Designing Intersections-Designing Subjectivity: Feminist Theory and Praxis in a Sex Discrimination Legislation System

ALISON ADAM
Department of Computation, UMIST, PO Box 88, Manchester M60 1QD, UK
CHLOE FURNIVAL
NBCI, Universidade Federal de São Carlos, São Carlos (SP), Brazil

ABSTRACT
This paper looks at the intersections between feminist epistemology, feminist jurisprudence and research on artificial intelligence and the law. It is suggested that feminist theory highlights the role of subjectivity which is ignored in the traditional epistemology of AI systems. This allows AI systems to appear to be "perspectiveless" when they may be tacitly used in a normative role which ignores alternative knowledges. The paper looks at the Cyc system as an example. In developing an expert system to advise on Sex Discrimination law a number of lessons are learned both from the Forms Helper system and more particularly from feminist jurisprudence and from the critique of AI from feminist epistemology.

Introduction

This paper brings together three intersecting intellectual traditions; feminist theory in the shape of research into feminist epistemology, artificial intelligence and the law and finally feminist research on jurisprudence. There are reasons why such an approach is important and should be seen as more than a "domino" effect of one discipline interacting with another which interacts with another in turn much as a cascade of dominos flip over one pushing another along the line. The importance lies in two areas. Firstly there is the scope which this study offers to marry theory to practice in feminist scholarship, a chronically contentious issue in feminist debate. Secondly there is the potential to apply a radical alternative to the traditional epistemology built into most AI systems. Extending the latter assertion, legal expert systems can be seen as manifestations of a traditional epistemology within the domain of law. This offers the potential for a two-pronged challenge; a challenge to the traditional epistemology of artificial intelligence from feminist epistemology and at the same time a challenge to the traditional legal epistemology embodied in legal expert systems from feminist jurisprudence. In looking from feminist epistemology towards feminist jurisprudence

we see a more practically oriented discipline aiming to integrate legal theory and political practice. Where feminist epistemology offers an alternative epistemology, feminist legal theory offers an alternative view of jurisprudence where both can explore the processes of perpetuating male logic with its accompanying strategy of silencing alternative discourses.

The paper outlines the challenge to AI which feminist epistemology offers, particularly through the concept of subjectivity. The role of the subject in the Cyc system is described as a paradigm example. The importance of subjectivity in feminist jurisprudence is emphasized. The paper concludes by detailing the way in which subjectivity was designed in a prototype sex discrimination law advisory system.

The Challenge to AI from Feminist Epistemology

Despite the fact that human intelligence and knowledge is the very subject matter of AI in general, and expert systems more particularly, explicit discussion of epistemology is rare within these disciplines. This is not to say that AI has not excited criticism; far from it, as it appears to attract more critiques than other branches of computer science (see for example Dreyfus, 1972,1979,1992; Searle, 1987; Penrose, 1989; Collins, 1990). As these are, in the main, philosophical critiques their arguments are largely constituted round the conditions which would count for the success or failure of the whole AI enterprise. With the exception of Collins (1990), success or failure is seen in purely philosophical terms. In other words if AI systems pass a philosophical test of intelligence they are deemed to be successful. Traditional critiques say nothing about race, class or gender and hence have nothing to say about how AI systems may or may not reinforce existing power structures or how AI can or cannot represent the knowledge which differing social groups may have. This is especially important when we look at the possibility of compounding legal theory into expert systems in the concept of an individual's or group's *rights.*

It seems as if traditional, or what some commentators have termed *Objectivist* (Johnson, 1987; Lakoff, 1987) or *Logicist* (Kirsh, 1991) epistemology is so deeply embedded and implicit within AI that it cannot be made explicit without some more radical foil. This paper argues that feminist epistemology and related writings in feminist jurisprudence provides just such a foil. There is now a large body of theory in feminist epistemology which looks at knowledge, what knowledge is and who knowers are. As knowledge and its representation is at the heart of AI, this makes it an appropriate vehicle for a gendered critique of AI which can be different both in substance and style to traditional critiques. Success or failure becomes more of a cultural question to be seen in terms of whether we can accept and use such systems in our working lives.

What is Feminist Epistemology?

