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Abstract

Feminism is a powerful conceptual tool for critiquing traditional sociological research, but notions of conducting 'feminist research' may contain some unchallenged assumptions about who should be researched and which methodologies are used. Two key concepts within feminist research - empowerment of women and the equality of the research relationship - are interrogated in the light of research conducted on a population of women unsympathetic to feminism and constructions of gender. This research suggests that whilst there is a need to conduct gender-sensitive work, too orthodox a definition of feminist research may inhibit rather than facilitate research which could lead to helpful insights for women. A better strategy might be to site the conflict in epistemology, rather than methodology, and to define feminist research in terms of values which it might uphold rather than techniques it might use.

Doing feminist research on unsympathetic populations can lead to conflicts between the researcher and participant's construction of the meaning of gendered experience. Researchers can justify their accounts with reference to feminist 'successor sciences' which have been postulated as an alternative to traditional positivistic rationalism. In the context of this study both feminist standpoint theory and feminist postmodernism are considered as useful justifications for the decisions taken in the research.

Keywords:
Epistemology; Feminist Methodology; Feminist Research; Politics of Research; Postmodernist Epistemologies; Standpoint Theory

Introduction[1]

1.1 Feminist inquiry and criticism has transformed sociological and educational research and led to

several fundamental shifts in perspective. It has challenged the dichotomisation of private and public in social research and revealed the need for research to be done on women and women's lives, rather than generalising the conclusions of research on men to generic 'people' (Epstein, 1981); it has highlighted the lack of women as researchers, and their sometimes precarious position within the Academy (Lie and O'Leary, 1990); and it has resulted in the incorporation of a sensitivity to *gender*, as well as to *womanhood* within the theoretical frameworks of the disciplines (Langland and Gove,1981). The variety of feminist positions available and the insights which feminist critics have gained from their diverse critiques of research done in a variety of mainstream, androcentric sociological traditions can provide a means of analysing not just the *content* of the knowledge which we have already gained, but the *means* in which that research was conceived, produced, placed in the public domain, and justified as knowledge. As feminists, we can view the entire research process as situated within politics, rather than set apart from politics, as Martyn Hammersley recognises (Hammersley, 1992: p. 191):

> ...The argument that there is a specifically feminist methodology implies not just that feminists select research topics on a different basis to non-feminists, but that when a feminist investigates a particular topic, the whole process of research will reflect her commitment to feminism[2] (Hammersley, 1992: p. 191).

1.2 This aspect of research has been a site of considerable contradiction and confusion for me, as a feminist trained in the physical sciences with consequently positivistic-influenced ideas about what constitutes a valid method of inquiry and what can then be described as valid knowledge. During the course of a three-year research project on women scientists as members of professional and campaigning scientific organisations, it has become clear that some aspects of feminist research - ways of imbuing 'the whole process of research' with a feminist consciousness - may actually inhibit rather than enable some forms of gender-sensitive inquiry. Using my own research as a basis, I will argue here that there are some situations where a feminist needs to critique or abandon feminist methodologies in order to advance the broader agenda of feminist research.

◆ Feminist Debates I - Power in the Research Process

2.1 It is inaccurate to characterise feminist methodology as a static concept on which there is consensus amongst feminists: quite the reverse is the case in a field with such wide-ranging contributions. However, there are some central concepts which have been raised, discussed and problematised by a variety of feminist writers ; two of these are 'empowerment' and of the primacy of experience in social research, both of which are at the heart of the debate on the gendered politicisation of research methods.

2.2 Neither idea is unproblematic either in terms of their definitions or their role in feminist research practice (Ramazanoglu, 1989; Bowes, 1996) . There is a tension between a desire to give women a 'voice' within the making of knowledge - 'grasping the experiences, understandings and lives of women themselves as seen from their own perspective' (Henwood and Pidgeon, 1995 : p. 16) - given that previously these understandings had been either generally absent or mediated through male researchers' and participants' preconceptions about women[3], and the difficulties which arise from a recognition that women are not uniformly downtrodden, and that the researcher's notion of power may not be helpful to the research participant (Puwar, 1997) or may even be thought of as 'empowerment to do what the researcher wants, not empowerment of the researched to express their own views, or take their own actions' (Bowes, 1996).

2.3 In any event, what we as researchers and as feminists might see as empowering women by giving them the tools to analyse their situation in terms of gender and power may actually *disempower* them in the short term by undermining immediate coping strategies which do not involve any long-term structural change for women and which the researcher has therefore judged as being based on sexist or non-feminist beliefs or actions. A study of elite women, or women who hold some measure of social power, highlights the need for a more subtle and detailed characterisation of power within feminist research than has so far been available. Power is multi-layered and dynamic, and therefore empowerment is also situational and fractured: some women do have access to some social power and privilege through their ethnicity, their economic position, or their sexuality, all of which differences impinge upon any notion of their empowerment. For example, it would be a different matter to empower through research women of colour and lesbian women, since the experience of oppression as a woman of colour and as a lesbian can be very different (Harding, 1991): lesbians can choose to 'pass' in some circumstances whilst women of colour cannot. 'Coming out' as a lesbian or bisexual can also dramatically disempower individuals who up until then have held power in other contexts.

2.4 Not only is empowerment of the researched an issue which requires more detailed consideration, but empowerment *within* the research community is an issue which has been largely overlooked (Kelly et al, 1994). It would be ironic if some feminist commentators were to propose research which apparently empowers the participants problematic as this itself may be whilst ignoring the possibility that members of their own research community may be experiencing oppression, perhaps as poorly-paid data entry workers in possession of insufficient information about the project to engage with its issues and thus relieve the tedium of their work, or as junior researchers who are responsible for generating significant data but do not have the power to affect decisions about what is done with this information. This sort of hierarchical relationship is not as yet extensively discussed in the literature, but within a focus on power in feminist research, it is no less important to consider the impact of our work on colleagues or subordinates, as well as on participants. An agenda which intends to be 'for women' cannot uncritically be founded on the exploitation of the low-status and poorly paid skills of female typists, transcribers and data analysts (Ramazanoglu, 1990; Kelly et al,1994): women cannot justify oppressing women to benefit other women.[4] Avoiding this is difficult, working as we do within larger patriarchal and capitalist structures which reward some forms of labour more highly than others, but we should at least attempt to make ourselves aware of the issues within feminist debates about power in research.

