival and for the expansion of their personal assets'. Whitten goes on to argue that it is effectively impossible to describe the total networks of individuals in complex societies, and that one can more usefully study the strategies by means of which individuals seek to build and use their networks. Several anthropological studies have adopted this approach (e.g. Stack, 1974; Allan, 1979).

In similar vein, Aronson (1970b) argues that 'we want to know how effective networks or activity-sets ... are selected from extended networks, that is, how 'assets' or 'resources' or 'social capital' are converted to use in particular situations. What are the relative values of assets he has, and what restrictions are placed on their conversion? Why, more specifically, are some ties more potent than others?' (1970b:262).

In reviewing literature in terms of their five aspects of support networks, Walker, MacBride and Vachon (1977) advance a number of hypotheses which, they claim, summarise available evidence on support networks. Some of the hypotheses require qualification, but they provide a useful framework for discussion, and for suggesting answers to the questions posed by Aronson. Firstly, with respect to maintenance of social identity, they suggest that 'a relatively simple and unchanging identity is best maintained by a network of a small size, strong ties, high density, a high level of cultural homogeneity and a low degree of dispersion of membership' (1977:35-36). This network, of course, is the traditional Gemeinschaft discussed by Tönnies, described here in network analytic terms. It is also, for that matter, the kind of ideal network that seems to underline much of the support system and network therapy literature. Dean and Lin's (1977) equating of support systems with primary groups has already been mentioned. Speck and Attneave (1973), two of the pioneers of network therapy, refer to the network therapeutic process as a 'retribalisation' — an almost mystical concentration of communal energies in the face of the anomic, alienating characteristics attributed to modern urban life.
Walker, MacBride and Vachon, however, go on to add that a ‘more complex identity, open to change, would best be maintained by a larger network with a greater number of weak ties, lower density, and greater cultural heterogeneity and dispersion of membership’ (1977:36). In other words, not everyone will want to maintain their identity in a cosy Gemeinschaft.

Interesting support for this proposition comes from Jones’ (1980) study of the informal networks established by 24 middle-class couples over the twelve months following their move to Canberra. Jones found that three patterns of couple network emerged, the ‘couple network’ here referring to the personal networks of husband and wife, treated as a single unit of analysis. In Type I, which comprised 8 couples, husband and wife belonged to the same network ‘clusters’; neither husband nor wife had close friends who were not also friends of the spouse. The networks tended to be close-knit (i.e. of high density), and families tended to interact with others either as family-units or as couples. In Type II couple networks, of which there were 11 examples, husband and wife shared some common clusters and/or close friendships, but each also belonged to at least one cluster, or had at least one close friendship, which the person’s spouse did not share. In Type III couple networks, husband and wife had built up completely mutually separate networks.

As Jones points out, Type I networks shared many characteristics of traditional community-type networks; in fact they usually came into being through the newcomers’ having access to ready-made ‘communities’ of some sort. In the early period of adjustment to the new setting, couples with Type I networks derived valuable support from them. However, by virtue of the structure of the networks, the contents of relationships had to be limited to whatever all the parties to the relationship could share, and by the end of the 12-month period some of these couples were expressing frustration at the fact that the relationships in their networks seemed to have remained at the same shallow levels at which they had begun.

Type II networks, by contrast, took longer to build up but offered greater scope for personal change. On the one hand, the existence of common clusters and shared friendships gave each spouse something of the sense of belonging associated with close-knit groups. At the same time, the independent friendships formed by each spouse lent themselves to change and development. Jones remarks:

Since independent relationships often become more intimate, people with Type II networks were in a position where they could develop and find support for new self-concepts more rapidly than those whose relationships were all shared with the spouse and perhaps the whole family as well (1980:366).

(Type III networks are not relevant to the present discussion, but in passing we may note that Jones found that they did not hinder adaptation
to the new environment, except in those cases where the wives were not employed. Where this occurred, the women experienced severe isolation and associated unhappiness.)

That dense, community-type networks can be a constraint on identity as well as supportive of it is also suggested by Bottomley's (1975b) findings from a study of 25 second-generation Greek migrants in Sydney. Although 9 of the 14 respondents who had what Bottomley defined as 'community' networks found their networks supportive, 5 respondents, of whom 4 were women, found the constraints irksome, particularly in regard to the traditions and norms surrounding marriage.

At a theoretical level, McCall and Simmons (1978) make similar observations from the perspective of their 'interactionist' model of social behaviour. They point out that most of the relationships an individual maintains involve some, but not all, of that person's 'role-identities' (i.e. the ways in which a person likes to think of himself being and acting in particular roles). Quite often some of the role-identities not included in a particular relationship are felt to be incompatible with those that are included. One solution to the problem thus presented is to maintain some sort of network segregation (1978:187-194) — something, however, which could hardly be done in a Gemeinschaft.

Walker, MacBride and Vachon's second set of hypotheses concern the provision of emotional support. Here they draw on theoretical deduction rather than extensive empirical evidence, to argue, firstly, that in a dense, homogeneous network it is more likely that network members will discuss a problem and agree on an appropriate means of providing emotional support. However, they qualify this by adding that small, homogeneous networks may not contain anyone who has had experience of the particular problem facing an individual. For example, a recently bereaved person with a small network may not find anyone who can provide understanding and empathy. They also argue that the capacity of a network to provide emotional support will vary with the geographical proximity of network members.

On the provision of material aid and services, Walker, MacBride and Vachon assert that

a availability of everyday and emergency supplies will be positively associated with size of the network, and

b the likelihood of services being made available when needed will be positively associated with network density, since high density facilitates the communication of needs.

Some studies, however, cast doubt on the adequacy of these hypotheses. Wellman et al (1973) found, in a study of the intimate ties of a random sample of 845 adults in East York, Toronto, that both size of network and frequency of contact with intimates were associated with availability of support, but in a later analysis (Wellman, 1979) reported
that network density was not so associated. Indeed, Wellman concluded that the availability of support was related, not to structural properties of the intimate networks as a whole, but rather to the properties of particular relationships. One important property was proximity, but not in terms of the local neighbourhood. What distinguished relationships to which the respondent would turn for support from those to which he or she would not turn was whether or not the contact lived somewhere in the Toronto metropolitan area. Proximity, in other words, had not disappeared as a criterion of supportiveness, but rather expanded in scale. The most important criterion of all, however, was the perceived closeness of the relationship: the closer the tie, the more likely was it that the respondent would turn to the person for support.

Boswell (1969) has argued that the effectiveness of a social network in providing material aid and services must be related to particular need-contexts or crisis situations. Some of the apparently conflicting evidence concerning the capacity of kin to provide goods and services may be explicable in terms of different kinds of needs. For example, Croog, Lipson and Levine (1972) found, in their study of help received by 345 men over the 12 months following their suffering a first myocardial infarction, that friends, family and neighbours all played a major part; roughly three-quarters of all respondents who had parents and siblings reported that they had found both categories of kin 'very helpful' or 'somewhat helpful'. On the other hand, Lopata (1978a), studying the everyday support system of a sample of 1169 widows in the Chicago area, found that siblings and other relatives outside the direct parent-child line provided virtually no support. Croog, Lipson and Levine suggest that their findings may reflect the fact that, in an emergency such as severe illness, class and cultural differences that might otherwise exist with respect to day-to-day support give way to more universal forms of solidarity.

The availability of material aid and services in a network appears to be related not only to the size of the network but also to the diversity of sources within it. Hammer (1981) argues that a 'core network' of frequently seen friends and relatives will, as the 'stress-buffer' theorists claim, help an individual to maintain his or her identity and provide reasonably assured access to a limited range of resources. However, access to other resources will be determined by the structure of the wider network; a large, diversified, low-density extended network will, she contends, offer access to a greater range of resources. It will also offer more flexibility to the individual, since individual ties can be formed and broken more readily. In a high-density core network, the making and breaking of ties tends to have repercussions through the entire network.

Hammer uses data obtained from Fischer's California survey (see Fischer, 1980) to report on the networks of one category of people who have been found to be particularly vulnerable to depression: low-income,
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non-employed mothers. She shows that these women had significantly smaller networks than either low-income employed mothers or non-employed mothers from higher income brackets. The difference was even more marked if only non-kin contacts were considered. Hammer argues that women from this category tend to have networks of the small, dense, high kin-content type. When parenthood brings in its wake the inevitable attenuation of some contacts, especially work-based ones, these women are in a structurally less advantageous position than women with sparser networks to replace the lost contacts with new ones, such as those which might emerge through their children's activities.

Further evidence of an association between lack of access to resources and small non-kin networks (or, as they are often represented, networks containing a high proportion of kin) comes from McCaughey and Chew's (1977) study of 117 families in Melbourne. Using a cluster analysis technique, they divided the families into three groups: the first, members of which had fewest problems in coping with day-to-day needs and emergencies, were relatively well integrated into networks of kin, friends and neighbours, and voluntary associations. The second group, which the authors dubbed 'vulnerable', had fewer kin contacts and voluntary group memberships, but a level of contact with friends and neighbours similar to the first group. The third group consisted of 27 single-parent families, and comprised those with the weakest support systems. Members of this group had a higher level of contact with kin than the 'vulnerable', but much less contact with friends and neighbours; in fact, the authors state that these families relied almost entirely on other family members to help them meet their not-infrequent crises (McCaughey and Chew, 1977:80-82).

In short, then, as Hammer (1981) has argued, the key to the differing effects of social networks on the provision of material aid and services appears to lie not in the core networks of close friends and kin, but in the structure of the wider network consisting largely of more instrumental relationships. Unfortunately, given the prevailing emphasis on the network as a source of emotional support, this aspect of network structure has been relatively neglected by researchers.

The importance of less intimate relationships is even more marked when one considers the fourth function of support networks specified by Walker, MacBride, and Vachon: the provision of information. Granovetter has argued on theoretical grounds, and shown empirically, that 'weak ties' are particularly important in providing access to new information. His theoretical argument (1973) asserts, in brief, that people who are close friends are more likely to share other friends in common, while people who are less than close friends are more likely to live, to some degree, in different social worlds from each other. It follows that if one is seeking information which is not readily available, one is more likely to obtain it through the person who has bridging links into different social
worlds than through a close friend. Granovetter's own study of job-seeking by males in professional, technical and clerical occupations provided empirical support for the 'strength of weak ties' theory (1974). He found that the higher the pay and prestige attached to respondents' jobs, the more likely it was that the job had been obtained through informal contacts rather than formal agencies. Moreover, the informal ties used for successful job-searches tended to be contacts that had originally been based on work rather than on kinship or other social contexts, and they also tended to be ties marked by infrequent interaction. Older respondents in particular tended to have found their present jobs through informal, work-based contacts.

Further empirical support for the 'weak ties' thesis comes from a study by Lin et al (1978). They used a modified version of Milgram's (1967) 'small world' technique, asking respondents to forward a package either directly to a nominated target person if the respondent knew that person, or to someone whom they thought might know the target or a friend of the target. They then examined the 'links' in the various 'chains' formed. On the whole, participants in successful chains (i.e. chains which reached the target) tended to send the packages to people who were not closely linked with them, but were believed to have access to extensive networks.

Several studies suggest that small, dense networks hinder the acquisition of new information. For example, McKinlay (1973) examined the influence of informal networks on utilisation of antenatal services by a sample of low socio-economic status women in Aberdeen. He divided the sample into 'utilisers' and 'under-utilisers' and found a number of significant differences in network structure. 'Under-utilisers' tended to engage in proportionately more interaction with, and live closer to, relatives than did utilisers. Their friends tended to be 'family' friends rather than personal friends, and they tended to consult with their mothers or with relatives and friends. 'Utilisers', by contrast, differentiated more sharply between friends and kin, and interacted more frequently with friends than with kin. In short, under-utilisers appeared to be more deeply embedded than their counterparts in large, dense, kin-dominated networks which would tend to reinforce old folk-ways rather than the practices associated with modern, professional antenatal clinics. Utilisers, through their greater propensity to form personal friendships outside the kin network, were freer to go directly to formal agencies.

Lee (1969) studied the processes by which 114 women had successfully obtained abortions (under conditions, in the U.S., where abortions were illegal). Her findings do not lend direct support to the 'weak ties' thesis: most of the women in fact turned to contacts within the circle of family and close friends, most frequently to a girl-friend, and only rarely to parents. However, the findings do illustrate the superiority of a diversified network composed of discrete 'clusters' over a high-density network for offering access to a reasonable range of resources. For example, Lee
cites one case where a woman with a high-density network asked several people, including a number of college friends and her mother, for information, only to find that each person recommended the same abortionist (1969: 158-159).

Similarly, Horwitz (1977), in a study of 'pathways' taken to psychiatric treatment by 120 outpatients and short-term inpatients, found that respondents with a strong kin network and dense friendship network had more severe levels of psychiatric impairment at the time of entry into treatment than did other respondents, suggesting to Horwitz that this kind of network resulted in decisions to seek professional help being delayed. (This finding, however, should be treated with caution. Martin (1975) found that migrant Greek families in Melbourne tended to delay seeking medical treatment until symptoms were very severe, but she explained this by pointing out that the families were worried that any decision to take time off work in order to seek medical treatment would threaten their already precarious financial position.)

Notwithstanding this note of caution, however, there is now considerable evidence to suggest that large networks of low-density, or networks structured into relatively discrete clusters, provide greater access to information than dense (and, therefore, usually kin-dominated) networks.

