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ABHANDLUNGEN

Understanding the philosophical positions of classical and neopragmatists for mixed methods research

R. Burke Johnson · Cornelis de Waal · Tres Stefurak · David L. Hildebrand

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Abstract Pragmatism is the most popular philosophy/paradigm in the international field of mixed methods research (MMR). This article therefore introduces, describes, and contrasts the philosophies of the most well known pragmatists, including the three most important classical pragmatists (Charles Sanders Peirce, William James and John Dewey) and two neopragmatists (Richard Rorty and Susan Haack). It is shown that Rorty and James fit well with *qualitatively* driven MMR (i. e., MMR where the qualitative component of the study is primary); Peirce fits well with *quantitatively* driven MMR (i. e., MMR where the quantitative component is primary); and Dewey fits well with MMR that attempts to treat qualitative and quantitative research/philosophy equally (i. e., *equal-status* mixed methods research). Importantly, it is shown here that pragmatism offers a way out of many philosophy of science quagmires facing social researchers and it offers a promising philosophy for mixed methods research practice.

R. B. Johnson (✉) · T. Stefurak
College of Education, UCOM 3700, University of South Alabama
Mobile, AL 36688-0002, USA
E-Mail: bjohnson@southalabama.edu

T. Stefurak
E-Mail: jstefurak@southalabama.edu

C. de Waal
IUPUI – IU School of Liberal Arts
Cavanaugh Hall 331–425 University Blvd, Indianapolis, IN 46202, USA
E-Mail: cdwaal@iupui.edu

D. L. Hildebrand
Department of Philosophy, Box 179, University of CO Denver
Denver, CO 173364, USA
E-Mail: david.hildebrand@ucdenver.edu

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Das Verständnis der philosophischen Positionen der klassischen und Neo-Pragmatiker für gemischte Methoden-Forschung

Zusammenfassung Die philosophische Strömung des Pragmatismus ist der in der Mixed-Methods-Bewegung zur Zeit populärste wissenschaftstheoretische Ansatz, der bei Bedarf mit anderen wissenschaftsphilosophischen Paradigmen kombiniert werden kann. Innerhalb des Pragmatismus lassen sich verschiedene wissenschaftstheoretische Positionen identifizieren, die sich jeweils unterschiedlich gut für unterschiedliche Varianten der Mixed-Methods-Forschung eignen. Der Beitrag diskutiert und kontrastiert daher die wissenschaftstheoretischen Positionen (vor allem in Bezug auf Mixed Methods) von drei klassischen Pragmatisten (Charles Sanders Peirce, William James und John Dewey) sowie zwei Neo-Pragmatisten (Richard Rorty und Susan Haack). Die Arbeiten von Rorty und James bieten in besonderem Maße Anknüpfungspunkte für Mixed-Methods-Forschung, die von der qualitativen Perspektive getrieben wird; Peirces Überlegungen für Mixed-Methods-Forschung, die von der quantitativen Perspektive getrieben wird; und Deweys und Haacks Arbeiten für Mixed-Methods-Forschung, bei der qualitative und quantitative Methoden die gleiche Bedeutung haben („equal-status mixed methods research"). Der Beitrag zeigt, dass der philosophische Pragmatismus Auswege aus jenem Dickicht wissenschaftstheoretischer Widersprüche bieten kann, vor dem viele empirische Forschende stehen, und damit eine vielversprechende wissenschaftstheoretische Basis für Mixed-Methods-Forschung bietet.

Schlüsselwörter Methoden der empirischen Sozialforschung · Mixed Methods · Wissenschaftstheorie · Pragmatismus · William James · Charles Sanders Peirce · John Dewey · Richard Rorty · Susan Haack

1 Introduction

Pragmatism is a philosophy founded by the American philosophers Charles Sanders Peirce and William James in the late 19th century (Menand 2001). It is viewed by many mixed methods researchers in the United States as the most useful and leading philosophical paradigm for mixed methods research (e. g., Creswell and Plano Clark 2011; Johnson and Onwuegbuzie 2004; Morgan 2014; Teddlie and Tashakkori 2009; Yardley and Bishop 2008). Pragmatism fits mixed methods research (MMR) well because it helps solve the problem of dualisms and it is able to contend with the divergent arguments of qualitative and quantitative philosophy of social science and produce workable solutions that are agreeable to all sides of the debate.

The purpose of this article is to explain that in American philosophy, there are multiple pragmatists available for consideration. Importantly, some pragmatists fit better with *quantitatively driven* MMR; some fit better with *qualitatively driven*

MMR; and some fit better with *equal-status* MMR, where the researcher's goal is to give equal emphasis to quantitative and qualitative research philosophies and approaches (Johnson et al. 2007). This is explained below. The second purpose of this article is to show how the different pragmatists would address two of the philosophical quagmires that underlie the paradigm debates between quantitative and qualitative research, and provide pragmatic solutions.

2 Charles Sanders Peirce (1839–1914)

Pragmatism originated in the early 1870s as a philosophical method for solving problems, maintaining that the first task in any inquiry, philosophical or otherwise, is to get clear on the conceptions that are being used, and it provided the following rule for doing so, which was later called the pragmatic maxim:

> "Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object" (Peirce 2014, p. 90).

This maxim originated with Charles S. Peirce in the second of six papers on philosophy of science published in "Popular Science Monthly" (Peirce 2014, p. 79 ff). For Peirce, research always starts from the actual situation we find ourselves in, and it is necessarily a *social* affair with each researcher, or group of researchers, bringing in their personal experiences, aptitudes, prejudices, skills, beliefs, doubts, affinities, passions, etc. It is, moreover, an activity that proceeds from the regulative hope that each well-formulated question can be answered, which (and here Peirce's pragmatism comes in) means that if the question were to be inquired into long enough by a sufficiently large community of inquirers, that answer would be eventually reached. "It is unphilosophical to suppose", Peirce writes, "that, with regard to any given question (which has any clear meaning), investigation would not bring forth a solution of it, if it were carried far enough" (Peirce 2014, p. 99).

The key to Peirce's pragmatism is that the meaning of any concept is confined to what might conceivably influence rational conduct, which means that what cannot possibly be known cannot possibly have any meaning – and ipso facto cannot be an object of research – so that what can be known can be known completely, at least in principle. Peirce's emphasis on community is crucial, as key to the whole endeavour is that during the process of inquiry the idiosyncrasies of individual researchers, or groups of researchers, are filtered out. The answer thus reached would also be the truth and its object real.

For Peirce, science is a communal affair with multiple inroads to the destination of truth. Which road one prefers depends not only on one's point of departure, but also on one's personal idiosyncrasies or those of the community wherein one finds oneself. Peirce was keenly aware that though it might happen that different researchers working on the same problem go through the very same steps before reaching their final and identical conclusion, this is not how it usually works. For example, the rotation of the earth has been independently established from evidence as widely diverse as the movement of the heavens, the aberration of light, or the

way in which a swinging pendulum would turn round and change its direction of oscillation (Peirce 1986, p. 55). Peirce's belief in singular truths (at the end of inquiry) stands in sharp contrast to the qualitative research and constructivist emphasis on multiple truths.