Feminist epistemology is the major branch of a feminist philosophy and has gained considerable momentum over the last twenty or so years. Although such writing can claim some common parentage with the grass roots equal opportunities and equal rights feminism of that period, it stems mainly from a more abstract tradition of women and science writing which is concerned with the knowledge content of the natural sciences (Keller, 1984, 1992; Haraway, 1985; 1991; Harding, 1986, 1991; Bleier, 1987; Rose, 1987, 1994; Hawkesworth, 1989; Alcoff and Potter, 1993). The question which feminist epistemology poses is: "Why is there a virtual absence of a feminist voice in the natural sciences? And what would such a voice sound like? How would science be different? How would our perceptions of the natural world, of women and men be transformed?" (Bleier, 1987, p. 1). The starting point of feminist

epistemology is a critique of the sciences, but the arguments can be extended to AI, in that it encompasses the Cartesian rationalist epistemology of the natural sciences. However, we must beware of imagining that feminist theory speaks with a unified voice in regard to epistemological questions. Although sharing a common arena there are three main strands identifiable in feminist epistemology (Hawkesworth, 1989).

Firstly, *feminist empiricism* in accepting the traditional position of philosophical realism is a based on a view that sexism can be eradicated by stricter attention to allegedly neutral procedures in scientific enquiry (Richards, 1982). *Feminist standpoint theories* spring from a Marxist lineage in arguing that a "successor science" can be developed only when the oppressed can cut through the ideological fog to achieve a true understanding of their world (Rose, 1983; 1987; Hartsock 1985). Finally *feminist postmodernism* rejects any notion of philosophical realism, emphasizes the "situatedness" of each observer and in its commitment to plurality it rejects universal claims to truth (Haraway, 1985; Flax, 1987). It is hard to imagine that feminist empiricism could provide a theoretical backdrop with which to examine the epistemology of AI, no matter how laudable the aims of eradicating sexist biases. Just as we shall argue below in relation to the traditional "equal rights" view towards women and the law, an empiricist approach is not radical enough as it is predicated on a tacit assumption of "masculine as norm".

The feminist standpoint approach can be seen as intersecting with a wider "standpoint" approach to epistemology, initially stemming from Marxism and which argued that, flawed though the "scientific method" was, there were none the less certain social groups eg. the working class, communist party or women, "whose experience and/or methods of knowing were, for reasons of social context, better grounded than those of the bourgeoisie or gendered science." (Law, 1991, p. 4).

In particular, Rose (1983, 1987, 1994) argues for a new epistemology for science based on women's caring work, in looking after the needs of children and adults; work which traditional epistemology, based on mind and reason rather than the body, renders invisible. Yet we need more than the concept of a "successor science"; we need to see instances of it. We need to question the view that privileges women's abilities to produce an accurate description of the world because they are oppressed. Both this view, and the feminist empiricist approach, are problematic in that both fail to encompass the multiplicity of human experience, and both are predicated on an idea, albeit a differing idea, of one single truth.

The desire to develop a successor science seems at odds with the attempts to sustain the plurality of vision emphasized by feminist postmodernism in its rejection of the notion of a single truth. The postmodernist approach appears to offer much that is positive precisely because it challenges monolithic views of truth and encourages reflection and plurality. For these reasons it has strongly influenced research on feminist epistemological in the last decade or more. But the postmodern approach has not been accepted uncritically. In the absence of political commitments, an attachment to epistemology pluralism allows a Feyerabendian "anything goes" (Feyerabend, 1975) epistemology. Clearly, for feminist politics anything does not go and the challenge now facing feminist epistemology is to embrace epistemological relativism without abandoning political and ethical commitments (Star, 1988; Law, 1991).

The discipline of feminist epistemology is rich and varied and offers much scope for a critique of traditional AI. In looking from feminist epistemology towards the Objectivist epistemology inherent in traditional AI, the particular aspect on which this paper-focuses involves a

consideration of who is to be counted as a knower and what types of knowledge the knower may have. Although several issues are raised the most important concerns the question of *subjectivity*. In other words, how can the subjective experience of the user be represented and used within the system, translated into the language of the law and a response be returned which neither gives the user unjustifiable hope of a favourable result, yet at the same time gives the user confidence to frame her case?