Much the same can be said with respect to the fifth and final function of support networks described by Walker, MacBride and Vachon: the provision of new social contacts. Hammer (1981), as already stated, has argued that lower-density networks facilitate the establishment of new ties and the dropping of old ones far more readily than high-density networks. Jones (1980), in her study of newcomer couples to Canberra, found this to be so: those with loose-knit networks did not have to worry about whether their new contacts would get on well with older friends. Jones also found a number of other factors which affected opportunities for making new contacts, notably

a the degree of access on arrival to ready-made 'communities', i.e. pre-existing groups which already conducted organised recreational and other activities;
b degree of access to pre-existing 'clusters', that is, small informal friendship groups, and
c the presence of friends and relatives already resident in the new city.

Taken together, the studies cited above with respect to each of the five dimensions of support networks illustrate the inadequacy of a model which emphasises only the protective, feedback-providing properties of a personal network. Hammer (1981) has recently proposed an alternative, which she calls a 'feedback/access model', and which can be described diagrammatically:
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Figure 1  The feedback/access model (based on Hammer, 1981).

Feedback

Social network

Degree of wellbeing

Access to resources

Personal wellbeing, according to this model, is dependent partly on a core network of frequently-seen friends and (usually) close kin, and partly on a more diversified set of relationships, many of them of less intimacy. To date, much of the research on social networks, dominated as it has been by a concern with the putative anomic and alienating attributes of modern urban life, has focused on the protective core network. Hammer's feedback/access model, while not neglecting this important aspect of network provision, serves to direct our attention to the important properties of the more extended network. This model could, I suggest, be used as a foundation for a more highly developed theoretical model, which would incorporate and further explore the following propositions, all of which derive from the present discussion:

1  While the maintenance of a sense of identity is dependent on the presence of a small core network, opportunities for developing and changing one's identity will be facilitated to the extent that the core network does not form one dense cluster.

2  Access to emotional resources, as the 'stress-buffer' proponents contend, is facilitated by a dense, local network of close ties.

3  Access to material goods and services, information and new social contacts is facilitated by a large, heterogeneous, loose-knit extended network. Conversely, dense, kin-dominated networks tend to hinder access to these three kinds of resources.
3 Structural constraints on social support networks

Given, then, that differences in social network structure affect access to resources, we need to go further and ask how social support networks themselves are shaped. How do different occupations, residential arrangements, welfare policies, and so on, affect people's opportunities to form and maintain supportive relationships? A useful starting point here is McCall and Simmons' concept of the 'interaction opportunity structure' (1978:16-361). In theory, an individual can form a vast number of relationships with other people. In practice, two groups of limiting factors constrain him or her. The first are those limitations set by virtue of an individual existing in a particular place at a particular time—factors that McCall and Simmons call 'intrinsic'. The second set of factors are 'extrinsic': social structure, culture and personality. Each of these operates, not in any rigidly deterministic manner, but rather by way of setting more or less permeable boundaries on possible interactions, making some relationships highly unlikely and others almost inevitable. Examples of structural constraints are the relations of production in a society and, at a more micro-sociological level, arrangements such as working hours in a particular plant. Cultural factors include norms such as those pertaining to cross-sex adult friendship and role stereotypes.

In this light, the question posed becomes one of identifying the major structural and cultural constraints on particular kinds of interaction, and establishing the processes whereby these constraints exert their influence. To date, evidence on these important questions is fragmentary. Bott (1971:304-309) compiled a list of eight factors which appeared to influence network density and conjugal role segregation, namely: occupation, geographical mobility, social mobility, ecological factors, subculture and ethnic group, education, phase of individual and family development, and reference groups associated with any of the above. However, this list is more of an agenda for future research than a review.
of findings. Boissevain (1974:67-96) has compiled a similar list of factors, but again, he presents little empirical data.

As we shall see below, a number of studies have found associations between variables such as social class and ethnicity, on the one hand, and variations in patterns of informal co-operation and support network structures on the other. We do not yet have, however, an overall understanding of how the various aspects of social location — occupation, education, neighbourhood, etc. — combine to affect personal support networks. The reason, I would suggest, is that this problem has not yet been approached with an appropriate theoretical framework. At the end of this section I shall advance some suggestions towards resolving this problem. Before doing that I shall review existing findings under five sub-headings:

a social class and kin networks;
b sex-based differences in support networks;
c the effects of social and geographical mobility on support networks;
d support networks and the family life cycle; and

e migration and ethnicity.

Social class and kin networks

Much of the research into the supportive capacities of family and kin networks has taken place in the context of a continuing debate about the family in modern society. This debate began largely as a response to the view, promoted by Parsons (1943), of the nuclear family as a structurally isolated unit. Sussman and Burchinal (1962) argued that this model owed more to the competitive, individualistic ideology of white middle-class America than to empirical reality, and assembled a considerable amount of evidence in support of their assertion that the kin network, far from being a relic of the past, was a viable and basic unit in contemporary society, which served important functions of mutual aid and sociability. This view was supported by Litwak (1960a; 1960b), who suggested that the characteristic unit of contemporary American society was not the isolated nuclear family, but rather a 'modified extended family'; that is, a kinship network in which active links were based on choice rather than ascription, and which relied on modern communication and transportation rather than geographical propinquity. The revisionist view was in turn attacked vigorously by Gibson (1972) who argued that many empirical studies did not discriminate sufficiently finely between various kinds of contact and mutual aid, and therefore did not support the kinds of conclusions being based upon them. Gibson also claimed that Sussman and Burchinal, in assembling their evidence from other studies, had been guided more by what they hoped to find than by what the studies actually indicated. More recently, Pilisuk and Froland (1978), while agreeing with
Sussman and Burchinal and others that the extended kin network has not disappeared to the extent previously believed, have contended that modern extended families do not and cannot serve the range of functions associated with pre-urban family networks.

To some extent the debate is beside the point since, as Edgar (1980: 110-111) points out, little purpose is served by talking about the family, when different kinds of families have such different access to resources through networks. Nonetheless, some generalisations do carry considerable empirical support.

Most families appear to maintain contact with their own families of origin and procreation, but are much less likely to do so with other kin. Allan (1979:92-115), in a recent review of British studies, reports abundant evidence that contacts with living parents are usually maintained even when affectional content is weak. While geographical dispersion affects the frequency and duration of interaction, it does not, according to Allan, affect the principle of maintaining regular contact. In general, he continues, women are more involved than men in maintaining relations with parents, though this distinction is less marked in middle-class than working-class families.

Adams (1970), reviewing literature on American kinship, presents broadly similar conclusions concerning interaction among kin, while the limited amount of data available on Australian families suggests that a similar pattern is prevalent, except among some ethnic minorities where kinship plays a more important part in day-to-day life (see below). Martin (1967:50), in her study of three suburban areas of Adelaide, found that 89 per cent of husbands with parents living in Adelaide, and 92 per cent of wives in similar position, had contacted their parents within the preceding fortnight. Of those whose parents lived outside Adelaide, 61 per cent of husbands and 73 per cent of wives had seen their parents during the preceding year. Martin did not inquire about contacts with kin other than parents, siblings and children, but Bryson and Thompson, in their study of a new State Housing Commission suburb outside Melbourne (1972:109-115), found that all but 7 per cent of the kinship contacts maintained were with parents or siblings. (However, the wording of their question on this point, as the authors acknowledge, would tend to mean that the respondents' own children, if living elsewhere, would not have been included.) Although only 19 per cent of Bryson and Thompson's respondents had kin actually living in their suburb of 'Newtown', 87 per cent maintained some sort of regular contact (including letter-writing) with kin other than their own offspring. Fallding (1957), in an earlier study of 38 Sydney families, in 20 of which the breadwinner was a professional and in the remainder a tradesman, found a similar pattern of kin contact.

How important are kin networks as support systems? Once again,
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despite variations, a dominant pattern has been identified. Adams sums up recent U.S. literature by asserting that mutual aid is ordinarily restricted to the relations between parents and their offspring. If there are three generations of adults still living, the aid more often flows from the middle generation to the other two — though the aged grandparents frequently reciprocate in various ways (1970:583).

Sussman and Burchinal (1962), in their earlier review, express a similar view, adding that aid is not restricted to emergencies, but may be given at such times as weddings, the start of a career or the birth of a first child. Wellman (1979) reports similar findings from a study of support in East York, Toronto. In times of emergencies, help may be called upon from a wider network, although even in these cases, Sussman and Burchinal suggest, aid will be sought first of all from the parent-child or sibling links, and only then from the wider kin network. Even Parsons, the sociologist most closely identified with the 'isolated nuclear family' thesis, has suggested that the extended kin network normally provides a 'reserve' of help in emergencies (1971). The distinction between everyday support and emergency support, and the kinds of kin-based aid they give rise to, is captured neatly in the comparison referred to above, between Croog, Lipson and Levine's study of men convalescing after heart attacks (1972) and Lopata's (1979) study of widows.

Martin (1967:63) summarised her Adelaide findings by observing that kin networks helped to preserve families of all classes and areas as effective autonomous units and cushioned the effects of mobility, sudden crises and long-term hardships. The kinship network provided important links into groups and localities beyond the family's everyday experience.

However the 'kinship network' studied by Martin consisted only of family of origin and procreation.

Important class-related differences have been found in the kinds of help given, reflecting differences in the resources which families in various class positions can provide, and the kinds of needs and interests they share. Adams contends that, although the subject has not received a great deal of attention, there is evidence to suggest that kinship links play an important part in preserving power and privilege among the wealthiest sections of U.S. society (1970:591). Lupton and Wilson (1959) found evidence of extensive kinship connections among leading political, financial and industrial figures in England. Turner (1969), however, has urged caution in attaching explanatory significance to the kinship links *per se*, suggesting that they are likely to be important only where political, economic or recreational interests of the parties concerned coincide.

That these often have coincided in Australia is borne out by Encel's (1970) documentation of alliances formed between families in the growth
both of Australia's landed gentry and the business sector (303-307; 376-
389). Martin (1957) also stresses the importance of kinship links among
families in Australia's pastoral establishment. However, as Connell points
out (1977:40-49), studies of kinship and other network links among the
rich and powerful do not, in themselves, constitute an analysis of the
power structure of a society, since they draw attention, not to the exercise
or basis of power, but rather to a potential for power.

Among middle-class families, according to Sussman and Burchinal
(1962), aid typically takes the form of exchanges of services, gifts, advice
and financial assistance, the last named being most frequently given to
young married couples. Financial assistance is often disguised in the form
of gifts. Bell (1968), in a study of British middle-class families, found a
similar pattern of extensive mutual aid, observing that, in contrast to the
dominance of the mother-daughter link found to be typical in working-
class communities, aid in middle-class families was often channelled
through a father-son or father-in-law to son-in-law link.

Bell (1968) demonstrates that, amongst middle-class families, various
conventions exist to ensure that the giving of help does not appear to
transgress the values of autonomy and independence. Working-class
kinship networks, however, involve more open sharing of the limited
resources available (Sussman and Burchinal, 1962). In traditional
working-class areas, families are usually embedded in large, dense kin
networks, in which the key link is provided by the mother-daughter bond,
and in which kin provide a wide range of day-to-day mutual-aid services,
such as child-care, care for elderly relatives, shopping and transport
(Young and Willmott, 1962; Townsend, 1963). The same conditions,
however, do not apply in new areas of low-income housing, such as that
occupied by the State Housing Trust sub-sample in Martin's (1967)
Adelaide study. Although many of these respondents had kin living
elsewhere in Adelaide, access to them was made difficult by a
combination of distance and their own lack of mobility. Only 12 per cent
of ‘Trust’ wives could drive, and few among these had access to a car
during the day; only 15 per cent of the families had a telephone. Martin
suggests that many of these respondents looked to neighbours as
functional substitutes for nearby kin, but Saha (1975) concludes, on the
basis of a study of primary group support in crisis situations carried out in
Canberra, that neighbours and friends do not, on the whole, constitute a
significant alternative to the kin network as a source of aid.

The mother-daughter bond found to be so important in established
working-class communities is not to be confused with the stereotype of
matriarchy and social disorganisation imputed to extremely poor
communities such as some urban communities in the United States. Stack
(1974) has exposed the inaccuracies of this stereotype in a study of family
life among a community of poor urban blacks in a small midwestern city
of the U.S. Stack found that the key social unit was not the nuclear family
household, but the domestic co-operative network, built up from kin and friends and incorporating several households. Whereas the composition of households tended to alter through time, the domestic network provided a relatively stable, enduring social unit through which resources such as food, furniture, money and child-care were constantly being exchanged. Individuals within domestic networks built up what Stack called 'personal kindreds' from among other members of the domestic network by entering into reciprocal commitments with them.

Viewed from the vantage point of white, middle-class family values, Stack argues, the patterns she observed may well have seemed deviant, disorganised and matriarchal. But viewed from the standpoint of the participants, these patterns provided a basis for survival in the face of several constant constraints: chronic poverty; unpredictable fluctuations in the availability of resources such as employment — fluctuations over which the blacks had no control — and a welfare system which hindered attempts to break out of the cycle of poverty by cutting off payments whenever recipients obtained some funds which they might otherwise have been able to save. The network exchange system was a product, not of a 'culture of poverty', but of strategies designed to ensure survival in the face of these constraints. The same circumstances undermined the potential viability of long-term marriage-unions. With the ever-present threat of unemployment, any conjugal couple was less likely to be able to survive economically than a network of kin, who could and did pool their resources.

Chronic adversity will not necessarily lead to large co-operative networks however. In the milieu studied by Stack, adversity was the common lot of people who shared bonds of kinship and other links. Where adversity is seen as a matter of personal circumstance rather than a collectively shared fate, it may lead to quite the opposite response. Martin reports that families which had suffered serious adversity often withdrew from interaction with neighbours and placed greater reliance on 'one or two chosen kin from whom nothing need be hidden' (1967:61). Townsend observes that many old people, when faced with increasing frailty and the loss of a spouse, tended to look for one particular person on whom to rely rather than draw equitably on the supportive resources of their adult children (1963:70-72).