In line with this, Peirce rejected the Cartesian notion of reasoning. Descartes had compared scientific arguments to chains that connect conclusions with an indubitable foundation in which each link is forged separately on the anvil of clearness and distinctness. In response, Peirce harkened back to the multifarious arguments of the Middle Ages, likening scientific arguments rather to ropes. Though taken by itself, each of the strands is weak when twisted together they form a sturdy rope (Peirce 1992, p. 29). As opposed to Descartes' chain, which becomes useless when one of its links breaks, a rope remains virtually unaffected, should one or even several of its strands snap. The rope analogy fits MMR well in the sense that MMR relies on multiple methods and approaches. It also fits the purpose of mixing, known as triangulation, where the hope is that the results from the different methods will converge (Mathison 1988).

A few more remarks should be made about Peirce's idea of scientific research. First, there is no guarantee that research will make continuous and gradual progression – it can run for generations in a wrong direction. Second, there is no guarantee that an answer to our question is actually reached. There are countless reasons why research is either prematurely aborted or never comes off the ground. This is also not what is at issue. What is at issue is rather that to engage in scientific research means that one is asking questions that one believes can be answered *were inquiry into them to proceed unfettered and indefinitely long*. What we can say, though, is that in numberless instances we have already reached the end of inquiry, as without a significant stock of true beliefs we could not survive. However, and here is the rub, in none of these cases would we be capable of telling for certain that we have indeed reached the end of inquiry. This is Peirce's *fallibilism*: we can be sure that many of our beliefs are true without being able to say this for any single one of them.

The above considerations caused Peirce to reject the then prevailing definition of science as systematized knowledge. In fact, Peirce held that science should not be defined in terms of knowledge at all, albeit systematized or not. What sets science apart is not that its conclusions are true, but how these conclusions are reached – what methods are used. These methods, however, are not imposed onto science from on high but, as the history of science amply testifies, are very decidedly products of scientific inquiry. For Peirce, science itself thus determines what counts as acceptable inference, and it does so, as it where, on the fly.

Now, since the methods used within science are also themselves conclusions of science (a scientific method is *itself* a scientific accomplishment), and since Peirce rejected the idea of defining science in terms of its conclusions, he would not define science in terms of its methods either, let alone define it, as some have done, in terms of a universal 'fits all' scientific method. Instead, what makes research scientific, for Peirce, is the intention or attitude with which it is engaged in. Research counts as scientific when it is engaged in with a desire to have one's questions answered without any preconceived notion of what the answer should be. When one does

that, the methods needed to answer those questions emerge on the way. This fits the call within MMR for methods to be flexible and to follow from one's research question(s). Hence, for Peirce, it is a normative not a methodological constraint that demarcates science from non-science. It is a commitment to certain values. It is the acknowledgment that one must be interested solely in answering the questions that one is asking, no matter what the answers may be or bring, rather than losing oneself in a myriad of other motives that one may bring to the research table, such as trying to appease grant agencies, saving face, gaining fame, or seeking to confirm what one already believes to be true. In this context to block the way of inquiry, imposing constraints upon it, becomes a grave offence.

Where does this leave us with respect to MMR? As Peirce passed away well before the methods war engulfed the social sciences, he preceded the sharp distinction drawn between quantitative and qualitative methods and the subsequent perceived need to mix the two. However, it is clear that the Peircean approach to science is certainly hospitable to a MMR methodology, especially a quantitatively driven style of MMR that emphasizes slowly working toward general truths (Johnson et al. 2007), and his philosophy may provide some important tools to solidify this position for mixed methods researchers taking this perspective.

As we saw, key to Peirce's notion of science is that whenever we pose a question we do so from a position in which we are already situated and to which we bring our past experiences, our aptitudes, our prejudices, what we have been taught, etc. There is no such thing as a clean slate. The best way then to proceed is to maximize the various ways in which the question can be approached under the shared assumption that the only thing that matters is that we answer the question, and that in doing so, methods for solving the question develop. To do otherwise, and say that certain methods should not be used because they are not ours, or to one-sidedly favor either quantitative or qualitative approaches, would be to block the way of inquiry, and is thereby unscientific.

3 William James (1842–1910)

Williams James knew Charles Sanders Peirce as they both were members of what they called The Metaphysical Club, which is where they invented the philosophy/method of 'pragmatism' (Menand 2001). James was one of the founding members of both American psychology and its school of functionalism and became the leading proponent of the philosophical school of pragmatism.

3.1 Metaphysics/ontology

3.1.1 Radical empiricism and pure experience

For James, the nature of being was founded upon the realm of 'pure experience' and from this he developed his concept of radical empiricism. James viewed existence and the purview of philosophy as consisting only of that which drew from subjective experience. James wrote of pure experience as consisting of both mental

and material manifestations. He described pure experience as the sensory information immediately presented and that has not yet been made into anything particular 'thing' by the experiencer. What a given unit of pure experience will be is a function of the network of mental relations they sit within. There are strong cognitive and social constructivist tendencies in James' theory.

James was a radical empiricist; that is, reality is in our ongoing experiences of our world. Radical empiricism is a pluralistic alternative to any view that sets forth a monistic or absolutist conception of reality. Examples of philosophers who found themselves the subject of James's pluralistic critique include F.H. Bradley of the British Idealism school and Hegel of the German Idealism school. An implication of this concept is that reality is expansive and that it may never be fully experienced by a single observer. Reality is always on the move, always shifting as argued by Heraclitus, so whatever we experience of reality is merely a fleeting component. A radical empiricist approach to reality stipulates that while we can only ever access an incomplete 'slice' of reality, each slice contains within it a connection to the whole of reality. James did not need transcendental absolutes to trust experience; he recommended we trust experience *as it is*. James' emphasis on experience fits nicely with the emphasis in qualitatively driven MMR of incorporating the meanings of subjective experiences.

3.1.2 Pluralism and indeterminism

James went through a crisis in his young adulthood in which he struggled with believing in a determined universe without choice. His conclusion became that he was free, and that his first act of free will would be to believe in free will. He believed that individual acts of will could make a difference in a causal and deterministic universe. James viewed choice as following a two-stage process beginning with a set of alternative possibilities generated by chance. James viewed this initial state as multiple possibilities/ideas that 'present themselves' to us. A choice is then made and only one of those possibilities becomes reality, entailing the opportunity to change the course of things. The destination of the vessel is not predetermined. In James' pluralistic universe our choices matter. James believed in the real prospect of 'novelty' in the world and in a form of indeterminism, that is, a universe that includes determinism *and* chance *and* free will. This fits well with MMR's focus on joining important concepts using a both/and logic rather than an either/or logic.

3.2 Epistemology: James' Pragmatism

In James' day he saw two types of epistemologies at work: (a) the tough-minded empiricist and (b) the tender-minded rationalist (James 1995 [1907]). The tender-minded impulse toward rationalism, intellectualism, idealism, monism, final/ultimate/universal truth and dogmatism, were all things that were thoroughly rejected by James. The tough-minded empiricist as operationalized by James was to build truth firmly rooted in empirical facts, and usually objective facts. James' pragmatism is, in part, an attempt to transcend and integrate these polarities. He put forth an empirical view of truth, but one that is open to both subjective and objec-

tive facts. James' pragmatism provides for thought that is empirically grounded but open to a variety of ideas, even absolute ones (e. g., Hegel's concept of the *absolute spirit*), to the degree they produce 'goods' in action. James' pragmatism integrates and destroys the dichotomy of rationalism and empiricism, again using a form of 'both/and' logic. Absolutes and grand rationalistic theories are among things experienced by human beings and potentially yield good consequences. James' openness to subjective truth will be especially popular with qualitatively driven MMR.

