As is the case with the other approaches to social enquiry, these two feminist approaches to science, feminist empiricism and standpoint feminism, are likely to appeal to different audiences. Feminists who have had a strong commitment to the traditional views of science are likely to subscribe to feminist empiricism, while those who have a commitment to either some form of Marxism, or who accept contemporary philosophies of science, are likely to adopt standpoint feminism. According to Harding, the tensions between and within these two positions suggest that they are transitional epistemologies in a transitional culture, and this may be a virtue.

Perhaps sciences and epistemologies should always be in tension with each other: if the grounds for accepting knowledge claims are in perfect fit with the claims advanced, we should worry about what kinds of knowledge are being suppressed, subjugated, sent underground. After all, it is just such a hegemonous science/epistemology to which feminist scholars object. (Harding 1987c: 187)

Rather than trying to create a feminist method for the social sciences, Harding (1987b: 7-9) has argued that the best feminist analysis has three distinctive characteristics. First, to counter the fact that social-science has traditionally dealt with questions that are problematic within the social experiences characteristic of men, feminist researchers have insisted that their research must be based on women's experiences as a source of research problems, hypotheses and evidence. Secondly, as traditional social research has been for men, feminist research must be designed for women, to deal with what they regard as problematic from their experiences. Thirdly, in recognition that the cultural background of the researcher is part of the evidence that enters into the results of the research, the researcher must place her/himself in the same critical plane as the subject matter. This feature of good feminist research avoids the 'objectivist' stance that attempts to have the researcher appear as an invisible, autonomous voice of authority. 'Introducing this "subjective" element into the analysis in fact increases the objectivity of the research and decreases the "objectivism" which hides this kind of evidence from the public' (Harding 1987b: 9).

The issue of the relationship between the natural and social sciences has taken on a distinctive character in the work of Harding. The common practice of regarding physics as the paradigm of science has created difficulty for Feminism because of its androcentric characteristics. Harding has proposed that 'a critical and self-reflective social science should be the model for all science' (1986: 44). Physics should be regarded as a special case: its subject matter is much less complex than that of biology and the social sciences; its concepts, hypotheses and theories all involve interpretation; it is becoming increasingly atypical in its capacity to exclude intentional and learned behaviour in its subject matter; and it has no capacity

to deal with 'irrational' behaviour and belief, a requirement in the social sciences. Harding wanted to make the social sciences the 'queen of the sciences' using Feminism as the paradigm. Of course, by turning the everyday view of the relationship between the sciences on its head, she was able to argue from a position of strength rather than having to defend a 'less mature' form of science.

Dorothy Smith, a very influential Feminist sociologist, has provided a critique of the male-dominated 'orthodox consensus' in American sociology. In addition to relying heavily on Schütz, her work has drawn on and adapted Marxian-based theories of class conflict. The outcome is a sociology akin to Habermas's Critical Theory, classified by Harding as standpoint feminist.

Smith objected to a sociology which uses conceptual procedures, models and methods which discard everyday experiences of the world as a source of reliable information in the name of objectivity. The nature of the social world itself, how it can be known, and the relation between it and the researcher, are not questioned. The state of the discipline, as Smith experienced it during her graduate studies in California, confronted women sociologists with a contradiction between what it required and their experience of the world. The ideology of the ruling class was seen to dominate and control the social consciousness of the society in general, as well as sociology. Women, both as members of the society and as academics, had no alternative mode to understand their experiences. The Weberian model of rational social action, in which choices are seen to be made between means to some end, is foreign to the experiences of most women. These experiences 'tend to show a loose, episodic structure that reflects the way their lives are organized and determined externally to them' (Smith 1979: 152).

From her analysis of the discipline, Smith argued that it is not possible to have objective knowledge which is independent of the social location of the researcher. The socially constructed world must be known from within; it is never possible to stand outside it. Smith did not intend by this argument to suggest that what is required is for the sociologist to explore her/ his inner experiences, or any other approach in which self is the sole focus and object. Rather, the society is discovered from within by the sociologist paying attention to her/his direct experience of this social world, using her own tacit knowledge. However, she 'aims not at a reiteration of what she already (tacitly) knows, but at an exploration through that of what passes beyond it and is deeply implicated in how it is' (Smith 1974: 11-12). It is also necessary to recognize that other people have other experiences and may live in different social worlds; the researcher is separated from the world as it is experienced by those being studied. A compelling example from her own experience illustrates her contentions.

