

## Employee Attitude Surveys

*Jean Hartley and Julian Barling*

**E**mployee attitude surveys are widely used by industrial/organizational (I/O) psychologists (e.g., Tetrick and Barling 1995) and have a long history of use in psychological research (see Nadler 1977; French and Bell 1990; Kraut 1996). Increasingly, they are being used by “mainstream” industrial relations scholars, for example, those concerned with labor-management relations (e.g., Edwards and Whitston 1993; Kochan 1979) and with nonunion employees’ attitudes toward unionization (e.g., Getman, Goldberg, and Herman 1976).

The aim of this chapter is to explore the meanings and uses of employee attitude surveys. We provide a brief history of their use in industrial relations and I/O psychology research, illustrating the theoretical and empirical questions that this research method can be used to address. We then examine some of the research design and practical questions associated with using employee surveys. Finally, employee surveys are placed in their organizational context, an often neglected area in texts on survey design and use.

### What Is an Employee Attitude Survey?

A *survey* is a “systematic collection of information from large study groups, usually by means of interviews or questionnaires administered to samples of units in the population” (Rossi and Freeman 1982: 90). A more pragmatic

Julian Barling gratefully acknowledges the financial support provided by the Social Sciences and Humanities Research Council of Canada during the writing of this chapter.

definition suggests that a survey is "a system for collecting information to describe, compare, or explain knowledge, attitudes and behavior" (Fink 1995: 1).

Across both definitions, several features are important. First, there is a link between the sample and the population. Not all those in a population (e.g., all employees in the United Kingdom or all employees in a particular organization) have to provide information for assessments to be made about them. Instead, a sample (taken to be representative in some way) of respondents is identified and contacted, and their responses are used to make generalizations about the larger group or population. While the term "survey" is sometimes taken to mean a national survey (such as the British Social Attitudes Survey or the Quality of Employment Survey in the United States), the term applies equally to a study that examines employee views in a single organization (e.g., Nicholson, Ursell, and Blyton 1981). The key issue is that the sample should reflect the specified population.

Second, the focus is on the *systematic* collection of information. Thus, identical or nearly identical questions are asked in an identical or nearly identical way of all respondents, using questions that are as precise and unambiguous as possible, so that comparisons between groups are justified. This concern with systematic data collection also means that methodological issues of reliability and validity are critical.

Third, data for employee attitude surveys are obtained from *self-reports*. Respondents are asked about their attitudes, knowledge, perceptions, opinions or their behavior, and all this information comes from the respondents rather than from the researcher. Surveys usually focus on respondents' own experiences. Less frequently, respondents may be asked about their perceptions of others (e.g., other team members, subordinates, their boss) or their expectations about how many other people are likely to act in a certain way (e.g., how many other people are likely to take part in industrial action; see Klandermans 1984). But even these questions are based on perceptions rather than the actual behavior of others. Surveys may also collect information of a dispositional nature, such as personality and personal characteristics.

Given the intensely subjective world with which attitude surveys deal, there are key psychological processes of which the researcher must be aware so that the least bias is introduced into the survey: how accurately respondents understand what is being asked of them how they perceive the phenomena under investigation, how well (or poorly) they are motivated to participate and to give honest answers, how well they can communicate

their inner world. All these psychological processes affect the reliability and validity of the data gathered.

Even objective data, such as age and family circumstances, may be subject to social desirability and contextual effects (see Starbuck and Mezias 1996). Thus, the context within which the survey is conducted is crucial to the gathering and interpretation of high-quality data.

Attitude surveys can be used to explore a variety of psychological phenomena and behaviors, including knowledge, beliefs, attributions, opinions, attitudes, values, expectations, perceptions, satisfaction, behavioral intentions, and reported behaviors. Three sets of (overlapping) psychological phenomena can be delineated: cognitions (thoughts and perceptions), affect or feelings, and behavior and behavioral intentions.

### Forms of Surveys

Given this psychological complexity, a survey may be conducted using a variety of methods. Self-completed questionnaires, with fixed questions and fixed-format answers (e.g., Likert scales), are the most frequently used method. They are also administratively the simplest, least expensive, and most popular approach. Self-completed questionnaires are usually of the pencil-and-paper variety, though there is increasing interest in computer-based questionnaire distribution and completion, through e-mail, for example (Kuhnert and McCanley 1996). Surveys may also include requests for open-ended comments.

