

Epistemology and work psychology: New agendas

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The aim of this paper is to examine current epistemological debates within psychology and social science generally, and to explicate their significance for the way in which work psychology research is conducted. It is argued that although there have been a number of recent critiques of the epistemological and methodological base of psychology, the research base of work psychology has come in for little such attention. The result has been a lack of reflexivity on the part of work psychologists. One potential challenge to this *status quo* comes from postmodernism which has had a significant impact on other areas of social science. This paper illustrates some of the key tensions and debates that result from extending these epistemological debates to the realm of work psychology. It is argued that a consideration of epistemology is important for work psychologists; and that different approaches to positivism, such as postmodernism, can provide us with different ways of examining and conducting work psychology research. The importance of epistemological reflexivity is highlighted within the paper: that is the researcher makes explicit, and critically reflects upon, the epistemological assumptions that underlie their own work. Finally, the authors assess the implications of this for work psychology research and practice generally.

These are challenging times for those of us who investigate the world of work where the future is seen to entail a radical break with the past. Not surprisingly, work psychologists have spent considerable time discussing the impact of changing times on work, manifested through new psychological contracts and career structures, more sophisticated methods of selecting, assessing, rewarding and training employees, advancing technologies and post-bureaucratic organizational forms (e.g. Clegg *et al.*, 1997; Rousseau, 1995; Sparrow, 1998). However, despite these recent developments in the concerns of work psychology, there has been little

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change in the underlying epistemological assumptions that influence how research is construed, undertaken and evaluated within the discipline.

At first sight, compared with recent discussions of 'a new paradigm' in other areas of psychology (e.g. Smith, Harre, & Van Langenhove, 1995), work psychology research still seems entrenched in the positivist paradigm (Symon & Cassell, 1998a). However, within other social science disciplines, debates about epistemology and its methodological imperatives have raged for a long time (Woolgar, 1996). There is evidence that these debates have been extended into the realm of psychology. The origins of this reorientation are located in the critique of social psychology that emerged in the 1970s. While Shotter (1975) questioned the epistemological authority underpinning experimental design, others (e.g. Henriquez, Hollway, Urwin, Venn, & Walkerdine, 1984) challenged the whole notion of the role of the 'subject' upon which psychology is based. Indeed, Smith *et al.* suggest that the impact of this disaffection is that psychology has clearly moved away from the 'hegemony of the laboratory experiment in the last twenty years' (1995, p. 2). Despite this ostensible paradigm shift in the work of some psychologists, much of this debate still remains the 'ghost' at work psychology's 'banquet'. As Sparrow (1999) suggests in his editorial reflecting on the future of this journal and the discipline in general:

Paradigm change is in the air. Many managerial and social science disciplines have put themselves through a period of critical analysis. Strangely the occupational and organizational psychologists seem not to have entered into such an analysis. (p. 261)

The consequent silence is all the more surprising given the impact that alternatives such as postmodernism have had in closely related disciplines, such as organization studies (e.g. Hassard & Parker, 1993), human resource management (e.g. Townley, 1994), corporate strategy (e.g. Knights & Morgan, 1991) and even accountancy (e.g. Miller & O'Leary, 1987). Although some work psychologists have engaged with these debates (e.g. Hollway, 1991), there have been few systematic internal challenges to the positivist *status quo*. Nevertheless, there are external challenges which both researchers and practitioners will eventually have to take some note.

This paper addresses the current epistemological challenges faced by the discipline. Our aim is to examine current epistemological debates within psychology and social science generally, and to explicate their significance for the way in which work psychology research and practice is understood and conducted. We begin with an examination of the implications of the dominance of positivist epistemology for the research base of work psychology. The ways in which positivism is undermined by a highly sceptical form of social constructivism called postmodernism are then considered. Through the use of examples from work psychology we illustrate some of the key tasks, tensions and dilemmas that emerge from these debates. Throughout we show how these debates necessitate the development of a more reflexive work psychology, where the assumptions that underlie an epistemological approach are identified and critiqued. First, we briefly examine why epistemology and reflexivity are such important issues.

Epistemology and reflexivity

Although philosophers have debated epistemological questions since the time of Plato, those debates have too often appeared far removed from the concerns of work psychologists. However, behind this esoteric appearance are issues which, despite often remaining unnoticed, influence the ways in which all work psychologists undertake their research or engage with their clients. This significance is revealed by the Greek etiology of the term epistemology, *episteme*, which means 'knowledge' or 'science'; *logos* which means 'knowledge', 'information', 'theory' or 'account'. In other words, epistemology is the study of the criteria by which we can know what does, and does not, constitute warranted, or scientific, knowledge. As Rorty (1979) has observed epistemology seems to offer a vantage point, one step removed from the actual practice of science itself, which at first sight promises to provide some foundation for scientific knowledge. By seeking to explain ourselves as knowers, by telling us how we ought to arrive at our beliefs, epistemology is pivotal to science since 'proper' scientific theorizing can only occur after the development of epistemological theory. It follows that a key question must be how can we develop epistemological theory—a science of science?

