Problems posing as solutions: Criticising pragmatism as a paradigm for mixed research

Timothy Hampson and Jim McKinley
Institute of Education, University College London, London, UK

Abstract
Mixed research is a methodology of growing importance both within and without education. This type of research forces researchers to reconcile conflicting ways of justifying and understanding research with results that have the potential to be forward pointing for all researchers. As mixed research has grown, mixed research has gained an increasingly solidified identity which is increasingly associated with the pragmatic paradigm.
This paper seeks to describe and criticise pragmatism as a paradigm for mixed research. We identify six features of pragmatism which we argue render it unfit for purpose.
1. That it is a "paradigm of convenience"
2. That it takes a consequentialist view of good research.
3. That it takes a consequentialist view of truth.
4. That it assumes the answers to epistemic questions is "somewhere in the middle"
5. That it priorities the research question, rather than ontology or epistemology
6. That it treats itself as a prerequisite for mixed research.
We argue that in prioritising flexibility and practicality over principles, pragmatism loses the ability to offer guidance to researchers. Furthermore, many of the issues with pragmatism arise from a conflation of paradigm and method. I.e., by thinking that there are quantitative and qualitative paradigms. We conclude that traditional paradigms are better served to act as a paradigm for mixed research.

Keywords
Research methods, mixed research, postmodernism, paradigm, philosophy of science, pragmatism, constructivism

Corresponding author:
Timothy Hampson, Institute of Education, University College London, 20 Bedford Way, London WC1H 0AL, United Kingdom of Great Britain and Northern Ireland.
Email: timothy.hampson.21@ucl.ac.uk

Over time, mixed methods research has grown from being a thing that researchers sometimes do without necessarily thinking of it as "mixed methods research" to a methodology with its own identity (Hesse-Biber, 2015) – a growth that has been seen in educational research (Cara, 2017). Bergman (2008a) argues that mixed research has the potential to be highly forward pointing for researchers. By asking them to reconcile differences between qualitative and qualitative research, mixed research:

> Forces researchers and theorists to return to more fundamental questions in relation to research design and how it connects to research questions, data collection, data analysis, and inter-pretation of findings. [...] Surreptitiously, the popularity of mixed methods research will have an important impact also on how to conduct mono method research because revisiting, reframing and resolving some well-established points of contention between qualitative and quantitative research [...] will filter through to non-mixed methods research. (Bergman, 2008a: 3)

As the identity of mixed research has solidified, pragmatism has become its "paradigm of choice" (Hesse-Biber, 2015: 782). As such, this paradigm is poised to provide guidance regarding the questions Bergman outlines. However, in this paper, we argue that this guidance leaves much to be desired. To do so, we first define paradigm and mixed research before identifying six features that are present in various versions of the pragmatic paradigm. We argue that these features represent weaknesses which render pragmatism both unnecessary and unhelpful for mixed research.

What is a paradigm?

When researchers do research, it is important for them to be concerned with questions such as "What does good research look like?," "Which methodologies allow for good research?," "How can I maximize the quality of my research?" and so on. The answers to these questions are nontrivial and are not sensibly solved using the research process (this would immediately pose questions like "What does good research into what good re-search looks like look like?"). Rather, the answers to these questions are dependent on ontology (theory of the nature of reality) and epistemology (theory of knowledge) and have typically been provided by paradigms.

Riazi and Candlin (2014) define paradigm as "a general worldview or a set of beliefs and principles that gives rise to research designs." (p. 136) while Lincoln and Guba define it as "the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways" (Guba and Lincoln, 1994: 104). However, for Morgan (2007), paradigm is a term that is used confusingly as it is used to mean different things at different points. He writes that paradigm can be used to refer to:

1. A worldview.
2. A stance towards epistemology.
3. A set of shared beliefs held by researchers in (a usually quite narrow) research field.
4. A set of model examples of research.

For the purposes of this essay, we are exploring paradigm in the second sense. However, we acknowledge that for some pragmatists, including Morgan, researchers do not need a paradigm in this second sense. This may be a case where the basic assumptions around paradigms differ so much that comparison becomes difficult (see Jackson and Carter, 1991). While we will explore why we believe paradigm qua a stance towards epistemology is important, this will still at some level be an assumption of this article. We will return to this in the limitations section.