Self-administered questionnaires can be problematic for workers who are not in physical situations that are conducive to questionnaire completion and for workers for whom reading and writing are an effort. Response rates for self-administered questionnaires are lower under such circumstances. Instead of relying solely on self-completion, researchers may opt to have the standard questionnaire read to respondents, either face-to-face or by telephone.

Focus groups are a way to elicit responses from a group of respondents (e.g., employees) who are gathered together. They were originally developed for use in market and political research but are now used in the social sciences more generally. Focus groups can be useful either for economies of scale or especially for the exploration of issues and the development of complex arguments. It is harder to be rigorous in focus group research, however, because of the tendency for the group dynamics to influence the quality and type of data that are obtained.

In projective tests, a person is given incomplete information and asked to add his or her own information or interpretation. This is then used to assess implicit attitudes. Respondents might be asked to complete sentences, as in the Twenty Statements Test (see, e.g., Nicholson and Rees 1994), or to fill in the blank speech bubbles above cartoon characters, as was used in a study of the attitudes of banking staff toward their customers (Casells 1995). With careful use, however, both focus groups and projective tests can be used to make generalizations from sample to population.

### **Employee Attitude Surveys in Organizational Research and Organization Development**

The long history of using employee surveys, especially questionnaires, in I/O psychology dates back to studies of personality, skill, fatigue, and leadership during and after World War I (Shimmin and Wallis 1994). The subsequent development of tests and measures for self-completion by employees led to the publication of several compendiums of tests and measures (e.g., Cook et al. 1981; Beardon, Netemeyer, and Mobley 1993). These provide not only the measures but details of their reliability and validity and their use in published studies.

Employee attitude surveys have also been used within the organization development movement (French and Bell 1990; Nadler 1977). From the 1940s onward, the Survey Research Center at the University of Michigan pioneered and promoted the use of questionnaires as one means of understanding employees' attitudes and behaviors. Early work suggested that when survey results were available only to managers and supervisors, little positive organizational change occurred. In contrast, when findings were shared in discussions with employees, more favorable changes were likely. Survey feedback techniques (based on administering surveys for the purpose of providing employees with feedback), using either standard questionnaires or questions developed specifically for the organization, are now common in organization development (Burke, Coruzzi, and Church 1996).

In practical terms, conducting employee surveys has been seen as part of good human resource management practice, enabling an organization, especially larger ones, to learn what employees are thinking and feeling about the organization and its management (Kraut 1996). A survey of U.K. managers' attitudes toward employee involvement showed that more than one-quarter (28 percent) reported that their organizations used attitude surveys and nearly half (48 percent) of large organizations (more than five thousand

employees) used them (O'Creery 1995). If they are well designed and conducted, surveys can provide researchers with valuable material about employees' views (though issues of impartiality still need to be confronted).

Within industrial relations research, the early research period, with its primary focus on institutions and rules (Edwards 1995), has meant that attention has been paid to those people such as personnel and human resource managers, full-time union officials, or shop stewards who understand and can talk about the complexities of institutional arrangements, rules, and procedures. The average employee or trade union member neither knows nor perhaps cares much about institutional matters, and until recently their views were rather neglected. The changing focus of employment relations has resulted in expanded interest in the attitudes, opinions, and reported behaviors of these employees (Hartley and Stephenson 1992).

One particular contribution that can be made through psychological analyses, often involving employee surveys, concerns the interpretation and understanding of some of the profound changes that have been taking place in employment and in employment relations over the last two decades (Hartley 1992 and 1995; Tetrick and Barling 1995). There are different views about the extent and meaning of the changes that have occurred. Nonetheless, any assessment will depend on the extent to which attitudes, values, and behaviors have changed—which in part requires researching the views of employees themselves. Employee as well as trade union or employer surveys are therefore important in understanding contemporary employment relations.

Researchers are also trying to understand the motivations, perceptions, and attitudes of employees in nonunion firms (e.g., McLoughlin and Gourlay 1992). Further, growing interest is being paid to those groups of employees that are increasing as a proportion of the workforce—women, service workers, part-time employees, and those with insecure or short-term fixed contracts (see Barker 1995; Hartley 1996). We do not yet understand enough about their experiences of work and employment. Significantly, the nature and focus of such constructs as organizational commitment, job involvement, and job satisfaction may vary between full-time and part-time employees, especially those working in more than one part-time job (Barling and Gallagher 1996), and this may affect the survey focus and interpretation.

