

Pluralism and mixed methods - breaking out of the silo mentality

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A silo, in which systems are unable to operate with any other systems, is perhaps best epitomised within psychology by the notion of the 'paradigm wars' (Oakley, 1999). These arose out of the practices that saw quantitative research methods used separately from qualitative methods. At the height of the wars, users of each type of method went so far as to criticise the other approach, arguing that theirs was the most justifiable in the advancement of the understanding of human behaviour. With the outbreak of a 'fragile peace' (Bryman, 2006) some reconciliation between the users of both types of methods took place, and the rise of mixed methods research developed rapidly in psychology. From its origins as a research paradigm that combines one quantitative method with one qualitative method - in which the qualitative method was originally most often a secondary method used to triangulate or inform larger-scale more generalizable research - mixed methods research has now evolved to include the mixing of more than one method with others in multi method research (e.g. Brewer and Hunter, 1989) and the prioritising of qualitatively-oriented research questions in qualitatively-driven mixed methods research (e.g. Hesse-Biber, 2010; Mason, 2006). These methods have sought to place the research question back at the centre of psychological inquiry and avoid the research emphasis being placed on method (a process termed 'methodolatry' by Curt, 1984). With such developments questions about epistemological and ontological (in)coherence have been raised by researchers asking whether and how different views of knowledge and its acquisition can be combined. One response to these questions is found in the development of pluralistic approaches to research. Developing simultaneously in the UK and the USA (e.g. Frost et al, 2010; Johnson, 2014), forms of pluralism that include methodological pluralism (Frost, 2009), analytical pluralism (Barnes et al, 2014), interpretative pluralism (Coyle, 2010) and dialectical pluralism (Johnson, 2014) all adopt the view that human experience is multi-dimensional and multi-ontological, that its exploration can be better served by combining methods to address the research question in many ways, and that by embracing the differences that different paradigms bring the complexities of human experience and interaction can be better understood.

In this article we briefly consider the history of methods in psychology to consider how they led to a silo mentality. We will consider the ways in which mixed methods and pluralistic research address some of the concerns about epistemology and ontology and show how they offer a flexible and functional disciplined approach to research into human behaviour.

What is the meaning of science?

The growth and dominance of experimental methods to understand behaviour in psychology was embraced by behaviourists such as John B. Watson as a response to perceived limitations of introspection for scientific pursuit. The science of experience and culture was left behind as the focus of psychology centred on observable and measureable behaviour. This provided satisfying ways to place paradigms of epistemological assumptions about how valid scientific knowledge can be gathered, drawn largely from the natural sciences, at the fore of psychological research, giving it recognisable status and acceptance. The dominance of the scientific approach became the consensus amongst psychology researchers as the best way to understand human behaviour. A new

concept of science as applied to human behaviour was developed and adopted into the mainstream. However in time, and largely spearheaded by the advent of feminist critique of the underlying assumptions of reality (ontology) and the validity of scientific knowledge (epistemology), the beginnings of a scientific revolution took hold. The dissenting and marginalised voices began to be raised and led to the 'turn to language' in psychology.

The turn to language

It is well charted in qualitative methods textbooks (e.g. Willig, 2008; Smith, Harré & van Langenhove, 1995; Bannister, Burman, Parker et al., 1994) in psychology that the turn to language (or discourse) was a result of dissatisfaction with the experimental method and its limitations in understanding the breadth of human endeavours. The cognitive revolution had promised a move away from behaviour toward a more meaningful examination of the human subject. Jerome Bruner (1990) and others were disgruntled with the artificial intelligence and information processing models that came to dominate cognitive psychology; they were limited by their experimental methods and failed to ask the bigger questions about the nature of human experience. This prompted a shift toward the examination of language, our means of communication, the bedrock of our social existence.

In the US, this movement was led by a cry for 'new paradigm' research which was inspired by humanistics and phenomenology (e.g. Reason & Rowan, 1981; Giorgi, 1970). In the UK, critical psychology and discourse analysis took to the fore (e.g. Gough, McFadden & McDonald, 2013; Potter & Wetherell, 1987). The result was a call for psychological research *with* people (rather than subjecting them to tests and observing them) that might give voice to participants and improve their lot in the world. This emancipatory goal created a political agenda for research and represented a backlash against the 'us-them' divide that had become evident in experimental psychology; psychology was accused of ethnocentrism and critical psychologists demanded that the power imbalance between researcher and researched be broken down, or at least recognised for what it was (Stainton Rogers, 2003).