Almost 60 years ago Neurath (1944) pointed to the paradox that epistemology confronts: a fundamental problem of circularity, from which it cannot escape, in that any theory of knowledge (i.e. any epistemology) presupposes knowledge of the conditions in which knowledge takes place. In effect, this prevents any grounding of epistemology in what purports to be scientific knowledge, psychological or otherwise, because one cannot use science in order to ground the legitimacy of science. For Neurath, such circularity means that we cannot dump philosophy by detaching ourselves from our epistemological commitments so as to assess those commitments objectively—indeed we would depend upon them in order to undertake that reflexive task. It follows that there are no secure foundations from which we can begin any consideration of our knowledge of knowledge—rather what we have are competing philosophical assumptions about knowledge that lead us to engage with work psychology in particular ways.

Perhaps the most we can hope for in considering epistemology is to become more consciously reflexive by thinking about our own thinking, by noticing and criticizing our own epistemological pre-understandings and their effects on research, and by exploring possible alternative commitments (Alvesson & Skoldberg, 2000).

Although this new spirit has gained much influence in related areas, the received view of research in work psychology is centred upon positivist epistemological commitments. A silence reigns around such commitments so that they are 'forgotten' and any reflexivity is 'skilfully avoided' (Chia, 1996, pp. 7–8). Presumably, if pressed, this silence would be justified by the claim that such commitments are so innocent and commonsensical they are not worth discussing. But to make unexamined epistemological assumptions and remain unaware of their origins has to be poor practice, particularly when even a cursory examination of the philosophy of science would suggest that not only is epistemological commitment unavoidable in any work psychology, but also that any epistemological commitment is highly contentious.

Positivism: The epistemological orthodoxy of work psychology

The term work psychology is used here because as Arnold, Cooper, and Robertson (1995) suggest it is a simple term that encompasses both the individual and organizational levels of analysis, typically covered by both occupational and organizational psychology approaches. The aim is to be inclusive about the content of work psychology as a discipline, rather than focusing on a specific content area, such as personnel practice. In defining the work psychology domain, a key element to take into account is the role of practice. In differentiating work psychology from other social science disciplines, it is evident that work psychology has an identifiable practitioner community. At both practitioner and researcher levels, an underlying feature of the discipline is a tacit commitment to positivism.

This commitment supports the methodological unity of natural and social science and the presupposition of a theory neutral observational language. This implies that the researcher can be a neutral collector of data who can objectively access the facts of an *a priori* reality. The enduring importance and relevance of such commitments derive from positivism's social origins in the anti-authoritarian cultural changes that occurred in 18th century Western Europe which have been dubbed the Enlightenment (Gray, 1995, pp. 136–137). Drawing upon Descartes, Locke, and Bacon, the Enlightenment philosophers (e.g. David Hume) embraced empiricism and used it to launch attacks upon metaphysical speculation and theocratic revelation. In doing so, empiricism aimed to make all truth-claims objectively assessable. So later, when Comte coined the term positivism (1853), he was expressing the desire to rid science of dogma by the examination of the 'positively given'—that which is directly available to sensory perception. At this stage Comte saw that 'the human mind' rejected all religion and metaphysics as a distraction from sense-data and '. . . confines itself to the discovery, through reason and observation combined, of the actual laws that govern the succession and similarity of phenomena' (quoted in Andreski, 1974, p. 20).

In this light, the tacit adoption of a theory neutral observational language by work psychologists allows the settling of knowledge claims through appeal to empirical facts and thus protects it from metaphysical dogmatism. Therefore, positivism has clearly been crucial to the development, security and credibility of work psychology as a discipline. But these certain gains have resulted in a series of costs. The over-reliance on positivism has resulted in there being:

. . . virtually no debate about the status of the knowledge which makes up work psychology and this state of affairs is the result of the uncritical identification of work psychology with behavioural science, which in turn identifies with natural science. (Hollway, 1991, p. 7)

Such lack of epistemological reflexivity has other dangers. As Herriot and Anderson (1997) observe in their discussion of selection and assessment within personnel psychology:

The maturation of personnel psychology as a scientific discipline, whilst reaping the benefits of increasingly robust and sophisticated empirical research, has led to a predominant cultural code of mass epistemological conformity. No other sub-discipline in the organizational sciences has

exhibited such a paucity of theoretical perspectives, such a lack of debate over guiding paradigmatic assumptions and such unquestioned conformity to naive, managerialist positivism. And if the discipline fails to stimulate a diversity of theoretical perspectives and epistemological approaches, then it runs the risk of becoming an overheated engine house of remote, blind empiricism. (p. 13)

Besides the problems created by a lack of epistemological reflexivity (to which we shall return) another significant consequence is the tendency to exclude human subjectivity from the realm of warranted science so as to preserve the unity of the sciences (i.e. *monism*). This occurs through the deployment of a deterministic deductive experimental logic where human behaviour is conceptualized as measurable responses to external stimuli. Stimuli may be either administered by an experimenter or operationalized through the use of metrics such as those, for instance, encoded into questionnaire *pro forma*. Evidence of how the resultant methods underpin much of what we know as work psychology research is presented in content reviews of the key international journals (Schaubroeck & Kuehn, 1992; Symon & Cassell, 1998a). As Anderson (1998) observes, the most prestigious work psychology research, demonstrates little variation from an unreflexive and deterministic positivist norm. Indeed, such homogeneity is all the more surprising when it is evident that positivism has been under attack in both the natural and social sciences, from a variety of perspectives, for most of the 20th century (see Delanty, 1997).