When paradigms are seen in this second way, we find it useful to express them as an argument of the following form:

Ontology is thus; therefore, research should be so.

This highlights something important and useful for us as researchers: the normative nature of paradigms (in the sense that they imply an "ought") and the link between ontology, epistemology, and methodology within a paradigm.

This paper will frequently refer to three paradigms: postpositivist, constructivist, and pragmatic. A more extensive attempt to define pragmatism is offered later in this paper, but the following definitions of postpositivism and constructivism are offered based on Guba and Lincoln, 1994.

Postpositivism

Ontology is thus: There is an external world, but we have imperfect access to it. *Therefore, research should be so*: We should corroborate hypotheses by attempting to falsify them with experiments or by testing them against pre-existing data.

Constructivism

Ontology is thus: Our experiences of reality are constructed and personal to us. We have no direct access to anything beyond this. *Therefore, research should be so*: The goal of research is to gain a more informed and sophisticated understanding of the multiple constructed realities held by people in the research context.

It is worth noting that these terms are often used in different ways to this; for example, constructivism is often used to mean social constructivism (Berger and Luckmann, 1991). Similarly, constructivists, while agreeing that our perceptions of reality are constructed, disagree on the extent to which that external reality exists. Indeed, Lincoln and Guba differed on this significantly in their earlier (Lincoln and Guba, 1985) and later (Lincoln and Guba, 2013) work (see also Spivvy, 1997 for an overview of the variety of constructivisms).

What is mixed research?

The introduction of additional methods to research creates additional levels of complexity. As a result, researchers have tried to explain and taxonomize mixed research in a range of

ways. Researchers have been concerned with, amongst other things, the mixed method and multi method distinction (Walsh et al., 2020); breakdowns around whether research is quantitative dominant, qualitative dominant, or equal status (Johnson et al., 2007) and the order in which the research is done in. For the purposes of this paper, one of these taxonomies is particularly pertinent because it is closely linked to the relationship between research and paradigm. Greene (2015), rather than using "mixed method research" to refer to a broad swathe of activities, uses "mixed research" as an umbrella term on which the mixing can take place on multiple layers: method (i.e., the source of data collection), methodology (i.e., the way of analysing that data) and paradigm (i.e., the epistemological worldview underlying the research). These occur separately to one another such that a researcher might mix methods and not methodology or might mix both methodology and method without mixing paradigm. As such, we can understand mixed research as research which mixes quantitative and qualitative methods, quantitative and qualitative methodologies or paradigms typically associated with quantitative and qualitative research.

Paradigm trouble

Method and methodology mixing are commonplace: researchers might, for example, mix quantitative and qualitative research under a single paradigm unproblematically. Paradigm mixing, however, presents issues to the researcher. A researcher might, for example, want to use quantitative methods and methodologies in a way informed by postpositivism while using qualitative methods and methodologies while being informed by constructivism. This can lead to what we term "paradigm trouble" when:

> The legitimacy of research method A is dependent a set of beliefs about research from paradigm A
>
> and
>
> the legitimacy of research method B is dependent on a set of beliefs about research from paradigm B
>
> and
>
> if the set of beliefs from paradigm A are true, the set of beliefs from paradigm B are false (and/or vice versa)
>
> then
>
> research method A and research method B cannot both be legitimate.

While it is not always the case that mixed research mixes paradigms, when it is the case, it is possible for mixed research to run into the type of "paradigm trouble" we have outlined.

To take an example from an author, in Hampson (2020), the study conducted used grounded theory mixed with experimental quantitative tests. For this research, the grounded theory portion was based on a constructivist paradigm while the experimental

portion was conducted using positivist falsificationist thinking. On reflection, this study seems more philosophically problematic than recognized at the time as the methodologies and paradigms used were based on mutually exclusive beliefs about the nature of the world (see Hall, 2013; Lincoln and Guba, 1985: 307).

