

## Paradigms Ways of Knowing or Ways of Coming to Know

Trevor Owens, Mixed Methods, First Memo, Oct 9<sup>th</sup> 2012

Are social science research paradigms incompatible worldviews? Or, are paradigms simply different mental models or intellectual traditions that researchers can juxtapose to refine our knowledge of the social world? This question lays at the heart of debate in the social science discussion of mixed methods research. In this memo, I briefly articulate my approach to paradigms in social science research, explain how I see my approach fitting into Green's discussion of paradigms, and articulate the implications of my perspective for mixing methods.

### Ontology and Epistemology in Social Science Research

My most basic assumption is that social science is (in the most basic sense) empirical. 😊 Our knowledge comes to us, and is evaluated by us, through reasoning from experience of the world acquired through our senses. Dewey's work, in particular *Experience and Nature*, has been instrumental in developing this perspective. I use empirical in a rather broad sense here, I would include our access and experience of our own internal mental states as part of that base level experience. OK. Our access to our thoughts and feelings is itself a critical part of the set of information and evidence that we build our understanding of the social world from. My central assumption is that knowledge of the world is tested and vetted by its ability to explaining our aggregate experience of the world.

Formatted: Font color: Black

I find this grounding in experience to be helpful in working up to a coherent ontological and epistemological perspective for social science research. Ontologically, I see no difficulty in accepting the reality of both the natural and the social world. As a clarification, symbolic interactionist perspectives and Bruno Latour's approach to Actor Network Theory both do a nice job explaining how things like culture and social forces exist as emergent properties of individuals' internal mental states. That is, culture and society are the emergent result of very real and material things inside our heads. I'm not sure what you mean by "emergent"; I would say that culture simply is the system of mental phenomena that exists in a social group. ("Mental" in Putnam's sense.) In short, experience suggests the coherence of the natural and physical world. The trouble comes in when we get to figuring out how we know what we know about the world.

When it comes to epistemology, things get a bit tricky. This is generally framed as "how is it that we know something". Part of the problem with discussion of this as *ways of knowing* is that they aren't really different ways of knowing. I think it is more that there are different *ways of coming to know*. That is, we know things when we justify our beliefs in evidence and are capable of defending those beliefs against opposing arguments. In this sense, there is really only one way of knowing. In a very broad sense of "way of knowing." With that said, how we come to know is a much more divergent thing. I think it is much better to think of research methods and their intellectual traditions as creative frameworks (or as Maxwell suggests, as toolkits) for idea and theory generation than as distinct and incompatible ways of knowing. OK. In this perspective, various paradigms lay out different pathways for exploration and theory generation. However, the successful results of those explorations are always mixed back into a growing general body of

knowledge which scholars have been refining over time through a much more singular process of argumentation, justification and refutation.

### **What does this suggest for mixed methods research?**

I wholeheartedly agree with Greene that the tensions between different intellectual traditions that exist in different methods provide “the generative potential of mixed methods inquiry” (27). With that said, I do so from the perspective of a realist and a materialist. Green’s idea of these paradigms as mental models fits quite well with my ways of thinking. We would both agree that paradigms are not inescapable frameworks for understanding the world but are instead ways of thinking about the world that prompt one to ask questions in a particular way and shape what you are and aren’t willing to consider compelling evidence.

With this said, I would disagree with Greene’s support for “alternate philosophical ways of knowing or kinds of knowledge” in which she includes “hermeneutic dialogic understanding or critical race theory critique” (23). I can see the clear value of the generative nature of these modes of thinking. I see the value in putting a critical race theory hat on to think through a particular problem. However, these are not alternate ways of knowing, they are alternate ways of coming to know. I’m not sure this distinction leads to a valid critique of Greene’s statement. What you mean by “way of coming to know” is, I think, what Greene (and many others) mean by “way of knowing.” What’s problematic to me about Greene’s position is that she tends to treat “ways of knowing” as singular wholes, rather than as sets of ideas and practices that can be disaggregated. You can generate theory and ideas through any number of means but it is or isn’t knowledge based on how well it holds up as an argument grounded in evidence. But what counts as “evidence” is influenced by one’s assumptions about ontology and epistemology.

I think Hammersley is largely right in suggesting that most of the ways of differentiating qualitative and quantitative research are trite. So far, I have found Freedman’s reporting on Snow’s research on cholera and Minta et al’s study of Badger and Coyote behavior to be some of the most compelling examples of mixed methods research. 😊 While Snow did quantitative research, effectively finding a kind of comparative set of circumstances to experimentally test an idea he did so through careful identification of parallel cases. In the case of Minta’s piece, I found it compelling that the paper freely moves back and forth between discussion of statistical comparisons and observational details. This gets at the key elements of the different modes of thinking. Quantitative methods are very helpful as a distancing activity that can help explore aggregate trends where qualitative approaches are more intimately connected with observations of the particular. They can each serve as generative tools for creating new ideas and theories and can both serve to provide evidence that can refute existing ideas and theories. There isn’t anything problematic about combining these approaches, or juxtaposing them, they just focus attention in different ways. OK.

Existing research method traditions have developed some comprehensive ways of defining their explanatory power and for establishing their validity. The biggest trick to mixing methodological traditions is making sure that you are actually getting the thing about that method that is particularly useful for. For example, the experimental logic component of most quantitative research approaches is only available when working with

Formatted: Font color: Black

specific numbers of observations. [Single subject research?](#) It is easy to fall into the trap of taking some given's for granted from one line of thinking when you move to another. For example, Goldenberg, Gallimore and Reese's decision to randomly choose 5 students to conduct case studies of (32). While randomness provides considerable value for studies that involve an N greater than 30, it is fundamentally problematic for smaller sets of numbers. Where those who primarily do qualitative research might have known to chose a set of criteria to purposely sample for diversity that would be particularly relevant for understanding the given phenomena, the default value of randomness from quantitative statistical techniques likely pushed these researchers to make a research design decision that may have substantively compromised the validity of the claims they can make based on their case studies. [Nice point.](#)

Importantly, this validity problem is not the result of incompatible worldviews, but instead the result of a single coherent set of threats to the validity of particular kinds of claims based on particular kinds of evidence. It is not that mixing methods introduces new validity threats, it is just that it requires one to not simply apply a set of methods as steps in a procedure toward the production of knowledge like a recipe, but to instead mobilize a substantive understanding of what it is that makes a particular claim based on particular kinds of evidence valid. [OK, but what counts as a "threat" is also shaped by ontological and epistemological assumptions. I should have made more of a case for this in chapter 8 in my Realist Approach book.](#)

[Trevor:](#)

[Nice work on this. I don't really have anything to add to my comments above.](#)

[Grade: A](#)