One popular attack, which focuses upon the exclusion of human subjectivity from the domain of legitimate science, has led to the development of a wide range of interpretative approaches for accessing human subjectivity within psychological research. An outcome has been an almost unanimous presentation of a case for the use of qualitative methods (e.g. Gillet, 1995; Henwood & Pidgeon, 1992; Potter & Wetherall, 1987). Usually, this case has been based on highlighting: the appropriateness of such techniques for the areas that psychologists research; the added value that such methods provide; and the creative use of theory that can emerge from using qualitative methods or even the 'qualitative paradigm' (Henwood & Nicolson, 1995). Indeed, the use of qualitative methods is becoming more common within work psychology research (Symon & Cassell, 1998b).

Nevertheless, what is also evident is that the epistemological stance underlying the use of so-called qualitative methods rarely entails a significant departure from positivism beyond questioning methodological monism. Instead a neo-positivist stance is often adopted which retains positivism's key epistemic characteristic—the presupposition of a theory neutral observational language. So when researchers use qualitative methods in a neo-positivist framework, they still see themselves as neutrally reporting the *cultural* worlds of their participants and reflexivity is thus avoided. Through the use of qualitative techniques they are merely accessing that cultural world in a different way. This is hardly a radical departure from the positivist norm.

While the retention of positivist epistemology has an important impact on how research is conducted and evaluated, it is also important to realize that it influences the kinds of question we ask in the first place (Hosking, Dachler, & Gergen, 1995). For Dachler (1998) the result is that work psychologists are:

... caught in a certain way of thinking about the world—if you wish, caught in a dominant logic—which so far has served us well, but whose central questions seem increasingly problematic in the face of challenges never before encountered. (p. 1)

The point is that if we become more reflexive we will challenge and change those epistemological assumptions and work psychology as a discipline will change. This will create a number of opportunities and choices which will be outlined in more detail later.

The epistemological undermining of positivism

Positivistic epistemological commitments have been undermined in both the natural and social sciences by a disparate group of critics often labelled 'social constructivists' who, just as they are united by their repudiation of a theory neutral observational language, are simultaneously divided over the ontological implications of this epistemological stance, as is explained below.

While Burr (1995) identifies Berger and Luckmann's work (1967) as a pivotal influence upon the social sciences, it would seem that social constructivism has a longer history in the natural sciences. Here social constructivism had already been expressed by Heisenberg's (1958) 'uncertainty principle'—that it is impossible to study something without influencing what is seen. Therefore, what a scientist observes is not independent of the process of observing but is an outcome of the scientists' methodological interaction with, and conceptual constitution of, his/her objects of knowledge.

In a similar manner, Wittgenstein (1958) and Hanson (1958) argued that language did not allow access to reality, instead our renditions of reality are located in language itself rather than anything independent of it. There cannot be any neutral foundation for science located in the passive registration of sensory inputs since the scientist's language-in-use, their theories and hypotheses influence what will be observed *before* any empirical observations are made. This thesis in effect socializes science and was subsequently highly influential upon Kuhn's theory of scientific development (1957; 1962/1970) which used historical examples to demonstrate how, in practice, natural science neither proceeds inductively through verification and proof of theory nor deductively through falsification of theory. Especially during the 1970s and 1980s, social constructivists popularized the view that the positivist ideal of a neutral observer was an impracticable ideal—what counts as warranted knowledge, truth and reason are always conditioned by the socio-historical context of the scientist. Far from articulating universal scientific truths any scientists' account will be a local social construction created through the operation of: community language games (e.g. Rorty, 1979); paradigms (e.g. Burrell & Morgan, 1979); metaphors (e.g. Ortony, 1979); interests (Habermas, 1972, 1974); traditions (Gadamer, 1975); discourses (Foucault, 1977); inescapable frameworks (Taylor, 1985); or world views (Geertz, 1989) and so on.

It is only with this realization that social construction must embrace *both* the lay and the scholarly domains, that the importance of reflexivity has been extended and brought to the fore in social science (e.g. Beck, 1992; Bourdieu, 1990; Holland,

1999; Steier, 1991). Bordieu (1990) argues that any science is embedded in, and conditioned by, an underlying socially derived collective unconsciousness that forms a subtext of research which conditions any account. Reflexivity entails the work psychologist attempting to think about his/her own thinking by excavating, articulating, evaluating and in some cases transforming the collective unconscious she or he deploys in structuring research activities as well as in apprehending and interpreting what is observed. Here, the implication is that we must hold our own 'research structures and logics as themselves researchable and not immutable, and by examining how we are part of our own data, our research becomes a reciprocal process' (Steier, 1991, p. 7).