The method James advocated to determine truth relied upon the following foundations: (a) phenomenology (radical empiricism), (b) pragmatism-ideas are true when they 'work'. In contrast to Peirce, James was a nominalist: James was concerned with the effect beliefs have on particular experiences of the individual, whereas Peirce was more concerned with the degree to which beliefs give rise to the establishment of habits and help us approach awareness of some fixed truth by bringing us better clarity of thought about some objective external object. James' pragmatism does not restrict itself to statements about real external objects and the consequences of those objects.

James was interested in the particulars, the idiosyncratic rather than the abstract or dogmatic. In contrast to Peirce, who believed that systematic investigation could lead us to truths that existed independent of the thinker, James viewed truth as relative to the thinker presaging postmodern philosophy's valuing of a constructed reality mediated by language. James at times seems unconcerned about establishing whether an independent reality exists at all, and focuses more on beliefs people hold and what actions those beliefs give rise to. Something becomes true by being enacted, and he is less concerned with the degree to which a given belief corresponds to a real external reality. James' proto postmodern tendencies should be popular with some qualitatively driven mixed methods researchers.

James argued that there are three levels of 'reality' and 'true' ideas must be able to find correspondence in this reality and produce new fruitful results. James' concept of 'reality' consists of (a) matters of fact, (b) how ideas relate to one another and (c) the set of broader ideas to which we are already committed. Ideas are most likely to produce useful consequences to the degree they correspond with one or more of these levels of reality. He did not view matters of fact as true in an absolute sense either. All of these levels of reality are malleable and changing over time.

If ideas do not find purchase in the minds of human beings, and those ideas don't give rise to adaptive action, then they are not 'true' in the Jamesian sense of truth. In making this stance, James was not saying that we should believe whatever makes us momentarily happy, but rather beliefs are worthy when they correspond with experience, i. e. beliefs are satisfying when they are built on experience; but beliefs also can be satisfying to the believer regardless of whether a belief finds purchase in experience. A reading of James closely reveals that beliefs that do not correspond with some aspect of experience are not likely to be adaptive very long even if they feel satisfying to hold. James was concerned that the truths we hold are likely more true and more pragmatically useful when they have some correspondence with our experiences.

3.3 Inquiry methods

James is credited as one of the founders of American functionalism in the field of psychology. Functionalism in its mandate to determine the adaptive purpose of each phenomenon, rather than just the structure undergirding it, requires an expansion of research methods and a movement toward applied psychological research: James' research paradigm, functionalism and his epistemology, pragmatism, both later beget what would become the first potentially unifying forces in psychology – behaviorism and logical positivism. However, James in his own career of inquiry was undoubtedly a qualitative and phenomenological empiricist, who would never be accepted in the world of psychological research methods that functionalism gave way to in the latter half of the 20th century in psychology. Marchel and Owens (2007) offer multiple examples from James' writings that make clear his commitment to what would be viewed in the present day as a qualitative research paradigm.

Since James' era, his own field has tilted strongly toward objectivist, quantitative, replicable and controlled research. The field at large rarely views human behavior as socially constructed or human psychological reality as constructed via language – a constructivist epistemology. These appear to be hallmarks of James' thinking about what psychology should study. However, as Marchel and Owens (2007) concluded based on their analysis of publishing trends in psychology, James would have a small number of outlets to publish his research in psychology today; he would have to justify his methods and assumptions in each article he published. They recommend to their profession's progenitor that one of the strategies he should use in the present day to get published is to use MMR. We add that qualitatively driven mixed research would fit well with James' thinking. More generally, we suspect that, with regard to pluralism (paradigmatic, methodological and practical), James would be happy with a truly pluralistic, participatory, interactive and multi-paradigmatic version of MMR (Frost and Nolas 2011; Howard 1983; Johnson 2016; Johnson and Onwuegbuzie 2004; Kroos 2011; Slife and Gantt 1999; Wiggins 2009).

4 John Dewey (1859–1952)

Dewey extended Peirce's pragmatic method and James' radical empiricism (and approach to experience) by application to social and political problems. His philosophical influence was rivaled by his profound impact upon education's practical and theoretical models. Dewey's legacy is similarly secure in fields such as psychology, political science and aesthetics, and his philosophy works exceptionally well in interdisciplinary situations (Hildebrand 2008). Dewey spent most of his life trying to bridge the supposedly uncrossable chasms which separated common sense from science, and in his masterwork "Logic: The Theory of Inquiry" 1938/1986 (as well as in shorter works such as "How We Think" 1910/1982) Dewey sought to explain how and why the thinking of scientists and everyday people were based on the generic patterns present in all spheres of daily life: *problem→ inquiry→ experiment→solution*.

Dewey is an intellectual father of mixed methods action research, which also attempts to help everyone become a problem-solving researcher. The presence of such generic patterns of inquiry across human experience made it clear to Dewey that the typical opposition between 'quantitative' and 'qualitative' approaches to problem-solving were obstacles to finding solutions; indeed, the continuities between types of inquiry (continuities upon which Dewey insists) provides a basic and important philosophical justification for MMR.

Taught by pragmatist Charles S. Peirce, Hegelian George Sylvester Morris and experimental psychologist George Stanley Hall, Dewey wrote a dissertation critical of Immanuel Kant's psychology. Dewey's exposure to both experimental psychological methods and Hegel's dialectical idealism had major impacts on him, and motivated his long career to reconstruct divisions and dualisms wherever he found them. Examples of such dualisms include those between theory and practice, quantity and quality, experience and nature, mind and body, commonsense and science and reason and emotion. All of these concepts were important, Dewey argued, but their differences had become reified by philosophy's tendency to erect categories while neglecting both human concerns and human context. For Dewey, historical and cultural factors were not extraneous, but rather essential to any intellectual proposal. He believed that focusing layman and scholar alike on the indispensability of the *specific* problems motivating *any* inquiry could help cure the widespread addiction to dualistic obstacles, inside and outside of philosophy. As such, Dewey is clearly important for equal-status MMR where multiple dualisms are systematically and dynamically bridged (Johnson 2016).

While Dewey is well known as a 'Pragmatist', it is worth noting that Dewey did not care much for this term. He preferred labeling his approach as 'instrumentalism', 'experimentalism', 'radical empiricism', 'humanism', 'naturalism', and late in life, 'operationalism'. He had, we think, no special animus toward the word 'pragmatism', but he was concerned not to deflect attention from what really mattered, namely, that it is the experimental *consequences* (broadly considered) in 'inquiry' which establish the meanings of propositions, concepts, or terms and set the ground rules for action in the world. Again, this is true *regardless* of the kind of inquiry at work (scientific, philosophic, or practical) because every inquiry is necessarily engaged in from *some* historied and normative perspective in order to pursue particular purposes or ideals. 'Success' in inquiry depends on whether and how well it works. For this reason, Dewey thought his pragmatism (or whatever else we might call it) was a philosophy that "takes its stand with daily life" (Dewey 1978 [1910], p. 39) and remains committed to the "actual crises of life" (Dewey 1978 [1910], p. 43).