My own fieldwork among low-income and middle-income people in an inner Melbourne suburb (d'Abbs, 1980) suggests that those exposed to frequent personal crises tend to adopt 'concentrated' co-operative styles in which they rely almost exclusively on one or two close friends plus, sometimes, one or two kin, and engage in few co-operative interchanges with others. By contrast, those with more control over their day-to-day lives, and a greater range of resources which they can contribute towards maintaining supportive relationships, will typically adopt a 'diversified' style, involving several co-operative relationships, often with particular
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links for particular purposes. Usually, these links are with people who are less than close friends, but more than acquaintances, of the focal person. A 'concentrated' style appears to be a means of husbanding a limited amount of input resources towards obtaining needed goods and services, while at the same time putting an already threatened self at minimal exposure. It is, in other words, a means of securing protection against a threatening environment. A 'diversified-style', by contrast, serves largely to enhance one's control over the social environment; in that sense, and not in any pejorative one, it is manipulative, whereas the other is protective.

The relative parts played by kin, friends and neighbours also appear to vary with class-position. These differences occur both in the objective structures of networks, and in the cognitive ordering of relationships.

Middle-class adults maintain social networks over a greater geographical area than do working-class adults, a finding attributed to their greater command over transportation resources (Young and Willmott, 1975; Toomey, 1970; Fischer and Stueve, 1977; Martin, 1970). Typically, in old working-class areas many relationships are multiplex: that is, kin, friends and neighbours are likely to be the same people (Allan, 1979: 109-111; Young and Willmott, 1962; Martin, 1967). Jackson, Fischer and Jones (1977: 49) also found, among a sample of white, working-age males in Detroit, that those on higher status levels drew their friends from more diverse sources than did others, and included relatively fewer friends who were kin or neighbours. Similarly, Gerson, Stueve and Fischer (1977) found that high-status respondents were less likely than others to have kin or friends in the neighbourhood.

Jackson, Fischer and Jones argue that the most significant factor in differentiating among friendships is the origin or source of the relationship. They distinguish two basic types of friendship: those based on work and neighbourhood, which tend to be of short duration, not very intimate, but to involve frequent contact. These friendships, which the authors label friendships of convenience, can be contrasted with friendships of 'commitment' — kin and childhood friendships, marked by ethnic similarity, long duration, and intimacy, but relatively infrequent contact (Jackson, Fischer and Jones, 1977: 52-53; Jackson, 1977).

At a cognitive level, middle-class adults also appear to differentiate more sharply between family, friends and neighbours (Martin, 1967; Rieger-Shlonsky, 1967), and to associate distinctive spheres of activity with each. While these differences may appear to be 'cultural' in nature, their source is more likely to lie in different life experiences which give rise, on the one hand, to dense, kin-dominated networks of people living in close mutual proximity and, on the other hand, to diversified networks in which greater geographical mobility has led to networks compartmentalised in distinct 'clusters' of relationships.

Furthermore (and this is associated with the above point) class-based differences appear to exist in the meanings which people attach to partic-
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ular categories of relationships. Townsend reports that, during the early stages of interviewing old people in East London, he was puzzled by respondents who denied, in all good faith, being friendly with any of their neighbours, only to reveal later on that they had quite close friendships with one or two of them. Townsend subsequently realised that the term 'neighbour' was generally reserved for non-kin with whom one was not on close terms; once a close relationship was established, the person ceased to be thought of as a 'neighbour' and became a 'friend'. Allan (1979) reports cases of working-class respondents who claim to have few 'friends', but lots of 'mates', and I have found the same to be true among respondents in Melbourne.

These examples suggest that the categories used in much social research, especially survey research, may be more class-specific than is generally realised, and may therefore present a misleading picture of social relationships among people other than middle-class adults. In particular, statements to the effect that working-class adults have few friends compared to middle-class people need to be viewed with caution.

Sex-based differences in support networks

Cutting across class-based differences and interacting with them are several gender-based differences in the maintenance and use of support networks. Bell (1975) reviews a number of studies which suggest that these differences affect the availability of support to men and women respectively. American studies indicate that many women, including married women, maintain intimate friendships with other women, involving the sharing of confidences and the provision of support, particularly emotional support in the face of marital and family problems. Such friendships are rarely found, however, among men, where the expression of emotions and compassion from one man to another runs against norms of masculinity. Male-to-male friendships, Bell suggests, are characterised by sociability rather than intimacy; they tend to be associated with specific contexts — drinking, sport, etc. — rather than a generalised practice of 'doing things together' characteristic of close female friendships, and they are often linked into a broader social context, such as workplace or drinking clique.

However, drawing on his own data from samples of married women in Melbourne (N=439) and Philadelphia (N=452), Bell suggests that interaction among close female friends, and the prevalence of close cross-sex friendships, may be lower in Australia than in the U.S.

For intimate friendship, men are more likely than women to turn to their spouses. Lowenthal and Haven (1968), in a study of aged people in San Francisco, found that nearly two-thirds of their sample of 280 reported having a confidant. However, whereas most men named their wives as the confidant, women named spouses less frequently than they named...
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children or friends. This difference held even when widows were excluded.

Some of the differences in friendship networks which Allan (1979) attributes to class may in reality have been gender-based. Allan's main contention, based on intensive interviews with a small sample of adults living in 'Seldon Hey', England, is that whereas middle-class adults tend to encourage friendships to 'flower out' beyond the settings in which they originate, working-class adults tend to keep friendships — even long-established and close ones — confined to specific contexts. Yet this, as we have seen, is the same distinction which Bell attributes to gender. Unfortunately, Allan does not present data which would enable one to test this possibility.

This is not to suggest that differences between the sexes are not affected by class. Bell goes on to assert, again on the basis of evidence from several studies, that the lower the social class level, the more likely it is that husbands and wives will maintain strong ties with premarital same-sex networks, and the fewer instances there will be of intimacy with other friends or kin. When sex-based and class-based differences are combined, Bell concludes, the most psychologically isolated person of all in the U.S. is the lower-class male. Lowenthal and Haven found that the likelihood of respondents nominating spouses as confidants was lower amongst low socio-economic respondents, both male and female. Berger (1960), in his study of a working-class suburb in California, found that women engaged in more informal social interaction in the suburb than did men. He noted that they appeared to have more of the requisite 'social skills' than did men, but went on to explain this by referring to the higher educational level of the women in his sample as compared to the men.

Effects of social and geographical mobility on support networks

Although, as Adams (1970) indicates in his review of U.S. studies, the evidence is far from conclusive, it would appear that occupational mobility does not, by itself, strongly affect the supportive capacities of kin networks. Geographical mobility on the other hand is class-related, in that the networks of middle-class families tend to be spread over a wider geographical area than those of working-class families (Martin, 1970; Toomey, 1970; Young and Willmott, 1975; Fischer and Stueve, 1977; Gerson, Stueve and Fischer, 1977). At the same time, greater affluence means that middle-class families are less constrained by space and distance than many working-class families. Fischer and Stueve (1977), analysing data from a sample of working-age males in Detroit, conclude that geographical mobility in itself does not entail hardship. However, by imposing increased costs (in the form of distances to overcome) on the
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maintenance of some relationships, it affects those who lack the resources to meet these costs, notably many housebound women and, especially, the poor. For Fischer and Stueve the crucial question is not how far or how often people move, but the amount of information, options and other resources people command in order to cope with space as a constraint. A poor person forced to move and abandon a set of supportive ties as a result of eviction is in a very different position from someone who moves a similar distance, by choice, in order to take a well-paid job. 'Rootlessness', they suggest, is far less a problem in modern life than is powerlessness to decide where to plant one's roots' (1977: 186).

One work which looks in some detail at the processes involved in coping with geographical mobility is Jones' study, already referred to, of middle-class couples over a 12-month period following their move to Canberra (1978a; 1980). She found that couples set about establishing what were, for them, 'normal' networks: if they had come from dense, localised networks, they tried to re-create these; if they had previously had more dispersed networks, then it was this pattern that they tried to reproduce. Those who had left behind intimate, supportive networks of relatives and friends tended to have more difficulty than others in establishing new local networks (1978a: 193). Those who had previous experience of moving tended to encounter fewer difficulties in establishing new networks than the less experienced (1978a: 180). . . .

Interest in possible effects of social and geographical mobility has led several researchers to examine the relationships between social networks and communities (Fischer et al., 1977; Wellman, 1979; Wellman and Leighton, 1979). Wellman and Leighton (1979) identify three main arguments. According to the first, which they call the 'community lost' argument, social relationships in modern urban society have become attenuated and largely instrumental, and people no longer live in supportive communities. The second, which they call the 'community saved' argument, asserts that, contrary to what the 'lost' protagonists believe, socially dense, supportive communities have survived. According to the third, 'community liberated' argument, communities have not disappeared, but they have become freed to a greater or lesser extent from neighbourhood boundaries.

A study of East York, Toronto, suggests that, while many respondents had enough intimate local ties to lend some support to the 'community saved' thesis, most residents had differentiated networks in which many important relationships were with people in different areas. In other words, the dominant pattern found was one of 'community liberated' (Wellman, 1979).

In a paper which foreshadows part of the above schema, Martin (1970) attempted to use both network data and cultural constructs to identify the kinds of communities in which the residents of her three Adelaide suburbs lived. Translating Martin's findings into Wellman and Leighton's
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terminology, most of the residents of upper-status Burnside appeared to belong to 'liberated' communities, while the older, more heterogeneous area of Woodville seems to have been a 'community saved'. However, residents of the low-status Housing Trust area did not fit readily into the scheme at all since, according to Martin, most of their ties were local ones (this was especially true of women and children), but the local ties were not marked by the density and multiplexity characteristic of a 'saved' community.

Support networks and the family life-cycle

Changes in a person's position in the family life-cycle affect both the capacity to form and maintain social relationships and one's social needs. Mann (1970:150-165) has traced the effects of this cycle on neighbourhood interaction patterns, arguing that local social ties are likely to be especially important for young children, mothers of young children, and the aged, and relatively unimportant for young married couples with no children and for couples with older children. Several studies have shown that motherhood typically brings in its wake reduced mobility and, consequently, fewer opportunities to maintain non-local ties (Richards, 1978; Jones, 1980). At the same time, the need for child-care arrangements may generate new forms of local informal co-operation. Bryson and Thompson (1972:71-74) found that friends, relatives and neighbours provided most of the child-care for their Newtown respondents, and that families with pre-school children were more likely to interact with and help their neighbours than people with school-aged children or no dependent children.

Stueve and Gerson (1977), in their all-male Detroit study, concluded that as men became older, childhood friends tended to be replaced by friends based on neighbourhood, workplace and other adult contexts; interaction with friends became more home-centred and less frequent, and the degree of age-homogeneity in friendship networks declined.

Tamir and Antonucci (1981) used a national U.S. sample to study the effects of family life-cycle and sex on social support. They found that, although adults at early stages of the family cycle reported knowing fewer neighbours than adults at later stages, they nonetheless reported more visiting with friends, neighbours and relatives, and a greater tendency to talk over problems with friends and relatives. Men were found to make less extensive use of informal supports than women, although the same pattern of changes with stages in the family cycle was common to both sexes.

Ageing, too, with its attendant decline in mobility and, often, reductions in financial resources, imposes difficulties on the maintenance of non-local ties. Townsend (1963:139-153) describes how, among old people in Bethnal Green, family relationships became increasingly important

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compared with other relationships, as neighbours and friends died or moved away. Henderson et al (in press) found, in a study of a random sample in Canberra, that people of 65 and over had fewer available attachment figures than younger respondents, but also that they were more accepting of deficiencies in their networks.

Considerable attention has been given to the part played by kin networks in caring for the dependent aged. Townsend (1976:13-17) contends that, contrary to what he calls 'the mythology of the Welfare State', welfare services in the U.S., Britain and Denmark have not replaced the functions of the family in caring for the aged, but rather have supplemented them or substituted for them where no family was available. Blenkner (1965) summarises the role played by kin by saying that both the aged and their adult children expect the government to provide basic economic maintenance through a system of social security, while the family will assume 'caretaker' functions. Studies in the U.S., she suggests, indicate that in times of crisis or need the older parent turns most frequently to a middle-aged daughter or other female relative. Sussman (1965) argues that middle-aged kin provide a significant amount of aid and attention to chronically ill aged members.

In a recent review of Australian literature on family support for the aged, Howe (1979) advances similar conclusions. Howe argues that over 75 per cent of the aged in Australia belong to, or have belonged to, a family unit comprising a spouse and at least one child. Present trends, she claims, point not to more and more aged persons lacking in supportive family ties, but rather to a likely shift of the caring burden from those aged 45-60 to younger family members. As elsewhere, unmarried daughters have been found to play an important part in care for the aged.

Howe does, however, identify one group of the aged as being vulnerable: recent migrants. She distinguishes between migrants who arrived in Australia as young people prior to World War II — most of whom have become well established in the host society — and those more recent immigrants who were already advanced in years on arrival in Australia. Many of the latter, she points out, are not eligible for the Age Pension, and are therefore totally dependent on their families, many of which in turn lack resources of money, contacts and knowledge of community services.

Finally, Howe reviews several Australian studies of the use of institutional services. Like similar studies carried out overseas (e.g. Townsend, 1965; Brody et al, 1978), these indicate that the availability of family support is an important factor in determining demand for institutional services.