Riding a train not long ago in Ontario I saw a family of Indians, woman, man, and three children standing together on a spur above a river watching the train go by. There was (for me) that moment - the train, those five people seen on the other side of the glass. I saw first that I could tell this incident as it was, but that telling as a description built in my position and my interpretations. I have called them a family; I have said they were watching the train. My understanding has already subsumed theirs. Everything may have been quite other for them. My description is privileged to stand as what actually happened, because theirs is not heard in the contexts in which I may speak. If we begin from the world as we actually experience it, it is at least possible to see that we are located and that what we know of the other is conditional upon that location as part of a relation comprehending the other's location also. There are and must be different experiences of the world and different bases of experience. We must not do away with them by taking advantage of our privileged speaking to construct a sociological version which we then impose upon them as their reality. We may not rewrite the other's world or impose upon it a conceptual framework which extracts from it what fits with ours. Our conceptual procedures should be capable of explicating and analyzing the properties of their experienced world rather than administering it. Their reality, their varieties of experience must be an unconditional datum. (Smith 1974: 12)

In proposing that social research should begin with everyday experiences, Smith did not wish to suggest 'that sociology can be done without knowing how to do it and that we can approach our work with a naïve consciousness. Indeed, I believe sociology to be rather more difficult than it has been made to seem' (Smith 1979: 174). What she wished to argue against was the dominant view that the everyday world is unformed and unorganized, and that a conceptual framework is necessary to select, assemble and order observations.

Smith recognized that it was necessary for the researcher to go beyond both his/her own experiences and those of the people being studied. There is a larger context in which these experiences are located.

Once she becomes aware of how her world is put together as a practical everyday matter and of how her relations are shaped by its concrete conditions (even in so simple a matter as that she is sitting in the train and it travels, but those people standing on the spur do not) the sociologist is led into the discovery that she cannot understand the nature of her experienced world by staying within its ordinary boundaries of assumption and knowledge. To account for that moment on the train and for the relation between the two experiences (or more) and the two positions from which those experiences begin involves positing a total socio-economic order 'in back' of that moment. The coming together which makes the observation possible as well as how we were separated and drawn apart as well as how I now make use of that here - these properties are determined elsewhere than in that relation itself. (Smith 1974: 12)

Smith has acknowledged that the analysis of these experiences and the everyday knowledge will not reveal the social order which lies behind it.

No amount of observation of face-to-face relations, no amount of analysis of commonsense knowledge of everyday life, will take us beyond our essential ignorance of how it is put together. Our direct experience of it constitutes it (if we will) as a problem, but it does not offer any answers (Smith 1974: 13).

The role of the sociologist is to explicate for members of a society the social organization which lies hidden behind the world of their experiences. It is at this point that Smith specifically incorporated elements of Realism in conjunction with elements of Interpretivism, Marxism and Critical Theory. 'The structures which underlie and generate the characteristics of our directly experienced world are social structures and bring us into unseen relations with others' (1974: 13).

Lengermann and Niebrugge-Brantley (1988: 432) have summarized the position of which Smith's views are an exemplar.

People understand and act toward reality from the vantage point of their structurally patterned situations. Because this fact extends even to the sociologist, certainty about the truth becomes a suspect and elusive condition. That certainty can only be achieved if sociologists: (1) seek their facts at the points of intersection between the understandings of the world held by differently situated and often oppositionally related groups; (2) stay focused not only on these different accounts but on the situated vantage points from which they arise; (3) remain sensitive to the situationality of their own professional efforts to know the world; (4) remain sensitive to the differences in perception that people may have about the requirements of their structural locations; (5) stay modest about their 'certainty' and recognize its processual basis, its precarious state, and the permeability of all their concepts; and (6) stay constantly aware of and attempt to compensate for the ways that structural inequalities weight different groups' accounts of social reality.

Review

It is evident that these five contemporary responses to the question of the relationship between the methods of the natural and social sciences are much more complex than the classical ones, and are not necessarily internally coherent. However, they are all critical of both Positivist and Critical Rationalist approaches, although they may still allow some place for a component of such approaches within a multifarious scheme.

The Critical Theory of Habermas supports the view that as the subject matters of the natural and social sciences are fundamentally different the principle of the 'unity of method' must be rejected. In common with Interpretivism and Structuration Theory, Habermas accepted the preinterpreted nature of social reality and its methodological implications. The natural sciences can only use observation but the social sciences can use communication. However, he rejected the possibility of 'objective' observation in the natural sciences, arguing that the assumptions embedded in both