One solution to this type of trouble would be to simply not do mixed methods research as it is typically conceived. However, we do not believe this is a satisfactory one. While it might be practical to avoid mixed methods research within one paper, if the use of constructivist and postpositivist methodologies within a study reduces the legitimacy of both, this would equally apply in the case that an author applies these paradigms in different research papers. For example, if we reject the use of constructivist grounded theory and postpositivist experimental methods within the same study, we should, by the same logic, reject a single researcher using constructivism in one study and postpositivism in another. If we continue this type of paradigm-absolutist train of thought, we can reach other impracticable beliefs such as "constructivist journal editors should desk reject postpositivist research." As a result, it is important to find a solution to paradigm trouble, even if paradigm mixing is not attempted.

Is pragmatism a solution to paradigm trouble?

One attempt to solve this trouble in mixed research has been the use of a pragmatic paradigm (Greene and Caracelli, 2003; Revez and Borges, 2018). While pragmatism refers to a broad tradition in the philosophy of science, for this paper we are focused on how pragmatism has been used as a means of justifying mixed methods research. These justifications often differ from the broader pragmatist tradition. For example, abduction is a concept that is important to the broader pragmatist tradition and indeed has been adopted by thinkers from other traditions, for example such as Charmaz's (2006) use of abductive analysis in constructivist grounded theory. However, when it comes to how pragmatism is used to justify mixed research, abduction is far less important.

One definition of pragmatism as a paradigm for mixed research appears to be fairly representative comes from Datta (1997) who proposes a definition of "pragmatic" that it means:

> The essential criteria for making design decisions are practical, contextually responsive, and consequential. "Practical" implies a bias in one's experience of what does and does not work. "Contextually responsive" involves understanding the demands, opportunities, and constraints of the situation in which the evaluation will take place. (p. 34)

This quote answers the "therefore research should be so" section of pragmatism as a paradigm. In terms of describing the "ontology is thus" of pragmatism, Datta (1997) writes that:

> The truth of a statement consists of its practical consequences, particularly the statement's agreement with subsequent experience. These practical consequences form standards by which concepts are analyzed and their validity determined. (p. 34)

However, pragmatism represents a:

kaleidoscope of views, with some emphasizing it as a route to knowledge; others emphasizing it as a means of clarifying method; another group stressing the role and point of the theory; others stressing its religious side; another group stressing its literary, dramatic and poetic face; and yet another group stressing its reformist and aesthetic perspectives (Maxcy, 2003: 85)

Given this, providing a critique of pragmatism as a whole can feel like punching at air. Indeed, it may be better to speak of "pragmatisms" rather than "pragmatism." Due to the difficulty in identifying a set of *sine qua non* beliefs for pragmatism, I will instead seek to identify several features that are present in pragmatism broadly. These are neither necessary nor sufficient conditions for something to be pragmatic. Rather, we have identified features we believe to be worthy of critique which are present in pragmatic literature. While we have tried to give a range of examples, such an approach may lead to accusations of cherry picking and strawmanning. Of course, it is possible that there is a version of pragmatism that is free of these features. All we can say in response to this is that we have not come across one in our reading for this paper and we would be interested in reading such a thing if it exists.

Feature one: Pragmatism as a paradigm of convenience.

The first feature of pragmatism is that it can appear to be a means to the end of doing research. To various degrees, it can appear to be more a set of beliefs that are "held" because it is convenient to hold them. For example:

One major reason [why pragmatism is so popular among mixed method researchers] is that mixed methods are often employed in applied setting where practical decision stress the utility of multiple data sources for decision making purposes. (Tashakkori and Teddlie, 2003b: 679)

Many (or most) mixed methods writers have argued for some version of pragmatism as the most useful philosophy to support mixed methods research. (Johnson et al., 2007: 125)

Pragmatism allows the researcher to be free of mental and practical constraints [of traditional paradigms.] (Feilzer, 2010: 8)

Taken to its extreme, using a paradigm of convenience would involve starting with the research we would like to do and deriving a set of philosophical beliefs that permit that research. While it seems unlikely that anyone is using pragmatism exclusively for convenience in this way, convenience seems to be at least a factor for some researchers. Of course, all other things being equal it is better for research to be convenient than inconvenient. Like convenience sampling, a paradigm of convenience is not problematic on its own, but it opens opportunities for the problematic research practices that I will now outline.