While the evidence concerning family care for the aged is impressive, it needs to be seen, as Treas (1977) has argued, in the context of long-term demographic and social trends. Using U.S. data, Treas suggests that four factors will impose increasing constraints on the family's capacity to care
for aged members. Firstly, changes in mortality and child-bearing patterns mean that, today, more middle-aged families have aged parents while, at the same time, aged people have fewer children on whom to call for help. Secondly, changes in marriage patterns mean that there are proportionately fewer unmarried adult daughters to be found, and these women, as pointed out above, have traditionally played a particularly important role in care for the aged. Thirdly, a higher proportion of middle-aged married women today are in the workforce, and in most cases they are there because of economic necessity. Faced with a choice of continuing in employment or dropping out of the workforce in order to care for an aged parent, some at least will find it preferable if not necessary to continue working. Finally, Treas suggests, whereas, in the past, ties between adults' families and their parents were based in part on economic interdependence, with an older generation maintaining control over money and property, these ties today are based very largely on sentiment. While this may be a strong basis, the change in patterns of economic interdependence, must, she contends, be recognised. Treas argues that, taken together, these trends mean that, one way or the other, society rather than the family is going to have to play an increasing part in caring for the aged.

Several studies have examined the support networks available to particular types of families. Rhona and Robert Rapoport (1969), for example, found that 'dual career' couples had to make a number of adjustments to their support networks in order to cope with 'task overload'. This usually involved arranging some system of domestic help. Typically, women distinguished between the more impersonal domestic tasks, such as washing, cleaning and ironing, and more 'people-oriented' activities, notably child-care and feeding. The former were willingly delegated to outside helpers on a variety of contractual bases. At least some of the tasks associated with child-care had also had to be delegated, but these arrangements caused the dual-career families — especially the women — considerable concern. According to the Rapoports, parents of the families were rarely called upon for domestic help. At the same time, the couples took pains to avoid having to rely exclusively on any one domestic helper.

The Rapoports' account suggests that it was the women in the dual-career couples who had to make most of the adjustments. The Rapoorts do state that in these families household tasks tended to be distributed on a less sex-stereotyped basis than might otherwise have been the case. Reviewing Australian data, however, Bryson (1975) concludes that, in families where the wife's work was seen as a temporary measure, the husband shared in more than the normal number of household tasks, but where the wife's occupation was seen as a permanent commitment, the husband played no greater a domestic role than husbands of non-employed wives. At a more general level, Aldous (1977: 116-119), reviewing current literature on family interaction patterns, states that studies of
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Household task assignment point to fewer changes in sex-role typing than might have been expected. (Because the main concern of this monograph is support systems rather than intra-family interaction, I have not reviewed studies which attempt to test Bott's original hypothesis, namely, that conjugal role segregation is related to the density of family social networks. Readers are referred to Bott (1971), Aldous and Straus (1966), Harrell-Bond (1969), Kapferer (1973), Toomey (1971), Turner (1967) and Udry and Hall (1975).)

Lopata's (1978a; 1979) study of widows has already been mentioned. She asked a sample of 1 169 Chicago area widows who were either current or former beneficiaries of social security to name up to three people to whom they turned for, or to whom they provided, various items of economic, service, social and emotional support. She found that, contrary to the 'modified extended family' thesis, siblings and other relatives outside of the direct parent-child line provided negligible support.

The needs and problems encountered by male single parents in Australia have been studied by Katz (1980), who found that the majority of his respondents had experienced a reduction in activities such as seeing friends and taking part in voluntary organisations, largely as a result of having to combine occupational and child-caring roles. At the same time, friends, relatives and neighbours were the people turned to most frequently for help.

Migration and ethnicity

The social support networks of particular ethnic minorities have received considerable attention both in Australia and elsewhere. Some studies have focused on the association between social networks and the migration process (e.g. many of the African network studies reviewed by Peil, 1978; see also MacDonald and MacDonald, 1964; Haavio-Mannila, 1976). Others have used the network model to investigate the social environments of already established migrant communities. In Australia, the Greek and Italian communities in particular have been the subjects of several studies.

Bottomley (1974; 1975b) studied the informal support networks of a sample of 23 second generation Greek migrants in Sydney, that is, adults either born in Australia of Greek parents or born in Greece but migrating to Australia before the age of 11. Whereas her sample was mainly middle-class, Mackie (1975), Martin (1975a) and Cox (1975a) all studied samples of first generation Greek migrants from more diverse backgrounds. All of the studies testify to the importance of kin and, to a lesser extent, friends and neighbours in providing both day-to-day and emergency support. Among Bottomley's second generation sample, for example, the interaction patterns of 17 of her 23 respondents were dominated by kin; 15 respondents had visited kin still living in Greece, and 21 expressed a
desire to do so or to do so again. Kin networks, in short, appeared to have survived geographical separation.

Martin (1975a) found that her respondents relied heavily on informal contacts, almost all of whom were other Greeks, for help in dealing with educational, health and welfare bureaucracies. She interviewed the wives from 20 families in which the breadwinner held either a semi-skilled or unskilled position. Again, kin were the prime sources of assistance.

Martin reports that particularly serious problems arose out of interaction with medical institutions. Fears of loss of income or jobs, combined with general anxiety about the decision-making problems involved, meant that medical problems were often allowed to become very serious before action was taken. Again, help was usually sought from the informal network for interpreters, guides and givers of moral support, but respondents, rather than searching systematically for the best available advice or information, often grasped desperately at whatever support was available.

Thus when an accident occurred, friends who happened to be visiting, or a neighbour who was virtually a stranger, but at home at the time, could play a major role in making and carrying out the decision about what should be done. Furthermore, throughout their contacts with medical services, these families were more likely to draw on peripheral members of their networks and even strangers than on officials of the bureaucracy in establishing and facilitating their relationships with the appropriate services. (Martin, 1975a:200).

Martin suggests that the heavy reliance on informal networks among her respondents was a result of difficulties in understanding the bureaucracies in general, and the language in particular. She notes that, among the few families where one or both parents spoke good English and had gained experience outside Greece before migrating to Australia, more systematic attempts were made to seek information and less reliance placed on readily accessible informal contacts.

Bottomley (1974), Mackie (1975) and Cox (1975a) all found large, dense kin networks to be associated with the maintenance of distinctively Greek cultural values. Indeed, Bottomley (1975b) argues that the network served to mediate the families' commitment to particular aspects of Hellenic culture according to class position, upper-class families taking an interest in classical Greek culture, those of humbler origins being more concerned with the preservation of traditional norms and moral values. Contrary to her expectations, however, Mackie found that a dense kin network did not hinder adaptation to the new environment. On the contrary, in those families which included children of school-age or above, a dense core network provided a context of stability and familiarity within which an inter-generational 'dialogue of values' could take place. Where either the core network or school-age children were not present, constructive dialogue was less likely to occur, and unhappy isolation often resulted.
Evidence that cultural values, powerful though they may be, are none­theless shaped by structural factors is suggested by Huber’s (1974) study of Italian immigrant farm families in and around Griffith, N.S.W. Most of these families had come from the province of Treviso, where land was traditionally subdivided equally among sons, and where father-son relationships were based on authority and submissiveness. In the Griffith area, however, land usage was controlled by a Water Conservation and Irrigation Commission which a set maximum limits on the amount of land a family could own, and b prohibited the residence of more than one nuclear family per farm household.

As a result of the land tenure regulations, a pattern had emerged whereby fathers bought additional farms for each of their sons. Consequently, young adult sons often had nuclear households of their own close to the parental home, and father-son relationships tended to be based on partnership rather than authority. These structural changes had altered, but not weakened, patterns of support among kin. Although spread over a wider distance than in Treviso, members of kin networks retained contact with each other, and provided extensive mutual support.

Unfortunately, there are few studies which, as Huber’s does, enable us to see the effect of government policies on informal support networks. Most studies simply take the social and political conditions as given, and tend to see informal co-operative processes as ‘natural’ processes in contrast to the practices of modern welfare bureaucracies. The inade­quacy of this perspective is suggested by Haavio-Mannila’s (1976) study of the informal support systems of migrant and native-born sub-samples in Finland and Sweden. At the time of the study, Sweden had a much more highly developed and centralised social security system than Finland. Haavio-Mannila found that, in matters of health and welfare, families in Sweden relied much more extensively on the state welfare system than those in Finland. In the latter, families tended to draw on a variety of public and private, informal and formal sources.

What Martin’s study of Greek families and Haavio-Manila’s findings indicate — at least as a possibility to be further explored — is that reliance on kin-based informal networks may be not so much an example of ‘natural’ interaction patterns at work in an ‘unnatural’ urban environ­ment, as a survival strategy in the face of the perceived inadequacies of formal welfare services.

Structural constraints on kin networks: conclusions

What general conclusions, then, can be drawn about the social processes that shape personal support networks? The discussion above presents a rather fragmentary list of findings, many of them consisting of statistical
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associations between variables; while useful, these may not tell us much about the processes that gave rise to the associations. With the exception of one or two studies, such as Stack's account of co-operation among poor urban blacks (Stack, 1974; Lombardi and Stack, 1976) we lack anything approaching holistic accounts which show how support networks are affected by social location. Nonetheless, the studies reviewed here do point to a number of reasonably well-attested conclusions, which I shall end this section by summarising.

1 Patterns of contact among adult kin appear to be similar for different classes, except in some traditional working-class areas, or among geographically concentrated ethnic minorities, where large, dense kin networks assume importance in everyday life. Apart from these cases, contact is usually maintained among families of origin and procreation but not beyond. However, the kinds of resources transmitted through networks, and the main channels of transmission (e.g. the mother-daughter link in many working-class families) are affected by class-position. Among middle-class families, aid usually takes the form of exchanges of services, gifts, advice and financial assistance. Among working-class families with local kin networks, these networks provide a wide range of day-to-day services, but the system tends to break down if the families are dispersed among new housing estates or similar settings, because of the lack of the families' mobility.

2 Middle-class adults tend to differentiate more sharply, both cognitively and functionally, among kin, friends and neighbours and to maintain networks over a wider geographical area, than working-class adults.

3 Cutting across these class-based differences in networks are several sex-based differences. Women make more use of informal support networks than men. Married women are more likely to maintain intimate same-sex friendships through which they derive emotional support, than married men, who are more likely to look to their wives for intimate friendship.

4 Social mobility does not appear to have a strong direct effect on support networks. Geographical mobility does, but the main factor here is not geographical distance *per se* but rather the degree to which people have the necessary resources to overcome the additional costs imposed on maintaining social relationships.

People who move try to re-establish what for them are 'normal' networks, partly in order to be able to mobilise support, partly to maintain a continuing self-identity. Those with previous experience of moving have fewer difficulties than others in building new networks, and those with dispersed networks have fewer difficulties than those who have left behind dense, local networks.

5 The other major constraint on support networks — apart from class, gender and geographical mobility — is the family life-cycle, which
influences people's resources and needs. Young children, mothers of young children and the aged all tend to be restricted in their ability to maintain non-local ties. Families with young children are more likely than others to interact and obtain support locally, while the aged become particularly dependent on their families for support. (However, this relationship should not be seen as one of one-way dependency, since grandparents often perform valuable services for their adult children and grandchildren.) Although families play a greater role in caring for aged relatives than is often recognised, their capacity to continue doing so will be limited in future by economic and demographic trends.

6 Amongst many ethnic minorities in Australia, kin networks play a greater supportive role than they do in the dominant culture. However, there is fragmentary evidence to suggest that this may be due to their lack of resources and skills in dealing with institutions of the host society rather than to cultural preferences and the implied 'naturalness' of exchanging resources through extended kin networks.
4 Service delivery and therapy through social networks

As mentioned at the beginning of this monograph, the social network has been used not only as an analytical tool to investigate the relationship between social structure, social networks and individual wellbeing, but also as a pragmatic device, chiefly by two groups: firstly, some social workers who have urged that welfare-service delivery systems be based on informal social networks, and secondly, the pioneers of a technique known as 'network therapy' (or, more recently, just 'networking' (Rueveni, 1979)).

In many ways these two fields constitute a separate topic — one, moreover, which needs to be reviewed according to different criteria from those relevant to the preceding sections. In this monograph I can attempt no more than a brief guide to recent literature on the subject. A fuller evaluation requires the attention of someone better versed in practical aspects of social work intervention.

Collins and Pancoast (1976) argue that what they call 'natural networks' provide a basis for new modes of preventive intervention that are both more economical and more effective than traditional approaches to service delivery. 'Natural neighbours' are people who have won the confidence of their associates because of their personal characteristics, and [who] ... have demonstrated their ability to cope successfully with problems similar to those that their co-workers or neighbours face' (1976: 25-26). The strategy they advocate requires the professional social worker to seek out natural neighbours and establish consultative relationships with them so that the natural neighbours will keep doing what they are already doing — helping their neighbours informally — but from now on with consultative support from the social worker.

Whatever its practical merits (and these I am not equipped to judge), this argument is a good example of a tendency noted earlier — that of regarding existing informal networks as 'natural' and, therefore, somehow superior to more formalised approaches to problems. Informal
support networks may be more supportive and less alienating, but what proponents of this tendency overlook is that 'natural' support systems are likely to be social responses to highly specific social milieus and created by particular social and political conjunctions of power and social control. To regard, say, the informal social structure of a deprived ghetto as 'natural' is to adopt, covertly, a distinctly conservative political stance towards the existing order.

Parker (1978) and Hadley and McGrath (1979) advocate a similar approach to service delivery. Parker suggests that greater integration of social workers with informal helping networks can best be attained by social workers adopting a 'patchwork' approach to geographical areas, with individual or pairs of workers taking responsibility for particular 'patches'. Hadley and McGrath review five English examples of a patch system being used both in rural and urban settings and conclude that, although the evidence is no more than impressionistic, the system may indeed be more efficient than more traditional bureaucratic structures in identifying needs, mobilising resources and supporting local caring networks.

