Limitations of Quantitative Methods for Research on Values in Sexuality Education

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Quantitative methods are rarely appropriate for research on values in sexuality education. Survey research cannot capture the richness, complexity, and depth of value questions. It pays no attention to levels of meaning, nuances in language, or lived values. Experimental research abstracts values, valuing, and sexuality education from their social, institutional, and relational contexts. Experimental designs are also undergirded by epistemological assumptions that are difficult to reconcile with research on values.

In the sixties and seventies sexuality education was inspired by a positivistic paradigm. Teachers, it was argued, should avoid values and teach only those `sexual facts which have been established as valid in the scientific community' (Karmel, 1970, p. 95).

In the eighties, enthusiasm for this approach began to subside. In Quebec, for example, the Ministry of Education's (1985) sexuality education program states that: "because it is linked with the person and with human behaviour, because it is the subject of a moral position in every society, because it holds the attention of all religions, sex education may not be given without reference to values' (p. 103). Recognizing that sexuality is more than a biological phenomenon, and that education is more than just information, sexuality

As a result of this emphasis on values, sexuality education research has begun to emphasize value-related areas. Survey research has thrown new light on views and perceptions of value issues. Experimental studies have measured the impact of sexuality education programs on knowledge, behaviour and values.

This paper raises issues about the appropriateness and adequacy of surveys and experimental studies for research on values in sexuality education. My first objective is to highlight the limitations of quantitative methods for research on values. Can a quantitative framework provide an adequate picture of values? Are its goals and procedures appropriate for research in this area? My second objective is to draw attention to methodological issues that have yet to be considered in sexuality education. Research in this area is almost exclusively quantitative. My third objective is to provide a context for further reflection and discussion about the relationship between quantitative and qualitative methods in educational research (for example, see Howe, 1988; Smith & Heshusius, 1986).

But first it is important to clarify how I use the term "values." "Values" will refer to moral values. The term "moral," as Daniel Maguire (1978) argues, "means human in the ought or normative sense" (p. 114). When we say that rape is immoral, for example, "we are saying that it is an inhuman activity; that it is not what humans ought to do in expressing their sexuality" (p. 115). Sexual-moral values name what is most human about sexuality (Guindon, 1989). They are ideals or "standards of goodness or rightness" that serve as points of reference in evaluation, decision-making or action (Guindon, 1977, p. 22).

Moral values also represent one's most fundamental convictions. They define "what one will be, instead of merely what one will have" (Maguire, 1978, p. 94). As affective appreciations of the good, moral values run deeper than attitudes (Samson, 1987). In addition to serving as points of reference, they also orient or give meaning to our evaluations, decisions and actions. As Maurice Friedman (1984) writes, real living values are "touchstones of reality" that we carry forward as "life stances" (p. 63).
Although sexuality educators increasingly agree on the importance of values, some value-related issues remain highly controversial and complex. What specific values should underlie or inform a program in sexuality education? How should values and value-related areas be discussed in the classroom? Should a set of values be presented to students? If so, should these values be presented as guidelines or as absolutes that apply to all situations and issues? What should be the source of these values? Should sexuality education attempt solely to clarify personal values? Should teachers openly indicate to students their value preferences?

My colleagues and I have designed survey research to study the views and perceptions of teachers, parents, and students in the Montreal area on these questions (Lawlor et al., 1990; Lawlor & Purcell, 1989a, 1989c; Morris, 1986; Purcell, Lawlor, & Morris, 1991). Other researchers have surveyed the views and attitudes of Ontario parents (Marsman & Herold, 1986). We have found that survey research can make important contributions to value-laden classroom practice. Although such research does not settle the issues outlined above, it serves as a context for further reflection and discussion. Knowing how different groups view and perceive these issues may also help reduce tensions, fears, and misunderstandings, legion in sexuality education.

Our research to date, however, also indicates that surveys cannot penetrate values and value-related issues in all their richness and complexity. In the first phase of the research, we distributed a questionnaire to high school teachers of sexuality education (Morris, 1986). Some multiple-choice questions dealt with general issues in sexuality education, while others dealt specifically with values.

The teachers in the study responded to the general questions on sexuality education without difficulty. They simply checked the appropriate answer. On questions dealing with values, however, most teachers specified on the questionnaire that they thought it necessary to qualify or to develop further their answers. The teachers emphasized that their responses would depend on the particular circumstances of the issue or question, and worried that statistical data would not catch the nuances and subtleties of their responses. These teachers were saying, in other words, that statistical analysis of value-rich data may easily become reductionistic.