4.1 Reality and experience

Although most people passingly familiar with Dewey's views recognize that he thought 'knowledge should be useful', many do not connect this practical (even moral) point with Dewey's actual conceptions of knowledge and reality (the world we are trying to know). To live in the world, Dewey thought, is to have 'experience' in the ordinary senses of that word: sense experience, experiences of love and adventure, job experience, life experience, etc. As we go about the business of

living, experience does not reveal to us the philosophers' radical and categorical separations between (what is typically called) mind and world. Of course, we *do* have an interior dialogue, and we have sensations and events that we realize we have not created or initiated; but these facts about what it is like to be alive do not prove, for Dewey, that we stand somehow radically 'outside' of reality and are struggling to reach it. Rather, they give evidence for a dynamic struggle to maintain what we might call an ecological balance with our environment. Thus, at the risk of over-simplifying, Dewey saw knowledge as the result of this struggle, a result encoded in symbolic forms such as words, pictures and routine habits of action. Knowledge of past experience becomes relevant as it is selected and organized in anticipation of future events, and the value of knowledge increases as it exhibits a closer relationship to what particular inquirers (or communities of inquirers) value and seek to *make* happen.

The upshot is that because Dewey understood the nature and purpose of knowledge differently than his philosophical predecessors, his understanding of reality was also quite different. Rather than assume the oppositional model of appearance vs. reality (a two-tiered reality where humans struggle to *escape* appearance and doubt toward reality and certainty), Dewey embraced an essentially Darwinian view of organic reality: a world of growth and decay, sensation and movement, etc. In many ways, this is both the commonsense world of daily habits, surprises and adjustments as well as the scientific view of a world accessible to observation, measurement, experiment and prediction. What these approaches share in common is the presupposition that reality is accessible and practical. We can and do act upon 'reality' without the aid of magic spells or religious interventions.

4.2 Epistemology: inquiry, warrant and truth

Because Dewey saw reality and experience as continuous with one another (hence his magnum opus' title "Experience and Nature", 1981 [1925]), it is unsurprising to learn that epistemology for Dewey was best understood as the study of the various ways we come to know and cope with our environment. As Dewey put it in "Reconstruction in Philosophy" (1982 [1920]), experimental science enables human beings

> "to effect a deliberate control of his environment ...[and when] experience ceased to be empirical and became experimental, something of radical importance occurred ...Now, old experience is used to suggest aims and methods for developing a new and improved experience. Consequently experience becomes is so far constructively self-regulative". (Dewey 1982 [1920], pp. 133–134)

To know something is not to have an insight into something 'beyond' the world of probability and sensation – like an intuition of the Forms of Plato, for example – but rather to have a strategy and more importantly an *attitude* about how to more effectively behave in future circumstances. 'Intelligence', Dewey writes,

> "is not something possessed once and for all. It is in constant process of forming, and its retention requires constant alertness in observing consequences, an

open-minded will to learn and courage in re-adjustment" (Dewey 1982 [1920], p. 135).

Dewey's model of knowing is, then, more concerned with how we inquire and how we justify what we take to be reliable guides for future conduct – our 'knowledge'.

'Inquiry' is central to what might be called Dewey's 'epistemology'. In "Logic: The Theory of Inquiry" (1938), Dewey defined inquiry as "the directed or controlled transformation of an indeterminate situation into a determinately unified one" (Dewey 1986 [1938], p. 121). This technical way of putting it was a refinement of many earlier writings that detailed the processes and elements of problem-solving and active thinking. Dewey believed that when we examine how problem-solving actually happens, we find that a general pattern of inquiry prevails. In "Analysis of Reflective Thinking" (Chap. 7 of "How We Think" 1978*)* and the "Logic" (Dewey 1986 [1938]) Dewey described a five-phase pattern. In contravention of the traditional opposition between emotion and reason, Dewey claimed that inquiry begins with (1) a *feeling* that something is amiss. This unique feeling is characterized by a *particular* doubtfulness, a pervasive quality which helps direct subsequent inquiry-stages. Because what is initially manifest is not yet determinate, (2) a 'problem' must be formulated; in contrast to the usual framing, problems do not preexist inquiry. Next, (3) a hypothesis is formed, often using both perceptual facts and theoretical concepts. The purpose is the forecast of the likely consequences of experimental operations. Next, (4) in order to assess the hypothesis' central ideas more effectively, a conceptual review of the meanings involved occurs; this helps highlight overlooked conflicts and consequences which might require revision of the hypothesis or even the problem's formulation. Finally, (5) action is implemented, an evaluation and testing of the hypothesis which aims to expose whether the proposal has satisfactorily converted an indeterminate situation into a determinate situation. If so, the inquiry comes to a conclusion. This 'pattern', Dewey noted, is generic; in other words, it is intentionally schematic and not necessarily representative of all the details present in most actual inquiries. (Actual inquiries are typically not experienced with phases which are always *discrete* nor do they necessarily progress in straightforwardly sequential ways.) He also warned that this pattern did not depict how people *always* think but rather how they would think if their inquiry mimicked more effective examples of inquiry, such as those present in the empirical sciences.

4.3 Justification

Justification, in the context of inquiry as described by Dewey, does not aim to be absolute or eternal but rather usefully probable. This was the key insight into Dewey's reconstruction of epistemological ideas of the 'real' and the 'ideal' in knowing and formed the basis of his experimental or instrumental approach to knowing:

"When the practice of knowledge ...became experimental, knowing became preoccupied with changes and the test of knowledge became the ability to bring about certain changes. Knowing, for the experimental sciences, means a cer-

> tain kind of intelligently conducted doing; it ceases to be contemplative and becomes in a true sense practical ... The [real] ceases to be something ready-made and final ... [and the ideal and rational] represent intelligent thought-out possibilities of the existent world which may be used as methods for making over and improving it" (Dewey 1982 [1920], pp. 149–50).

These insights by Dewey was his attempt to make explicit in *epistemological* theory things that scientists were already practicing – such as the idea that "Knowing begins with specific observations that define the problem and ends with specific observations that test a hypothesis for its solution" or that the "genuine and objective standard for the goodness of special classifications" was the ability of a classification to facilitate rather than hamper an experimental test (Dewey 1982 [1920], p. 165). However standard these practices may have been in the sciences, Dewey thought that *philosophers* needed to understand and inform their *epistemological theories* with these lessons.

> "If knowing were habitually conceived of as active and operative, after the analogy of experiment guided by hypothesis, or of invention guided by the imagination of some possibility, it is not too much to say that the first effect would be to emancipate philosophy from all the epistemological puzzles which now perplex it" (Dewey 1982 [1920], p. 149).