2.5 The difficulties with defining empowerment do not, of course, mean that feminist research should abandon the idea of examining and changing power relationships based on sex and gender altogether. In fact, it could be argued that a concern for these power relationships is *the* defining feature of feminist research: the analysis of relationships in terms of the differential power and influence of men and women, and the critique of androcentric paradigms organised around the masculine Self and feminine Other (Bem, 1993). It is essential, however, not to set up a trap in which research whose direct focus is the immediate or specific empowerment of women, or of a group of women, is the only sort of research which is considered to be 'feminist' or is 'more feminist' than other forms. It is also essential not simply to state that women are oppressed and start the research from there, because it is fortunately not the case that all women whom we might wish to study are in directly oppressed positions and lack any privilege whatsoever. These complexities must be taken account of in any theory of power within feminist research.

◆ Feminist Debates II - Power in the Research Relationship

3.1 Another key theme in feminist research is the role of experience in social science research, incorporating a close focus on the relationship between researcher and researched, and on the effects doing research has on those who conduct it as well as those who participate in it is as subjects. Again, this theme stems from the feminist examination of women's historical exclusion from social scientific research.

3.2 A key concern of some feminist researchers is that women not be exploited by research, or have their valid experiences dismissed or re-interpreted by the researcher in order to fit within a research discourse which has been shaped by hundreds of years of dealing solely with men's experiences and views. The research participant has a right to the construction and meaning of her own experience, and preserving this involves critiquing the positivistic model where the researcher is positioned as subject and the participant as object. Furthermore, some feminists have suggested that the establishment of a close and equal relationship with the participant can lead to the acquisition of *more* significant and meaningful data (Oakley, 1981; Finch, 1984).

3.3 Again, however, there are tensions within this characterisation of feminist research. Fundamentally, the idea that the research relationship should be or ever can be equal in any sense is an illusion, as point out:

> ...It is we who have the time, resources and skills to conduct methodical work, to make sense of experience and locate individuals in historic and social contexts ... it is an illusion to think that, in anything short of a participatory research project, participants can have anything approaching 'equal' knowledge to the researcher. Kelly et al (1994: p. 37).

3.4 It is neither possible (nor, to my mind, even desirable) that the researcher should disclaim her privilege with respect to the participants, in terms of her greater knowledge of the issues raised and of the theoretical framework of the research and of social life generally. There are some complex issues present which need to be disentangled. Firstly, it is facile to assume that the analysis of experience necessarily means the exploitation of experience to the detriment of the participant, or that the researcher's re-interpretation of that experience will change its fundamental meaning to the participant. The participant will always own the construction of meaning she has ascribed to experience, regardless of the interpretation placed upon this by the researcher within the publication of his or her work. Secondly, the *researcher* is the one who has been motivated to explore the theoretical ideas before conducting research, and to try to construct knowledge from experience: it is a practical necessity that some individuals should do so, if we are ever to have any knowledge at all.

3.5 In addition, the individual herself may not necessarily be the best interpreter of her own experience: 'individuals do not necessarily possess sufficient knowledge to explain everything about their lives' (Maynard and Purvis, 1994: p. 6). Individuals may not have a full awareness of the systems which surround and constrain them, and as researchers, we have a responsibility to illuminate these systems using their experiences, and illuminate their experiences using these systems. The privileging of women's experience leads the debates into epistemological as well as methodological territories. Are all experiences equally valid and if not, how do we judge which are to be defined as knowledge and which are to be discarded? Are accounts of experience to be

presented as knowledge, unmediated by the beliefs and potential biases of the researcher-as-analyst? What about the experiences of women who are actively hostile to other women, to feminists, or to other oppressed groups such as Asians or lesbians? Are we to privilege these accounts uncritically?

3.6 Practically, too, there are difficulties in using the concepts of empowerment and equality to structure the means by which we gather data. How can we take into account some feminist ideas about the intimacy of the research relationship when researching women with whom we have little ideological or experiential common ground, women of higher status than ourselves, or women who are hostile to the aims and ideas of conducting feminist research? Theories of feminist research so far appear to have left out researchers working in these areas who nevertheless want to construct a feminist version of methodology for their situations, and the concepts they have offered in other contexts do not necessarily translate well to these particular research problems.

◆ My Own Experience of Power in Research

4.1 The question of power, experience and of the researcher's relationship with the participants has been an extremely salient one throughout my own research, which illustrates many of these conflicts.

4.2 The fact that women scientists in the UK and elsewhere are in a minority is indisputable (Committee for Women in Science, Engineering and Technology, 1994) and strategies and principles for explaining and changing this have been widely debated (Bleier, 1984, 1986; Kelly, 1985; Harding, 1986, 1987, 1991; Hubbard, 1989; Atkinson and Delamont, 1990; Tuana, 1990; Rossiter, 1993; GASAT, 1997). However, perhaps surprisingly, women scientists are an under-researched group: whilst some have constructed accounts of their own experiences (Ruddick and Daniels, 1977) or speculated as to the reasons underlying their continued minority status (Keller, 1986, 1989) virtually no empirical, systematic inquiry into their views, beliefs and identification has been conducted. Indirectly, it has been suggested that female scientists tend to view gender issues as sociological concerns, irrelevant to the practice of science and therefore not part of their lives as achievers within a system of meritocratic advancement (Longino and Hammonds, 1990). Aside from the possibility that women scientists, like women in other walks of life, reject feminism because of its negative social image (Faludi, 1990; Percy and Kremer, 1995), there seems to be a fundamental issue in conceptualising the entire issue of sex and gender questions within science: does one attempt to change girls/women to better fit them for science, or does one try to change the nature of professional science to accommodate women more effectively? Such a conceptual divide is summarised by Longino and Hammonds (1990):

> ... The central conflict, however, is over the interpretation of 'science', 'gender' and 'feminism'. This conflict can be expressed in two questions: Working women scientists persist in asking 'What is it about women and women's lives that have kept them from doing science?' whereas feminist critics of science ask; 'What is it about science that has limited the participation of women and, by extension, other marginalised groups?' (Longino and Hammonds, 1990: p. 177).