A number of studies describe particular service delivery programs. For example, Abrahams (1972) and Walker, MacBride and Vachon (1977) report on programs designed for widows and widowers, particularly those whose own networks did not validate their new identities as single people needing new contacts and a new lifestyle. The programs involved training volunteer widows in informal care-giving, which might range from giving empathetic support over the telephone, to providing information about job opportunities or how to organise group activities.

Ruffini and Todd (1979) describe an outreach program for elderly people in San Francisco based on a social network model. Elderly volunteers were recruited to seek out other elderly people on their block and assume responsibility for personally delivering a newsletter to some or all of them. At the same time they were to engage recipients in conversation, identify problems, and provide information and advice. Ruffini and Todd argue that the network model is superior to community action models in that it has built-in flexibility, allowing a range of participation from, at one extreme, passive receipt of a newsletter, through volunteering to distribute newsletters and maintain contact with a handful of elderly people, to more intensive commitment in helping to produce the newsletter, organise meetings, etc. In particular, they suggest that the model may be suited to 'middle-class elderly who desire a minimum of interaction, feel uneasy in community action activities, and prefer dyadic or network social relations' (1979:161).

In a comprehensive recent review article, Trimble (1980) discusses a number of other uses of the network model in intervention, including Auerswald's 'ecological system intervention' technique (Auerswald, 1968; 1971) and the 'network construction' approach, in which the therapist helps the client 'to enlarge, construct, or reconstruct a personal
network which has the capacity to nurture, to heal, to challenge' (Trimble, 1980:16). In Australia, Bellamy (1977) reports that efforts to build up a social support system form a vital part of the haemophilia treatment and rehabilitation program at a Sydney hospital.

'Network therapy' has been described and publicised most widely by Attneave, Rueveni and Speck (Attneave, 1969; 1976; Speck and Attneave, 1973; Attneave and Speck, 1974; Rueveni, 1979). Network therapists share with advocates of service-delivery through networks a belief in the efficacy of the social network as a vehicle for the promotion of personal welfare, but in network therapy the focus of attention is not informal care-givers, but the networks of crisis-ridden families. The social network, from this perspective, is viewed primarily as a reservoir of 'energies, resources, and commitments' (Rueveni, 1979:134). The therapist's task is to bring the network together, usually at the home of the family undergoing therapy, to mobilise these energies, and to direct them towards resolving the crises besetting the client family.

Most of the case studies reported by Rueveni, Attneave and Speck involve families where relationships have become locked into mutually-destructive, symbiotic ties. Members of the wider network may facilitate the breaking of ties by providing the necessary emotional support to the parties, and also by helping with efforts to find jobs, accommodation, etc. for one or more of the parties. Most cases involve two or three network sessions, each attended by at least 40-50 network members plus a therapy team made up of three or four people. Rueveni (1979) claims that, where no existing network of family and friends can be drawn upon, the process can still sometimes be used successfully if a network is assembled from among sympathetic neighbours, work associates, and so on.

Proponents of network therapy view the technique as a means of 'shifting more responsibility for family healing and change from tranquillizers and hospitals to the family and its natural social network support system of relatives, friends, and neighbours' (Rueveni, 1979:14). Whatever the validity of these claims, network therapy clearly entails practical, ethical and possibly theoretical difficulties. On the practical side, the problems and expenses associated with bringing together 40 or 50 members of a network on two or three occasions spread over several weeks scarcely need emphasising. Ethically, the technique poses questions about confidentiality. On the theoretical side, Pearson (1974), while applauding the attempt to view mental illness as an attribute of networks or families, rather than of deviant individuals, criticises both family and network therapy for what he sees as excessive reliance on a transactional model of social behaviour. The transactional perspective, he argues, often leads analysts to ignore what are essentially moral questions about the relationship between the individual and the group by focusing exclusive attention on the dynamics of relationships.
Readers wishing to explore the network therapy fields further should consult Trimble (1980), who describes several variants of the therapy model outlined above. His article also contains a useful annotated bibliography.
5 Summary

In the opening section, on the social network model, I suggested that the emergence of the model was due to two main factors: a belief that the concept of the social network represented, more adequately than other concepts, the nature of social relationships in complex social systems, and a growing interest among social scientists in the social distribution of scarce resources. As well, interest in support networks has been stimulated by a desire to reform the relationships between formal and informal agencies of social support.

I argued, following Bott, that the social network should be viewed as standing at a mid-point between the individual and family on the one hand, and the wider society on the other. It is shaped both by individual choice and social structure, and in turn constrains individual action.

From this perspective, the relationship between society, social networks and wellbeing can be seen as comprising two questions: first, that of the effect of particular network structures on access to resources; second, that of the effect of social structure on social networks.

Chapter Two dealt with the first of these two questions. I reviewed, firstly, literature based on the 'stress-buffer' and the 'social bonds' models, and concluded that, although they cast useful light on the part played by social factors in the etiology of illnesses, they were subject to four criticisms:

1. the studies rarely gathered data on the structures of support networks, despite giving support networks an important place in their explanatory model;
2. the temporal dimension of crises tended to be ignored;
3. 'social support' was seen almost exclusively in terms of emotional support, with an associated neglect of material support, and
4. the individual was usually seen as a recipient of support, rarely as a seeker for or provider of support.
I then reviewed studies which considered other aspects of social support, notably the provision of material goods and services, access to new information, and access to new social contacts. These studies pointed to the importance, not only of a dense core network of close friends and kin, but of a wider, diversified, extended network. I concluded this section by advocating the use of an alternative, 'feedback/access' model of support networks, which made provision for these additional aspects.

Chapter Three approached the second main question: that of the effect of social structure and culture on social networks. I suggested that, although the available knowledge was fragmentary, it was apparent that social class, gender and family life-cycle stage all affected the structure of support networks. Geographical mobility also appeared to have some effect, as did the cultural values associated with ethnic groups, although in this case these values themselves appeared to be, at least in part, the products of structural constraints.

Finally, in the Chapter preceding this summary, I briefly surveyed literature on the use of the social network model in welfare service delivery and therapy.
Part 2  A guide to research methods
The purpose of this section is not to offer a general methodological review of social network analysis, but rather to identify and discuss the major problems which arise, and decisions which must be made, in studying social support networks. Some of these problems are inherent in analysing social networks of any sort; others are more specifically related to the study of social support. Together, they will be considered under four headings:

1. Operationalising social networks (or, in plainer English, what properties of social networks should we look at, and why?)
2. Measuring social support.
3. Social network sampling and data collection.
4. Analysing social support network data.
Operationalising social networks

A social network can be examined from two standpoints. In the first, particular focal individuals are selected and information collected about the relationships in which they are involved. The resulting data will be in the form of egocentric networks. In the second, a set of individuals is chosen — such as the residents of a street or block of flats — and information gathered about the relationships linking them to each other. The data in this case is in the form of a sociocentric network. Almost all existing studies of support networks take egocentric networks as the unit of analysis, but there is no logically necessary reason why this should be so.

Where egocentric networks form the unit of analysis, there is in principle no reason why data should be restricted to ego's contacts; one might also, for example, study the friends of ego's friends. In practice, this presents formidable methodological problems, and is rarely attempted. To use Barnes' (1969b) terminology, most studies restrict themselves to 'first order' networks.

Figure 1 Graph representation of a hypothetical personal network.
Consider Figure 1, which represents A's first-order network. It will be apparent that we can gather three kinds of information about this network:

1. information about particular individuals in the network, such as age, sex, occupation;
2. information about particular relationships in the network (e.g. the relationship AC or CE), such as intensity, durability, and exchange content, and
3. information about structural properties of the network as a whole, such as the degree to which it is composed of relatively discrete clusters of relationships.

The distinctions between these three kinds of data have important implications for both data collection and analysis. To take data collection first, given the likely limitations on researchers' time and other resources, as well as on respondents' patience, almost any study of support networks will involve trade-offs, in which the collection of some potentially interesting variables is forgone in favour of the collection of others. This situation is hardly unique to the study of support networks, but the constraints are made more acute by some of the properties of networks. Imagine that A's support network (however we have defined it) consists not of 7 members as shown in Figure 1, but 20 members. If we want to ask, say, 6 questions about each network member, we immediately have a list of 120 questions to address to the respondent. Another 6 questions about ego's relationship with each member will double the length of that list. So we have 240 questions, over and above any we may wish to ask about the respondent himself or herself, and over and above any questions we may wish to ask the respondent about relationships among his or her contacts.

The implications for data analysis will be considered in more detail in the final section below. Suffice it here to point out that information about individuals in a network — the first type of data mentioned — constitutes categorical data of the kind familiar to social science research. That is, analysis is based on assigning particular cases to categories (e.g. male/female) and computing the numbers in each category. Categorical data is the stuff of which much research is made, and lends itself readily to analysis by means of conventional computer program packages like SPSS. This is not strictly true of data of the second type — information about relationships — but for purposes of analysis the relationships can usually be treated as categorical entities (such as kinship relations, neighbour relations, etc.). Data of the third kind, however, poses problems of a different order. This is because the units of analysis here are structures rather than categorical entities. Most conventional sociological data-analysis techniques are designed for dealing with categorical data and are not suitable for analysis of structural data. The implications of this will be considered below.
Given, then, the presence of these constraints, how should one choose variables?

**Information about individuals in a network**

The choice of questions about individuals in networks will, of course, be governed largely by the particular research problem. Specific requirements aside, however, most studies of social support gather data on some or all of the following: age, sex, family life-cycle status, occupation, residence, birthplace.

With respect to each of these variables, it may be more relevant to the research topic, and will certainly simplify the collection, coding and analysis of data, if information is gathered in terms of relative rather than absolute categories. For example, instead of gathering information about people's ages, one might specify three categories:

1. older than ego by more than five years;
2. within five years of ego, either way, and
3. younger than ego by more than five years.

**Information about relationships**

The most useful variables in this group appear to be:

1. **Origin**

   The individual in a complex society is located socially within several institutional frameworks — family, workplace, neighbourhood, etc. — each of which provides a potential network of relationships. The 'recruitment context' of a relationship (as Chrisman (1970) calls it) helps to reveal the ways in which individual personal networks are related to constraints and opportunities embedded in the wider social structure. Chrisman, by way of a hypothetical example, points out that a large factory, for instance, where workers are strictly delegated to specific tasks, may provide fewer opportunities for the development of informal relationships than a small-scale factory setting.

2. **Duration**

   This refers to the length of time a relationship has existed, and should not be confused with frequency of interaction or the degree of intimacy of a relationship.

3. **Frequency**

   This need not be restricted to face-to-face contact, but may also refer to frequency of contact by phone or mail or even indirect verbal messages.
Some researchers (e.g. Lin et al., 1978) have used frequency as an indicator of the 'strength' or 'importance' of a relationship. This, as Barnes (1972) and Mitchell (1969) have both pointed out, is inappropriate, since those seen most frequently, such as work-associates, need not be one's most intimate or important friends. On the contrary, often it is relationships which are maintained in the absence of opportunities for frequent interaction which are subjectively among the most important, or instrumentally the most useful (Granovetter, 1973; 1974). On the other hand, frequency is related to proximity and accessibility, both of which are important aspects of support systems (Wellman, 1979).

4 Affective content

This refers to the perceived 'closeness' or 'intimacy' of a relationship, and is perhaps the most problematic of the relational variables. Other variables, such as origin, duration and frequency, can be measured in terms of objective categories, on the meaning of which respondent and researcher are not likely to differ. But what one person means by 'close friend' may not resemble what another means. Boissevain (1974) suggests that subjective closeness be analysed by means of a model consisting of five concentric zones. Closest to ego is a 'personal cell, usually composed of his closest relatives and possibly, a few of his most intimate friends' (1974:47); each of the four remaining zones signifies a decreasing degree of intimacy as one moves outwards. Mitchell (1974) has proposed a similar approach.

Both of these schemes, and others like them, have an intuitive plausibility, insofar as most of us presumably do employ some sort of ranking system with respect to our social relationships. But they also involve a methodological sleight-of-hand, in that they purport to represent, as the subjective structure of a person's social network, something which is nothing of the sort. Rather, they represent respondents' accounts of their social relationships, arranged in terms of the researcher's structuring principles. Some people may subjectively structure their social networks along these lines. But others may not. A number of writers have either criticised social network analysis for not paying sufficient attention to the subjective meanings attached to social relationships (e.g. Allan, 1979) or suggested that greater attention be paid to subjective structures (e.g. Niemeyer, 1973; Foster, 1979).

The matter is not without importance, since the meaning assigned by a respondent to a relationship will probably influence the amount of support which the respondent sees as being available through that relationship, as well as the circumstances under which the respondent will consider it appropriate to seek or offer support.

Given these constraints, the researcher, I would suggest, should choose between two strategies. If the overall investigation is an in-depth one,
involving a small sample, then the researcher can try to uncover the respondent's own structuring principles, by both verbal questioning and graphic techniques. If, on the other hand, the research is a more extensive inquiry with a large sample, then a fairly crude scale is more appropriate, such as a three-part one distinguishing between:

1. acquaintance;
2. more than acquaintance but less than close friend, and
3. close friend.

This at least provides a basis for comparison among relationships within and between networks, without giving rise to illegitimate claims about what the data signifies.

5 Interactional contexts

This refers to the social settings in which a relationship is activated (e.g. workplace, recreational activities). Chrisman (1970) claims that this variable, combined with origin and affective content, provides the most useful information about social networks. He points out that relationships differ in the extent to which they remain tied to specific settings. Allan (1979), while eschewing a network-analytic approach, employs a similar concept, taken from Paine and Goffman: the 'rules of relevance' governing a relationship.