Feature two: A consequentialist view of good research

This trend refers a view in pragmatism the quality of research is determined by the results of that research. For example:

> *In lieu of such dictates, the pragmatic mixed methods inquirer attends to the demands of the particular inquiry context and makes inquiry decisions so as to provide the information needed and maximize desired consequences— "get the job done."* (Greene and Caracelli, 2003: 101)

> *Technique and validity are confronted by asking: will this help me find out what I want to know? This allows me to escape worries about trying to find what is real or confront the reality debate.* (Hanson, 2008: 109)

> *The pragmatic stance has no set methodological requirements for social inquiry but rather has a consequential action-knowledge framework to guide inquiry. Pragmatic inquirers may select any method based on its appropriateness to the situation at hand.* (Greene and Hall, 2010: 16)

> *The pragmatic position implicitly calls for choosing a paradigm and a method by what will "work best" to meet the practical demands of a particular inquiry.*(Rocco et al., 2003: 596)

From these quotations, we can identify a view that it is the ability of research to achieve results research that determine the quality of that research. There are two issues with this view of quality of research. First, there is a risk that researchers might reject findings simply because they do not meet what the "desired consequences" of the research are. When researchers are looking for a particular relationship and fail to find it, this might erroneously be seen as a failure of the method rather than a sign that no such relationship exists. Conversely, an unexpected but valid result might be rejected as a failure of the methodology.

Furthermore, this view of research does not offer much in the way of guidance. Reading these passages, or other similar passages, one logical follow up question is "Well, what *does* get the job done?" The issue is that when it comes to guidance on research, telling researchers what they can and cannot are two sides of the same coin. As such, if a research philosophy is unwilling to rule out certain practices, it is also hard for that philosophy to have much to say about what good research looks like. When Greene and Hall (2010) write that pragmatism "has no set methodological requirements for social inquiry" (p. 16), this seems incompatible with it being a paradigm that can provide researchers with a clear set of requirements to ensure the quality of their own research or to evaluate the quality of the research of others.

Feature three: A consequentialist view of truth

To state that pragmatists often take a consequentialist view of truth may seem to be the same as saying they take a consequentialist view of good research. However, the

consequences are different. Rather than arguing pragmatism doesn't offer guidance to researchers, we are here arguing that this conception of truth is not epistemologically sound. This feature was noted by Howe (1998) who argues that:

> *Pragmatists who are on their toes resist the temptation to provide a theory of truth by filling in the blank in "X is true if and only if _____" with "X works," "X is a warranted assertion," "X helps us cope," and so on. If they give in to this temptation, absurdity quickly results. Was the earth flat when this belief "worked"? For pragmatists, "truth" is a normative concept, like "good," and "truth is what works" is best seen not as a theory or definition, but as the pragmatists' attempt to say something interesting about the nature of truth and to suggest, in particular, that knowledge claims cannot be totally abstracted from contingent beliefs, interests, and projects. It is illicit to criticize the pragmatic "theory" of truth when pragmatists refuse to offer one. (1988: 14–15)*

This argument is perhaps easily interpreted as a well worded attack on pragmatism, it is not intended as such. Rather, it is intended to be a defence of a version of pragmatism which does not offer a "theory of truth". However, it, ironically, serves quite well as a critique of pragmatism more broadly. If the best that can be said of pragmatic epistemology is that it is beyond criticism because there is nothing to criticize, that is not a good place for it to be in. Put another way, when pragmatists offer a "research is what works" type argument, they fail to make a cogent argument that begins with ontology and, via epistemology, arrives at a view of what research should be. Stating something is true because it works is a set of problems posing as a solution. It answers one question by raising several other equally complex questions: "What does work?," "What does it mean for something to work?" and so on.

A further issue with this view of truth is identified by Hesse-Biber (2015; see also Kvale, 1996) who argues that if we take a "research is what works" type stance, determining what is knowledge is left to experts and can become based on problematic power relations. Far from freeing researchers up to new possibilities, passing responsibility for determining truth to individuals could cause researchers to be tied to existing orthodoxies.