4.3 If women scientists tend to structure their understandings of women's position in science in terms of a deficit model, or of women's 'nature', and are hostile to feminism, it is therefore clear that any enquiry into these issues must tread carefully. A data collection model which

emphasised principles of engaging closely with the researched, using their experiences as a basis for future change by 'feeding back' and including immediate action, was perhaps inappropriate - yet the concern of the research with women's experience and potentially gendered professional and intellectual structures was, and remains, feminist in intent.

4.4 Consequently, some particular decisions were taken about the research design and methodology on this basis. The participants' initial contact with the study was strictly controlled and presented in a way which appealed to respect for traditional authorities: the name of the University, and of the professional institutions to which the majority of women belonged, was invoked, and emphasis was placed upon the researcher's status as a former physical scientist (and therefore a more credible inquirer). Furthermore, the initial contact was in the form of a specially written questionnaire which, although it included open response items and was not intended for statistical analysis, did present itself as an instrument rooted in quantitative ideas about the validity and comparability of information. These notions were not made explicit but may have informed the respondent at an almost unconscious level - whilst the concern of the researcher with specifically female experience was undisguised (the title of the questionnaire was 'Women in Science, Engineering and Technology') there was no direct suggestion that the inquiry was feminist, that the researcher was feminist, or that any participatory inquiries were to be carried out[5].

4.5 Respondents came from two geographically distinct sites of study: at one place, all participants belonged to a voluntary organisation for women in science, and at the other, to professional institutions for scientists in four disciplines. Sixteen women scientists from a variety of disciplines and occupational contexts were interviewed at each site:the initial questionnaire survey had been distributed to 160 women in total. The women involved were professional scientists and engineers who had achieved a certain power and status within society in general as a result of a high level of education (the majority held PhDs) and their presence in autonomous, managerial and frequently relatively well paid professions. They were privileged in terms of their ethnicity, all but one being white European, and all were able-bodied with none specifically identifying themselves as non-heterosexual (the researcher also failed to disclose her sexual orientation). Not all were in senior positions, but even the more junior PhD students and technicians had access to a certain amount of social privilege compared to some other women who lack education, money and ethnic privilege, although such privilege is necessarily mediated through the wider social experience of being a woman.

4.6 At this stage of the research, the methodology involved basic semi-structured, in-depth individual interviewing: even a method such as this, not overly politicised, led to the frequent experience of being viewed somewhat warily by some participants. This appeared to arise partly from the researcher's own status as an academic from a famous university, and partly because several women at this stage of the research correctly interpreted an interest in women and science as being inspired by feminist beliefs: the disclaimer that 'I don't know why you're interested in my views anyway' was also often heard. Despite the possession of a degree of social status by the participants, some women made statements at the end of the interview (once the tape recorder was off) that they felt somewhat intimidated by their own perception that I was there to judge the integrity of their feminist beliefs or criticise them for being non-feminist. Status was therefore multi-layered: in terms of social indicators such as income, education and power within hierarchical occupations, the respondents outranked the researcher, but in academic, intellectual terms, some felt less powerful. Any attempt to engage in raising these women's consciousness of their own situation, or of encouraging them to interrogate their own

experiences of power, might have been problematic at a practical level, by intensifying this resistance. Had I adopted a more participatory research programme designed to raise these women's consciousness of the ways in which I considered them to be oppressed, and in doing so overtly characterised the aims of this project as feminist, these women might well have declined to participate at all, and any chance of probing their views and representing their experiences in some form would have been impossible. One strategy, for example, might have included returning to the women scientists studied with the interview transcripts or tapes, listening/reading through them and discussing the implications of their statements (see Skeggs (1994) for a discussion of this type of practice). Such a strategy would have met with difficulties both practical and political . Women scientists, by their own accounts, tend to be far busier and more committed than male scientists and have more responsibilities, and clearly some women had had to juggle their lives to fit in the single one-hour interview which had been conducted: such a difficulty is likely to arise with any high-status and □lite group of women, given women's tendency to have to work harder than men to receive equal rewards.

4.7 Furthermore, many participants seemed to be actively resistant to any framing of their experience which transcended individual variation and circumstances, and included a consciousness of the structural/systematic nature of sexual oppression: their tendency was to attribute success and failure to individual effort rather than to systems which incorporate a discriminatory view of gender appropriateness and value. Whilst an in-depth, action-based and participatory research design will perhaps be of some future value, for this initial mapping of the views of some women scientists, it appeared far more likely that such a methodological approach would result in a failure to gather data at all, and an alienation of the potential participants.

◆ Structuring Analyses

5.1 These difficult issues extended beyond the data gathering phase to the analysis of the information. As noted above, the issues of whose construction of experience prevails, and the consequences of pointing out the contradictoriness of individuals' constructions of meaning, are problematic.