However, as Fay (1987) pointed out, because reflexivity insists that researchers must confront and question the taken-for-granted assumptions which give meaning to our lives, then resistance can only be expected. As Habermas (1972, p. 67) forcefully shows, a key source of resistance is the protection afforded by positivist epistemology. The commitment to a theory neutral observational language implies that positivists, due to their methodological training etc., are able to accumulate facts passively from an ontologically prior world—thus rendering their own involvement in the research process, beyond seemingly technical methodological issues, unproblematic.

Besides using different terminologies, where such writers also disagree is regarding the ontological implications of their constructivism—a matter which is illustrated by Kuhn's own earlier equivocation. Kuhn's thesis leads to two very different sets of implications which are both tacitly invoked by his statement that after a change in paradigm 'scientists are responding to a different world' (1962, 1970, p. 135). Although it is evident that he means that any scientific statement is a social construction, are these statements just different versions of an independently existing social/natural reality which we can never fully know because our theories are always underdetermined (i.e. ontological realism), or does it mean that reality is created and determined by the socially constructed theory (i.e. ontological subjectivism)? While some social constructivists seem to inadvertently oscillate between ontological realism and subjectivism (e.g. Morgan, 1986, 1993), a tendency towards a subjectivist stance, usually called postmodernism, has become increasingly influential in the last 10 years or so.

Post-modernism

Despite the attention that the term 'postmodernism' has attracted since the early 1980s, it remains difficult to define as avowed postmodernists themselves reject a single correct position in favour of a multiplicity of perspectives that emphasize indeterminacy. A key theme, however, is the rejection of positivism's 'grand' narrative—that it is possible to develop a rational and generalizable basis to scientific inquiry that 'pictures' and explains the world from an objective standpoint (Berg, 1989; Best & Kellner, 1991; Harvey, 1989; Parker, 1992; Vattimo, 1992).

Through what is called the 'linguistic turn' postmodernists advocate a de-differentiation of relations between subject and object (e.g. Chia, 1995; Jeffcutt,

1994; Kilduff & Mehra, 1997) thereby replacing epistemic privilege, grounded in what Dachler and Hosking (1995) term an 'entitative and egocentric reasoning', with a social constructivist view of science and knowledge. For postmodernists the notion of an external world is precarious since our linguistic representations are seen to *create* what positivists assume *to be* an independent external reality. For Baudrillard (1983) all that we are left with are 'simulacra'—images which refer to nothing but themselves: a 'hyper-reality', divorced from extra-linguistic reference points, in which there is nothing to see save simulations which appear to be real. Reality as an independent referent is destroyed and 'the boundary between hyper-reality and everyday life is erased' (Best & Kellner, 1991, p. 120). Since nothing exists outside discursive texts, it is language which needs to be reflexively illuminated so as to display its constructive processes.

In this vein, Rorty (1979, 1982) argues that whatever counts as truth or reality is a changeable sociolinguistic artefact where justification lies in the consensus arising out of the culturally specific discourses. Different discourses constructed in diverse forms of life are incommensurable. It follows then that there is a need to focus attention upon the arguments that are reasonable and persuasive to members of a particular scientific community. In this project Rorty suggests that philosophy can no longer presume to rise above everyday language games so as to '... underwrite or debunk claims to knowledge made by science' (1979, p. 3). Rather post-modernism must accept diversity and be concerned to gain knowledge of variable and socially contingent understandings so as to '... refine our sensitivity to differences and reinforce our ability to tolerate the incommensurable' (Lyotard, 1984, p. xxv). The toleration of dissensus is vital so as to avoid the hegemony of a particular discourse which serves to silence alternative possible voices and prevent the heteroglossia which would otherwise ensue (Gergen, 1992; Rosenau, 1992).

So for postmodernists whatever work psychology is, it cannot be justified through meta-narratives which commit us to thinking that it entails accurate representations of the external world. For postmodernists multiple truths are always possible—the question then is which truths are being allowed to be voiced, how, why and what are their effects upon people. The postmodernists' mission is to deploy their rhetorical skills so as to: unsettle the language of representation; erode traditions and orthodoxies; carve out the new domains of intelligibility thereby giving voice to 'truths' previously suppressed. Obviously, this has implications for how we understand work psychology as a discourse in its own right and how people who identify themselves as work psychologists may develop alternative understandings of their domains of interest.

If work psychology's current legitimacy is primarily located in its claim to a rational picturing of people in their organizations so as to ensure progress through improved performance and so on, postmodernists erode these apparently self-evident meta-narratives through undertaking several interrelated tasks: to identify the particular ways of seeing and acting that such a discourse takes and excludes; to analyse the social processes that make it possible for such a discourse to be historically constituted; to analyse how it is reconstituted into new discursive formations; and to identify the effects of such a discourse upon people. Below we

review how postmodernists deal with these tasks—first through deconstruction, second through genealogy and third by examining truth-effects.