6 Content and multiplexity

'Content' is used by most writers to refer to the role or roles involved in a relationship, such as those of kin, neighbour, friend. It is thus related to 'origin', but also covers other roles which have subsequently become relevant to the relationship. Some social scientists also include 'exchange contents' under this label (e.g. Tolsdorf, 1976), but others prefer to deal with exchanges of resources separately. Where a relationship involves more than one role, it is said to be 'multiplex'; where not, 'uniplex'. Networks will differ in proportions of multiplex relationships, with residents of old working-class areas of the kind studied by Young and Willmott (1962), for instance, exhibiting a high proportion, and mobile members of the middle-class a low proportion.

7 Exchange contents and directedness

'Exchange contents' refers to the resources, both tangible and intangible, given or sought in a relationship, and 'directedness' refers to the directional flow of specified resources. The particular kinds of resources relevant to studies of social support will be considered in more detail in the following section.
Operationalising social networks

The variables discussed above are by no means the only ones used in studies of social support, as a perusal of items listed in the bibliography will show, but they are the most frequently used ones in relevant research. However, in large-sample studies especially, it will not usually be feasible to gather data on all of these variables. How, then, should priorities be determined? The usual approach, when only a few variables can be used, is to concentrate on 'frequency' and 'duration', probably because these are easily quantified, coded and incorporated into analysis. However, Chrisman's argument, to the effect that the three relational variables most relevant to an understanding of social networks are those of origin, interactional contexts and affective nature, is a compelling one. The first two of these link networks to the wider social structure, while the third tells us something of the subjective structure of the network. Moreover, 'interactional contexts' can be used as an indicator of 'multiplexity' of ties. Variables such as 'frequency', by contrast, are of interest mainly for the light they cast on internal processes within the network. If one had to restrict one's choices in studying social support networks, then, I would argue for using Chrisman's three variables, plus 'exchange content.'

Information about structural properties of the network

The most widely used variables here are:

1 Size

The number of people in a network. This figure will of course be influenced by the criteria used for inclusion in a network, an issue which is discussed below.

2 Density

This refers to the number of existing links in a network, expressed as a ratio of the number of possible links, the latter being given by \( n(n-1)/2 \), where \( n \) equals the number of people.

3 Clustering

The extent to which relationships in a network are arranged in relatively discrete clusters. Various formal definitions of a cluster have been proposed (Barnes, 1969b; Niemeyer, 1973); Niemeyer (1973) has suggested formulae for identifying clusters and the strength of social boundaries between them, and more recently Mitchell (1978) and Freeman (1978) have proposed indices of segregation and integration within networks respectively.
4 Degree and reachability

'Degree' refers to the number of other people in a network known by a given individual, or to the mean number of others known by all members. 'Reachability' refers to the mean number of others who could be reached, either directly or indirectly, from individual points in a network. The concept is discussed further by Mitchell (1969:15-17) who also outlines attempts to measure the variable.

All of these variables pose one demand on the researcher: information must be gathered, not only on ego's relationships, but on connections among the members of ego's network. This is not easy to do, partly because ego may not be very well informed on these connections, and partly because, in any reasonably sized network, an awful lot of questions have to be asked. For a network size 20, for example, there are 171 possible relationships, excluding ego's own relationships with the 19 others.

Moreover, in one case at least, the importance of the variable may be more a matter of faith than empirical evidence. Ever since Bott carried out her pioneering study of London family networks (originally published in 1957), it has been assumed that network density is an important sociological variable. More recent work casts doubt on this: as indicated in Part One, Wellman (1979) found density to have no bearing on support availability among respondents in the East York, Toronto, study. Bottomley (1975b) and Plattner (1978), in two very different areas of inquiry, found that the pattern of clustering in a network was a more useful explanatory concept than that of density. Empirically, the clustering pattern of a network is an indicator of the degree to which, and the manner in which, the network is shaped by the 'recruitment contexts' of relationships. The researcher is able both to identify the major contexts and to see to what extent links have been forged across the boundaries between these. This in turn enables us to assess the extent to which ego lives in several relatively discrete social worlds. Unfortunately, however, identification of clusters and boundaries presupposes the same kind of data as is needed to estimate density.

One alternative procedure, discussed in a later section, is to devise indices from relational data which can then be used as indicators of structural properties. Examples are: proportion of kin in a network; proportion of relationships involving provision of informal support; and various possible measures of geographical dispersal and social heterogeneity.
2 Measuring social support

What kind of research instruments will produce acceptably reliable and valid data on support availability through informal networks? I shall concentrate on the problems involved in extensive surveys, not because studies of this kind are more important than more intensive, in-depth studies, but because the methodological problems are more acute in large-scale investigations. (However, for a good example of an interview schedule designed for an in-depth study, see Leighton and Wellman (1978).) In keeping with a line of criticism developed in Part One and on the basis of reasons advanced earlier, I shall also use two additional criteria in evaluating research instruments: measures of social support should

a include data on respondents' capacity to provide, as well as receive, informal support, and
b refer to material as well as emotional support.

The exchange of informal support involves three elements: social relationships; needs or functions served by these relationships; and situations which give rise to these needs or functions. From a methodological point of view, most of the literature on informal support can be categorised into one of three groups, depending on which of these elements are taken as the focus for data collection. The groups can be summarised as follows:

Group 1 consists of studies in which the researcher first attempts to gather general data on respondents' social relationships, and then either tries to find out which relationships provide particular support functions, or draws inferences about support availability from the network data.

Group 2 studies involve something of a reverse process to the Group 1 sequence. The researcher begins by specifying certain properties or functions of social relationships which are held to be especially relevant to support availability, and then asks respondents how many people, or which people, are associated with these functions.
Group 3 studies take particular situations as the starting point: e.g. the hunt for a job or an abortionist. The researcher then studies the relationships drawn into the search for support, and the outcomes of various support-seeking strategies.

We can now consider each of these in more detail. The Group I approach has been used most successfully in detailed community studies or in other studies where the researcher takes the time to build up a reasonably comprehensive picture of respondents' social networks. Townsend's (1963) study of old people in Bethnal Green, and Carol Stack's study of a low-income black community in the U.S. (Stack, 1974; Lombardi and Stack, 1976) are two good examples of this approach. Similarly, Sanjek's (1978) 'network serial' method of data collection, in which respondents are asked about all the interactions and activity-settings in which they are involved on specified days, would lend itself to a similar approach to studying social support. (Sanjek's data-collection technique will be considered in more detail in the next section.) Another procedure for conceptualising and gathering data on support networks, similar to Sanjek's but more cumbersome, has been proposed by Berger and Wuescher (1975).

However, this approach is not so useful where time is limited. The problem is that most people's networks, at least in urban settings, consist of several hundred relationships, with many relationships involving infrequent contact. Boissevain's (1974) two Maltese respondents, for instance, identified 1751 and 638 people respectively as members of their first order zones, while de Sola Pool and Kochen (1978), who reported on the people with whom 27 respondents had contact over a period of 100 days, found that the number ranged from 72 for one housewife to 1043 for a lawyer-politician. Many contacts appeared only once over that period. Social scientists, faced with this problem, typically adopt one of two strategies: either they ask respondents to name all or a specified number of the people who are important to them (e.g. Brim, 1974; Tolsdorf, 1976), or they content themselves with asking respondents to name their three or four best friends, or most frequently seen friends, and use this information to make inferences about the wider personal network structure (e.g. Irving, 1975; Toomey, 1971; Aldous and Straus, 1966; Horwitz, 1977). The first strategy, as Barrera (1980) observes, is of dubious reliability, since some people will recall relationships more readily than others, and different people will use different criteria of importance. The second strategy rests for its validity on the proposition that the structure of a network composed of ego and a few of ego's friends is an adequate indicator of the structure of ego's wider social network. On intuitive grounds alone, this proposition would seem dubious; on one occasion that it was tested, it was found not to hold (Cubitt, 1973).

In short, then, given the size and complexity of most people's social networks in urban society, attempts to base an assessment of support...
availability on descriptions of individual networks are not likely to be satisfactory unless the researcher has the time to study the networks concerned in some depth.

It is largely for this reason that most recent attempts to study informal support networks have adopted the Group 2 approach. That is, researchers have tried to specify what they consider to be the major functions associated with support, and asked respondents to name the people who fulfil these functions. For example, Gottlieb (1978) has devised a 26-item scheme which groups supportive behaviours into four categories:

1. emotionally sustaining behaviours;
2. problem-solving behaviours;
3. indirect personal influence, and
4. environmental action.

However, like others whose interest in informal support networks has grown largely out of involvement in the field of mental health, Gottlieb virtually ignores the provision of material support, or support related to material matters (such as information about jobs). Moreover, Gottlieb's scheme, like the 'Interview Schedule for Social Interaction' devised by Henderson and his colleagues in Canberra (Duncan-Jones, 1979), gathers data from the respondent as a receiver, but not provider, of support.

Another interview schedule designed on the principle of specifying supportive functions is Barrera's 'Social Support Interview Schedule' (Barrera, 1979; 1980). He identifies six categories of social support:

1. Material aid: money or other physical objects.
3. Intimate interaction.
5. Feedback: providing individuals with information about themselves.
6. Social participation: engaging in social interactions for fun, relaxation and diversion from demanding conditions.

Respondents are asked, with respect to each of these categories,

a. to whom they would turn for the kind of support specified, and
b. to whom they actually have turned in the preceding month.

No restrictions are placed on the numbers of people mentioned. Other questions probe the perceived adequacy of supportive relationships, the intensity of need for each kind of support, and the presence of conflict-laden relationships. Finally, respondents are asked to indicate the age, sex and ethnicity of all network members mentioned, as well as the nature of the relationship to the respondent (neighbour, relative, etc.). The schedule has been tested for reliability using a test-retest procedure (Barrera, 1980) and, according to the author, takes 15-30 minutes to administer.

Barrera's schedule pays due attention to the provision of material support, and taps a broad range of information economically. However,
the respondent still appears purely as a receiver, and not as a provider, of informal support. Moreover, his schedule does not gather data about structural properties of support networks. There seems to be no reason, however, why the schedule could not be modified to take account of both of these points.

A comprehensive support interview schedule which both takes account of material support, and gathers information on the respondent as provider as well as receiver of support, is Lopata's support system schedule designed as part of her study of widows in the Chicago area (Lopata, 1979). Lopata's scale comprised 52 items on current support, with individual items grouped into four categories of support: economic, service, social, and emotional. Examples of activities grouped under economic support include the receiving or giving of gifts of money, food or clothing; help with payments for these objects, and help with payment for rent or mortgage or other bills. Service supports include items such as help with transportation, housekeeping, child-care and legal aid, while social support covers activities such as going to the movies with someone, entertaining, going to church or sharing in sporting activities. Finally, emotional support is tapped by asking two groups of questions: one group concerned with people to whom respondents feel especially close, the other with people who promote certain emotional states in the respondent, such as feeling respected and useful.

With respect to each of the 52 items, respondents are invited to name up to three people as being involved in the activity concerned, although respondents are also free to nominate nobody or to say that they do not engage in the activity. This means, in effect, that respondents can name up to 156 people as members of their support networks.

Lopata's schedule is oriented towards day-to-day routine support rather than crises. It is also, of course, designed with the supportive needs of widows in mind. Most of the items in the schedule, however, are relevant to the needs of adults in general, regardless of place in the family life-cycle, and modifications could always be made after pilot-testing. The schedule does not provide for gathering data on structural properties of support networks; any modifications to make it do so would probably have to be along the lines proposed by McCallister and Fischer (1978). That is, from the support network which emerges in the interview a sample of names is taken. The respondent is then questioned as to the structure of relationships among members of the sample (see below).

Other social scientists adopting or advocating the Group 2 approach have proposed various alternative ways of conceptualising support. Wellman and his colleagues, for example, in the East York, Toronto, survey distinguished between everyday and emergency support, and asked respondents to name the people to whom they would be most likely to turn for each kind (Wellman et al, 1973; Wellman, 1979). Dean and Lin (1977), who have drawn attention to the lack of adequate theoretical foundations
Measuring social support

in many attempts to conceptualise and measure social support, argue that support should be identified with the expressive functions served by primary groups. Among the functions they specify are ‘emphasis on mutual responsibility, caring and concern’ and ‘emphasis upon the person as a unique individual rather than upon his/her performance’ (Dean and Lin, 1977:407). As with Gottlieb’s scale, discussed earlier, the Dean and Lin approach involves neglecting the more instrumental dimensions of support.

As these examples might suggest, the functions identified with social support and operationalised as a basis for measuring it depend largely on the theoretical assumptions which the researcher makes about the nature of support. Given this caveat, the Group 2 approach appears to offer the most promising means of studying the general structures and processes involved in informal support systems, particularly as that approach has been developed by Barrera and Lopata.

Sometimes, however, researchers wish to concentrate on respondents’ access to particular kinds of resources rather than on support availability in general. In that case the Group 3 approach is often more useful, particularly if the researcher elects to investigate, not how respondents might search for particular resources under hypothetical circumstances, but how they did in reality seek the resources. Granovetter’s (1974) study of job-seeking by white-collar males, and Lee’s (1969) study of women’s searches for abortionists, are two examples of this approach. Granovetter used a random sample based on information obtained from a metropolitan directory, and questioned respondents about the kinds of contacts which had been instrumental in their obtaining their present positions. Since information about abortion and abortionists was not readily available to Lee, she had to rely on an accidental sample for her study. She was nevertheless able to make useful comparisons between different ‘chains’ formed in searches for abortionists.