5.2 In this study, despite the relative status referred to above, many participants did report experiencing discriminatory or sexist behaviour: an example of their relative power being diluted by their oppressed status as women. In fact, during the course of the interview study, it became clear that several of the participants were experiencing minor to serious difficulties in their workplaces as a result of being in a minority in science and engineering. For example, it was common for women to note that they had been mistaken for technicians, administrators or secretaries by male colleagues or clients and that they were the targets of sexist banter and so-called 'jokes', and that they were stigmatised as troublemakers if they resisted this framing of sexism as well-intentioned humour[6]. Even women who did have sympathies with feminism felt the need to self-censor and accommodate men's tendency to treat them as aberrations or sources of humour:

> If someone came out and asked me [if I was a feminist] then I would say yes. I must admit that I had to sort of tone down about a few things ... a few remarks, it's not worth picking up on that because they don't mean to be unpleasant and there's no reason to make an unpleasant situation out of absolutely nothing. (Anna, chemist)

5.3 Accounts were sometimes offered of 'bolshy' feminist women who had transgressed the female workplace role of peacemaker and harmoniser in "failing to acquiesce" to this situation, and it was clear that such women had been judged negatively by their female colleagues as well as the men who reserved the right to define acceptable feminine behaviour. Whilst these interactions were usually considered a mild, if annoying, part of the workplace, and as somewhat everyday and negligible (Hall, 1982; Hall and Sandler, 1984; Sandler, 1986), a minority of participants also described more severe instances of clear sexual discrimination, such as the denial of promotion on the grounds of being female:

> I wouldn't go so far as to say there's actual overt [discrimination] in the place, but definitely covertly it is hindering my career progression at the moment ... I can't put any concrete facts on it, but more and more I'm pretty positive that had I been male in this position, I would have got there. There were three promotions of male members at exactly the same time as this, so that's what brings me to the conclusion that there is a female slant to the problem. (Naomi, physicist)

5.4 Whilst women were at pains to emphasise that competent women who had proved their ability were treated 'normally' - i.e. the way men are treated by other men - the overall impression is of a situation where the majority of women are not assumed to be competent scientists unless and until they prove themselves and gain an acceptance automatically offered to men. Women scientists are not seen as scientists: they are secretaries, technicians, imminent mothers and potential lovers: they will run off and have babies, they are judged on their attractiveness and, at best, can expect a dated but courtly politeness which only emphasises their inequality:

> All those big professors, they would be very gentlemanly to me. They would always talk to me and it was very gender-based. I wasn't a junior person who could, you know, be talked to seriously. It was 'Oh, the lady's here, let's pull her chair out for her'. (Rebecca, geophysicist)

5.5 Regardless of the ability or competence of an individual female scientist, she must first transcend the barrier of 'male homosociability' in organisations (Witz and Savage, 1992: p. 15) in organisations to be accepted as a colleague: after which, however, she may still be seen as a 'token' and as representative of her entire sex rather than as a distinct individual woman (Acker, 1992). Whilst the majority of scientific workplaces *are* male-dominated, and most women in the building or department are likely to be administrative or support staff, it is demeaning to professional women to be mistaken for workers of lower status simply because of their sex, and indicative of men's attitudes that they make such assumptions. These comments reveal a layer of professional difficulties faced by female scientists which need not be overcome by their male colleagues.

5.6 Analysing this information presented me with what Liz Kelly and her colleagues (Kelly et al, 1994: p.37) have called 'the troubling issue of what we do when our understandings and interpretations of women's accounts would either not be shared by some of them, and/or represent a form of challenge or threat to their perceptions, choices and coping strategies'. There was a tension between my interpretation of their reported experience as sex-based, and the meaning the participants themselves tended to attribute to their experience, since the majority of respondents did not analyse these experiences in terms of patriarchy or sex-gender systems, but considered them to be individualised, or as 'just something that had to be coped

with'. Most suggested that women could succeed if they just kept at it, worked harder, and did better, without questioning the structural barriers which even now prevent women from entering and progressing within science in representative numbers. The fact that the majority of respondents rejected feminist identification, and of those who did accept it most were liberal feminists pushing for progress within existing systems, meant that most respondents lacked the conceptual vocabulary to analyse the overall situation for women in science (Millen, forthcoming 1997). They did not view these experiences as part of a systematic organisation of the scientific workplace which constructed women as Other, and felt that no deliberate sexist offence was intended on the part of the men perpetrating the sexism. Women were characterised, by male scientists and by themselves, as the harmonisers of the workplace, as 'people-pleasers' with better social and interpersonal skills than men:

> Certainly some of the places where I've worked, you notice if there are females on the site. They're tidier, and people are more polite, there do seem to be a lot more smiling faces around for some strange reason. It's nothing that can be organised or arranged, it's something that seems to happen. (Erika, engineer)

5.7 This is not to suggest that all participants felt that women's situation in science was aceptable and that change was not required: change was discussed, in terms of encouraging girls to enter science, supporting women already in there with networks, information and personal contacts, and using organisations to gain access to resources and professional support. Such changes focus on helping and altering women themselves to cope with discriminatory structures, rather than disassembling those structures or even critiquing them: without access to a *feminist* theory of structural oppression, such strategies based around representation and retention issues rather than changing the culture (and, perhaps, the epistemological structure) of Western natural sciences, a continued emphasis on success based on merit and competence fosters a continuing myth that if women work hard they will succeed:

> You have to provide the background and the support that women need in order to progress in science. Because it's only by women working alongside men, and eventually getting it through their skulls that 'hey, these women are really on top of things, they know what they're doing. I can go to them when I have a question' that women will progress. (Rebecca, geophysicist)

5.8 Therefore a tendency to view women in science non-systematically and reject the idea that social structures mediate professional achievement in science, meshes with the effective social stigmatisation of the feminist to ensure that radical gendered change will be rejected before it even begins. Without a more radical and systematic critique of women's position in science, and an openness to feminist ideas about these issues, long-term change and improvement for women is unlikely to take place (Millen, forthcoming 1997).