For psychology this meant taking a critical stance toward the study of human phenomena, building awareness of the researcher's role in constructing the data beyond 'experimenter effects', prioritising the participant's voice, and accepting the coexistence of multiple meanings attributed to the same event, state, or text (e.g. Shaw, 2010; Smith, 2008; Finlay & Gough, 2003). In brief, this meant the rejection of positivism and objectivism. Some researchers engaged with postmodernism, some with social constructionism, and others with humanistics, existentialism and phenomenology. For all it meant a focus on language.

Muddying the waters between principle and method

As a political movement the turn to language initiated a sea-change in the way research is conducted and participants treated. Funding bodies now expect to see how participants or service users will be involved in the development, running, evaluation and dissemination of research projects.

Furthermore, it is a requirement for any study involving human participants to be considered by an ethics committee (in the heyday of social psychology experiments, ethical issues were often bypassed or forgotten). An extension to this is the current focus on impact, which means researchers need to demonstrate the impact their work will have and how this will manifest in the everyday lives of people in the real world. These changes in the *principles* of research have gone beyond method and are far reaching. In some ways, they are the legacy of the turn to language.

The turn to language has also become synonymous with the growth of qualitative methods in psychology. The link is understandable because with the turn to language came a focus on quality over quantity, i.e. a focus on examining the meanings of textual data instead of the statistical analysis of numerical data. Using participants' own words followed the principle of working with them and giving them voice. However, what it has also done is to muddy the waters between a shift in principles and the use of (quantitative or qualitative) methods. The terms 'qualitative methods' and 'qualitative research' came to signify more than a type of data or method; indeed, as stated above, qualitative methods were sometimes referred to as 'new paradigm' research. The implication of this is that any research adopting an emancipatory or collaborative inquiry approach was expected to use qualitative methods in principle; ergo any study using qualitative methods was assumed to fall within this 'new paradigm' of research. While for a good many years this happened to be the case, the two were not fundamentally connected, nor were they mutually dependent. Nevertheless, the useful shorthand, 'qualitative psychology', has gained ground and is now in popular use.

Forming a more disciplined inquiry

Talking of paradigms and epistemology is too 'heavy' for most people but we would like you to bear with us while we attempt to demonstrate how (a) mixing up a type of data (qualitative) with a discipline (psychology) and (b) muddying the waters between principles (emancipation, giving voice) and methods (turn to language) has led to a fundamental misunderstanding in psychology, and thus of mixed methods.

If we go back to Kuhn's (1970) notion of scientific revolution, we note that it is the *paradigm* that dictates all subsequent research decisions. Prior to that, it is the research question. To aid the construction of this argument we will use Hiles' (2014) model of disciplined inquiry (Figure 1) recently published in the *QMIP Bulletin* special issue on mixed methods in psychology. *Disciplined inquiry* is the term given to research and for each box in turn (paradigm, strategy, method, analysis, and critical evaluation) researchers are asked to think about their research question and to determine answers that are appropriate to that question and that will create a coherent line of inquiry. The formulation of the research question is of paramount importance in any research project; decisions that follow should be guided by that question rather than an arguably arbitrary preference for quantitative or qualitative data. Indeed, as Hiles (2014) argued, focusing on the distinction between 'quantitative' and 'qualitative' research is a red herring; it is flawed logic. Putting such emphasis on the type of data misses the point that it is the *strategy* that is adopted – the logic of inquiry – that impacts on research design. Also note the direction of decision-making: the *paradigm* will guide the *strategy* taken; which will in turn denote which *methods* in the 'toolkit' are fit for purpose; and the data generated that will determine what method of *analysis* to use; and all of the above which will lead to particular decisions with regard to *critical evaluation*. The discipline within this model of inquiry is manifest in this directional flow of decisions. Following this model, the label, 'qualitative psychology' becomes illogical because it prioritises the type of data gathered and its method of analysis.