HRM has also been a stimulus for research on employees and hence for the use of employee surveys. Research in this area was aided considerably by the development of standardized employee attitude measures, including

measures of organizational commitment (Mowday, Porter, and Steers 1982; Meyer, Bobocel, and Allen 1991; Cook and Wall 1980). This development provided the technology needed to investigate this issue and inspired the theoretical and psychometric development of measures of union commitment (Gordon et al. 1980; Barling, Fullagar, and Kelloway 1992; Hartley 1992). This meant that commitment had been operationalized and could be carefully measured, beyond qualitative data derived from case studies.

Another area in which there has been increased use of employee surveys focuses on culture and changes in the cultures of organizations. There are arguments about whether culture can be measured with conventional tools, such as questionnaires, and whether individuals can provide an appropriate level of analysis of this social phenomenon (see Sparrow 1996). Some would argue that culture can only be accessed, not measured, and that this inevitably calls for the use of qualitative or projective methods. Others would say that although culture is inevitably diffuse and not susceptible to direct measurement, a similar construct that is quantifiable and accessible is organizational *climate*.

The construct climate reflects the relatively stable characteristics of the organization or group which are experienced by all or most members of the group and that affect their behavior. Researchers have also examined particular climates, such as those concerned with innovation, learning, or safety. There are several standardized measures available for assessing climate. Debate has raged over the range and depth of agreement that should exist among employees before an organization can be described as having a climate, and complex mathematical procedures have been used to attempt to determine this (Jacofsky and Slocum 1990; Payne 1990).

As organizations and employment relations have been changing, there has been increasing interest in how people perceive and value their employment. This could emerge as a topic of considerable concern to employment relations researchers. The notion of the psychological contract has a reasonably long pedigree (e.g., Schein 1980) but is now increasingly used to explain how employees are reacting to some of the profound changes taking place in their organizations, their work, and their careers (e.g., Rousseau 1995; Rousseau and Parks 1993). It has been argued that changes in the expectations of the relationship between organization and employee are leading to reduced levels of trust, commitment, and performance (Hartley et al. 1991). Quantitative measures of the psychological contract and its "violation" have been developed (e.g., Rousseau 1995). This is an important development that may influence our understanding of employees'

perceptions of and the motivations affecting their relations with their organizations.

There is vigorous and growing interest in employment relations among organizational psychologists (e.g., Hartley and Stephenson 1992; Tetrick and Barling 1995; Barling, Fullagar, and Kelloway 1992). Employee surveys have been conducted to understand attitudes toward union certification (e.g., Getmen, Goldberg, and Herman 1976); attitudes toward and commitment to a union (Tetrick and Barling 1995; Barling, Fullagar, and Kelloway 1992; Hartley 1996; Nicholson, Ursell, and Blyton 1981), the willingness to take part in industrial action (Klendermans 1984); participation in the union (Barling, Fullagar, and Kelloway 1992; Kelloway and Barling 1993), attitudes toward industrial relations following a strike (Bluen and Barling 1988; Hartley, Kelly, and Nicholson 1983); and attitudes toward total quality management (Morrow 1997).

### **Questions Appropriate for Employee Survey Methodology**

The features that make employee surveys unique—that they focus on the employee (rather than on the trade union official or HRM manager), that they are based on self-reported data, and that they attempt to elicit information representative of a larger population—create both opportunities and constraints regarding the kinds of questions that are most appropriately addressed by such a method. Surveys can be used to obtain both descriptive and inferential statistics about employees.

### **Generalizing from and Comparing Samples**

Using careful sampling and statistical techniques, information from a sample can be generalized to the larger population from which the sample was drawn. Often this population will be within one organization (e.g., women employees, new recruits, manual workers), but it may cross several organizations (e.g., nonunion firms, small firms, or firms with union certification campaigns). More rarely, perhaps because of the resources required to devise the questionnaires and access the sample, surveys may be undertaken to generalize the findings to a whole nation (e.g., the employment questions in the British Social Attitudes Survey).

The development of standardized questions, with known psychometric properties and information that has been published from other studies, enables comparisons to be made across organizations (assuming similarity of

context). For example, the measure of union commitment developed by Gordon and his colleagues (1980) has been rigorously tested for its psychometric properties and has now been used in studying union commitment across many countries.