Feature four: The truth of epistemic questions is somewhere in the middle

Pragmatic researchers often present pragmatism as a reaction to the "either or" mentality of qualitative and quantitative paradigms. Teddlie and Tashakkori (2009: 88) present paradigmatic issues as sets of opposing continua including:

- deductive to inductive
- value neutral to value involved
- politically noncommittal to transformative
- probability sampling to purposive sampling
- deductive to inductive sampling

Teddlie and Tashakkori (2009) argue research can lie at any point along these continua but that quantitative research has traditionally favoured the left of these with qualitative research lying to the right. They present mixed research as able to reject dichotomy and embrace the best of both sides. Similarly, Johnson and Onwuegbuzie (2004) present constructivism and postpositivism as "purist" positions with pragmatism offering:

> *An immediate and useful middle position philosophically and. methodologically [...] We reject an incompatibilist, either/or approach to paradigm selection and we recommend a more pluralistic or compatibilist approach. [...] The project of pragmatism has been to find a middle ground between philosophical dogmatisms and skepticism and to find a workable solution.* (pp. 17–18)

For many of these continua, it is not clear that a position in the middle is always beneficial. When taking a position in the middle, it is possible to have the disadvantages of both sides with the advantages of neither. For example, "politically noncommittal" research has the advantage of appearing neutral while "transformative" approaches to research can be built around achieving positive social change. However, research that lies between these two poles is neither neutral nor fully focused on positive social change. As such, this research would fail to really seize either advantage. Similarly, when taking a "probability sampling" approach, researchers can take steps to make their samples as representative of the general population as possible. Researchers who use purposive sampling can aim to highlight the most interesting and useful parts of a research context. An approach that is somewhere in between the two extremes would succeed at neither of these things – after all, who wants an approach that is *fairly* value involved or *fairly* purposive?

More significantly, it can be argued that some of the epistemic and methodological questions here *are* binary. Guba and Lincoln write that:

> *For constructivists, either there is a "real" reality or there is not [...], and thus constructivism and positivism/postpositivism cannot be logically accommodated any more than, say, the ideas of flat versus round earth can be logically accommodated. [...] inquiry is either value free or it is not; again, logical accommodation seems impossible.* (1994: 116)

In other words, there seem to be philosophical questions to which it is not clear that "to some extent, yes" is a cogent answer. Even if we do take "to some extent, yes" to be a sensible answer, it is still "enough of a yes" to continue with the arguments one might like to make based on them.

Feature five: The primacy of the research question

In many instances, pragmatic research literature refers to the need to be led by the research question rather than a paradigm. The logic behind this is that different research questions require different approaches. For example, Teddlie and Tashakkori (2009; see also Howe, 1988; Tashakkori & Teddlie, 1998: 20–30) write that for pragmatists:

Epistemological issues exist on a continuum, rather than on two opposing poles. At some points during the research process, the researcher and the participants may require a highly interactive relationship to answer complex questions. At other points, the researcher may not need interaction with the participants, such as when testing a priori hypotheses using [quantitative] data that have already been collected or when making predictions on the basis of a large-scale survey. (p. 83)

In other words, the researcher determines what they would like to do at different points of their research. At some points, the researcher will be answering questions that are more quantitative or quantitative and at those points they will want to draw more heavily on those paradigms and methodologies.

Beyond our previous criticism of presenting differences between quantitative and qualitative research as continua, there are two issues with this. First, decisions on what the researcher wants to study are also paradigm dependent. In the example above, the researchers would at one point like to test *a priori* hypotheses using a large data set, but, of course, this is something that one might see as more or less valuable based on one's epistemological beliefs. Some researchers might reject the value of *a priori* hypothesis testing and see large data sets as not guaranteeing results will be true in other contexts (see for example Lincoln and Guba, 1985: 316–317). Questions of which research questions are worth asking—or indeed if one even needs research questions (see for example Clarke, 2005)— are paradigm dependent. If pragmatism starts with the research question, it is hard to see how it can give guidance on what the right type of research question is.

Second, this argument relies on a mistaken conflation of mixing at the level of method and methodology with mixing at the level of paradigm. Certainly, if the researcher wishes to do work in detail, they need to use a method and methodology which allow for that. Similarly, for work at scale, a quantitative approach might be better. However, this does not necessarily imply that paradigm mixing is necessary. This is something we will explore in feature six.

Feature Six: Pragmatism is a prerequisite for mixed methods research

This feature suggests that pragmatism is necessary for mixed research because traditional "quantitative and qualitative paradigms" are unable to do so.