5.9 Some conceptions of feminist research organised around power issues and equality of research relations might suggest that feminist methodology would include an attempt to raise the feminist consciousness of these women, whilst preserving their accounts of their own experience. Certainly as a feminist it was difficult sometimes to listen to the repeated characterisations of feminist as 'bra-burners', 'lesbians', 'hippies' and 'trouble-makers' in disapproving terms. However, these twin aims embody an internal contradiction, and also have negative implications for the operational aspects of research on such a population. As a feminist and as a researcher, *I* can clearly see a broader context for the participants' experiences, a systematic marking of the

female scientist as 'different', as 'Other', based on Western rationalist traditions of epistemology and plain social discrimination, and I might have been able to use this understanding to help participants see their experiences in a more politicised way and take some explicitly feminist and political resistant action. From my external, academically privileged vantage point, it is clear that sexism pervades these professions, and that men are assumed from the start by other scientists to be competent scientists of status whilst women have to prove themselves, overcome the barrier of their difference before they are accepted. These women, on the other hand, did not generally view their interactions in terms of gendered social systems. There is therefore a tension between their characterisation of their experience and my interpretation of it: yet it seems that attempting to empower these individuals would also constitute an imposition of my interpretation, which simultaneously denies any notion of an attempt at equality within the research relationship.

5.10 Furthermore, my notion of power in this context and the one held by participants might not have matched. For many of the women described, the strategy of situating difficulties on the individual rather than viewing them in terms of sex or gender was a relatively successful one. Their strategy of emphasising genderless competence and merit allowed them to deny the existence of systematic anti-women discrimination in science and therefore use an action-based coping strategy for dealing with the continual subtle assaults on their right to be within the workplace. Such a strategy may have been particularly popular because, as scientists and engineers, their orientation was to action and experiment rather than to discussion and abstraction: the myth of meritocracy persists in science despite evidence for continued systematic discrimination (Wenneras and Wold, 1997): it may also shield women from a demoralising realisation of the difficulties they must face and free them to continue their work unencumbered. Whilst may be damaging to women scientists generally in the long term to remain at this level of analysis, which precludes a real examination of the factors which determine professional success in science, this approach does have a short term merit. These women, after all, not I, had to continue negotiating the sexual politics of their workplaces after I had departed with my tape-recorder, and whilst their accommodation strategies seemed negative in the long run, it is not difficult to ascertain why they were popular and feminism was not (as Cockburn, 1991, points out, men 'make it clear: *you have to choose - be a feminist or keep my respect. You cannot have both.*' [p 167]).

5.11 Although, as a researcher aware of the wider social patterns and theories of gender which inform the context, I could interpret this strategy in terms of 'false consciousness', it was also true that the approach was often successful in preserving the participant's professional position and her self-esteem, problematising any notions of empowering these women through participatory consciousness-raising. In any event, so doing would privilege my account of gendered experience, as an external observer: such a position both grants me the opportunity to see the wider picture of interlocking and gendered systems, and denies me the ability to truly visualise the consequences of feminist or gendered action, and the disruptive power of feminism in the workplace. To privilege my account anywhere but in the writing of my research would have been practically difficult and politically ambiguous.

5.12 Thus, in an practical context, when studying women with some measure of social capital and power, it may be crucial for feminist researchers to come to some accommodation between their characterisations of the sex-based oppression which inevitably constrains such women despite their power, and the need for us actually to have research on women and women's position. It seems likely that research on some women who are hostile to a gendered or feminist

construction of their experiences would be inhibited or even rendered impossible by too strict a reliance on a feminist methodological approach. This represents an unacceptable loss of potentially useful information, even if deconstructing method and rebuilding it with some of the feminist aims characterised earlier is a worthwhile long-term goal.

◆ Methodologies and Epistemologies

6.1 Clearly the prospect of conducting feminist-inspired research on non-feminist populations raises some methodological difficulties. I am not suggesting, however, that feminist conceptions of sociological research need to be *abandoned* in order to carry out such research, merely that in some cases it may be self-defeating to adhere to some representations of feminist research methodology (whilst remaining aware of the political consequences of method so as to avoid the perpetuation of overtly androcentric research paradigms). I propose now that a more constructive way to approach the situation, and one which continues the debates about feminist principles in research, is to move away altogether from the attempt to formulate prescriptive or fully descriptive notions of feminist *methodology* in favour of a feminist research based firmly on considerations of *epistemology*.

6.2 Whilst I used qualitative methods, and it is easy to see the link between qualitative inquiries and in-depth information about individuals' experience and therefore feminist research, the primacy of this methodology has been challenged by other feminists (Gelsthorpe, 1992; Maynard and Purvis, 1994): they make the more moderate argument that a multiplicity of methods is the most favourable approach, providing as it does a method of cross-referencing data and conclusions. Furthermore, Henwood and Pidgeon (1995) argue against the construction of a dichotomy between quantity and quality, which they see as a false one since in some situations quantitative work such as, for example, large-scale survey data may be applied to feminist ends and be conducted with a sensitivity to gender implications[7]. Furthermore, any association of qualitative work with feminism can leads to the complementary association of quantitative methodology with a certain sort of masculinist positivism (Stanley and Wise, 1990), a dichotomisation which should not go unexamined.

6.3 If we move away from specifying techniques for and examples of feminist methodology, to delineating some of the general *values* which it might uphold, we can progress from the contradictions and problems encountered when researching as feminists with high-status and non-feminist or hostile women. To this end, for me, any research may be considered 'feminist' which incorporates two main aims ; a sensitivity to the role of gender within society and the differential experiences of males and females, and a critical approach to the tools of research on society, the structures of methodology and epistemology within which 'knowledge' is placed within the public domain of sociology.

