notations of these kinds. However, the view that quantitative and qualitative research represent different epistemological implications is not held by all writers, even though they view the two approaches as distinctive. The alternative standpoint is to suggest that quantitative and qualitative research are each appropriate to different kinds of research problem, implying that the research issue determines (or should determine) which style of research is employed. For example, Walker (1985, p. 16) has proposed: 'Certain questions cannot be answered by quantitative methods, while others cannot be answered by qualitative ones.' This view implies that the decision over whether to use a quantitative or qualitative approach should be based on 'technical' issues regarding the suitability of a particular method in relation to a particular research problem. Accordingly, the different characteristics of quantitative and qualitative research which were summarized in Table 5.1 can be interpreted as pointing to the respective strengths and weaknesses of these two research traditions. Consider the following rationale for the procedures employed in a study of entrepreneurs in Britain:

As with all social research, the methods adopted in this enquiry were largely dictated by the nature of the research problem. We set out to study the *dynamics* of small-scale capital accumulation and the *social processes* which account for the reproduction of the entrepreneurial middle class. In addition, it was our intention to define more precisely the *nature* and *interrelationships* of the constituent groupings within this class. The complexity of these issues did not favour quantitative investigation; in our view a qualitative approach was more appropriate. [The authors provide three considerations which determined this view] . . . Consequently, we undertook an intensive study of a limited number of proprietors using semi-structured interviews which were, to a considerable extent, shaped by the personal experiences of the respondents. (Scase and Goffee, 1982, p. 198)

In this account, there is a recognition of the strengths and weaknesses of quantitative and qualitative research, coupled with a technical decision that the latter will suit their needs better; epistemological issues are not in evidence. By inference, writers who perceive the distinction between the two styles of research in terms of their relative suitability for a particular research topic are effectively suggesting that the differences between them boil down to little more than 'differences between research strategies and data collection procedures' (see quotation from Filstead, 1979, cited on p. 105). This position is not new; it can be discerned in a celebrated

exchange between Becker and Geer (1957) and Trow (1957) in which the former argued that participant observation provides 'the most complete form of sociological datum' (p. 28). In reply, it was suggested that 'the problem under investigation properly dictates the methods of investigation' (Trow, 1957, p. 33).

There seem, then, to be two fairly distinct versions of the nature of the differences between quantitative and qualitative research which might usefully be referred to as the 'epistemological' and 'technical' accounts. However, there is a tendency for many writers to oscillate between these two versions. This is particularly evident in some of the discussions about whether it is possible to integrate quantitative and qualitative research within a single study. The ways in which they might be combined constitute the focus of the next chapter; in the meantime, the broader question of whether in principle they might be combined is addressed here. The technical version of the differences between quantitative and qualitative research seems to provide few impediments to the possibility of a research strategy that integrates them. While a researcher may prefer to use one to the relative exclusion of the other (as with Scase and Goffee, 1982), if the research problem invites a combined approach there is little to prevent such a strategy, other than the usual reasons of time, money, and possibly inclination. The researcher may choose to conduct a predominantly ethnographic study, but decide to add some survey evidence relating to people who are not accessible through the focal method. Woods (1979) buttressed his ethnographic research on a school with a survey of parents for precisely this reason.

The epistemological account would seem to pose more problems in regard to the possibility of combining the two approaches. If quantitative and qualitative research are taken to represent divergent epistemological packages (or paradigms), they are likely to exhibit incompatible views about the way in which social reality ought to be studied, and hence what should be regarded as proper knowledge thereof. This incongruence is particularly evident in the implicit critique of the application of the scientific method to the study of society which phenomenology contains. It is not obvious how a marriage of such divergent epistemological positions as positivism and phenomenology (even in the metaphorical use of the term) can be entertained. Guba (1985) has argued vehemently against the suggestion that the two research traditions might be reconciled. In his view, attempts to combine the two approaches fail to recognize the distinction between a paradigm and a method. He argues that the idea that quantitative and qualitative research can be dovetailed rests on a view that they represent only different methods of investigation; instead, 'we are dealing with an either-or

proposition, in which one must pledge allegiance to one paradigm or the other' (Guba, 1985, p. 80). Thus in the same way that Kuhn regards paradigms as incommensurable, Guba is suggesting that the collection of assumptions and beliefs about the study of the social order that underpin quantitative and qualitative research should be treated in the same manner.