The Group 3 approach lends itself both to qualitative case-studies and to more quantitative research designs. Boswell’s (1969) study is a good example of the former: he followed three cases in which people had to cope with death and bereavement in the family in Lusaka, showing how the procedures of resource-mobilisation adopted varied according to the kinds of networks in which respondents were embedded. In a more quantitative study, Croog, Lipson and Levine (1972) investigated the help received by a sample of 345 men in Massachusetts over the 12 months following a first myocardial infarction. Respondents were interviewed on three occasions: while still in hospital, 1 month after discharge, and 12 months after the attack. In this case, the researchers were particularly interested in the supportive roles played by kin and non-kin, both with respect to the perceived quality of support, and the kind of support received. The latter was classified by the researchers in terms of three non-exclusive categories — services, moral support, and financial aid.
Other studies, while still focusing on particular events or situations, have tried more explicitly to relate different network 'pathways' to differences in respondents' social networks. For example, Horwitz (1977), as mentioned in Part One, studied the 'pathways' taken to psychiatric treatment by 10 outpatients and short-term inpatients. He obtained limited data on respondents' networks and related this information both to the kinds of contacts which had been instrumental in the decision to seek psychiatric treatment, and to the clinical condition of respondents on admittance. In similar vein, McKinlay (1973) attempted to relate differences in usage of ante-natal clinics among women in Aberdeen to differences in their network structures.

Both the Horwitz and McKinlay studies attribute causal significance to network structures. In Horwitz's case, one might question whether he obtained enough data about respondents' networks to establish such connections. But even where adequate network data is obtained, caution needs to be exercised in attributing causal significance to associations between network structure and behavioural outcomes. In particular, one needs to consider the extent to which the network itself might be a related effect of a hidden cause, rather than a cause of the outcome under examination.

The most systematic attempt to use particular events or situations as a methodological focus for studying support networks is the network survey procedure described by McCallister and Fischer (1978). Designed to be administered in about 20 minutes, and therefore suitable for large-scale surveys, the schedule specifies some ten hypothetical events, with respect to each of which respondents are asked to name the people to whom they would turn.

The data-collection procedures involved in this method will be discussed below. However, it should be noted here that, while the procedure differs from most of the other research instruments reviewed here in that it makes provision for gathering data on structural network properties, it still embodies a model of the respondent as recipient, but not provider, of support.

To summarise thus far, then, the Group 1 approach which involves focusing initially on respondents' social networks is suitable for in-depth studies, but not for studies where an 'instant' snapshot of social support is desired. The Group 2 approach, which begins by specifying certain functions or dimensions of support and then studying social relationships associated with these functions, offers a useful procedure for general studies of support networks, particularly in some of the variants discussed above. The Group 3 approach is more suitable where the researcher wishes to investigate access to, or usage of, particular resources.
3 Social network sampling and data collection

It is one of the ironies of social network analysis that, although the analytical concept of the social network emerged as a social scientific response to the perceived complexity of patterns of social ties in urban societies, this same complexity has placed enormous difficulties in the path of gathering social network data. Books and journal articles are generous in their suggestions as to how you might analyse data once you have gathered it; they have less to say about how you actually collect data. The main reason has already been alluded to: most people have a lot of social relationships, and precious little time or incentive to sit around telling social scientists about them.

I shall attempt to redress this imbalance, at least a little, by looking at four key areas:
1 sampling;
2 criteria for inclusion in networks;
3 data-collection strategies, and
4 informant accuracy.

Sampling

Before making any decisions about sampling, one must choose between studying egocentric or non-egocentric support networks. If one opts for an ego-centred approach, as most students of informal support networks do, then the problems involved in selecting a sample are in principle no different from those involved in other types of social research. That is, one must weigh up the relative benefits of making an intensive study of a small, probably non-random sample against those of a less intensive but more extensive study using a large random sample. If the study is to be an exploratory one in which the processes underlying network construction and maintenance are important, a small sample will probably be more
useful; if hypotheses are to be tested, then a larger, random sample will be necessary.

One sampling technique not often encountered in other areas of research has, however, been used by some network analysts: snowball sampling. The basic principle here is that the researcher begins with a small sample, then adds to it by selecting individuals nominated in the first group of networks and interviewing them. The process can be repeated in several stages. Kadushin (1968) has advocated a variant of this technique for the study of power elites. Bottomley (1975b) used a form of snowball sampling in her study of second generation Greeks in Sydney, while Klovdahl (1976) discusses a related technique, known as the 'random walk', and reports on its use in a study of social structure in Canberra.

Since most of the issues involved in sampling for a study of egocentric social networks are common to empirical social research in general, and are dealt with in standard texts, they will not be considered further here. One point, however, does warrant mention: this is the warning which Barnes (1972:24) gives against what he calls 'the false assumption of significant centrality'. Taking a particular individual as the focal point for a study of a network may lead the researcher into thinking that the individual concerned stands at a strategic central point of the network. Some people do, of course, occupy central points in networks of relationships, especially communication and friendship networks, but the apparent centrality of a sampled individual is a function of the method of research, not necessarily of his or her social position.

If one opts to study non-egocentric networks, the problems are rather different. Either the researcher must choose a study-population small enough to enable all the people in it to be interviewed, for example the residents of a street or block of flats, or he must draw a sample from the population. In the latter case, making inferences about the structure of relations in the population on the basis of observed relations among members of the sample imposes distinctive methodological demands. Granovetter (1976) has proposed a method for sampling the density of social relationships in non-egocentric networks. From a population of size N, one chooses several random samples each of size n, and within each sample asks each respondent a sociometric question about all the other members of the sample. In his article Granovetter discusses the implications of choosing from various combinations of numbers and sizes of samples. He shows that, contrary to what one might intuitively expect, using a small number of large samples is a more economical way of gathering data than using many small samples. For example, given a population of size 1 000 000, an average acquaintance volume of 500, and conditions of 95 per cent confidence and 20 per cent error, one would need 160 samples each of n=50, compared with 2 samples each of n=500. Frank (1978) also discusses, in more technical vein, sampling and
the estimation of variance in large, non-egocentric networks. Granovetter's method has been criticised by Morgan and Rytina (1977) who argue, firstly, that it cannot be used to estimate density in sub-groups of the population (a point subsequently disputed by Granovetter (1977) ), and secondly, that it can only work if the researcher has access to an accurate list of would-be respondents' names, as distinct from households. Finally, Morgan and Rytina draw attention to possible problems of respondent fatigue and non-response. These criticisms are answered in Granovetter (1977).

To date, the possibilities inherent in using non-egocentric social networks as a basis for studying informal support have not been fully explored. Such an approach, however, might be appropriate where we wished to investigate, not the social environments of certain categories of people, but the supportive properties of particular social milieus, such as neighbourhoods or workplaces. For example, one may want to examine the proposition advanced in a report prepared by the South Australian Department for Community Welfare (1976:42) to the effect that 'areas that experience high rates of change in population are less likely to be able to develop informal networks for mutual help and support'. While the sampling problems involved in using non-egocentric networks are considerable, they should not be insurmountable.

Criteria for inclusion in networks

The question of who to include in respondents' social networks arises mainly in Group I type studies, where the researcher seeks to obtain a general 'picture of the respondents' networks. It is not an issue where respondents are asked to name, say, their six best friends, or the people to whom they turn most frequently when they want to borrow money. But it is an issue where the researcher wishes either to gather data on the structure of day-to-day networks, or where the researcher wishes to compare the sizes of people's social networks. Does a bus conductor, for example, who interacts with several hundred people every day in the course of carrying out his or her job, include all of those people in his or her network? The intuitive answer is presumably 'no', but one still requires clear criteria for making such a decision.

Several writers have used frequency of contact, and/or affectional content, as a basis. Turner (1967), for example, included only those people to whom respondents were bound by 'positive affectional ties (i.e. kinfolk and friends)' and with whom respondents had contact on average at least once a fortnight. Cubitt (1973) used contact at least once a month as her criterion for inclusion.

There is evidence to suggest that important structural differences exist in frequency of contact within networks, with low-income mothers, for example, seeing a few people very frequently, and males in certain jobs
having infrequent contact with a large number of people (de Sola Pool and Kochen, 1978). Given these differences, and given, too, Granovetter's 'strength of weak ties' thesis discussed in Part One, the practice of setting an arbitrary minimum frequency of contact as the criterion for inclusion may not be a sound one.

An alternative criterion is the one used by Sokolovsky et al. (1978) in their study of ex-mental patients and other residents of an S.R.O. hotel. They included as members of respondents' networks only those people with whom interaction involved something more than the performance of specified role obligations. I used a similar basis for inclusion in a study of support networks in Melbourne. Thus, for example, a respondent's work colleague would not be included if interaction between respondent and colleague was restricted to the carrying out of the relevant work functions, but would gain inclusion if informal chatting or more substantial interchanges took place.

**Data-collection strategies**

The main factor governing choice of a data-collection strategy, apart from matters such as the amount of time and money available, is the size of the population being studied. Barnes (1972) distinguishes three possible styles of data-collection on the basis of population size. Firstly, where the population consists of no more than 10 people, all possible links are open to observation by the researcher. This situation can arise in studies of, say, scientists in a research laboratory or experimental research on communication networks. However, as it is hardly likely to occur in studies of social support networks, it will not be considered further here.

Barnes's second category involves studies where the population comprises more than 10, but not more than 40 individuals. In this case, while not all the links are directly observable, the researcher can observe a reasonable proportion of them, sufficient to enable him or her to make inferences with confidence about the overall structure of relationships. Again, this situation is unlikely to arise in studies of support networks, though it might do so if non-egocentric network settings, such as residential streets or workplaces, were chosen for analysis.

The vast majority of existing and likely studies of social support networks fall into Barnes's third category: population size 40 and over. Here, the researcher can choose from three options (with implications for sampling, discussed above):

1. Take a small sample, study respondents' networks in depth, and use the data thus gathered to make inferences about network structures in the wider population.
2. Use a larger sample, and gather less information about each of the respondents' networks. Infer as above.
3. Trace paths by some form of snowball sampling.
If the first option is chosen, the most suitable data-collection strategy would appear to be along lines similar to those proposed by Sanjek (1978). This involves interviewing members of a sample (he and his colleagues sampled 40) on two or three occasions to obtain information about the people with whom they interacted, and the settings and activities involved, over the preceding day or two days. Sanjek and his colleagues, who developed this method during fieldwork in Accra, Ghana, then coded settings and activities inductively, after obtaining their data. For example, settings were categorised into three groups — work and public places, residential places, and leisure places — with each group being further subdivided into sub-categories relevant to the social environment being studied. A feature of this method is that it gives rise to data which is both qualitatively rich and at the same time amenable to quantitative analysis. In Sanjek's case, the data thus gathered enabled him to examine such questions as sex-based differences in activity patterns, the place of kin in day-to-day interaction, and the relative importance of class and ethnicity in structuring social networks.

Although Sanjek's sample was stratified by sex and ethnicity, it was not random. Indeed, in this and other respects, the method represents a compromise between methodological rigour and situational constraints. Sanjek argues that, in studying networks and social environments, behavioural data is more reliable than respondents' accounts of the people who are 'important' to them or whom they see most frequently. On the other hand, the nature of modern urban life effectively precludes a researcher from accompanying a reasonable number of respondents through very many settings and activities. Asking respondents to report on specific activities is a compromise.

By the same token, the advantages of a truly random sample have to be balanced against the importance of the researcher developing background knowledge of the overall setting under examination. Sanjek and his colleagues gathered their data over 12 months, during which time they lived in the area.

One disadvantage of Sanjek's 'network-serial' method is that it has a built-in bias towards members of networks who are seen frequently. In using a data-collection strategy similar to Sanjek's, I attempted to correct for this by combining the data gathered from specific days' activities with interview questions about kin and close friends.

For fairly obvious reasons, however, Sanjek's strategy would not work if a researcher wished to pursue the second of the above options: sampling widely, but in less depth. For this approach, the survey method developed by McCallister and Fischer (1978), or some variant of it, would appear to be the most suitable. Their goal in designing this method was to produce 'a survey procedure that would, in 20 minutes, identify and elicit descriptions of respondents' associates who were likely to be sources of rewarding exchanges' (McCallister and Fischer, 1978:136).
The survey procedure involves three stages. Firstly, respondents are asked to name the people to whom they turn in ten specified contexts, such as discussing work decisions, helping in household tasks, talking about personal worries. Respondents can name as many people as they wish, but interviewers record only the first eight named in each of the ten contexts. In the second stage, the interviewer presents the respondent with the list of names he has compiled from stage one, and asks the respondent to identify which names on the list satisfy certain criteria, such as sharing a similar occupation, living nearby, etc. In the third stage, further information is obtained about a small sub-sample of the full list of names; this includes a crude measure of sub-sample density.

While the McCallister and Fischer procedure is subject to the limitations inherent in mass-survey techniques, it represents a significant advance on earlier survey approaches to gathering network data, most of which were based on asking respondents to name their three (or four, or sometimes more) best friends, or most frequently seen friends. Moreover, the questions posed in the procedure could be modified to make them more suitable for particular social settings.

Informant accuracy

Studies of social support are subject to the same problems of validity and reliability as other areas of social research. There is one problem, however, which causes special concern in support network studies: informant accuracy. As already suggested, the structure of relationships in modern complex societies effectively prevents researchers from gathering network interaction data by observation, except under special circumstances. Instead, researchers have to content themselves with asking respondents to name those with whom they do, did, or would interact at particular times or under specified conditions.

This raises two issues: first, how accurately do people report on their own interactions? Second, how accurately do they report attributes of others in their network?