Subjectivity is not, of itself, a new topic in philosophy. To some extent, much recent writing on the sociology and philosophy of scientific knowledge, in its characterization of all knowledge as socially mediated, can be seen as an attack on objectivity from subjectivity (Law, 1991). But as a political or moral concern, Foucault (1979) recognized the need to detach the power of truth from cultural, social and economic hegemony. What is interesting about the argument for subjectivity in feminist terms is the exposure of the gendered nature of such ideas and what this implies. Harding (1986) and Eisenstein (1988) argue that we need to rethink objectivity and subjectivity and as long as objectivity remains a privileged standpoint, subjectivity will continue to be a suspect category for all areas of knowledge, whether the sciences, social sciences or law. Subjectivity is seen to *lack* objectivity in the way that women supposedly *lack* the rationality of men and therefore subjectivity is seen as a problem (Eisenstein, 1988, p. 26). Feminist epistemology must move outside existing epistemological assumptions about an objective reality and its subjective opposition. Furthermore, we argue that AI, as an example domain, lacks a thoroughgoing discussion of subjectivity; we take up this argument in the next section.

Feminist Epistemology and subjectivity

It is an accepted tenet that expert systems are built to represent the knowledge of one or more domain experts. Although it is agreed (Welbank, 1983) that individuals have their own heuristics (which can be personal or shared by other members of their social group), the knowledge in an expert system is that knowledge which we would all have were we but knowledgeable or expert enough in the given discipline. The knowledge is universal; the *specific* identity of the knower should not matter. However, feminist epistemology challenges that assumption. Code (1993) suggests that mainstream epistemology ignores the specific identity or nature of the knowing subject. Unacceptable points of view may be ignored in an illusion of a perspectiveless universal subject. Part of the reason for this is the way that epistemology is traditionally cast in the form *"S* knows that *p"* where S, the knowing subject is taken to be universal, and *p* is a piece of propositional knowledge which that subject knows. The archetypical knowers are the authors of scientific research. Here the individual is always abstract and anonymous. It is held that this makes no difference to the quality of research. Yet this absence itself constitutes a statement of the ideal knower as a disinterested moral philosopher, a *good man* of liberal ethics (Harding, 1991, p. 58). Thus, the ideal knower is "nowhere" and understandably this has been criticized by feminists as both containing a deep gender bias and is also highly implicated in projects of gender domination (Arnault, 1989).

There are several problems with such a supposedly ideal observer. Firstly, no observer like this actually exists. Secondly the ideal is a masculine ideal and looking towards such an ideal can hinder members of subordinate groups in participating on a level with dominant groups in the creation of knowledge. This denies the feminist epistemological programme which takes subjectivity into account. Under this view the aim is to avoid the creation of a perspectival hierarchy. But at the same time we must avoid the introduction of a specific first person subject where this is used to exclude other points of view particularly when these are to be flagged as "crazy" or "abnormal".

The Subject in Expert Systems

In order to consider the epistemological assumptions inherent in expert systems and in particular their treatment of subjectivity, we turn to the Cyc system as a paradigm example. Cyc is a ten-year project under the direction of Douglas Lenat from the University of Austin in Texas, supported by large grants from American industry and due for completion in the mid 1990s (Lenat and Guha, 1990). The rationale, or as Lenat describes it, the "vision" of the project is to build a vast knowledge base spanning most of human consensus knowledge; the knowledge that an individual would need to understand, say, a one volume encyclopaedia. Consensus knowledge includes things like: "if I am in Manchester then my left foot is in Manchester" and "if you drive at up to five miles above the speed limit then you are unlikely to get a ticket". The initial reasons for tackling such a project lie in the undeniable assertion that expert systems are "brittle", they have no common sense and fail completely when outside their narrow domains. This is why medical systems ask male patients if they are pregnant even though a medical doctor would not pose such a ridiculous question and why a tax advisory system can give no advice on social security law whereas a tax expert will know at least the rudiments of the latter area. A system such as Cyc, were it feasible, could allow expert systems from different domains to talk to one another and could considerably ameliorate the brittleness in our current expert systems. Ultimately Lenat would have Cyc be the major "consensus reality KB for the world. Just as, today, no one would even think of buying a computer that didn't have an operating system and that couldn't run a spreadsheet and a word processing program, we hope that by 1999 no one would even think about having a computer mat doesn't have Cyc running on it," (Lenat and Guha, 1990, p. 358).