#### Making Causal Inferences

Employee attitude surveys can contribute to answering theoretical questions about the antecedents and consequences of certain phenomena, using inferential statistics when quantitative data are available. For example, Gordon and his colleagues (1980) suggested that positive socialization experiences in the first year in which an employee is a union member leads to union commitment, and subsequent survey research confirmed this hypothesis: those union members who were supported or encouraged during their first year of membership were more likely to report higher levels of union loyalty, responsibility to the union, willingness to work for the union, and beliefs in unionism generally. This finding has immense theoretical and practical significance for understanding and influencing union commitment (Fullagar, McCoy, and Shull 1992; Fullagar and Barling 1989).

Equally important, employee attitude surveys have been used to explore some of the consequences of union commitment, though not as many as might be hoped (Barling, Fullagar, and Kelloway 1992). Research has linked union commitment with behavioral intentions to participate in a range of membership activities (e.g., Sverke 1995) and with reported behaviors (e.g., Fullagar and Barling 1989 and 1991; Kelloway and Barling 1993). Research has also shown that training workshops for union members can increase both union commitment and intentions to work for the union (Catano, Cole, and Hebert 1995).

By using similar instruments in different studies with different samples, a picture can be developed using inferential statistics of the antecedents and consequences of particular phenomena and a model proposed that can be subjected to empirical scrutiny. We have illustrated this with the case of union commitment (see Barling, Fullagar, and Kelloway 1992; Hartley 1992), but this process has also occurred in areas such as organizational commitment (Meyer, Bobocel, and Allen 1991), preferred styles of managing conflict (e.g., Carnevale and Keenan 1992), job satisfaction (Smith, Kendall, and Hulin 1969; Iffaldano and Muchinsky 1985); organizational climate (e.g., Sparrow 1997), and trust in organizations (Cook and Wall 1980).

There are theoretical reasons for treating some causal inferences as more plausible than others. The careful and explicit consideration of hypothe-



sized relationships is invaluable here. Researchers have also tried to circumvent some of the problems of causation in cross-sectional research through the use of such analytical techniques as LISREL (see, e.g., Kelloway 1996). The aim is to specify which variables precede others theoretically and then test these statistically by comparing the predicted path with alternatives. For example, this technique has been used to study the transmission of union attitudes from parent to child (Barling, Kelloway, and Bremermann 1991; Kelloway and Watts 1994).

### Longitudinal Research

On the one hand, surveys are particularly appropriate in research designs that depend on the collection of data over time. Both standardized measures and either panel or representative samples enable the researcher to keep the measure and the population relatively constant so that change in other variables can then be measured. Thus, Meyer and Allen (1987) were able to track the development (and, for some employees, the decline) over time of organizational commitment among newly recruited graduates working in large companies. Wall and his colleagues (1986) were able to examine the detailed impact of changes in employees' job design on their levels of job satisfaction, trust in management, and job involvement, among other variables.

On the other hand, although longitudinal research is valuable for understanding causality and establishing change over time, certain cautions should be borne in mind when using employee surveys in this way. To establish change over time requires both stability in the measure and stability in the sample. Reliability calculations are undertaken to establish the stability of the measure; however, these are premised on the assumption that the phenomenon under study remains constant in its conceptual structure.

Golembiewski, Billingsley, and Yeager (1976) argue that there are three kinds of change, which they call alpha, beta, and gamma change. These can have important impacts on measurement and measurement error. Standard measures are based on alpha changes (e.g., a higher or lower rating on a construct, which is used by the person in the same way on two occasions). But in some circumstances beta and gamma changes may occur (the employee changes the way a construct is used or fundamentally changes his or her understanding of the phenomenon). This argues for a stronger interest in social cognition (see Weick 1995) and in the meanings employees attribute to their surroundings, as well as the need to pay careful attention to the operationalization of constructs and the psychometric properties of measures.

In addition, measurement of change over time within organizations suggests there is some degree of stability in the organization itself, which may not be the case. There are clearly opportunities for research during organizational restructuring, downsizing, and relocation, but it may be difficult to sustain research designs based on such stable organizational features as departments, jobs, functions, tasks, or skills. In contexts of turbulent and rapid organizational and job change, so many variables may be changing concurrently that causal conclusions based on time-series data may be difficult to interpret. It is here, sometimes, that more qualitative approaches to employee attitudes may provide a useful supplement (see, e.g., Hartley 1994).