This chapter, on the other hand, devotes most of its space to a critique of the way in which avowedly "qualitative" researchers use the notions of theory and paradigm to protect themselves from having to deal with a larger range of evidence. This focus is necessary because they, more than any other group, are the ones suggesting that the combination of data from different "paradigms" is impossible. (Gorard and Taylor, 2004: 143–144)

One of the reasons for this type of claim is that researchers (pragmatist and otherwise) fail to differentiate both quantitative and qualitative research from the paradigms that have been used to support that kind of research. In other words, paradigms like constructivism

are often conflated with qualitative research and paradigms like postpositivism are often conflated with quantitative research. Indeed, it is common in the literature to hear usage like "quantitative paradigm" and "qualitative paradigm (for example Greene and Hall, 2010: 7; Johnson and Onwuegbuzie, 2004: 20; Riazi and Candlin, 2014: 135) even though quantitative and qualitative are terms that cannot sensibly be applied in this way. As Bergman writes:

> First, [qualitative] and [quantitative] methods are confounded with constructivism and positivism. The debates on the differences between [qualitative] and [quantitative] methods could be considerably un-muddled, if fundamental issues in the philosophy of science are separated from how data are collected and how they are analyzed. (Bergman, 2008b: 17)

One result of this muddledness end is that researchers can be assigned beliefs that they do not hold. For example, Johnson and Onwuegbuzie label Guba as "a leading qualitative purist" (Johnson and Onwuegbuzie, 2004: 14) because of his insistence that paradigms should not be mixed. While it is true that Guba opposed paradigm mixing, it is not the case that he was a "qualitative purist." Indeed Guba and Lincoln write "From our perspective, both qualitative and quantitative methods may be used appropriately with any research paradigm." (Guba and Lincoln, 1994: 105).

Similarly, postpositivism has been used as the basis of qualitative research. For example, Glaserian grounded theory is a postpositivist methodology which uses both quantitative and qualitative methods and methodologies (Biaggi and Wa-Mbaleka, 2018; Glaser, 2008). The fact that qualitative methods are often postpositivist while quantitative research is often constructivist, does not dictate that this must always be the case. In addition, critical realism has been suggested as a paradigm which is ontologically and epistemologically able to account for mixed methods (Maxwell and Mittapalli, 2010). Given all of this, it is hard to view a pragmatic paradigm as a requirement for mixed research.

Limitations of the argument

In contemporary mixed research texts, it has become more common for researchers to abandon the idea of pragmatism as a paradigm. For example, Riazi (2016) calls for an "a-paradigmatic stance with no epistemology-method link". (p. 33) while Gorard and Taylor (2004) advise against the creation of a pragmatic paradigm:

> We could suggest, as others have done, that the philosophical foundation for combined methods work is "pragmatism", but we fear that the act of labelling what is, after all, how we behave in normal life will eventually lead to the creation of a "pragmatic paradigm". (p. 144)

Perhaps the clearest articulation of this stance comes from Morgan (2007) who argues that a view of ontology centred view of paradigms is itself a "metaphysical paradigm" which needs to be abandoned.

One limitation of our argument is that we have assumed this metaphysical paradigm. We have done this because it allows us to evaluate pragmatism based on the criteria by which paradigms have traditionally been judged. However, this leaves this paper thus far unpersuasive to those who do not share this assumption. We have three responses to this idea.

First, in much mixed methods literature, pragmatism seems to be intended, at least to some extent, as to play the part of a metaphysical paradigm. For example, for Tashakkori and Teddlie (2003a), mixed methods research is, in addition to quantitative and qualitative, a third way of doing research with pragmatism being a common paradigm used to support this new movement. Notably, they present pragmatism as distinct from an aparadigmatic stance. Meanwhile, for Johnson and Onwuegbuzie (2004), pragmatism is the philosophical partner of a pragmatic paradigm which is the source of a long list of principles for research. Our point here is that if pragmatism is to be used in a similar way to traditional paradigms, it is fair to judge it by similar standards. On the other hand, if pragmatism is taken as more of an apardigmatic stance, it needs to be clear what the basis for any conclusions it draws are.