Although not built explicitly for the legal domain, Cyc is of considerable interest to researchers in legal expert systems. Not only does it hold the promise of systems from different legal domains being able ultimately to access each other in a useful way it also holds the promise that open textured legal concepts contained in expert systems can be explicated by a regress to the common sense consensual knowledge on which they ultimately rest. But there are a number of problems relating to the design of Cyc. Firstly, its design is predicated on the assumption that it is possible to represent consensus reality on the form of vast rafts of prepositional detached rules. Critics point to the non-propositional nature of much of our knowledge which is gained by dint of having a body as well as a brain growing up in a culture with similar people (Dreyfus, 1992; Adam, 1993; 1994). In other words, the object of knowledge, the *"p"* in *"S* knows that *p"* must be questioned.

However, for the present study it is the *"S"*, the representation of the knowing subject in Cyc which is of interest. In Cyc there is an assumption of universality which is inherent in traditional forms of epistemology. Lenat and his team assume that there is one and only one consensus reality available. Tongue in cheek, yet rather aptly for the purposes of this paper, they assert that the knowledge they represent is everyone's consensual knowledge "be they a professor, a waitress, a six-year-old child, or even a lawyer". (Lenat and Guha, 1990, p. xviii) Apart from this, and because of the very assumption of universality, it is hard to find mention of a subject at all. It is only through an examination of how Cyc models conflicting beliefs that assumptions as to subjects can be indirectly uncovered.

In Cyc, when it comes to modelling conflicting beliefs, e.g. Marxist economic theory vs the capitalist model, the knowledge is entered into the system in such a way that one view is tagged as "knowledge" and the others as mere "beliefs". Addelson (1983) and Nelson (1990)

have characterized this as "cognitive authority" where the *knowledge* has a higher status than the *beliefs.* There are many assumptions built into this model.

First of all, Cyc must "believe" one model itself and as it is marketed as a system which models consensus knowledge its model of the world reflects the beliefs of the builders of the system. The hegemony of white middle-class male views means that Cyc can be seen as a kind of "hegemony maintenance" system. The second point is that an appeal to the state of the real world to show that it is fruitless to hold a single economic model says more about how we regard economics and economic theorizing than it says about the real world. Philosophers (Quine, 1960) have long since abandoned the notion that that there are independent observations of the real world to be had, arguing instead that all our observations are mediated by our theories of the world. Because our "intellectual folklore" regards economics as inexact yet regards physics as an exact discipline does not mean to say that it is meaningful to expect to verify claims about physics with appeals to the real world any more than economic claims. The development of the sociology of scientific knowledge over the last twenty years has been marked by a move away from appeals to the real world and away from the need to maintain the apparent rationality of the sciences (Bloor, 1976; Woolgar, 1988).

Lenat and his team are forced to say who is doing the believing when it comes to distinguishing between knowledge and beliefs. Anything an agent knows can be true or just "a belief". Of course, a belief can be supported by some "direct" physical observations or by other agents. Cobelieving communities make it easy to propagate rumors, prejudice, and superstition." (Lenat and Guha, 1990, p. 284). Beliefs are to represent minority opinions and they are tagged in the system. Entries without belief tags are knowledge belonging to "TheWorldAsTheBuildersOfCycBelieveltToBe", very little of which is supposedly questionable as it contains facts such as "people have two arms and two legs". But is it really unquestionable? There are many easily elicited contemporary examples of where common sense is quite different in different cultural settings even before we bring in gender.

These examples might seem innocuous but what happens if other untagged and therefore unquestioned knowledge, particularly of a more normative nature i.e. saying how people "ought" to be, is put into the system? Could women, children and ethnic minorities be Cyc's suspect "cobelieving communities"? Cyc could perhaps assert things about how people from different races should behave, or the nature of women or children or what rights should be given to people with disabilities all under the rubric of consensual knowledge. Cyc could be designed to buttress existing prejudice and inequity or it could be designed to expose unfairness and inequality.