The deconstruction of work psychology

The outcome of the linguistic turn is the notion that since language cannot depict the real it must rhetorically produce what we take to be real. Phenomena such as motivation, stress and personality cannot refer to real objects, but are merely linguistic constructs which work psychologists take to be real. So rather than deploying conceptual resources for analysing aspects of reality, work psychology is seen as a set of discourses which constructs and certifies particular meaningful versions of reality that are taken to be neutral and thereby accorded scientific status. Here, the eight knowledge areas of work psychology recognized by the Division of Occupational Psychology would be presented as discourses which create what is known as legitimate work psychology and serve to regulate the discipline by excluding both the non-qualified from domains of practice and alternative knowledge bases from consideration. Claims to science would be seen as a self-serving rhetoric which bolster claims to the status of a 'profession'. Indeed, from a postmodern stance it is through its discursive activity that work psychology produces the behaviour it seeks to describe (see Turner, 1987) since empirical findings would 'reflect pre-existing intellectual categories' (Hassard, 1993, p. 12). For instance, personality tests used in selection and assessment rather than reflecting something which the individual has, would be seen as creating accounts of the personality which enable certain interventions: discourses which may be deconstructed.

Deconstruction is the reflexive dismantling of linguistic constructions so as to reveal their inherent contradictions, assumptions and different layers of meaning—issues which are hidden from the naïve reader and unrecognized by the author. Any body of knowledge, any behaviours or organizational practices can be treated as a text which can be deconstructed. In conducting a deconstructive reading of a text several questions are asked:

Why are certain authors, topics or schools excluded from the text? Why are certain themes never questioned, whereas other themes are condemned? Why, given a set of premises, are certain conclusions not reached? The aim of such questions is not to point out textual errors but to help the reader understand the extent the text's objectivity and persuasiveness depend upon a series of strategic exclusions. (Kilduff, 1993, pp. 15–16)

Hence all texts are understood to contain elements that counter their author's assertions. For instance Kilduff (1993) deconstructs March and Simon's book *Organizations* (1958) to identify its gaps and silences and show how the Tayloristic assumptions it overtly condemns are simultaneously replicated elsewhere in the text in order to produce their narrative. Deconstruction also entails showing how their texts contain taken-for-granted ideas which depend upon the exclusion of something (Cooper, 1989; Linstead, 1993). Often this will involve identifying the assumptions which underpin and thereby produce the 'fixed' truth claim (Gergen,

1992). These assumptions are then disrupted through their denial and the identification of the 'absent' alternatives whose articulation produces an alternative text, or re-reading of reality.

For instance Knights (1992) and Townley (1994), respectively show how strategic and human resource management discourses reflect and reproduce masculine regimes of rationality which exclude and suppress the binary opposite—women as irrational. This issue has not been ignored by work psychologists. Thus, selection tests have been shown to encapsulate values and qualities that are associated with those in powerful positions. In this spirit, Alimo-Metcalf (1994) discusses how the norms operationalized by management selection tests are based on samples of current managers, therefore embedding assumptions surrounding a 'male white' norm beneath an appearance of objectivity thereby disabling any interventions that can be made regarding the development of equal opportunities.

Hence, deconstruction denies that any text can be ever settled or stable: it can always be questioned as layers of meaning are reflexively removed to reveal those meanings which have been suppressed. So in organizational life, meaning is always precarious and local (Linstead & Grafton-Small, 1992) and may be deconstructed even, as Cooper (1990) shows, the notion of organization itself. Simultaneously deconstruction leads to questions about how something becomes seen as factual. Usually, we remain blithely unaware of these sociolinguistic processes and although the ontological result may appear as 'out there' through the action of discourses we are participants in creating what we apprehend. So in Chia's (1995) terms postmodern deconstruction is about remembering these formative processes that attribute a false concreteness to our objects of analysis and which positivists have sublimated or forgotten. The result is a relativistic position for deconstruction does not get the deconstructor closer to a 'fixed' truth. At most it only offers alternative meanings within a text which are themselves then available to further parasitic deconstruction and thereby are not allowed to rest in any finalized truth.

Genealogy of work psychology discourse

As we have shown, deconstruction is concerned with reflexively examining the logics and contradictions embedded in discourses—a process for Linstead (1993) that is consistent with Foucault's genealogical method (1977, 1986). The latter extends reflexivity by revealing how discourses are constructed, highlighting the tacit meta-narratives that underpin them, and opening up the potential for articulating alternative ways of knowing.

In undertaking a genealogy of work psychology the first task is to isolate and describe the discourses of work psychology, their ways of seeing organizations and members, and excavate the systems of rules that enable and limit what is knowable. This analysis disrupts established discourses' claims to report observed reality and to be essential tools for rendering the management of organizational processes more rational by pointing to how those discourses create the objects which they presume to analyse. The next step is to examine the sociohistorical conditions which make it possible for a particular discourse of work psychology to emerge and develop thereby further unsettling its epistemological authority. Hence, genealogy

would not be a history of stress or motivation *per se*, rather it would be a history about how such phenomena were discursively produced and became taken for granted.