Not all writers subscribe to this view. Reichardt and Cook (1979) suggest that the tendency to view the two styles of research as paradigms stands in the way of their joint use within a single project, and prefer to see them as 'method-types'. What is somewhat more surprising is that some writers who subscribe to the epistemological view of the differences between quantitative and qualitative research simultaneously suggest that they might be integrated. Filstead (1979), who was quoted above for his view that they represent 'different epistemological frameworks', suggests that 'great advantages can be obtained by creatively combining qualitative and quantitative methods' (p. 42). Bogdan and Biklen (1982), after a discussion of the intellectual foundations of qualitative research (in phenomenology, etc.), ask whether it can be used in tandem with a quantitative approach. They acknowledge that it can, but display a lack of enthusiasm for the idea, not because of any kind of epistemological incompatibility, but for practical reasons. They suggest that research which combines the two approaches 'is likely to produce a big headache' (p. 39), because of the practical problems of producing both a good quantitative and a good qualitative design. Delamont and Hamilton (1984) oscillate in the other direction. In contrasting structured and ethnographic observation in classrooms, they argue against the view that these two styles of observation are 'the equivalent of selfcontained epistemological and theoretical paradigms', but then go on to argue that the two methods reflect 'the tension between positivism and interactionism' which 'cannot be done away with by calling for interdisciplinary rapprochements' (pp. 5, 6).

There seems, then, to be a tendency for many writers to shuttle uneasily back and forth between epistemological and technical levels of discourse. While much of the exposition of the epistemological debts of qualitative research helped to afford it some credibility, a great many decisions about whether and when to use qualitative methods seems to have little, if any, recourse to these broader intellectual issues.

The Strengths and Weaknesses of Quantitative and Qualitative Research

Underlying much of the preceding discussion is the suggestion that the distinction between quantitative and qualitative research is really a technical matter whereby the choice between them is to do with their suitability in answering particular research questions. Such a view draws attention to the different strengths and weaknesses of the methods of data collection with which the two research traditions are typically associated. It is not uncommon for textbooks on research methods to draw attention to such issues:

The sample survey is an appropriate and useful means of gathering information under three conditions: when the goals of the research call for quantitative data, when the information sought is reasonably specific and familiar to the respondents, and when the researcher himself has considerable prior knowledge of particular problems and the range of responses likely to emerge . . .

Participant observation is usually more appropriate when the study requires an examination of complex social relationships or intricate patterns of interaction; . . . when the investigator desires first-hand behavioural information on certain social processes . . .; when a major goal of the study is to construct a qualitative contextual picture of a certain situation or flow of events; and when it is necessary to infer latent value patterns or belief systems from such behaviour as ceremonial postures, gestures, dances, facial expressions or subtle inflections of the voice. (Warwick and Lininger, 1975, pp. 9–10)

As they then go on to say, 'Each is useful for some purposes and useless for others' (p. 12).

This passage illustrates well the suggestion that the decision about which method to employ is essentially a technical issue. As such, the decision about whether to employ quantitative or qualitative research stands cheek by jowl with other familiar technical issues on which students of social research methods are reared, such as when it is appropriate to use a postal questionnaire, or to construct a stratified random sample. Warwick and Lininger's list of respective strengths and weaknesses can usefully be expanded. Social surveys are likely to be particularly appropriate where larger scale issues are concerned. The study of social mobility is a case in point (e.g. Goldthorpe, 1980). Of course, it might be argued that much of the recent ethnographic research on schools is concerned with social mobility too (e.g. Lacey, 1970; Woods, 1979; Ball, 1981). However, such research is typically concerned with the processes through which social class is perpetuated by the structure of the school, teachers' practices, and the class based sub-cultures within the school. Studies of social mobility like Goldthorpe's are essentially concerned with the extent of social mobility and changes in patterns. Thus, the technical version of the debate would imply