4.4 Truth

On Dewey's model, the notion of truth also must change. In his mature writings, Dewey favored the (somewhat awkward) phrase 'warranted assertability' and avoided the term 'truth', largely because of its long entanglement with certainty and the two-tiered model of reality identified with the attainment of certainty. On occasion, Dewey offered critics compact accounts of what 'truth' came to for him. Viz.,

> "the 'truth' [of any present proposition] is, by the definition, subject to the outcome of continued inquiries; *its* 'truth', if the word must be used, is provisional; as *near* the truth as inquiry has as *yet* come, a matter determined *not* by a guess at some future belief but by the care and pains with which inquiry has conducted up to the present time" (Dewey 1988 [1939], pp. 56–57).

Dewey's preference for the phrase 'warranted assertability' allowed him to keep the focus upon the *process* of inquiry, the *act* of truth-making. When we say something is 'warranted' (or 'true') we are labeling what our inquiry has come up with in a *particular* situation, for *particular* purposes. Because new problems constantly emerge, our calling our solution 'warranted' reminds inquirers not to rest too much confidence on past solutions, but to remain ready for further inquiry and the revisions of knowledge that entails.

Where does this leave us with respect to MMR? One of the major strengths of Dewey's approach is his emphasis on dissolving dualisms by retaining what is useful in each pole and by leaving behind, especially, the universalistic aspirations

motivating and framing each side of the dualism. This can be applied to, for example, quantitative vs. qualitative research, one truth vs. multiple truths, etc. These dualisms are at the heart of the continuing paradigm and methods wars. Perhaps many mixed methods researchers view Dewey positively because they want to answer important research questions and 'solve' research and social problems – their primary purpose is to move from indeterminate situations to more determinate ones, rather than to provide a single, complete and certain answer. Cognizant of the fallibilistic and incremental history of scientific methods, mixed methods researchers are looking to continually *advance* knowledge and practice.

Many researchers will like Dewey's meliorism; that is, they see social problems in the world today and they want to improve the situations in the lives of millions (or billions) of humans that have limited power and influence in the world. Social values were deeply embedded in Dewey's approach to philosophy and theory; indeed, he saw the development of philosophy and theory as arising from the human need to secure and advance social values. For this reason, Dewey agreed with James that the measure of theoretical success was good-in-practice, all the while cautioning that what 'works' will often need to be explained with descriptions and predictions involving *particular* contexts. Many contemporary mixed methods researchers hope to obtain theories that work and obtain results that can be put to practical use – this is the long desired goal of integrating theory and practice, and producing practical theory. MMR is placed very well to aid in achievement of this goal of practical theory; Dewey's own works including "Methods in Philosophy and the Sciences" (Dewey 1990 [1937]), "Logic: The Theory of Inquiry" (1986), "The Public and its Problems" (1984 [1927]) and even the earlier "Democracy and Education" (1980 [1916]) serve as examples. Indeed, it might be argued that "Democracy and Education" was written precisely *as* a mixed methods attempt to take stock of both the quantitative and qualitative state of American education in order to diagnose and prescribe solutions to problems faced by growing children – and a growing democracy. Last, many mixed methods researchers will likely agree with Dewey that what we obtain in our research are temporary, provisional truths, always ready to be improved, rather than universal, timeless and final truths. The test of whether the truths are too temporary or provisional depends on the problematic situations which are specifically undergoing inquiry. In short, we suspect that Dewey's philosophy supports many mixed methods researchers' philosophical and social beliefs and goals.

5 Richard Rorty (1931–2007)

After Dewey, pragmatism went largely dormant, especially within the US where the political climate made it risky to engage in issues that could suggest social-political leanings that could be perceived as subversive (McCumber 2001). In this period, accentuated by McCarthyism, professional American philosophers retreated to technical problems in logic and similarly safe areas, and analytic philosophy became the reigning paradigm. Rorty grew up in this paradigm and, beginning with

his 1979 "Philosophy and the Mirror of Nature", became one of its most vocal critics, grasping back to pragmatism, especially Dewey.

In Rorty's view, the guiding ideal of the enlightenment was the idea that the world could be represented within a single rational framework to which all questions of justification were to be referred. This ideal presupposed that there is a way things really are, and that we can come to know this, in which case we have discovered the truth (in this view justice is defined in terms of truth). Leaving aside Rorty's reasons for rejecting this ideal, we focus on the view he developed in "Philosophy and the Mirror of Nature" (1979) and in "Contingency, Irony and Solidarity" (1989) a decade later.

Rorty rejected the enlightenment notions of truth, reality, reason, nature, etc., arguing that rather than trying to make our ideas correspond with how things truly are – an idea he found incoherent – we should seek out or devise ideas that foster human flourishing in the broadest sense. This should fit well with qualitatively driven MMR. To the criticism that deeper down his notions still presupposed an objective, enlightenment-style criterion, Rorty responded that just as biological species do not evolve to certain preordained goals, so here too no criterion can be established beforehand or independently of the ongoing process. This rejection of the traditional metaphysical and ethical ideals of the enlightenment also should fit well with some postmodern qualitatively driven mixed methods researchers. What we see here is a shift away from the timeless to the future, from a quest for certainty to a quest for hope, from a search for how things really are to a search for how they could be bettered. In short, the absence of eternal truths is faced not with despair, but with a renewed, emancipatory thrust. This is not to deny that there are constraints; Rorty acknowledged that we can only do what the world, so to speak, lets us get away with.

In part, Rorty's ability to carve out this position came from his ability to separate truth from justification. Rorty did not deny that there are things people take as truths, nor did he deny that many of our beliefs function because they are taken as true. But, importantly, he argued that there is no real connection between truth in any kind of absolute (or apart) sense and justification. Justification is audience-dependent, and pretty much any justification finds a receptive audience. This fits well with the constructivism of some qualitatively driven MMR. The most we can say is that being true and being justified is just something many beliefs have in common. On this view, saying that a belief or proposition is true is merely to give it a gratuitous 'pat on the back'; it does not add anything.

But which audiences are best to believe? If we face a choice, whose justification should convince us? Once the focus shifts to justification, with its audience-dependence, Rorty found it necessary to answer such questions with his notion of *ethnocentrism*. When confronted, say, with a culture that practices genital mutilation, all we have at our disposal is how we have justified our own beliefs, and all we can do is to try to make them see the practice the way we see it – a conversational process that may cause us to change our mind as well. There is no guarantee that any agreement will be reached (they may not even agree to listen), in which case the dispute may have to be resolved through different means (like, for instance, war). And in all of this there is no enlightenment-style Archimedean point that can func-

tion as the final arbiter or that can tell us that we are right and they are wrong. Still, Rorty was cautious to point out that the perspective from which he found himself issuing this theory was one of fallibilistic, experimental, tolerant liberalism. In short, while it comes from within an 'ethnos', this ethnos has the capacity to evolve and change in response to others.