Mixed methods in psychology

The idea of mixed methods in psychology only became viable once qualitative methods of generating and analysing data had become more acceptable in psychology. Cynically we could

consider this as a 'validation' of qualitative methods by using them with quantitative methods. Combining methods within and across paradigms allowed research questions to be asked about how human beings talk and practise themselves into particular subject positions *and* what those positions might consist of. As the range of qualitative analysis techniques grew it soon became clear that the plurality of methods available within qualitative methodology could lead to a toolkit approach where the most appropriate methods are selected for the research question, such as is seen in the pragmatism approach. However, the significance of epistemological allegiance in psychology meant instead that researchers still opted for their preferred method, one that fitted with their worldview, and moved forward by always using that method. Consequently, some qualitative researchers in psychology became known for the method they use rather than their subject of interest.

Despite this, advocates for increasing qualitative outcome research (e.g. McLeod, 2005) argue that the use of qualitative inquiry encourages questioning and deconstruction of taken-for-granted concepts such as 'outcome' and 'change'. They suggest that instead of seeking evidence based on traditional natural scientific designs and concepts, qualitative research allows for creativity not possible in quantitative work alone (e.g. Mason, 2006) and so also allows for in-depth enhanced insight to human experience. This has led to an increased use of qualitative approaches alongside traditional quantitative approaches to bring multi-dimensional research strategies to research questions of lived experience and individual realities (e.g. Bryman, 2007). It has also led to the emergence of pluralistic approaches. These allow not only for the mixing across paradigms but also within them.

Pluralism

In its simplest terms pluralism denotes diversity. This may be a diversity of beliefs, practices, views or opinions of a phenomenon. When applied to the conduct of research, pluralism suggests the mixing of paradigms, data, and/or analysis techniques to promote engagement with diversity, to actively seek understanding across lines of difference and to enter into personal and methodological dialogue to promote and foster understanding of research inquiry and outcomes (Frost, 2011).

Combining analytical tools that emerge from different paradigms means ontological and epistemological assumptions brought to the data vary. Assumptions about the nature of reality and the knowledge being sought influences the type of research questions asked and informs the interrogation of the data. Thus pluralism recognizes the spectrum of paradigms within and across approaches, and it advocates their mixing in order to reduce the likelihood of reductionism of the data or the meanings within it, to bring different vantage points to the research. The range of methods available to researchers allows for visual, verbal, technological and observational datasets to be combined with each other and/or with measured statistical data. Pluralism in qualitative research considers the content and structure of qualitative data modalities, the language used and the role the researcher plays in the construction of these research artefacts and their interpretation. Data are transformed within a theoretical and intersubjective framework that results in the construction of personal and collective perspectives on lived experience and social worlds. 'Dialectical pluralism' (Johnson, 2014) actively seeks difference across positivist and interpretivist paradigms by explicitly incorporating stakeholders' and researchers' epistemological and social/political values to guide the research. It aims to combine important ideas from competing paradigms and multiple values into a new socially agreed upon whole. (Johnson, 2014). Both