Second, much of what we have said in features two, three and five applies equally to an aparadigmatic stance. Whether pragmatism is a paradigm focused on achieving results or a nonparadigmatic stance focused on results, there are important questions researchers need to answer. Several of these relate to what types of question we should be asking in the first place. Similarly, "do what works" seems to be a sensible statement, but it is not one that explores what it means for something to "work."

Third, paradigms having an ontological backing can be a strength. First, they can provide guidance outside of the methodological as Maxwell and Mittapalli (2010) write:

> *Paradigmatic assumptions function not simply as constraints on methods, but as lenses for viewing the world, revealing phenomena and generating insights that would be difficult to obtain with other lenses.* (p. 147)

In other words, the philosophical basis of a paradigm has benefit in that it can help researchers apply methodologies better.

Secondly, we agree with critics of an ontology centred view of paradigm is likely to be more restrictive. However, we would argue that this restrictive nature is why paradigms are able to guide research. Restricting what researchers *cannot* do and telling them what they *should* do are really two sides of the same coin. Put another way, being told what not to do is a part of being told what to do. While ontologically rooted answers to questions such as "What does good research look like?" will rule out certain practices, they also give firm guidance of which practices would be beneficial for research. In this way, a paradigm can be a source of confidence that what the researcher is doing is backed by an epistemological foundation and should be treated as a boon.

Conclusion

Pragmatism has been presented as a solution to the perceived problem of finding a paradigm for mixed research. However, in doing so it leaves researchers without a clear set of guidelines for conducting or evaluating research. Furthermore, it solves a problem which, once we have divorced the idea that specific paradigms should be linked to specific methodologies, does not have to exist. By sidestepping paradigmatic issues, it sidesteps potentially forward pointing discourse that could arise from the application of paradigm to mixed research. In other words, while pragmatism might present itself as a solution for researchers, it creates further problems for them.

ORCID iD

Timothy Hampson https://orcid.org/0000-0001-8690-9423

References

Berger PL and Luckmann T (1991) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Harmondsworth: Penguin Social Sciences.

Bergman MM (2008a) Introduction: Wither mixed research? In: Bergman MM (ed) *Advances in Mixed Methods Research: Theories and Applications*. Los Angeles; London: SAGE, pp. 1–7.

Bergman MM (2008b) The straw men of the qualitative-quantitative divide and their influence on mixed methods research. In: Bergman MM (ed) *Advances in Mixed Methods Research: Theories and Applications*. Los Angeles: SAGE.

Biaggi C and Wa-Mbaleka S (2018) Grounded theory: A practical overview of the Glaserian school. *JPAIR Multidisciplinary Research* 32(1): 1–29.

Cara O (2017) Mixed methods in education research. In: Swain J (ed) *Designing Research in Education*. London: SAGE.

Charmaz K (2006) *Constructing Grounded Theory*. London: SAGE.

Clarke AE (2005) *Situational Analysis: Grounded Theory after the Postmodern Turn*. Thousand Oaks, CA: SAGE.

Datta L-e (1997) A pragmatic basis for mixed-method designs. *New Directions for Evaluation* 1997(74): 33–46.

Feilzer MY (2010) Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research* 4(1): 6–16.

Glaser B (2008) *Doing Quantitative Grounded Theory*. Mill Valley, CA: Sociology Press.

Gorard S and Taylor C (2004) *Combining Methods in Educational and Social Research*. Maidenhead: Open University Press.

Greene JC (2015) Preserving distinctions within the multimethod and mixed methods research merger. In: Hesse-Biber SN and Johnson RB (eds) *The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry*. Oxford: Oxford University Press.

Greene JC and Caracelli VJ (2003) Making paradigmatic sense of mixed methods practice. In: Tashakkori A and Teddlie C (eds) *Handbook of Mixed Methods in Social and Behavioral Research*. Los Angeles, CA: SAGE, pp. 91–110.

Greene JC and Hall JN (2010) Dialectics and pragmatism: Being of consequence. In: Tashakkori A and Teddlie C (eds) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: SAGE Publications, Inc., pp. 119–144.

Guba EG and Lincoln YS (1994) Competing paradigms in qualitative research. In: Denzin NK and Lincoln YS (eds) *Handbook of Quantitative Research*. Thousand Oaks, CA: SAGE, pp. 191–215.