6.4 Feminist research, so defined, provides us with a tool for critiquing practice as well as content, and thus has greater power: in examining how we make and validate knowledge as well as what that knowledge is, we can progress beyond methodologies to provide those inquiring into non-feminist women's lives with some theories about feminist research which do not lead them into practical and political difficulty. In this formulation, feminist research does not necessarily incorporate feminist methodology. All current forms of methodology can serve feminist ends if applied with a sensitivity to gender: all forms of methodology permit the research to contain an awareness of gendered politics and a critical awareness of the processes by which research is analysed and justified. The key issue now, the primary site of conflict, is the underlying

epistemology present.

6.5 The issue now is to critique the processes by which knowledge based on data gained by positivistic research (where method is used as a way of removing the researcher's subjectivity from the field - McGrath et al, 1993) are classed as 'more' valid knowledge than more experiential information. Furthermore, the ways in which some groups within society are deemed to be knowers and others the known are potentially rooted in gendered structures and ideas about the rational Subject and feminised object (Gunew, 1990 ; Harding, 1991; Lloyd, 1993). The fundamental issues surrounding feminist research, its place in the world and the conclusions it reaches, are thus issues of validity and epistemology rather than method itself. It is possible for a feminist to conduct research using any sort of methodological paradigm and to critique the ways in which this knowledge is incorporated into the public domain: the essential issue is of the hierarchy of *validity* in such knowledge, with numerical or quantitative results generated by a more positivistic model being considered somehow 'more valid' and 'more objective' than experiential or qualitative accounts. These are central questions of epistemology. What is valid knowledge? Is objectivity an attainable or even desirable value? Can knowledge generated from politically oriented (feminist) inquiry be considered valid? Should feminists try to build up neutral, value-free knowledge about women's experiences and about the world, or should we instead, as McLennan (1995: p. 392) suggests, 'openly abandon the quest for better "neutral" knowledge, replacing it with a clear emancipatory commitment to knowledge from the standpoint of women's experience and feminist theory'?

◆ Feminist Epistemologies

7.1 Detailed feminist critiques of epistemology have been built up around these issues: Sandra Harding (1987) suggests a framing of the alternative positions as feminist empiricism, feminist standpoint, and feminist postmodernism. Empiricism is discussed in some detail by Hawkesworth (1989) and McLennan (1995); here, only standpoint theory and postmodernism will be reviewed.

7.2 Feminist standpoint theory (FS) draws on Marxist ideas about the role of the proletariat to suggest that women, as an oppressed class, have the ability not only to frame their own experiences of oppression but to see the oppressors - and therefore the world in general - *more* clearly. It is a response to the patriarchal statement that feminine or female experience is an invalid basis for knowledge, by positing that it is in fact a *more* valid basis for knowledge because it gives access to a wider conception of truth via the insight into the oppressor. Some commentators have gone so far as to propose a 'successor science' to the existing social science paradigms, which privileges so-called feminine qualities - a holistic, integrated, connected knowledge - as opposed to the analytically-oriented and masculine form of knowledge which currently holds sway. This suggests that there exists a feminine conception of knowledge, which is 'intuitive, emotional, engaged and caring' (Hawkesworth, 1989) and which has been excluded from the development of ideas about knowledge due to the exclusion of women's understandings from that process of development.

7.3 This is an epistemological underpinning of the political emphasis on the inclusion of experience. However, it has been criticised as a replacement theory on many grounds. Firstly, the FS theory tends to assume that oppression is unitary or that women identify primarily as women rather than as members of any other oppressed group within society. It has also been accused of upholding essentialist categories of womanhood, of assuming that women are 'nurturing, caring,

selves-in-connection knowers' (Koblitz, 1987).

7.4 This last is an unfair criticism. Firstly, research does exist to suggest that many women do experience life and knowledge in different ways to those of men (Belenky et al, 1991; Gilligan, 1982). The androcentric development of society has positioned these 'ways of knowing' as invalid, subjective and irrational, as unworthy of inclusion and as opposite to the masculinist ideas about valid knowing. A historical materialist analysis suggests that a society which had developed differently, and included the experiences of women, would have an understanding of knowledge which is less polarised along gender since it would include these alternative conceptions of knowledge as part of the whole. However, whilst women remain 'Other' and men as the norm, such 'feminine' understandings of knowledge are also positioned as 'Other' and less valid formulations. In any event, criticising FS theorists as essentialists amounts to a failure to understand that they are discussing the incorporation of the feminine, rather than of womanhood. Whilst some women are feminine, others are masculine: the argument is whether those persons, male and female, who utilise these feminine conceptions of knowledge should be classed as knowers, when at present only masculine ideas of knowledge qualify.

7.5 The former criticism, however, of the problems of using women as a unitary category, points up at once the weakest and strongest point of FS theory. It is the strongest in the sense that FS theory is the most far-reaching attempt to underpin a methodology based on the incorporation of experience with a valid alternative epistemology. As such, it has great potential for political utility. It also links a theory of knowledge to the political reality of women's lives. However, it *is* fair to say that it marginalises other oppressive struggles in its over-riding focus on womanhood, e.g. it is perhaps more important to some women to challenge their oppression and Othering as members of the working-class, and some such women may feel more solidarity with other working-class men than with other women as a result of this identification. As Loraine Gelsthorpe notes (Gelsthorpe, 1992), 'women are never just women' - we have a class, a sexuality, an ethnicity, and all these affect our situation and views. FS can have no real response to this charge other than the construction of a hierarchy of oppression, a similarly problematic concept. Additionally, FS theory is suggesting that we can have access to a greater truth, a more objective understanding via our inclusion of the oppressed: it is not critiquing the need for our understandings to be objective, a claim which lies at the heart of gender and epistemology.

7.6 In complete contrast to the attempt to construct a standpoint epistemology, feminist postmodernist (FPM) theories have been proposed which discard entirely the notion of unitary categories and of the possibility of access to a single, objective form of reality whether it is done via women's lives and experiences, or positivistic methods which attempt to minimise the subjective. Feminist postmodernism takes issue with the whole notion of standpoint, and of a subject within research.