Rorty's idea of ethnocentrism can be applied to research paradigms as well, as the justification of a methodology is equally audience dependent. In a very simplified way, what caused the methods war from a Rortyan perspective, is that proponents of quantitative methods have their peer group – people whom they believe are competent to judge their work – and proponents of qualitative methods have their own but different peer group. In each group, successes are made, but the other group either does not even read them, or if they are accepted as relevant rejects how they are justified. That is to say, for those steeped in quantitative methods, a worthy conclusion obtained by qualitative methods still needs quantitative verification to count as justified, and vice versa. From a Rortyan perspective, MMR is not a rational synthesis of the other two methods, but a third method that comes with its own peer group, and this third method cannot simply rely on reasoning when carving out its space, as moves are required that are not reasonable on the paradigms of the other two. For Rorty, the one that wins out is the one that succeeds better at giving us what we want, but here it is important to point out also that what we want is not peer-group neutral.

In sum, in many ways, Rorty might be considered the ideal pragmatist philosopher for a strongly qualitatively driven MMR. His views of truth as conversation and his fight for social justice should fit quite well with the critical/ideological/postmodern tendency seen in some qualitatively driven MMR.

6 Susan Haack (1945–)

Notwithstanding Rorty's liberal use of the phrase 'we pragmatists', many current philosophical pragmatists want nothing to do with him. A particularly vocal critic is Susan Haack who is deeply influenced by Peirce and vividly interested in the question what makes an inquiry good (see especially her 1998 "Manifesto of a Passionate Moderate" and her 2003 "Defending Science – Within Reason"). Haack began her career in the philosophy of logic before moving into epistemology and philosophy of science, and she subsequently moved into the philosophy of law, focusing on questions of evidence and scientific testimony.

Like Peirce, Haack focuses on the process of inquiry, arguing that when we inquire into a question we do it with the specific aim of getting that question answered. For instance, if we want to know whether smoking causes cancer, we want to end up believing that it does if it does and that it doesn't if it doesn't, and there is, to go back to Rorty, nothing ethnocentric about that. From Haack's point of view Rorty's mistake is to conflate how a *belief state* is formed with what warrants *its content*, and to pay attention only to the former. For instance, what *causes* someone to attain the *belief state* that creationism is true, is a product of the ideas that one has been exposed to (through one's family, the church one attends, the books one reads and

avoid reading, etc.). This must be distinguished from what *warrants* the belief. The latter is solely an issue of the *belief content*, meaning how it relates to other beliefs, where these beliefs are in no way restricted to only those that are actually held by the person in question. In this case, the belief is not warranted, because the overwhelming evidence of the natural sciences proves creationism unbelievable, and it is in effect the ignorance of that which makes the belief state possible. In brief, it is important to distinguish between how beliefs are formed and what warrants them. (Ironically, the same conflation is common among those whom Rorty criticizes, albeit that their focus is equally one-sidedly on the latter).

This conflation of how belief states are formed and what warrants their content Haack finds also within the philosophy of science. On the one side there are those whom she calls *old deferentialists*. Their one-sided focus on warrant makes them award science the highest epistemic status "because of its uniquely objective and rational method of inquiry" (Haack 1998, p. 90), and dismiss as irrelevant how such scientific beliefs are actually formed. On the other side, there are those whom she calls new *cynics*. Their equally one-sided emphasis on how beliefs are formed makes them identify science with the expression of power structures, reducing 'objectivity' and 'rationality' to ideological constructions designed to marginalize the perspectives of different groups, such as artists or religious thinkers.

In her work, Haack meticulously analyzes what takes place during the process of belief formation and what constitutes warrant. What warrants a belief – say the aforementioned belief that smoking causes cancer – should not be blindly equated with the contingent history wherein our belief states are formed, whether at the individual or at the social level. To explicate the relation between belief state and belief content, Haack follows Peirce in focusing on the process of inquiry, and argues, with Peirce, that were a question to be inquired into with the sole aim of finding an answer, we would in the long run – that is, when all that could be inquired into has been inquired into and all individual biases have been filtered out – arrive at an answer for which no more disagreement is possible. At this point how the belief state is formed warrants the belief content, which allows us to call that belief true. Since having our questions answered is the sole aim of inquiry, to inquire and *not* search for truth, Haack contends, is disingenuous and immoral, a charge she levels against Rorty.

What we thus find in Haack is a double-aspect theory that seeks to do full justice to both belief states and belief content; a view she labels *Founderentism* (1998, p. 19). Rejecting, with Peirce, that reasoning resembles a chain, she introduces the simile of a crossword puzzle where the clues represent the causal story of the formation of belief states, and the filled-out entries represent the belief content with their (logical) interrelations. The name foundherentism is an amalgam of the terms foundationalism and coherentism.

Foundationalists allow that some propositions – statements of fact expressed in declarative sentences – are supported by things not propositions, and they call these propositions basic. All non-basic propositions are justified in terms of these basic propositions, a process that is one-directional in that non-basic propositions can never justify basic propositions. The main problem for foundationalists is to give an

account of these basic propositions on which it is plausible, first, that they are truly basic and, second, that ultimately all our knowledge can be cast in terms of them.

Coherentists, in contrast, hold that only other propositions can justify a proposition. Consequently, coherentists deny that there can be any basic propositions, and with that the demand for one-directionality goes out of the window. The main problem for coherentists is the possibility of multiple incompatible coherent systems. Foundherentism, finally, allows for certain propositions to be supported by things not propositions, while at the same time rejecting the foundationalists' demand for one-directionality, while carefully distinguishing between the causal process through which individuals come to hold certain propositions (i. e., belief states) and the logical relationships that hold between the propositions themselves (i. e., belief content).

Haack's analysis further allows her to develop an alternative to the old deferentialists and the new cynics, and she identifies this alternative with Peirce's *critical common-sensism*. Like the old deferentialist, the critical common-sensist holds that there are objective standards of better and worse evidence (e. g., construct, statistical conclusion, internal and external validity) and of better and worse conducted inquiry (e. g., an experiment versus a correlational study for studying cause and effect), but it sees those standards as more flexible and less formal than the deferentialists. Simultaneously, critical common-sensism meets halfway the concerns of the new cynics by acknowledging that science is a human enterprise with inquirers having all sorts of motivations and where observation is always theory-laden, but it does not see these aspects of inquiry as an impediment to the process of understanding how things truly are. Quite the contrary, the social nature of inquiry and the stubbornness of the world of facts tend to filter out personal idiosyncrasies and group biases. In brief, Haackian pragmatists are critical common-sensists: driven by a will to learn, they use their common sense critically while remaining keenly aware of their (epistemic) fallibility.

Haack's approach is broadly sympathetic to MMR. To limit oneself solely to quantitative or to qualitative methods is, to use a phrase of Peirce that Haack is fond of quoting, to block the way of inquiry – something one should never do. The issue is, again, not whether this or that method is used, but whether the inquiry is conducted with the sole aim of answering the questions one is asking and whether one is willing to abandon established and esteemed methods when they prove unhelpful. From Haack's perspective, the great advantage of MMR is that it is at least in principle conducive to the latter as it sees existing methods as tools in a toolbox in which there is always room for new tools, and it is not always clear at the outset which are best suited for the job or whether we already have the tools we need. To decree in advance what tools are acceptable and what are not is one form of blocking the way of inquiry, and is hence immoral. In many, but not all, ways, Haack's pragmatism seems to fit well with equal-status MMR.