Questionnaires also provide researchers with little information about how respondents interpreted the questions. In the second phase of our research, we developed a questionnaire for parents (Lawlor & Purcell, 1989b; Purcell, Lawlor, & Morris, 1991). One question asked parents what source of values a sexuality education program should be based on. A typology developed for the
study described: (1) a traditional Judeo-Christian approach based on a literal interpretation of the Bible; (2) a modern theological approach that sees sexuality as inherently good when expressed in a context of love and commitment; (3) practical guidelines drawn from medicine and psychology for good mental health, physical well-being and satisfactory interpersonal relationships; (4) principles of civil rights (such as a charter of human rights); (5) a humanistic philosophy (not based on religion) that emphasizes personal growth and relationships.

From this question we learned that parents surveyed favoured (in decreasing order) practical guidelines drawn from medicine and psychology, principles of civil rights, a humanistic philosophy, and a modern theological approach. The traditional religious perspective was the least favoured source of values.

The responses do not show what meaning parents gave to the question's language. This limitation is important in that values are deeply embedded in language. For example, how were the words "traditional" and "modern" understood? Some people will see the word "traditional" in the first type as pejorative, especially since it is followed by a value framework that is said to be "modern." Modern, in our culture, usually implies "more advanced" or 'better.' For some people the word "humanistic carries negative connotations. A questionnaire alone cannot probe these different layers of meaning.

SURVEYS AND VALUE RANKING

We identified the value priorities of high school students through value ranking (Lawlor & Purcell, 1989a, 1989c), a procedure also used in a Canada-wide study of adolescents (Bibby & Posterski, 1985) and in a study of the sexual values of Montreal adults (Samson, 1987).

Studies using value ranking provide useful information. They may serve, for example, as a starting point for the development of a program that takes into account the value priorities of teachers, students, and parents. As Samson (1987) indicates, this instrument could, in larger comparative studies, identify values shared by different communities, cultures, or even countries.

The problem with value ranking is that we do not know if the ranking shows what respondents value or what they believe should be valued. We do not know whether value priorities embody theoretical choices or whether they are lived values.

Samson (1987) counters these possible criticisms by suggesting that ranking forces respondents to differentiate values that might lazily be
perceived as identical, and that it best reveals the hierarchical structure of value thinking. Forcing the respondents clearly to differentiate and separate values, however, may easily become artificial and reductionistic. As Robb (1985) indicates, it assumes "that values must be chosen at the expense of others" (p. 215). Values like "generosity," "mutuality," and "tenderness" have many interrelated qualities. Forced ranking leaves little room for more nuanced or integrative/holistic thinking.

Furthermore, consensus in ranking may be misleading. It is not unusual for individuals to give different meanings to the same value. Take a value like 'mutuality,' for example. One individual might understand mutuality as a form of intimacy that comes through fusion. For another, mutuality might mean 'you scratch my back, and I'll scratch yours.' A third respondent might see mutuality as a form of interindependence, that is, a form of intimacy or sharing where one's autonomy and uniqueness is both valued and celebrated (Kegan, 1982).

Discerning differences and similarities in meaning-making is all the more critical in a pluralistic society where specific values are likely to have diverse meanings. It is also important when one is dealing with different age groups. According to psychologist Robert Kegan (1982), there is a developmental structure to the meaning people give to their values. Without more explicit emphasis on meanings underlying value choices, we have no sense of the degree of importance of values chosen, reasons why these values had priority, level or depth of valuing, or the extent to which rankings embody a value consensus.

EXPERIMENTAL STUDIES AND ATTITUDINAL SCALES
ON CLARITY OF VALUES

Experimental studies have been designed to measure sexuality education programs' impact on knowledge, behaviour, and values. They have found that though school-based programs may successfully increase knowledge, they have no "measurable impact" on behaviour, and only a "small impact" on values (Kirby, 1980, 1985; Pegis, Gentles, & de Veber, 1986).

These findings provide useful information. First, they challenge the view that school-based programs lead to an increase in sexual activity (Richert, 1983; Schlafly, 1983). Second, by placing sexuality education in perspective, they may help alleviate the burden teachers are expected to carry, such as reducing the rates of teenage pregnancy and incidence of sexually transmitted diseases.