There are four main ways in which the ideology behind Cyc is particularly problematic for the design of legal expert systems from a feminist perspective. First of all, it ignores the fact that consensual knowledge is different in different cultural settings which is one reason why legal systems are different throughout the world. Secondly Cyc must have ways of mirroring the change in public opinion over time, often where that might change quite quickly. This is shown in the recent challenge to the common assumption that when parents part the children are almost always better off with the mother as shown in the Sharon Prost case where the father won custody of his two children as his high-flying ex-wife "worked too hard" *(The Guardian,* 1994a). Thirdly Cyc ignores the role of dissent, as opposed to consensus, in the making of knowledge. It is the debate which surrounds issues such as the Sharon Prost case, or how the law treats men who murder their wives differently from women who murder their husbands *(The Guardian,* 1994b) which shapes public opinion and ultimately has

ramifications for legal opinion. Finally, and most importantly for this study, it is the unsatisfactory way which Cyc deals with the knowing subject which is problematic.

In Cyc we have an example of what Code (1993) has described as the supposed universality of the knowing subject, or the view from nowhere being used potentially to discount views which are "crazy" or "maverick" or one of Lenat's minority beliefs. This also supports what she suggests is a perspectival hierarchy where the perspective of the group at the top of the hierarchy is accorded higher status than that at the bottom. Middle-class male professional knowledge informs the WorldAsTheBuildersOfCycBelieveltToBe and hopes that such a world might be available in a global knowledge base is a form of epistemological imperialism. Research in feminist epistemology argues strongly against the idea of universal knowledge. Indeed the classic good advice for building expert systems is to seek out a single expert as using a number of experts is just too difficult as they will not agree (Welbank, 1983). Hence there seems to be a tacit admission that, at least for a traditional expert system, a plurality of views is best avoided. A perspectival hierarchy is constructed with the expert at the top and others, including women, either at the bottom or excluded.

The Quest for a Feminist Jurisprudence

The development of feminist legal theory over the last two decades has paralleled the development of feminist epistemology; both have moved from the arena of addressing equal rights and sexist biases towards becoming mature philosophical disciplines in their own right.

The relationship between the feminist movement and the law is a complex one, but for the purposes of this paper, two components stand out; namely, women's use of the law to promote their interests via their struggle for rights which is the focus of the next section and the development of a feminist jurisprudence which is discussed in this section. The quest for a feminist jurisprudence arose from a disillusionment within the women's movement with the way that previous partial liberal measures enshrining women's rights in the statute books merely *mollified* women's oppression rather than undoing it. Against these rather hollow victories, the idea of a framework that integrates legal theory with political practice, all grounded in a feminist philosophy has been posited (Smart, 1989). The impacts of such an "alternative" jurisprudence, were its tenets ever taken on board, would be felt in law schools where traditionally the teaching of law can be seen as an unconscious process of perpetuating male logic and strategies of silencing alternative discourses. Indeed, it has been suggested that because both masculinity and lawyering are constituted in discourses which have considerable overlaps (e.g. "you must have a rational mind to be a lawyer", and "men are 'naturally' more rational than women"), men are often perceived as more suited to a career in law. The proponents' goals of attaining a feminist legal praxis are admirable, yet they are negotiated in a legal-philosophical minefield since, as Smart (1989) points out, in omitting to challenge the very assumptions underpinning the philosophy of jurisprudence—namely, that there exists an identifiable *unity* of law—they run the risk of "replacing one abstraction about law with another" (Smart, 1989, p. 25).

Feminist Legal Theory and Subjectivity

In feminist legal theory an important role is reserved for subjectivity. If it is the job of feminist epistemology to question hierarchies of knowledge in general terms it is the job of feminist jurisprudence to question the naturalness of legal power and knowledge and the foundational nature of beliefs about the law (MacKinnon, 1982, 1983). Just as preceding sections suggested that traditional epistemology ignores the subject, so too does traditional jurisprudence ignore both the position of knowers about the law including the way in which

the meaning of authority is negotiated and also ignores the professional academic domain which excludes women's experiences from the development of legal knowledge (Grbich,.1991). Under this view the *way* in which we know is part of the political process. Feminist legal theory does not treat the law as an object separate from the inquiring subject. Instead, mainstream theory is a representation deriving from the male experience of power. Although the law is to be an equal form for everyone it is derived from the experiences of those in authority. Feminist legal theory looks to the "forms of life" from which subjects have taken their theories of law (Grbich, 1991, p. 68) This includes an enquiry into the ways in which legal reasoning transforms the embodied imaginings from male lives into the "objective" form of doctrine which is seen as normative. In particular how can feminist legal theory develop a theory of law which reveals women's resistance to representations of the nature of women amongst privileged discourses?