7 Pragmatism and qualitative research

Now we address two well-known philosophical disagreements between qualitative and quantitative research. An appropriate question is, 'Do the pragmatists offer

a useful working solution?' The first fundamental disagreement can be called the 'fundamental *qualitative* disagreement with quantitative research', about the lack of existence of an objective reality and/or singular truths. Many qualitative researchers claim that truths are multiple (e. g., Lincoln et al. 2011). We offer our estimates as to how the five pragmatists would address this disagreement.

Peirce would probably attempt to solve the qualitative disagreement by pointing out that when something results in multiple answers this is either because the research question is ill-formed, or because the question was so broad or multifaceted that multiple positions or answers are relevant, each shedding some light on the issue at hand. For instance: Is approach XYZ an effective way to teach driver's education to adolescents? It is easy to see how this question allows for multiple, even conflicting answers depending on the outcomes or criteria that one is interested in using. The approach might effectively satisfy some criteria (e. g., knowing the traffic laws, cost) but not others (e. g., number of accidents caused within the first five years of driving). For Peirce, different answers because of different criteria or because of different perspectives (e. g., the perspective of educators, police officers, economists, psychologists) either reveals the need for different, more targeted questions, or if one prefers to stick to the original question, they are only partial or one-sided answers. Again, for Peirce, each well-formed question allows only for *one* answer. (For the question about the effectiveness of the specific XYZ approach to drivers' education, the answer would be *either* yes or no.) If a single question leads to multiple answers, Peirce would insist that the value of the answers will be at best heuristic; that is, they will be temporary resting points from which to launch future inquiry.

James would attempt to solve the qualitative disagreement by pointing out that, according to his pluralism, different realities have different answers; he would affirm that the more important question is 'Does it matter, practically, if I agree with the qualitative disagreement?' (since disagreements sometimes, do *not* matter). In other words, James would ask 'Is this a difference that matters?' In the cases where multiple answers to a question matter, James would argue that we should listen to the multiple answers. Other times, a more general answer that ignores differences in perspectives might work well and suffice. James indirectly addressed the issue of multiple truths when he said

> "The world is indubitably one if you look at it in one way, but as indubitably is it many, if you look at it in another. It is both one and many – let us adopt a sort of pluralistic monism" (James 1995, p. 5).

Dewey would likely argue that one need not and should not insist on an 'objective reality' in the sense of a reality somehow 'above it all' ("*überhaupt*"), as he puts it in "The Need for a Recovery of Philosophy", (Dewey 1980, p. 39). While our experiences may be characteristically changing, frustrating, or enjoyable, they are also typically manipulable; this ability to affect and direct the course of experience shows that what we (clumsily) call 'reality' provides a basis for theorization which is sufficiently objective and independent. Thus, one can easily wind up with a complex theory because attendant contextual complexities are, in fact, commonplace and to be expected. Ultimately a theory should be judged instrumentally-in-relation-to-a-problem (i. e., how does it work, for whom and where?). That said, it is important to

note that Dewey recognized that 'problems' can exist at various levels of abstraction; even theoretical researchers not tasked to perform concrete physical experiments encounter what Dewey called 'problematic situations'. Dewey (like James) would state that a solution's ultimate validation must be its resolution of an extant, real-world problem, and he would point out that we should not be held back from attempting to solve problems *because of a metaphysical dispute*. For example, MMR has been conducted successfully thousands of times despite the *a priori* claim that paradigms are incommensurable and cannot be used together. In the face of these successes, pragmatists like Dewey and James can stand behind the retort "I just integrated two paradigms – *and it helped* – so I am need not censor my methods because of your *a priori* claim".

Rorty, the postmodern-leaning pragmatist, would have had no dispute with the qualitative claim of multiple truths; he viewed truths only as compliments that we give to certain beliefs and if the qualitative researcher has a good reason to argue for the truth of a set beliefs, then there is not a problem. In fact, Rorty would likely welcome what qualitative researchers call multiple truths. Rorty replaces representationalism with conversationalism, and pointed out that the best we can do in science is to have useful conversations about topics of interest. (Still, many Deweyans argue that Rorty's move here represents a strong departure from classical pragmatism. For more on the divergences between Rorty and Dewey, see Hildebrand [2003].)

Taking a significantly different approach from Rorty, Haack might view multiple truths as part of a complex reality that is only partially understood. To go back to the crossword analogy: A clue can be vague or multiply interpretable, and the puzzle may allow us to fill in different words that all fit that clue either because intersecting entries are not yet filled in, or because in its vicinity the puzzle is still underdeveloped. The latter case – i. e., when there are no or only very few intersections – represents a situation where our knowledge is weak or vague. Again, the idea is that some research questions are complex which allows multiple true statements to be made as long as they are not incompatible.

In sum, across the five pragmatists, the qualitative disagreement with quantitative research is not an unbridgeable problem.

8 Pragmatism and quantitative research

The second fundamental disagreement is the 'fundamental *quantitative* disagreement with qualitative research' (e. g., Lincoln et al. 2011). This disagreement is the quantitative researcher's preference for a correspondence theory of truth where each theory is believed to correspond to specific objective/singular reality (i. e., this is the regulative scientific goal) and is defined by the following principle (Feldman 2003, p. 17):

> "A proposition is true if and only if it corresponds to the facts (iff the world is the way the proposition says it is). A proposition is false iff it fails to correspond to the facts." (Note: iff stands for if and only if.)

Peirce would insist that if we take great care not to block future inquiry, research questions would eventually emerge that would allow for a single answer, which could be agreed upon, at least in principle. In the meantime, multiple answers can be accepted if doing so furthers our understanding. In short, the answers to our questions and our theories refer to an objective reality.

James would point out that he disagrees with what he prefers to call the 'copy theory of truth' (i. e., all beliefs copy a reality). For James, what is important, regarding truth, is that it helps us to get in good standing with our world (i. e., do our beliefs work?), rather than copying reality. The key question is not whether an idea 'matches' or 'copies' some reality apart from ours (which we shouldn't presume) but whether an idea is one we "can assimilate, validate, corroborate and verify" (James 1997, pp. ix–x). That is the practical difference it makes to us to have true ideas; that, therefore, is the meaning of truth, for it is all that truth is known as. James would say that the fact that not all answers can be verified as leading to agreement with observable reality is simply part of what comes with human finitude. If a notion (e. g., belief in God) leads us to a more satisfactory existence, then it is true *enough*; we cannot insist upon more than is provided by that satisfaction. James' theory of truth combines a recognition of the reality of both human needs and perspectives and the reality of the world (physical and human) whose conditions must be met in order to move forward toward satisfaction.

Dewey would agree that many social science claims need to be better contextualized (to help explain why solutions that work in one context do not work in a different context). Dewey would also shift the discussion from truth toward justification (warrant) and – even more crucially – toward *inquiry*, which is by and large a social, collaborative type of activity. He would point out that what matters in science is how and whether assertions are justified – to ask for more, is to move into the realm of metaphysics. What matters is what works given the parameters of the question, the purposes, and the community conducting the inquiry. To call something 'true' is a way of identifying it as a resource presently for future inquiries. To say X (say, that 'Objects fall toward the earth' is true) is to say that X may be counted on, used, in an inquiry about whether some specific object will fall if dropped from an elevated position. The future of any truth is, by its very nature, open to further revision; the older notion of truth (as a fixed or determinate fact or reality) is a metaphysical holdover which (a) does no work and (b) diverts research from careful observation, analysis of meaning, and innovative experimentation.