that the critical issue about whether a method fits a research problem is not a matter of the area of social life being investigated, but the nature of the issues being raised in relation to it. Similarly, juvenile delinquency may be studied by both survey methods (e.g. Hirschi, 1969) or participant observation (e.g. Patrick, 1973), but the nature of the questions being asked about juvenile delinquency differ. Hirschi was concerned to test the validity of three theories of the causes of delinquency. This preoccupation with the causes of variation in delinquency led him to carry out a survey of over 5,000 school children in California in order to collect sufficient data to separate out the variables which impinged on his dependent variable, delinquency. By contrast, Patrick joined a particularly violent gang in Glasgow as a covert participant observer 'to comprehend and to illuminate their view and to interpret the world as it appears to them' (Matza, 1969, p. 25, cited in Patrick, 1973, p. 9).

Social surveys are also likely to be preferred when, as in the case of Hirschi's study, there is a concern to establish cause-and-effect relationships. Experiments are even stronger in this department, but are likely to be appropriate only to situations in which the independent variable is capable of manipulation and in which random assignment (or at least some form of matching) is feasible. Oualitative researchers are not uninterested in causes, in that they are frequently concerned to establish how flows of events connect and mesh with each other in the social contexts they investigate, or how their subjects perceive the connections between facets of their environment. However, survey and experimental researchers tend to be much more concerned with the precise delineation of a causal factor, relative to other potential causes.

As Warwick and Lininger suggest in the extended quotation above, participant observation has its own strengths. The absence of a highly structured research design means that the investigator can change direction if he or she is lucky enough to hit upon an unexpected but interesting facet of the social setting. The participant observer is better able than the survey researcher to understand social processes.

A further, and neglected, strength of ethnographic studies is their capacity to reveal covert, hidden, even illegal activities. Studies of informal groups in large organizations (Dalton, 1959), output regulation in industrial work groups (Roy, 1960), and pilferage at work (Ditton, 1977) all demonstrate the capacity of ethnographers to look behind the scenes and bring to the centre of the stage aspects of these milieux which would otherwise either be inaccessible or possibly not even uncovered in the first place. The same point can be made about the study of deviant behaviour, a

more probing study of which requires sensitivity and a capacity to provide reassurance to the subjects that a survey researcher is unlikely to be able to inculcate. It is difficult to see how Adler's (1985) research on drug dealers could have been conducted with a more formal approach. Indeed, the capacity of ethnographers to gain access to hidden arenas can occasionally cause them difficulties. Serber (1981) sought to conduct an ethnographic study of a government bureaucracy responsible for the state regulation of the insurance industry in California. He rapidly discerned a range of informal practices (e.g. off-the-record meetings) which he chose to make the focus of his investigations, but found his access to people and documents sharply curtailed by senior managers as his awareness of the significance of such undercover processes grew.

The purpose of this discussion was to provide a flavour of the sorts of considerations that are relevant to the technical version of the distinction between quantitative and qualitative research. It is also the case that the choice between the two may derive from reasons other than the epistemological and technical reasons which have been encountered thus far. For example, many women social scientists have drawn attention to the affinity between qualitative research and a feminist perspective (Stanley and Wise, 1983). Oakley (1981) has argued that the typical survey interview, in which the researcher appropriates information from a respondent for the former's use, is incompatible with feminism. A feminist researcher conducting research on women would be setting up an asymmetrical relationship which exploits the already exploited interviewee. In order to mitigate this perpetuation of exploitation she advocates an approach to feminist research whereby the research situation is treated much more as an exchange in which the feminist researcher gives something back - of her own views, experiences, and the like - to those being interviewed. Such an approach implies a much more unstructured interview (and hence one closely associated with the qualitative approach) than that associated with the survey. It is striking that research on women's subordination in the workplace, as well as the interface between the workplace and the home, has tended to be the product of qualitative investigations in which participant observation and unstructured interviews figure strongly (Pollert, 1981; Cavendish, 1982; Griffin, 1985a). The underlying issues to the discussion about the appropriateness of particular methods to feminist research imply that considerations other than those which have figured thus far in this book may impinge on choices of method, e.g. ethical, political, ideological considerations.