7.7 Instead of privileging female or feminine standpoint, FPM suggests that there is a variety of contradictory and conflicting standpoints, of social discourses, none of which should be privileged: there is no point in trying to construct a standpoint theory which will give us a better, fuller, more power-neutral knowledge because such knowledge does not exist (Hekman, 1990; Nicholson, 1990). The search for a unitary notion of 'truth' about the world is impossible, a relic of the sterile Enlightenment: knowledge is 'partial, profane and fragmented' (McLennan, 1995). Rather than seeking out a unifying epistemology, albeit one which incorporates gender, we should be constructing multiple discourses.

7.8 FPM exposes the tension at the heart of feminist research most acutely. On the one hand, it embodies and empowers feminism as a tool for critical examination of epistemology and praxis, and provides additional critical tools for the examination of power and knowledge. It points out that power is not unitary, and that some forms of power are situated and concentrated, therefore avoiding any sense of a feminist victimology. However, in the act of so doing it may seriously undermine the political role of feminist research, of incorporating women's lives and gendered experience into the corpus of knowledge. How can we propose a political philosophy without some sort of epistemic unity? And on a practical level, do postmodernist ideas about the status of theory and of methods of inquiry rule out many ways of gathering knowledge which might have some political utility for the feminist project?

7.9 Some feminists have criticised the move within feminist research to postmodernist critiques on such grounds, suggesting that it is of dubious practical validity in constructing actual research projects[8], and that it is still more important, within patriarchy, to privilege a feminine standpoint than to dismantle the whole idea of standpoint itself. They suggest that postmodernism has some value, but not as an underlying epistemology for the sort of social science research which would truly affect women and construct valid knowledge about women's material experience and situation: as Maynard (1994: p. 22) puts it:

> ...[T]he kind of research currently identified with the social sciences (be it surveys, interviews, etc.) is associated with precisely the modernist Enlightenment tradition which postmodernism is trying to transcend. While analyses of discourse and text are possible from within a postmodern perspective, anything which focuses on the materiality of human existence is virtually impossible, unless analysed in terms of discourse and text. This does not mean, of course, that a postmodern approach has nothing to offer feminists. What it does mean is that because it contains radically different assumptions from those of other epistemological positions it has, potentially, different things to offer.

7.10 A dual role, where we use postmodernist insights to continually critique the role of feminist research and the gendered aspects of mainstream research, but utilise modernist ideas to advance feminism's political agenda, may be possible: consensus is not, after all, necessarily a primary aim of feminism.

◆ The Status of Knowledge Contested by Participants

8.1 Again, my own research has involved these issues and difficulties: conducting this work according to the framing of feminist research I have described has situated the conflict on epistemology rather than within methodologies. As discussed earlier, my interpretation and the respondents' interpretation of events and their meaning often differed: the question then becomes one of the status of these contested interpretations. As the researcher, my account is the one which will become some sort of reality, as a publication: how can I present this account as valid and justifiable?

8.2 One strategy would be to base the interpretations on standpoint epistemology. Whilst much research has been done on 'science' as a whole, and on the ways scientific knowledge is constructed (or discovered, depending on your viewpoint) the en-gendering of this field has been done largely by feminist theorists critiquing the underlying epistemologies rather than by

mainstream researchers. As noted earlier, little empirical or survey research has been done on samples of female scientists, with the greater part of our information about their experiences coming from anecdote and autobiography. On a quantitative level, there is considerable information available generated from numerical analyses of their representation.

8.3 By focusing on a sample of women scientists, from a standpoint position I could argue that I have accessed a *more* balanced and accurate picture of general professional interactions within science, whilst acknowledging the difficulty of identifying these women as women only, or primarily as women and therefore unifying their standpoint. For example, professional success in science is fundamentally affected by one's membership of professional elites or networks (Rossiter, 1993): it is perhaps only by analysing the gendered aspect of such networks that their role in the progress of *every* scientist can be fully elucidated, as we can use the insights given by an examination of women's experience to abandon the idea of meritocratic progress, and acknowledge that the scientist's personal characteristics do impinge.

8.4 However, there is also an argument for utilising postmodernist conceptions of discourse and plurality in this specific context. It is crucial, to my mind, that research on women's experiences in science have a strongly political aspect, in the sense that it is important to change the androcentric view of the normative male scientist and the interloper female scientist, and to transform science so that females will not experience discrimination and discouragement and will not feel it essential to choose between a successful scientific career and a happy domestic life. Standpoint theory can offer a framework within which to justify research which has the aim of effecting this change . However, a considerable stumbling block in many critiques of gender and science is the facile association of masculinity with men and femininity with women. It is sometimes assumed that men will naturally practice a science which is objective, exploitative and controlling, and that women will have a more holistic, caring and subjective attitude to it: this assumption is at the heart of Evelyn Fox Keller's proposition that women must undergo what she calls 'a fundamental disidentification from self' (Keller, 1986) to practice a science founded on logical positivism. However, there is no evidence either from previous work (Longino and Hammonds, 1990) nor from the research reported here that women working in science consciously experience such a conflict. One way of changing this framing, and therefore of making the critiques more relevant or acceptable to working female scientists, would be to attempt to decouple femininity from females and masculinity from males, and acknowledge the presence in all of us of a component of masculinity, and a component of femininity. Breaking down the polarisation between male and female, rather than re-balancing it (as standpoint theory attempts to do) and acknowledging the diversity of psychological and intellectual gender, is a postmodernist framing of the situation. By doing so, it may be possible to advance the strong political agenda for women in science, by avoiding the alienation of those women in science who resist an account of their way of knowing as holistic, connected or indeed anything but the commonly agreed, logical-positivistic scientific paradigm[9] (Longino and Hammonds, 1990). FPM critiques and discourses may provide a way forward for doing this.