Sex Discrimination Law as an Example

Sex Discrimination law offers an obvious example of where such ideas can be put to use in the development of feminist jurisprudence as, arguably the most fundamental aspect of women's relationship to the law, as women, is their struggle for rights. Pioneering liberal feminists of the last century perceived no contradiction in extending the philosophy of the "rights of man" to incorporate women, where the ultimate goal was a new legal subjectivity for women. (Bassnett, 1986, p. 144-145). As the various feminist discourses have gained in sophistication over the years, these early struggles have increasingly been construed as having been naive in their perception of the law as a neutral arbiter and protector of the weak, rather than being implicated in the very oppression it sought to eradicate (Smart, 1989, p. 40).

Posing issues in terms of rights, although appealing in bringing them into the public arena of debate, allows struggles to be couched in terms of protection of the weak (individual) against the strong (state). And there are many less appealing features of the battle for rights. Complex power relations can be oversimplified, creating the illusion that power differences have been resolved with the winning of certain rights and although they are established to deal with social wrongs, the burden is on the *individual* to prove that her rights have been violated (Smart, 1989, p. 144-146: Palmer, 1992, p. 6) Hence the history of the development of a feminist jurisprudence can be seen, at least partially, as a disillusionment amongst women's movements with the way that the liberal view of women's rights captured in legal statutes, defined such rights against a masculinity standard without seeking out the source of the inequalities. The development of sex discrimination law is dearly predicated on the difference/equality conundrum that has dogged much of the debate on women's treatment by the law. This dualism supposes that the *only* two ways forward for women are that either they are accorded special treatment by the state (and law) because of their uniquely female traits, or that they are treated as equal to men, with the same rights and responsibilities. This "either/or" approach premised upon the inevitable "man as norm" paradigm, highlights the fact that anti-discrimination legislation has clearly been perceived in male terms, and the fact that both principles cannot be exercised at once has consequently been enshrined in, for example, the UK Sex Discrimination Act (1975). Grbich (1991) points to the contradictions inherent in the discourse surrounding sex discrimination law. Male and female experience are constituted as if they were real against a standard from male lives. It is the burden of the individual to prove that she has been treated unfavourably in circumstances in which a person of the other sex would not have been so treated. So a woman must take part in **a** representation which contradicts her experience and where she is drawn into **a** scenario of power when she claims the reality of her mistreatment. Alternatively, trying to prove an

indirect form of discrimination involves representing that conditions of male lives are those with which she cannot comply by reason of her sex. Yet it must surely seem as if she cannot comply by reason of another's power not her sex alone. She must continually negotiate her unfavourable treatment against power constituted by others. Women must reconstruct the realities of their lives in order to succeed in the legal domain where they must fit into stereotypes in the power structures constructed by the male legal system.

Designing an Expert System

The perennial problem for feminist theory is how to marry theory to practice in appropriate political action. For this project it remains to be asked how the ideas of these analyses and debates can be taken on board in the development of a practical expert system without becoming almost immobilized with the complexities of the issues. Yet one of the first very practical steps that can be taken in the direction of uniting the theory with the practice is the very step of being aware of the issues at hand, even being aware that one has not always succeeded in completely shaking off the patriarchal garb in which the development environment is clad.

For this project, our feminist analysis highlighted some important design and usage issues that would not have been highlighted by a study under the banner of a traditional epistemological viewpoint. The system was to be designed for lay users; women and men with little or no understanding of the law involved. This in itself is controversial. Collins *et al.* (1986) suggest that the role of an expert system is as a *mediator* between the encoded expert knowledge and the end user, but one where if the flow of expertise from expert via the system to the user is to be of any use, a certain degree of "knowledgeable input" on the user's part is required. The implications are that a user of the system in order to be able to interpret the information supplied by the system should come from the same domain as the expert and share the same "framework of interpretation". In Collins' view the problem of eliciting the expert's elusive tacit knowledge is therefore not as debilitating as those studying knowledge elicitation have suggested since the user, coming from the same domain, can provide what is missing. In this scenario attempts to do away with the need for user and expert to share the same culture will mean that either bigger and bigger knowledge bases must be supplied to plug the "knowledge gap" (although Collins himself believes that this gap can never be completely plugged) or that the system can only go so far, prompting the user to consult a domain expert to "provide the missing nexus".