The problem with experimental research is that it obscures the hidden
curriculum, that is, the ways that sexual values are tacitly transmitted and learned through language, sex role expectations, the rules and regulations of a school, and the various social relationships of that school. Sexual values are shaped not only by formal classes on sexuality, but also by "the interests and requirements of social institutions" (Nelson, 1988, p. 26). Experimental research does not uncover the qualities of a value-rich sexuality education. What are the attitudes, experiences, processes, and relations that enhance sexual-moral valuing? What are the requirements of a meaningful and responsible education in human sexuality? These questions are not likely to show up in a framework that reduces sexuality education to an object in the school curriculum (Moran, 1983, 1987).

The measure of values and valuing used in experimental studies is also problematic. To determine whether a sexuality education program affected students' values, students were given a pretest and posttest questionnaire (Kirby 1985; Parcel, Luttmann, & Flaherty-Zonis, 1985). This questionnaire, consisting of attitudinal scales, asks students to indicate whether their sexual values are clear to them, whether it would be easy for them to describe their values to someone, and whether they get confused about their values in discussions about sexuality.

Findings that suggest that a particular program did or did not affect perceptions of value clarity do not necessarily indicate that the program did or did not affect values. There is more to values and valuing than value clarity, especially when the instrument abstracts value clarification from its relational context. Are the respondents, for example, able to describe their values in 'real-life' discussions, particularly when partners in the discussion hold radically different values? If respondents are confused about their values, what might be the confusion's source? Does the confusion depend on which value-related question is being discussed? Does confusion arise more with certain conversational partners than with others (e.g., with parents versus peers)? What these instruments measure, in other words, are hypothetical perceptions of value clarity. They say very little about valuing itself.

PHILOSOPHICAL DIFFICULTIES AND PRESUPPOSITIONS OF EXPERIMENTAL RESEARCH

My criticism of experimental research will be controversial. The present research trend in sexuality education is toward more experimental studies (George & Behrendt, 1985). Only rigorously controlled experimental studies, it is argued, will produce "hard data," ensure objectivity and neutrality, allow valid predictions, and establish causality (Jayne, 1986; Kelly, 1985, 1988;
Kirby, 1985).

I would respond that researchers in sexuality education have too readily and uncritically accepted the positivistic assumption that the methods and goals of the natural sciences can be applied to the human and social sciences. Notions like causality and prediction presuppose that there is such a thing as an objective human nature and society that follows formal laws akin to the laws of physical or material nature (Bernstein, 1985, pp. 8–20; Jagger, 1983, pp. 353–389).

Epistemologically, this view rests on a correspondence theory of truth, which suggests that reality or truth is known “out there” and “in itself,” independent of the subject. What is real or true, according to this view, is known in the same way a mirror reflects objects (Rorty, 1979).

Human beings, unlike physical or material phenomena, mediate their experience and understanding with meaning. Humans define themselves and interpret their experience through dialogue, symbols, rituals, and storytelling. A research method that strips sexuality, education and valuing of the ways in which persons construct meaning will have little to say about the “specifically human aspects of sexual experience” (Guindon, 1989, p. 8). Such a method perverts sexual language (Guindon, 1977; Lafortune, 1989), and will produce results “inapplicable to real-life issues” (Guindon, 1989, p. 9).

From an ontological perspective, the view that experimental procedures will immunize the researcher against bias, ideology, and value judgments assumes that researchers can deliberately abstract themselves from their own history and meaning-making, and that there exists an “archimedian point” outside of history where one can be free of subjectivity, bias, and prejudice (Bernstein, 1985). It fails to recognize that data in the human and social sciences are mediated by the subjectivity, historical context, and language of both the researcher and the research subject. As Gadamer (1975) argues, “the standpoint that is beyond any standpoint, a standpoint from which we could conceive its true identity, is a pure illusion” (p. 339). We enter a world that is already pre-interpreted in language. Language mediates our values, and the place outside of language does not exist (Gadamer, 1976).