For example, a number of authors have argued that work psychologists have neglected the area of emotion at work (Briner, 1999; Fineman, 1993). If we examine where psychologists have directed their attentions in this area, generally they have focused on two key concepts: job satisfaction and stress (Cassell, 1999). Taking stress as an example, a key (positivist) assumption is that stress exists 'out there' and constitutes a condition which is independent of our conceptualizations of it. Therefore, it can be objectively measured and its variable impact upon individuals explained in terms of their work contexts (e.g. job characteristics) or personal attributes (e.g. gender). Thus, various occupational groups, such as women managers have been investigated to assess the extent to which they experience more stress than others (Davidson & Cooper, 1992). At the practitioner level a whole number of interventions designed to alleviate stress at work have been developed, leading to the development of what Briner (1997) describes as a stress industry dominated by stressologists. In contrast, a genealogy would construe stress as linguistic: a relational concept (Hosking *et al.*, 1995) that is produced and reproduced by individuals in their discursive interactions and which is specific to a set of sociohistorical conditions.

Genealogy is, however, not just concerned with the emergence of discourses but also how existing discourses are adapted or transformed into new discourses. For instance Barry and Elmes (1997) construe strategic discourses as stories and then use narrative theory to highlight how different rhetorical devices can increase or decrease the appeal of a discourse in the eyes of any audience/readership. In other words, the appropriation of a particular narrative has nothing to do with its truth but is located in audience approval and their identification with the characterizations and plot provided by the story. Hence, the increased interest in the public domain about stress generally would suggest that the public at large find its narrative aesthetically pleasing and hence plausible.

In summary genealogy would focus upon the description of work psychology's discourses/narratives and the analysis of their development and change. In part Hollway (1991) has undertaken these tasks by describing 80 years of work psychology and its relationships to management practice. Some of the key questions posed by such a genealogy are: Who gets to write and read any discourse? Who is marginalized and subjugated by that writing and reading? How is the writing and reading of work psychology's discourses linked to power in organizations? Pivotal to answering these questions is what the postmodernists would call the truth-effects of work psychology.

Discursive truth-effects of work psychology

Any discourse 'produces reality . . . domains of objects and rituals of truth' (Foucault, 1977, p. 194) which in effect suppress and even destroy the articulation of alternative possible 'truth-effects'. This stance leads postmodernists to *de-centre the subject*: to reject the individual knower as the autonomous origin of meanings and

as the focus of any analysis. Instead, through the language we use and gain in social interaction we obtain and propagate shared discourses. The individual is thereby constituted through exposure to historically and socially contingent discourses: through learning to speak a discourse, the discourse speaks to the individuals by structuring their experiences and definitions of who they are. An example here is the way in which workers are discursively produced through the work psychologists' use of the language of attitudes. The attitudinal labels used in investigations (e.g. job involvement, organizational commitment, and job satisfaction) accord visibility to the worker through forms of categorization, measurement and intervention that inscribe images of what it is to be 'normal'. Power is not possessed by conscious agents, whether they be individuals or collectivities; rather, like knowledge, power is seen to reside in discourses themselves (Foucault, 1980) so that knowledge and power 'inhabit each other' (Cooper, 1989).

A key task has been to apply de-centring to investigate how all forms of work-based identity and subjectivity are discursively constituted and hence vary. For instance, by examining contemporary retailing Du Gay (1996) traces how discourses of organizational change take hold in particular contexts and 'make up' the identities of employees in their everyday working lives. He shows how an all pervasive enterprise-excellence discourse has, through the image of the sovereign consumer, reimagined and blurred the distinction between the identities of consumers and employees. Both are now constituted as autonomous, responsible, calculating individuals seeking to maximize his or her worth through self-regulated acts of choice in a market-based world. For Du Gay a person's sense of identity is negotiated, constituted and confirmed by his or her positioning within relations of power: they become inscribed with the ethos of enterprise in all aspects of their lives, an ethos which encourages them to transform themselves by building 'resources in themselves rather than rely[ing] on others' (Du Gay, 1996, p. 183).

Du Gay's Foucauldian understanding of identity has influenced the recent work of some work psychologists. For instance Dick (2000) suggests that traditional approaches within work psychology have usually attributed women's lack of progression within the UK police force to the nature of the 'canteen culture' and male attitudes to female officers. However, the large amount of research on this issue has failed to address why the nature of policing is discursively constructed in the ways it is and how this clashes with female identities. She outlines how certain discourses gain dominance and are reflected in working practices. Thus, the idea that policing is not compatible with being a mother is an effect of how the police identity is discursively produced as excessively demanding, and the 'good' officer as one who subordinates non-work aspects of life to those demands. In contrast, she observes that the adult female identity continues to be largely constructed through the site of motherhood and while that construction continues to emphasize the importance of 'being there' for the children, the vertical subordination of policewomen will continue.