8.5 These epistemological justifications permit me to describe my research as feminist, whilst utilising few of the methodological prescriptions of feminist research. Whilst I do not believe that there is some sort of final, complete and objective reality, and I am aware that my own subjectivity as a female feminist scientist has affected the outcome of my research, I do believe in a compromise between a completely subjective, unique and creative account of experience and a partly reproducible, objective and contextualised understanding in which my subjectivity has been critiqued. As Lorraine Gelsthorpe (1992: p. 214) remarks, 'a rejection of the notion of

"objectivity" and a focus on *experience in method* does not mean a rejection of the need to be critical, rigorous and accurate'. The *attempt* to attain objectivity may be more useful than any sense that we have achieved it. My research is partly a product of my own subjectivity, but is thoroughly based on a detailed analysis of the views of the respondents. Their characterisation of their experience is represented within my work, but it is placed alongside my analysis of it rather than superseding it.

◆ Conclusions

9.1 Feminist research is problematic, and as a critical device should remain so: there is no monolithic feminist position. However, so far theories of feminist methodology have significantly to address the political and practical difficulties of conducting feminist-inspired research on populations of women who are hostile or unsympathetic to feminism and feminists. Questioning and extending feminist thought in this direction also illuminates more general issues such as the nature of 'power' and 'equality' and the extent to which specific research *methods* advance certain agendas.

9.2 A repositioning of this debate within epistemology rather than methodology, and a widening of definitions of feminist research to include any work which is gender-sensitive and critiques the methods of conducting and justifying research, appears to solve many of these difficulties both operationally and conceptually: on a general level, it also provides more widespread suggestions for resolving the problems of conflict between researchers and participants along other axes of oppression such as ethnicity, class and political alignment.

9.3 In this framing, feminist research does not specify method, nor does it offer us a simplistic model of its likely or desirable consequences: it *does* prescribe a politicised framework for the understanding of knowledge, and charges *all* researchers, male and female, to examine the role of sex and gender in society and to ensure that androcentric norms are not incorporated in their work. Sociologists will always select from the available methods to use what seems most appropriate for the purpose - however, the most fruitful approach to politicising and critiquing these purposes and methods is not by attempting to construct a theory of method, but acknowledging that 'anything goes' (after Feyerabend!) and instead concentrating on the issues of the validity and status of variously produced knowledges. As feminists, we can and should inquire into all sorts of women's lives in all sorts of ways - but whilst 'feminist methodology' has usefully critiqued the false dichotomy of politics and methods, showing us how politics are inextricably embedded in research, it would be a mistake to construct too prescriptive a model for ways of *doing* feminist research.

9.4 Siting the conflict in epistemology instead provides us with a critical tool for analysing ways of producing and contextualising knowledge along the axis of gender, suggesting that other ways of looking at the world do exist. Whilst propositions for 'successor science' epistemologies have been less successful, the various attempts to do so have called to attention the potentially gendered nature of the production of knowledge: this constitutes another significant advance in the general conduct sociology brought about by a feminist-inspired sensitivity to the role of gender.

◆ Notes

[1] A preliminary version of this paper was presented at the School of Education Research Methodology Conference, 14-15 April 1997 at Lucy Cavendish College, Cambridge.

[2] However, Hammersley then goes on to offer a range of arguments for dismissing the validity of this principle, based on what Loraine Gelsthorpe, in reply (Gelsthorpe, 1992) described as '[the] uncritical privileging of reason' as exercised in the natural scientific method which he takes as exemplar. Hammersley also tends to assume a unitary, monolithic feminist response to methodological debates (Humphries, 1997). For a response to his arguments against feminist methodology see these papers and also Williams (1992).

[3] A classic example of this is the landmark study of Paul Willis (Willis, 1977) in which a class sensibility was brought to the study of adolescents, but where women were absent except as portrayed through the sexist attitudes of his male participants, constructions which went unchallenged by the author. Willis' study was celebrated for its sensitivity to class issues and the giving of voice to underprivileged sections of society, and it is ironic that in doing so he silenced the female aspects of that society.

[4] When considering the issue of intra-research empowerment, I am always reminded of the Cambridge University Graduate and Senior Women's annual dinner at Newnham College in 1996, when two hundred academically privileged women dined and listened to the writer Shere Hite speak well into the night, whilst the mainly female catering staff waited for the evening to finish so that they could clear up after the women and finally get home after a long, poorly paid shift. As a quote I have pinned to my wall says, 'Behind every successful woman there's usually another successful woman - cleaning her floors.' The idea that women may oppress women, even in the course of research designed to benefit other women, is under-represented to date in the research on feminist research and methodologies.

[5] Such a strategy may have had some consequences: respondents may have self-selected into those who were pro-feminist (and analysed their experiences in terms of sex and gender) and those who had, as did many, strongly negative comments to make about feminism.

[6] This was also noted by Devine (1992) in her study of female engineers.

[7] Indeed, a fruitful aspect of feminist projects on method might be to apply the insights gained from 'en-gendering' qualitative research to the techniques of quantitative research, critiquing the potentially gendered aspects of techniques such as surveys and questionnaires and constructing new ways to use these techniques to conduct research which does not exclude, marginalise or misrepresent women.

[8] This is not necessarily the case: for example, Davies and Banks (1992) analyse a research project involving small children with reference to postmodernist ideas, although their methodology is not specifically postmodernist.

[9] Whilst it is clear that actual scientific research does not necessarily always proceed in the idealistic ways posited by scientific philosophers (see Latour, 1987) the idea of 'the scientific method' is a powerful internal construction used by scientists in explaining their practices to

each other and to non-scientists (e.g. the strictness of method explanations in scientific papers) and therefore has meaning to sociologists of science even if it is not an accurate representation of events.

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