### Meta-analysis

Survey research based on quantitative data is also able to capitalize on meta-analysis as a statistical and interpretive technique. Based on statistical developments (e.g., Hunter, Schmidt, and Jackson 1982), meta-analysis provides sophisticated techniques whereby data from more than one study can be aggregated, with adjustments made for sample size and psychometric reliability (Hunter and Hirsch 1987). The data from across the studies are then used to obtain an overall analysis of the relationships between different variables. This brings a level of interpretation to the research findings beyond the more traditional methods of literature review (in which results have to be weighed logically rather than statistically). For example, based on a statistical analysis of the data from fourteen studies, Premack and Hunter (1988) developed a model of the decision to become a union member.

### Personal versus Situational Characteristics

Employee attitude surveys can also address questions about the influence of dispositional versus situational influences on organizational phenomena. Given that employee surveys are based on self-reporting, we need to be aware of the potential influence of personality or personal characteristics both on what and how information is reported, as well as the extent to which a person's views and behavior are influenced by his or her disposition.

Research on the influence of disposition is receiving increasing attention in I/O psychology (e.g., House, Shane, and Herold 1996; Schneider and Hough 1995). Dispositional factors have been found to be important in some research and may also have an impact on the quality of survey data even where disposition is not formally part of the theoretical framework. An example will illustrate this. Hackman and Oldham (1976) found that job redesign had a greater impact on employee well-being (including job

satisfaction) and task performance among those employees with a higher degree of "growth need strength," that is, an interest in personal growth and development on the job.

In some research it may also be necessary to take account of how disposition affects reporting. This is particularly an issue in surveys, given that they rely on self-reports and therefore suffer from common method variance in the data. Common method variance is a term used to describe a situation in which there is an opportunity for biases in reporting that conflate independent (predictor) and dependent (outcome) variables due to the fact that the same method (self-reporting) has been used to measure both sets of variables.

Common method variance is a general problem in survey research, but it may be exacerbated by particular personality traits. For example, negative affectivity is the tendency of some people to have an affective (emotional) response that is generally slanted toward the pessimistic—fearing the worst, seeing the negative, expressing negative views, opinions, and symptoms (Watson and Clark 1984). (At the other end of the scale are those with a "Pollyanna" approach to life.) Negative affectivity can have an impact on reports of stressful events, such as unemployment or pressure at work (e.g. Payne, Warr, and Hartley 1984). Some researchers have developed techniques for aggregating data from several employees and substituting a mean score (see Semmer, Zapf, and Greif 1996). The existence of such traits or styles, however, confirms the need for caution in designing and interpreting data based on self-report.

### Reliability and Validity

Designing samples, writing questions in ways that minimize ambiguity, and avoiding overly complex questions are highly skilled operations and should not be undertaken lightly (see Barling 1979; Fink 1995). Most questionnaires go through many drafts and often several pilots to ensure a high level of "user-friendliness" and researcher interpretability.

It is sometimes suggested that psychologists are overly concerned with the psychometric properties of their research instruments (notably reliability and validity), but these are key aspects of questionnaire design and hence of research design. In addition, weak reliability and validity may well affect any inferences that can be made. If a quantitative measure of a variable has poor reliability or low validity, then the researcher is not in a position to make confident interpretations about the data, because variabilities in scores may be as much a function of instrument error or random responding as "true variation" in the sample. This is a major argument for the

use of standardized measures, for which the issues of reliability and validity will have been extensively probed and the results published. Although standard measures have drawbacks inasmuch as they are not situation-specific, the known psychometric properties of standard measures often outweigh the disadvantages.

There are also situations in which a researcher will modify an existing measure, and this can lead to difficulties in interpretation (Smith et al. 1986). For example, the well-known and widely used measure of union commitment developed by Gordon and his colleagues (1980) has been used with different combinations of items in the scale, leading to some confusion both about what is being measured and how to compare studies (see Hartley 1992 for a critique).

There are also important design decisions to be made: whether the survey will be conducted with standard or nonstandard questions, whether forced-choice or open-ended responses are called for, whether a questionnaire or an interview will be used, and whether questions are apparently factual or opinion based.