Another truth-effect arises here. Organizational members may be differentiated according to their participation in a discourse which shapes their subjectivity. For instance, those groups who accept and deploy discourses enjoy an aura of expertise and material privilege within organizational hierarchies while those who are unable

to deploy that discourse lose status. Indeed, the deployment of any discourse is seen as empowering those people with the right to speak and analyse while subordinating others who are the object of the knowledge and disciplinary practices produced by the discourse. Such experts, as Hollway (1991) has noted with regard to work psychologists and Townley (1994) with regard to human resource management practitioners, together with the knowledge that they articulate, serve to mask what postmodernists see as the arbitrary nature of their normative judgments which subordinate employees. Thus, not all people are equal within the web of power relations which defines and orchestrates them. Here claims to detached reason and objective analysis merely serve to mask the self-aggrandizement of the 'speaker' who, through the discourse, dominates and oppresses those who are analysed and categorized. The disempowered may collude in the establishment of this power relationship in two ways. First, they accept the authority of discourse speakers to analyse and categorize thereby empowering them. Second, as Du Gay notes (1996), a discourse defines and constrains the subjectivities and identities of the disempowered to the extent that they engage in self-surveillance and correction of their behaviour towards the norms it articulates. Likewise, those with privileged access to the discourse gain a sense of meaning and identity from the practices it sanctions (Knights & Morgan, 1991).

In summary, postmodernists portray human subjectivity deterministically, as an outcome of the exercise of power—'a game in which the rules are never revealed or understood by the players' (Delanty, 1997, p. 106). In this sense postmodernists see power as being everywhere yet nowhere: as a relationship between subjects yet also independent of subjects where 'it is not possible for power to be exercised without knowledge it is impossible for knowledge not engender power' (Foucault, 1980, p. 52). In this manner individuals and collectivities become constructed, classified, known and transformed into self-disciplining subjects through a power that they may exercise but do not possess. However, this does not mean that resistance is always absent. For instance in the case of strategy Knights and Morgan (1991) argue that not everyone has taken up a strategic discourse: some managers reject its rationalism preferring intuition; many employees remain incorrigibly cynical; and there is a time lag between different parts of the world in the uptake of strategy.

To summarize, a work psychology inspired by postmodernism poses a considerable sceptical challenge to the positivist *status quo*. Post-modernism demands that work psychologists be sceptical about: how they engage with the world; the categories they deploy; the assumptions that they impose and the interpretations that they make. By 'not finding answers to problems, but . . . [by] . . . problematizing answers' (Cooper & Burrell, 1988, p. 107) postmodernism makes people think about their own thinking and question the taken-for-granted. It encourages irony and humility as well as rebellion against the imposition of any totalizing meta-narrative which erases plurality through discursive closure.

Like all epistemological approaches, postmodernism has its own set of problems that have been critiqued extensively in the literature (e.g. Parker, 1992; Thompson, 1993). While postmodernism's reflexive value seems self-evident, caution is required as its reflexivity can be simultaneously and paradoxically problematized

through its relativistic tendencies. For some postmodernists truth is relative to one's mode of engagement with the 'world' for which no independently existing evaluative criteria exist. The intellectual mirroring of reality that sustains positivism is thereby replaced by the relativist's intellectual production of reality. If we follow through the implications of this to the extreme, then there is no possibility of adjudicating between different realities because there are no independent criteria upon which to judge. Therefore, it follows that there are no criteria through which we can engage in any form of criticism of the status quo. Criticism becomes either a pointless juxtaposition of incommensurable narratives or the critic's unsustainable assertion of an epistemologically privileged meta-narrative. Any intervention implies the exercise of choice and closure based upon some kind of evaluative criteria—anathema to postmodernists. The practical effect of this is that 'the problems of (fictional) individuals in (mythical) organizations are safely placed behind philosophical double glazing and their cries are treated as interesting examples of discourse' (Parker, 1992, p. 11).

Despite our call for some caution, postmodernism proffers a sustainable alternative to the positivist orthodoxy of work psychology which could give voice to a more reflexive work psychology. Clearly, a number of work psychologists already actively work in this way, though it would seem their approaches are tacit and rarely reported in the esteemed journals of the field even though practitioners, researchers, and the clients/stakeholders on the receiving end, must have much to gain.

Implications

The aim of our analysis has been to examine some current epistemological debates and to focus on the implications of those debates for work psychology research. In doing this we have focused on positivism, neo-positivism, social constructivism and postmodernism. We are not suggesting here that an approach such as postmodernism is either the right or wrong way of conducting research, but rather that work psychologists need to be aware of the current debates and the impact they have on the discipline. In criticizing the overemphasis on positivism within work psychology research we have highlighted the attendant problems of epistemological conformity and lack of reflexivity. In particular we have called for more epistemological reflexivity within work psychology generally. Increasing epistemological reflexivity creates many choices for work psychologists, but with it comes a set of responsibilities. We now turn to the implications of our analysis for future research and practice.