The first of these issues has been the subject of a series of studies undertaken by Killworth and Bernard (Killworth and Bernard, 1976; 1979; 1980; Bernard and Killworth, 1977; Bernard, Killworth and Sailer, 1980). Basically, their procedure was to select a number of samples which would enable them to obtain two kinds of data: first, accounts of the people to whom respondents said they talked, and second, lists of people to whom respondents actually did talk. The selection of samples was somewhat ingenious: a group of deaf people, who engaged in non-face-to-face interaction by means of teletype machines (which produced hard copy); a group of radio hams; and two groups of office-workers among whom actual interaction could be readily observed. Bernard and Killworth then subjected both sets of data, which they labelled 'cognitive
network data' and 'behavioural network data' respectively, to a number of analytical procedures to see to what extent they resembled each other. The authors' conclusions are not cheering. So inaccurate were respondents' cognitive accounts, when compared with behavioural data, that the authors felt obliged to 'recommend unreservedly that any conclusions drawn from data gathered by the question, "Who do you talk to?" are of no use in understanding the social structure of communication' (Bernard, Killworth and Sailer, 1980:208).

Killworth and Bernard's gloomy prognosis has been disputed by Hammer (1980a; 1980b). She argues that the presence of disparities between observed and reported interaction indicates not, as Killworth and Bernard would have it, that informant data is useless, but rather the need for further investigation of possible relationships between the two kinds of data, and for more care in gathering informant data. She also points out that observational, or behavioural data, has its limitations too: for example, under certain circumstances, a decision not to interact with someone may be highly significant, but the significance would not emerge from purely behavioural data.

Certainly, Killworth and Bernard's findings cast doubt on the usefulness of data obtained simply by asking people, 'Who do you talk to?' or even, 'Who did you interact with last week?' But, as the data-collection strategies formulated by Sanjek and by McCallister and Fischer, among others, make clear, there are other ways of obtaining respondents' accounts of their interaction. The Sanjek method, for example, involves asking respondents to recall particular social settings in which they have been engaged, and this recollection in itself would presumably aid respondents in recalling the other people present at the time. Nonetheless, the point remains that many if not most of the data-collection strategies used in network studies are of unproven accuracy, and subject to unknown error limits.

The second aspect of the informant accuracy issue — the accuracy with which people report on attributes of their contacts — was investigated by Laumann (1973:27-41), who selected a random sub-sample from his large Detroit sample and contacted the friends listed by members of the sub-sample. He investigated two matters: firstly, the accuracy with which people reported their friends' age, occupation, education, political party preferences, religious affiliations and ethnic origins, and secondly, the extent to which friendship choices were reciprocated. On the first, he found a high degree of accuracy on all variables except political party preference. On the second, some 43 per cent of friendship nominations were reciprocated.
4 Analysing social support network data

In one respect, analysing support-network data is no different from analysing any other kind of sociological data. It involves three stages: transforming the raw data into a form which permits systematic description and analysis; summary description, by means of frequency counts, estimation of means, etc.; and finally, the execution of the analysis proper, through preparation of contingency tables, explanatory models, etc. However, some problems peculiar to social-network analysis do arise as a result of the nature of network data.

Early in Part Two, it was pointed out that studying social networks involves producing three kinds of data concerning, respectively, attributes of individuals in the network (which we can call point data), relationships in the network (relationship data), and the structure of the network (structural data). In this final section of the monograph I shall consider, firstly, ways of organising these kinds of data so that they can be analysed, and secondly, approaches to data-analysis. I shall assume that analysis is to be basically quantitative in nature, because it is in the handling of large-scale quantitative network data that problems are apt to arise; in any case, even qualitative studies of social support networks will normally involve some quantitative description and analysis.

Organising data

Sonquist (1980), in a paper on management and analysis of network data which is recommended to anyone contemplating a large-scale study, suggests that network point data and relationship data be organised in separate data files. (Structural data can of course only be produced, by definition, from organised point and relationship data.) In Sonquist's system, one file — the point data file — would contain all the individuals in a network, each identified by an ID. Each row in the file would contain
Analysing social support network data

one individual, together with the attributes of that individual: age, sex, or whatever. The other file — the relationship file — would have one row per relationship, with each relationship identified by the IDs of the two people involved, and each row containing attributes of the relationship, such as duration, intensity, exchange contents.

Such a data structure lends itself, firstly, to analysis both of individuals' attributes and of relationships by means of conventional computer program packages such as SPSS. At this point the researcher may wish, for example, to examine the extent to which particular kinds of relationships, or relationships sharing certain kinds of origin, tend to be used for the provision of certain kinds of support.

Alternatively, the data obtained from the initial analysis might be incorporated into further stages of analysis. For example, the researcher may set up another data file, to contain data on respondents and their networks. In Sonquist's terms, this would be a second-stage point file, in which each row contained one respondent and the attributes of that respondent's network, such as the proportion of kin in the network, the proportion of supportive relationships, etc. (these variables having been derived from the first-stage of analysis). This would also be the appropriate file in which to enter face-sheet data about respondents. Data in this file could in turn be further analysed using conventional computer program packages, in order to examine, for example, differences between support networks of particular categories of respondents.

The important point about this approach to structuring data is that it incorporates flexibility, allowing the researcher to shift from one level and unit of analysis to another.

Certain forms of structural analysis, such as measuring density, clustering or carrying out a triad census (see below) demand that data be prepared in the form of an adjacency matrix. The principle here is simple enough: a social network can be displayed either graphically or in matrix form. In the latter case, a cell entry '1' usually signifies the existence of a relationship (of whatever sort is being specified) between the individuals in the corresponding row and column, and a '0' signifies the absence of a relationship. (For a simple introduction to the use of matrices for representing networks see Mitchell, 1969; Craven and Wellman, 1974; Harary, 1977:372-373). In Figure 2, the graph shown earlier in Figure 1 is shown in matrix form.

While matrices do not lend themselves so readily to intuitive interpretation, they are far more amenable than graphic representations to analysis. According to Sonquist, however, none of the currently available programs will transform data from relationship-file and point-file form into adjacency matrix form. Either this must be done manually — probably not a viable option in any large-scale research — or a special program must be written.
Figure 2 Matrix representation of network shown in figure 1.

Structural analysis of this kind cannot be carried out by means of conventional program packages, and therefore requires special programs, a point taken up again below.

Approaches to analysing data

Social support network data can be analysed in three ways:

1. At the level of relationships or attributes of individuals. The example given above, in which the researcher looks for associations between kinds of relationships and forms of support-content, belongs to this level of analysis.

2. At the level of the network itself. Structural properties of the network are inferred from relational data, e.g. proportion of kin in the network.

3. Again at the level of the network itself; this time, however, structural properties of the network being 'uncovered' by means of structural analysis.

Each of these approaches will now be considered briefly.

The first poses no problems peculiar to the analysis of support networks. Provided the data has been appropriately organised, it can be analysed using conventional techniques and statistical procedures, subject to the normal constraints imposed by levels of measurement (discussed in standard methodological texts). The researcher may wish to analyse the relationships in each network separately, or all relationships in networks of a certain category (e.g. male respondents) or all relationships together. McCallister and Fischer (1978), for example, who were interested in dimensions of homogeneity in social networks, tabulated the proportions of all network members who were of the same age, sex, ethnicity, etc. as respondents.

Similarly, the second approach, though it involves a shift in level of analysis from relationship to structure, still remains within the bounds of conventional sociological analysis — again, provided the data has been
Analysing social support network data

appropriately organised. However, given that few precedents exist to
guide the researcher in his selection of indicators of network structure, it
may be worth considering some examples briefly.

Tolsdorf (1976) derived several indicators which appear to be of gen-
eral relevance to support networks. One was the proportion of multiplex
relationships, obtained by dividing the number of multiplex relationships
by network size. Another was what he called 'relationship density'. Hav-
ing obtained data on the 'content' of each relationship, he calculated
relationship density by dividing the total number of 'contents'
by network size. This provided an indication of the association between a
respondent's field of activities and the network of people involved in that
field. Other indicators of network structure which he devised included:
proportion of kin in network; proportion of 'functional people' (i.e.
people involved in exchanges of support, advice or feedback) in network,
and proportion of 'asymmetric relationships', which in this case referred to
relationships in which the number of functions provided by the respon-
dent was not matched by the number received by him/her in that rela-
tionship.

Again, the point to note about all of these indicators is that they are
based on data which is fairly readily obtained by standard research
techniques, and can be derived by means of standard computational and
statistical procedures.

This is not true of the third approach identified above. At this point we
enter the realm of 'structural analysis' proper, a realm marked by the
more esoteric products of 'network analysis' as an academic specialty.
Boissevain, in a recent sardonic appraisal of the field, accused practi-
tioners of exhibiting 'methodological involution' and producing trivial
results. The validity or otherwise of his assessment need not be consid-
ered here. Suffice it to say, firstly, that conventional techniques of socio-
logical analysis are not adequate for the analysis of structure qua struc-
ture, and therefore it is not unreasonable that some people should try to
devise new techniques. Their efforts will inevitably seem esoteric to the
mathematically unsophisticated. Secondly, however, it is also true that
most of the products of these efforts to date do not appear to be of very
much use to anyone trying to study social support networks.

The main reason for this is that most of the analytic methods advanced
presuppose a relatively bounded population and information about all
relationships within that population, whereas most studies of support
networks involve samples from large populations. Because of their
limited applicability, I shall attempt no more than a brief description of
the main approaches.

Of these there are two. The first is based on trying to identify clusters of
relationships within a network, that is, portions of networks exhibiting
relatively high density. These are variously called 'cliques', 'k-plexes' and
other labels according to the particular method proposed (Seidman and
Analysing social support network data

Foster, 1978). One influential version of this approach has been developed by Holland and Leinhardt (1977a; 1977b; 1978) based on the concept of transitivity in triads. A transitive triad is a triad in which, if A is related to B and B is related to C, then A is related to C. Holland and Leinhardt show that the degree of structure present in a social network can be conceptualised as the extent to which the proportion of transitive triads in particular sections of the network departs from the proportion that would be found in a random distribution of relationships. They have devised an index of structure which involves making a 'triad census', that is, a count of every possible triad among the members of a network. This necessitates preparation of data in adjacency matrix form, and the use of special computer programs. Sonquist's (1980) survey of computer programs suitable for network analysis lists those which can perform a triad census and where they can be obtained.

A simpler procedure for analysing clusters in a social network is discussed by Niemeyer (1973), while Mitchell (1978) and Freeman (1978), as mentioned earlier, have proposed measures of segregation and integration within networks respectively which could be used with egocentric sampled network data.

The second major approach is based on the concept of 'structural equivalence' (Lorrain and White, 1971; Sailer, 1978; White, Boorman and Breiger, 1976). Basically, this involves grouping together ('block-modelling', to use the technical term) positions in a network which can be shown to be characterised by a similar set of relationships. Such positions are said to be 'structurally equivalent', and by some writers are allocated on this basis to a particular role in a social structure. Indeed, the 'structural equivalence' approach generally is based on a role-theoretic concept of social structure (Nadel, 1957), a feature which will not endear it to those who prefer more dynamic 'social action' models of society. Most of the literature on structural equivalence is mathematically fairly demanding; an exception is the paper by Levine and Mullins (1978). To repeat, however, analysis of 'structural equivalence' presupposes a bounded population for which the analyst has complete relational data. It is therefore not likely to be widely used for the study of support networks.
Several general introductions to social network analysis have been published, and it is not intended here to duplicate these. See Barnes (1969a; 1972), Boissevain (1974), Craven and Wellman (1974), Fischer (1977), Mitchell (1969; 1973; 1974), Wellman (1980) and Wolfe (1973).

In a work originally published in 1887, Ferdinand Tönnies (1974) argued that social systems were organised in terms of either, or a combination of both, of two main types: the Gemeinschaft (usually translated as 'community') he identified with the patriarchal family, rural village life, and folkways and mores. By contrast, the Gesellschaft (translated sometimes as 'association', sometimes as 'society') was associated with the market-place, contracts and calculated self-interest. Both of these concepts carry other ramifications, and form the basis of an influential 19th-century theory of social change.

One qualification needs to be added to these observations: in traditional Gemeinschaft-type networks, such as those found in old working-class areas of cities (e.g. Young and Willmott, 1962) family interaction patterns are often characterised by fairly rigid sex-segregation (Townsend, 1963; Bott, 1971). This apparently was not true of the 'community'-type networks built up by Jones' Type I newcomer families.

The categorisation of network variables given here differs from that proposed by Mitchell (1969) and others, who speak of interactional and morphological (i.e. structural) properties only. Such a scheme does not distinguish systematically between attribute data about individuals and data about relationships.

I used the following graphic approach in an in-depth study. Respondents were presented with a large sheet of cartridge paper at the centre of which was a yellow, self-adhesive sticker. On other stickers were written the names of all network members who had come to light in the course of earlier interviews. Respondents were asked to arrange these stickers on the sheet so as to represent both the degree of closeness to ego and the ways in which the respondent felt that the network members were grouped together in various kinds of relationships. Respondents were given unlimited time, and also offered the use of coloured pens to mark in any lines, words or boundaries they wished. Most respondents took 20-40 minutes, and found the exercise rather intriguing.
Appendix  A checklist of studies

In the list below, studies are classified according to whether or not they contain original empirical or theoretical material relevant to eight categories. They are:

1 Informal support structures and/or support seeking processes.
2 Correlations between social network properties and differences in wellbeing.
3 Service delivery via social networks.
4 Network therapy.
5 Empirical information about social networks in Australia.
6 Empirical information about social networks elsewhere.
7 Methodological information about collecting social network data.
8 Methodological information about analysing social network data.

Full bibliographical details of the studies are contained in the bibliography. Some works cited in the bibliography are not listed here because, although relevant to points made in the text of the monograph, they do not contain material relevant to the eight categories. The purpose of setting out the Appendix in this form is to enable readers wishing to locate works containing, say, empirical material on Australian social networks, to do so quickly by simply checking down the appropriate column.

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