From an ethical perspective, the commitment to value-neutrality is unacceptable because it leaves potentially insidious values unexamined. In Reflections on Gender and Science (1985), Keller argues that references to objective data as “brute” or “hard” (as opposed to “soft”) reveal a masculinist bias. When we dub objective science as “hard” as opposed to the softer (that is, more subjective) branches of knowledge, we implicitly invoke a sexual metaphor, in which “hard” is of course masculine and “soft” feminine. A woman who thinks “scientifically or objectively is thinking ‘like a man’;
Conversely, a man pursuing a nonrational argument is arguing "like a woman" (p. 77).

Ethicist James Nelson (1988) believes the prizing of hard over soft shows a "phallic interpretation of reality" (p. 90). Such an interpretation projects upon the world values about size, hardness, up-ness, linearity, and externality. These take precedence over values relating to the internal, "the cyclical, the horizontal, and the soft" (p. 90).

The doctrine of value-freedom and neutrality played an important role in the history of the social sciences. Originally it liberated and emancipated (Gouldner, 1962). It "established a breathing space" and encouraged "a temporary suspension of the moralizing reflexes built into the sociologist by his own society" (p. 204). It does not follow however, that social sciences should abstain from all value-judgments, a position Barry (1979) calls "a declaration of non-responsibility" (p. 264). As Gouldner notes, the commitment to value-freedom and neutrality "had a paradoxical potentiality: it might enable [persons] to make better value judgments rather than none" (pp. 203–204).

It is ironic that sexuality education research favours a methodology whose language may perpetuate insidious sexual values. It is even more ironic that this methodology is modelled after an understanding of the natural sciences that is being rejected by researchers in the natural sciences.

Recent developments in philosophy of science have shown how the issues discussed above also apply to the natural sciences. This work was spearheaded by Thomas Kuhn (1970), who outlined how scientific theories are based on traditions of research that condition the selection of research topics and interpretation of data. More recently, Mary Hesse (1980) has argued that data in both natural and social sciences are "not detachable from theory, for what count as data are determined in light of some theoretical interpretation, and the facts themselves have to be reconstructed in light of interpretation" (p. 171). According to Hesse, all science—whether natural or social—"is irreducibly metaphorical and inexact . . ." (p. 172).

In modern physics conviction is growing that the physicist not only observes the properties of atomic phenomena but participates in their creation. Rejecting the "sharp Cartesian division between mind and matter, between the observer and the observed," physicists are asserting that "we can never speak about nature without, at the same time, speaking about ourselves . . . The patterns scientists observe in nature are intimately connected with the patterns of their mind; with their concepts, thoughts, and values" (Capra, 1983, pp. 86–87).

From this perspective, the epistemological challenge of all research, and
particularly of research on a value-rich area, is not a denial of subjectivity or 'cool objectivity, but a clarity and honesty about where we begin' (Zullo & Whitehead, 1983, p. 20). As sociologist Karl Manheim has said:

A clear and explicit avowal of the implicit metaphysical presuppositions that underlie and make possible empirical knowledge will do more for the clarification and advancement of research than a verbal denial of the existence of these presuppositions accompanied by their surreptitious admission through the back door. (cited in Lyon, 1983, p. 181)

Implicit value commitments are inaccessible to criticism and thereby subject to ideology. The quest for scientific objectivity, 'belies its own aims, subverting both the meaning and potential of objective inquiry' (Keller, 1985, p. 12; see also Maguire, 1978, p. 180). Researchers must admit, clarify and criticize their own fundamental value presuppositions if their findings and conclusions are to become more objective. In other words, authentic subjectivity is genuine objectivity (Conn, 1981; Peshkin, 1988).

CONCLUSION

The current emphasis on values in sexuality education increases the need for research in this area. Researchers, however, must begin to consider possibilities other than surveys and experimental designs. Surveys' quantitative instruments can show only the external face of values, not the richness, depth and complexity of real living values.

Experimental research reduces sexuality education to an object in the school curriculum, and reduces valuing to hypothetical perceptions of value clarity. Having adopted the goals and procedures of a science that deals with non-human objects and material phenomena, experimental research obscures the ways in which persons imbue their sexuality and valuing with meaning. Both surveys and experimental designs demean and decontextualize an area of human experience organically linked to meaning-making and irreducibly context dependent. As Mishler (1979) writes:

Science is neither a cure nor a palliative for alienation. Nonetheless, it need not add to other alienating forces in the society. A better fit between our research methods and our phenomena of interest, the context dependence of human meaning and action, might be one step toward a nonalienating science. (p. 18)
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