The first key implication is that a decrease in epistemological conformity and increased use of alternative epistemological approaches can provide access to new and interesting types of research questions within work psychology research. If we look at the area of selection as an example, Herriot and Anderson (1997) suggest that there are a whole range of questions about the selection process that are rendered inaccessible by the positivist paradigm. However, some of those questions lay themselves open to investigation from a social constructivist approach for

example. A key issue from that perspective would be a focus on the processes of selection, as opposed to the validity of individual methods. Our research questions would be about how different individuals construe, make sense of, and experience the selection process. Rather than seeking to represent those constructions correctly from the perspective of a neutral observer, our emphasis would be on how individuals in their accounts draw on particular discourses to explain or legitimize their experiences of different selection techniques. Additionally, we could focus on the interactive nature of the process of selection and the relationship between the assessor and assessee. For example, a focus could be on how the notion of the 'ideal candidate' is produced and reproduced through the interview process. Other questions that alternative epistemological approaches could also address include impression management within the selection process by recruiters and candidates, and how the psychological contract is formed and developed by both parties through the selection experience (Herriot & Anderson, 1997). Therefore, exploration of different perspectives creates different ways of asking and investigating new work psychology questions.

A second related implication of considering alternatives to positivism is that the work psychology researcher can access a range of different insights into traditional work psychology questions. Symon (2000) demonstrates how alternative approaches to traditional positivism can augment the explanatory power of research in work psychology. She applied rhetorical analysis within a social constructivist framework to a case study of the implementation of a networked personal computer system in a public sector organization. In this study one of the foci was 'resistance' to change. This analysis enabled an illustration of 'how arguments against computerization were embedded in local and more global contexts, how opposition was legitimated and the role the construction of identity plays in this process' (Symon, 2000, p. 10). Therefore within the area of organizational change and development, Symon argues that this form of analysis enables researchers or interventionists to understand how different viewpoints are constructed and maintained, rather than just provide evidence that they exist. This therefore enables them to engage more effectively with a diversity of positions, thereby ultimately providing an in-depth analysis of the change process (Symon, 2000).

At the methodological level, throughout this paper we have argued that work psychology is currently dominated by a particular form of positivist epistemology, which encourages an exclusive focus upon deductive and often quantitative methodologies. However, challenging this orthodoxy could encourage a range of multi-methodological approaches to thrive. If we accept that no methodology can be epistemically superior to any other, that all are partial and fallible modes of engagement which simultaneously socially construct, and consequently, obstruct different renditions of reality, then methodological pluralism can be the norm. For those schooled in the positivist way of conducting research this means that the traditional quantitative notions of reliability and validity may not be appropriate for assessing the integrity of a piece of research. However, other sets of criteria can be applied. For example, with the increased use of qualitative methods in the social sciences generally, a number of authors have derived appropriate criteria for assessing research using those techniques (e.g. Flick, 1998; Guba & Lincoln, 1989).

Nevertheless, a key reflexive criterion for all pieces of research is epistemological coherence, that is the extent to which the methods used are fitting, given the underlying epistemological assumptions.

In considering different epistemological approaches, the role of different interests comes to light. For example, postmodernists would be interested to consider how alternative ways of understanding what work psychology is about are created by a range of individuals and groups, including those who traditionally remain silent, such as those on the receiving end of work psychology interventions. Accessing those groups is not a new idea in work psychology research and practice. Indeed, some researchers have made this a deliberate part of their research strategies, particularly in intervention research (e.g. Fryer & Feather, 1994) or new paradigm research (Reason & Rowan, 1981). Reason and Rowan (1981) outline a variety of strategies that can lead to more participative or collaborative research, the collaborators being those traditionally excluded from the research process. In other areas where work psychologists intervene, for example in the design of new technology systems (Clegg *et al.*, 1996), tools have been designed that encourage those traditionally on the receiving end of organizational change programmes to become more actively involved in the planning and change process. In the alternative approaches to positivism we have outlined in this paper, the researched become an active group with an impact on the research process. Therefore, in the same way that epistemological reflexivity calls on the researcher to interrogate their own assumptions and their own impact on the research process, so account needs to be taken of the ways in which the researched actively create their own view of that process.

In conclusion, we have argued that work psychology as a discipline and the work psychology researcher need to be more epistemologically reflexive. We need to be aware of the range of choices that are available to researchers, and to confront and challenge one's own epistemological commitments in the light of possible challenges. Such reflexivity is important for the development of a mature research-based discipline. It emphasizes the need to think through methodological alternatives. The resulting more pluralist work psychology, with the wider set of questions it presents, enables us to cope theoretically and methodologically with the continuously changing subject matter of the discipline. The process of thinking about the assumptions that underlie a piece of research is not about academic navel gazing. Rather, it is about escaping from the ivory tower of epistemic privilege and producing more reflexive research that can address the ongoing challenges in the world of work.

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