Rorty would consider the quantitative researcher's commitment to an objective reality and the qualitative researcher's point that this is a commitment to a chimera as two positions, with each attracting its own following. How successful the respective positions are depends on how well they survive the conversation, and such a survival will always be temporal and local.

Haack brings us back to Peirce, maintaining that the purpose of a question is to see it answered and that our answers may not contradict one another. Without denying that there is an objective reality, Haack rejects the correspondence theory of truth, and replaces it with her foundherentism while avoiding their weaknesses.

9 Pragmatism and mixed methods research

Although there are many similarities among the five pragmatists discussed in this article, it should be clear that there are also many nuanced differences among the five pragmatists. We briefly summarize the pragmatists in relation to MMR as follows.

Charles Sanders Peirce can be viewed as 'The Natural Scientist, Semiotician and Classical Realist'. We have pointed out that his realism and distinction between internal/subjective and external reality fits well with quantitatively driven MMR. However, Peirce also can be viewed as a proto-postmodernist because of his far-reaching critique of Cartesianism and the philosophical platform he proposes in its stead in the "Journal of Speculative Philosophy" (Ochs 1992). A classification of Peirce therefore depends on what part of his work or which concepts are emphasized (e. g., his realism or his phenomenology) when deciding where Peirce will best support MMR.

William James can be viewed as 'The Psychologist and Radical Empiricist'. His focus started and ended with individual experience. After Rorty, James' theory of truth comes the second closest to postmodern philosophy. We have argued that James' positions should support qualitatively driven MMR quite well; however, some of his ideas also will work well with other versions of MMR (e. g., his emphasis on experimentation and on what works fits well with quantitatively driven mixed methods).

John Dewey can be viewed as 'The Social Psychologist, Educator and Contextualist'. His focus was on intelligent thinking, listing to both sides on dualisms, and bettering society, deliberatively and democratically, in each of its local communities. We have argued that Dewey fits well with equal-status or interactive MMR because his style enables us to dissolve dualisms by finding a middle place that provides a third and better alternative. Interestingly, Dewey was both a realist *and* a constructivist, and he emphasized the importance of both past *and* future knowledge. Dewey's approach can help us to find an 'intelligent' and just third-way out of many of our socially and intellectually created quagmires.

Richard Rorty can be viewed as 'The Conversationalist Philosopher Following the Linguistic Turn'. In many ways, Rorty was a postmodernist philosopher (e. g., he emphasized language and conversation rather than truth, emphasized social/individual construction of reality, viewed different positions as ethnocentric, etc.). Rorty also emphasized positive democratic social justice for all groups in societies. Therefore, we argue that Rorty's philosophy and pragmatism fit well with qualitatively driven MMR.

Last, Susan Haack can be viewed as 'The Passionate Moderate Philosopher'. In fact, Haack specifically referred to herself as a passionate moderate (Haack 1998). Haack has discussed science extensively in her works, and she carves out new positions such as her foundherentism. In many ways, Haack is a modern-day Peircean (e. g., her realism, her argument for single answers to all well formulated research questions, etc.). We have placed Haack as providing an attractive philosophy for quantitatively driven mixed methods because of her realist stance and her rejection of multiple truths. However, Haack also offers something for equal-status MMR, as

she self identifies as a passionate moderate; that is, as someone who enters polemical debates with the aim of finding a strong position that avoids the extremes.

In addition to the philosophical and methodological positions of the classical and neopragmatists examined in this article, we have shown the solution that each pragmatist offers for what we called the 'fundamental qualitative disagreement with quantitative research' (i. e., the argument that truth, reality and answers to research questions are multiple). Each pragmatist had a different answer to this problem, but all had what can be considered a working solution. The same can be said for what we called the 'fundamental quantitative disagreement with qualitative research' (i. e., that argues for a correspondence theory of truth). The pragmatists' answers to these conundrums are provided in the last section of this article.

In sum, we hope this article demonstrates that there is at least one pragmatist for each version or style of MMR (qualitatively driven, quantitatively driven and equal status). In fact, other mixed methods paradigms (e. g., critical realism [see Maxwell 2012], dialecticalism [see Johnson 2016], transformativism [see Mertens 2007]) can be used simultaneously or in combination with pragmatism – that's because pragmatism is a philosophy that is open to creativity as long as it can be shown to work well in practice. Pragmatism offers workable positions between the poles of skepticism and dogmatism/reductionism. We contend that pragmatism offers MMR a practical and open empiricism, a way to listen to and emphasize important epistemological and social values, and a way to produce practical theories, that is, theories that work in particular places and particular contexts with particular people. This, however, continues to be an empirical question that we leave for readers to examine and discuss in their future works.

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R. Burke Johnson 1993, PhD, Professor of Professional Studies at University of South Alabama, Mobile, Alabama USA. Research Areas: Methods of Social Research, Program Evaluation, Quantitative, Qualitative and Mixed Methods, Philosophy of Social Science. Publications: Research Methods, Design and Analysis. Boston, MA 2014 (with L. Christensen and L. Turner); Educational Research: Quantitative, Qualitative and Mixed Approaches. Los Angeles, CA 2014 (with L. Christensen); The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry, New York, NY 2015 (with S. Hesse-Biber).

Cornelis de Waal 1997, PhD. Professor of Philosophy, Indiana University-Purdue University Indianapolis, USA. Research Areas: Charles Peirce, Pragmatism, Metaphysics, Philosophy of Science, Philosophy of Mathematics. Publications: The Illustrations of the Logic of Science by Charles S. Peirce. Chicago, IL 2014; Charles S. Peirce: A Guide for the Perplexed. London 2013; On Pragmatism. Belmont 2005.

Tres Stefurak 2004, Ph.D. Associate Professor and Department Chair, Department of Professional Studies, College of Education, University of South Alabama, Mobile, AL USA. Research Areas: Program Evaluation and Mixed Methods Research, Juvenile Offending, Philosophical Psychology and Psychology of Religion and Spirituality. Publications: Mixed methods dialectical pluralism applied to an evaluation of a community-based interventions program for juvenile offenders. In: Leonard Jason and David Glenwick, Eds., Handbook of Methodological Approaches to Community-Based Research: Qualitative, Quantitative and Mixed Methods. New York, NY 2016 (with B. Johnson and E. Shatto); Considering the evidence-based debate in evaluation through the lens of Dialectical Pluralism. New Directions for Evaluation 138, 2013 (with B. Johnson).

David L. Hildebrand 1997, PhD, Associate Professor and Chair of Philosophy at University of Colorado Denver, Denver, Colorado USA. Research Areas: Pragmatism, Neopragmatism, John Dewey, Richard Rorty, Epistemology, Philosophy of Art, Philosophy of Education. Publications: Beyond Realism and Antirealism: John Dewey and the Neopragmatists. Vanderbilt, TN 2003; Dewey: A Beginner's Guide, Oxford, England 2008.