Hall R (2013) Mixed methods: In search of a paradigm. In: Le T and Le Q (eds) *Conducting Research in a Changing and Challenging World*. New York: Nova Science Publishers, pp. 71–78.

Hampson T (2020) *What We Talk about When We Talk about Teaching: Teacher Knowledge Sources in an Online Community of Practice*. Available at: https://www.teachingenglish.org.uk/sites/teacheng/files/What_we_talk_about_when_we_talk_about_teaching_Teacher_knowledge_sources_in_an_online_community.pdf

Hanson B (2008) Wither qualitative/quantitative?: Grounds for methodological convergence. *Quality & Quantity* 42(1): 97–111.

Hesse-Biber S (2015) Mixed methods research: The "thing-ness" problem. *Qualitative Health Research* 25(6): 775–788.

Howe KR (1988) Against the quantitative-qualitative incompatibility thesis or dogmas die hard. *Educational Researcher* 17(8): 10–16.

Jackson N and Carter P (1991) In defence of paradigm incommensurability. *Organization Studies* 12(1): 109–127. DOI: 10.1177/017084069101200107

Johnson RB and Onwuegbuzie AJ (2004) Mixed methods research: A research paradigm whose time has come. *Educational Researcher* 33(7): 14–26.

Johnson RB, Onwuegbuzie AJ and Turner LA (2007) Toward a definition of mixed methods research. *Journal of Mixed Methods Research* 1(2): 112–133.

Kvale S (1996) *Interviews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, CA: Sage Publications.

Lincoln YS and Guba EG (1985) *Naturalistic Inquiry*. Beverly Hills, CA: SAGE Publications.

Lincoln YS and Guba EG (2013) *The Constructivist Credo*. Walnut Creek, CA: Left Coast Press.

Maxcy SJ (2003) Pragmatic threads in mixed methods research in the social sciences: The search for multiple modes of inquiry and the end of the philosophy of formalism. In: Tashakkori A and

Teddlie C (eds) *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: SAGE, pp. 51–90.

Maxwell JA and Mittapalli K (2010) Realism as a stance for mixed methods research. In: Tashakkori A and Teddlie C (eds) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: SAGE Publications, Inc., pp. 145–168.

Morgan DL (2007) Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research* 1(1): 48–76. DOI: 10.1177/2345678906292462

Revez J and Borges LC (2018) Pragmatic paradigm in information science research: A literature review. *Qualitative and Quantitative Methods in Libraries* 7(4): 583–593.

Riazi AM (2016) Innovative mixed-methods research: Moving beyond design technicalities to epistemological and methodological realizations. *Applied Linguistics* 37(1): 33–49.

Riazi AM and Candlin CN (2014) Mixed-methods research in language teaching and learning: Opportunities, issues and challenges. *Language Teaching* 47(2): 135–173.

Rocco T, Bliss L, Gallagher S, et al. (2003) The pragmatic and dialectical lenses: Two views of mixed methods use in education. In: Tashakkori A and Teddlie C (eds) *SAGE Handbook of Mixed Methods in Social and Behavioral Research*. Los Angeles, CA: SAGE, pp. 595–615.

Spivey NN (1997) *The Constructivist Metaphor: Reading, Writing, and the Making of Meaning*. San Diego, CA: Academic Press.

Tashakkori A and Teddlie C (1998) *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: SAGE.

Tashakkori A and Teddlie C (2003a) Major issues and controversies in the use of mixed methods in the social and behavioral sciences. In: Tashakkori A and Teddlie C (eds) *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: SAGE, pp. 3–50.

Tashakkori A and Teddlie C (2003b) The past and future of mixed methods research: From data triangulation to mixed model design. In: Tashakkori A and Teddlie C (eds), *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: SAGE, pp. 91–110.

Teddlie C and Tashakkori A (2009) *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. Los Angeles, CA: SAGE.

Walsh I, Johnson R, Bryant A, et al. (2020) Mixed grounded theory: Merging grounded theory with mixed methods and multimethod research. In: Burke Johnson R and Walsh I (eds) *The SAGE Handbook of Current Developments in Grounded Theory*. London: SAGE Publications, pp. 517–531.