### Organizational Context

Hardly any textbooks on survey design examine the organizational context within which employee survey research takes place, even though this is crucial if one hopes to obtain accurate data and to be ethically responsible. Equally important, many published reports either ignore the organizational context in which the survey took place or give a truncated picture of the organization (see Barling 1988). This approach to design and reporting seems to assume that, once efforts have been made to remove the ambiguity inherent in question writing and sampling, relatively objective data can be collected about employees in an organizational setting.

We challenge this perspective. If the psychological processes of the individual respondent affect the quality and type of data that are collected, then it is highly likely that the organizational context also has an impact. This is increasingly being recognized (see, e.g., Tomaskovic-Devey, Leiter, and Thompson 1994; Kraut 1996). For example, research by Griffin, Tesluk, and Jacobs (1995) showed that U.S. union members' attitudes toward bargaining-related outcomes were more homogeneous during the year the collective bargaining contract was being negotiated than at other times.

There are other ways in which organizational context can affect responses. The proximity (or perceived proximity) of layoffs, industrial action, or major organizational change will affect the kinds of responses that

are given because these events can affect the ways employees interpret the situation. Also, employees may be motivated to disguise or distort some of their responses as a means of self-protection or retaliation because jobs, careers, and reputations can be under threat during periods of great change. Management may well be most favorable to employee survey research being undertaken at a time which it judges will reflect well on the organization.

How the data are to be used may also affect the quality and amount of data obtained. French and Bell (1994) distinguish between two ways in which organizations typically use survey findings, namely, to gather information about employees and as part of a feedback process of organization development (see table 10.1). In the latter case, the emphasis is not only on gathering data but on using it throughout the organization to facilitate and develop change at whatever level it is seen to be needed.

A major threat to the integrity of survey data arises when employees do not trust the survey and its results. If staff do not believe the survey is confidential, this can lead to low or misleading responses. Furthermore, if staff

**Table 10.1** Differences in Two Types of Employee Surveys

	<i>Informational Survey</i>	<i>Feedback Survey</i>
Purpose	Gather information about employees	Provide employees with feedback
Source of data	Front-line employees, maybe supervisor	Everyone in the organization
Who learns results	Senior management, department heads, and perhaps employees through newsletters	All survey participants
Who discusses implications	Top management	Staff in work teams, starting at the top
Role of change agent	Design and administration of questionnaire; development of report	Working with senior management on strategy, design, and administration of questionnaire; design of workshops; intervention in workshops if appropriate
Who conducts action planning	Senior management	Teams at all levels
Probable extent of change improvement	Fairly low	Fairly high

Source: Adapted from French and Bell 1994.

do not see direct benefits arising from their taking part in the survey (e.g., few or no management actions occur as a result of the organizational problems raised by the survey), then organization-wide cynicism and distrust may increase, jeopardizing the use and benefit of future surveys.

Some research suggests that survey feedback is more effective if it is a continuous process and not merely a one-time occurrence (Gavin 1984). Consequently, the impact on employees' responses to interviews and questionnaires should be addressed. Certainly employees are more likely to respond to surveys that they perceive may better their lot, thus affecting the response rate obtained.

### Conclusions

Employee surveys are becoming more popular both with academics and in organizations. This is partly a result of the increase in computing power and partly a response to the increase in individualism and social and organizational uncertainty. At the level of the organization, employee surveys are increasingly seen as integral to good HRM practice (O'Creedy 1995), and some organizations now undertake employee surveys annually as a matter of course.

Employee attitude surveys are able to examine a variety of self-reported perceptions, views, and opinions as well as reported and intended behaviors. The subjective nature of perception, motivation, and self-presentation means that care is needed in considering how, and in what contexts, self-reports of attitudes are elicited. Standardized measures help in dealing with the problems of reliability and validity but lead to assumptions being made about similarities in context and about the nature of change.

Both the organizational context and the epistemological base of survey research suggest the need to take account of the social construction of personal and organizational realities. Much quantitative survey research assumes a considerable degree of objectivity and uniformity in the data. But even a brief consideration of how employees perceive and respond to survey questions indicates that employees create meanings out of their own experiences, those of others around them, and the actions and reactions of the organization and then act on them. This means that survey research based on quantitative methodologies may need to be complemented by qualitative research that is able to tease out some of the meanings and social constructions that lie behind frequencies and cross-tabulations.