The latter approach was adopted in the present study. As the situation stands at present in the UK, people suspecting that they had been the victim of sex discrimination would either approach their trade union if they were a member, a Citizens Advice Bureau (CABx) or might even go directly to the Equal Opportunities Commission (EOC). However, given the broad remit of CABx such that they are overburdened with enquiries pertaining to a multitude of issues and given that there are only four regional EOC offices in Britain, it was felt that a sex discrimination system advice system located in public libraries, CABx and Job Centres could potentially fill a gap.

The Forms Helper and Advice System developed as part of the Alvey DHSS Demonstrator Project acted as inspiring precursors (Bench-Capon, 1991). Part of the remit of that project was to assist members of the public in their dealings with the Department of Social Security and in particular to overcome the problem of low take-up of social security benefits by those

on low incomes who are legitimately entitled to benefits. Underpinning this is the complexity of the claiming procedures. The Forms Helper was designed to help route a claimant through filling in the necessary forms while the Advice systems provided information and advice about aspects of claiming benefit in a "mixed initiative" conversational dialogue. For the present study the most influential part of their role was in the way that both systems took on board the need to translate the users' views of their enquiry into the language of the organization and vice versa.

The latter point is of particular relevance in the issue of subjectivity. In effect we are trying to design a representation of the user's subjectivity which is then mapped onto a representation of the legislation and a response returned. This is reinforced if we contend that in the incipient stages of formulating some legal case, a lay user might perhaps feel insecure, judging her evidence to be "too subjective", or difficult to flesh out, and we would certainly imagine a typical lay user having difficulty in mapping the relevant piece of legislation onto the current facts of her situation. We might contend that the system could play an important role in instilling confidence in the lay user in this "translating" capacity; what was perhaps at the outset a rather tentative and intuitive *suspicion* of discriminatory malpractice could become after consultation with the system, a substantiated legal indictment to be acted upon. We could say that ultimately this role is one of a "feminist" mediator, taking the strategy that Smart (1989, p. 165) suggests of working to redefine the truth of events, such that superficially innocuous terms like "harmless flirtation" or "enthusiastic seduction" are (re) defined as "sexual harassment" and "attempted rape". Given that in the early stages, the burden of proof (and all the effort and strife which that entails) rests with those alleging discrimination, the importance of such an "encouraging" role on the part of the system cannot be underestimated, especially as several authors claim that women's lack of self-esteem could possibly inhibit action: *Because many women have been brought up to have so little sense of themselves as persons with rights, they are often incapable of recognizing when their rights are being violated ... Other women are able to perceive when their rights are being violated, yet still often have difficulty filing complaints because it would mean making trouble and that goes against most women's training.* (Sanford and Donovan, 1993, p. 200) There is clearly a balance to be made. On the one hand it is unrealistic and ultimately unfair to offer users hope of legal redress for hopeless cases; after all no matter how feminist we might claim our system to be, the process of making and winning a case rests upon the workings of an existing order. Yet on the other hand offering examples of past cases which may be like the present client's case leaves the judgement of whether to proceed further up to users without making any sort of decision for them.

Conclusion

We have described some of the issues which informed the design of a prototype sex discrimination advisory system. The prototype system was built in PROLOG as part of an MSc dissertation project (Furnival, 1993). A user builds up the features of their case in consultation with the system and when all details are gathered, matching cases are retrieved, and advice is given on what the user should do next to pursue their case. Regrettably, limitations of resource and time meant that it was not possible to test the system against a wider population. We wish to avoid making too grand a claim that this system was designed and implemented according to the intersections between legal expert systems, feminist epistemology and feminist jurisprudence and with the particular aim of designing in the subjectivity that feminist theory suggests is absent from traditional epistemology and which we contend is also a feature of traditional expert systems. It would be difficult to make such a claim in the absence of any tradition whatsoever of building expert systems, let alone legal

expert systems, according to design principles derived from feminist theory. Nevertheless, we believe our work to be a beginning in this process in acting as a potential inspiration for other projects which seek to challenge the tacit assumptions inherent in the existing order of legal expert systems.

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