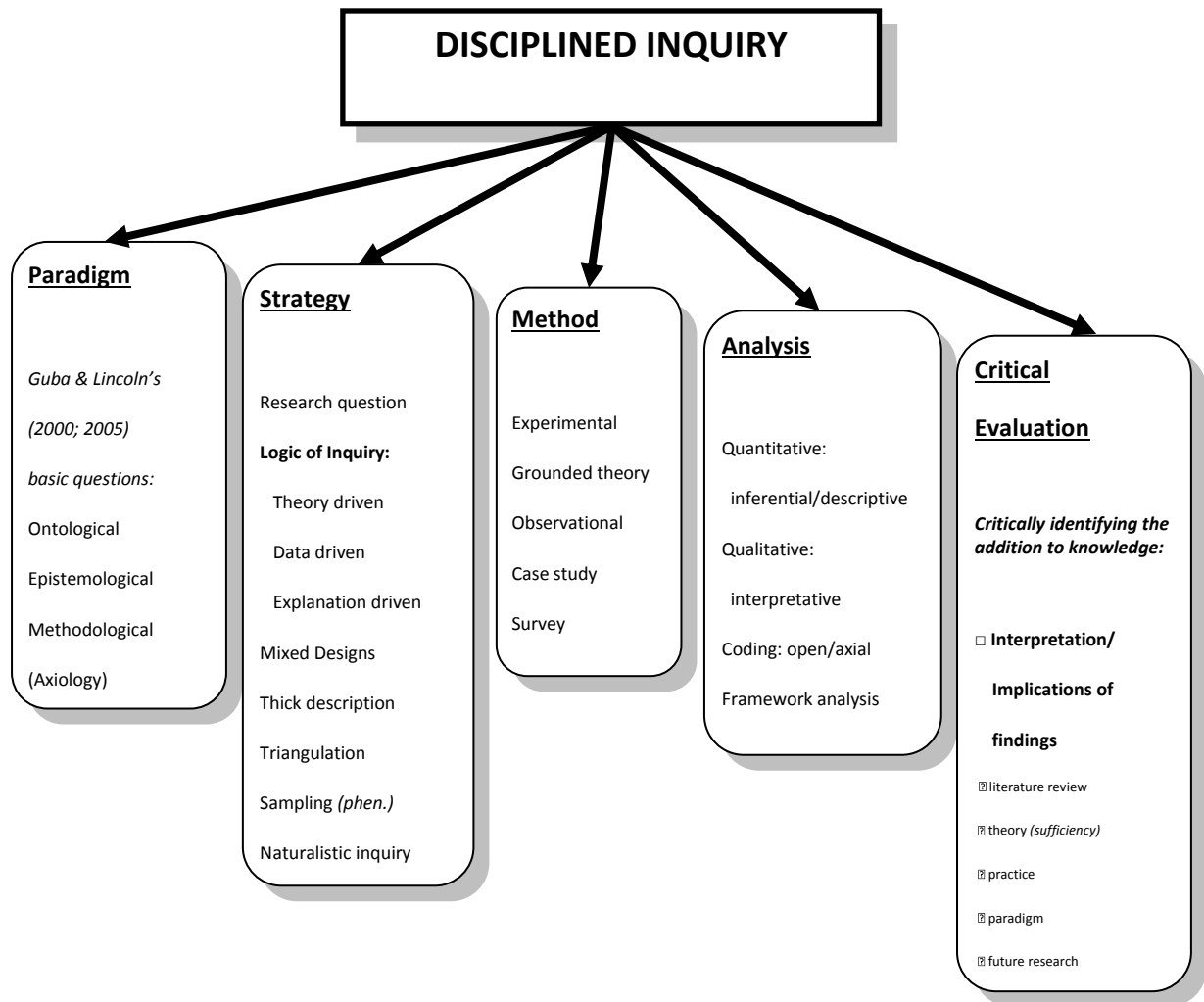
qualitative and dialectical mixed methods, pluralistic approaches seek out multiple perspectives and to engage with difference. By considering how each method works alone and with other methods, pluralistic approaches set up dialogue across methods rather than putting barriers between them.

Concluding remarks

Moving beyond the silo mentality of qualitative vs quantitative methods prompts psychologists to work across difference and to work with diversity, in the recognition that human experience is not confined to one way of seeing, understanding and making sense of the world. Mixed methods research goes some way towards this by offering ways to design research that are both nomothetic and idiographic. Pluralistic research offers the opportunity to gain more holistic in depth insight by bringing a range of perspectives, each of which are valued in relation to the research question.

It is important however to recognise the tension inherent in the desire to be open and inclusive to practice and methods whilst also needing to avoid an ill disciplined 'anything goes' approach. Clear theoretical foundations that link the selected methods to the focus of the inquiry are key. Ross (2012) suggests developing a pluralism of pluralisms within the counselling field that will minimise the risk of closing down inclusivity. Perhaps mixed methods and pluralistic researchers can do the same and consider ways of holding together multiple accounts in theoretically consistent ways. Challenges to researchers include staying with the messiness of these approaches and resisting the urge to tidy up what is found into neat packages that present only some of what is experienced. This means developing confidence to present what is closer to the dynamism, chaos and untidiness of human life. Or to put it another way, to accept that "loose ends do not have to mean frayed ends" (Rodriguez, 2014) when striving to break out of the research silos of psychology.

Figure 1: Disciplined inquiry



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