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Methodological Complementarianism: Being the Mix in Mixed Methods

Donna Mertens presents four major paradigms and demonstrates how each advocates for mixed methods research: postpositivist, constructivist, pragmatist, and transformative paradigm.[[1]](#footnote-1) She posits dialectical pluralism and complexity theory as grounding vantage points upon which to navigate between these paradigms and to conduct mixed methods evaluations. All four paradigms offer unique justifications of mixed methods research, and dialectical pluralism, based on complexity theory, provides a space to appreciate the strengths of each. This essay will demonstrate how the methodological assumptions of each paradigm leads to mixed methods research and then discuss how to use dialectical pluralism to form connections between them.

Even though the postpositivist paradigm emphasizes the quantitative and experimental randomized control trials (RCT), the multiplicity of questions often require going beyond the rigid RCT approach through mixed methods research. In the postpositivist paradigm, empiricist inquiry through proper research methodologies and techniques are necessary to produce valid findings (14). They tend to emphasize “well-designed experimental studies” (14) that can attribute cause and effect statements (17) and are primarily quantitative (15). RCT are the most central specific practice within this paradigm (14, 32). Out of the postpositivist paradigm arises the Methods Branch (14), who emphasize “true” methodological paradigms as a way to ground the authenticity and validity of the results as objective and neutral (14-15, 32). Many within this paradigm have a sense, however, that RCT only answers a single question: “What difference does the intervention make?” (17). The desire to answer other pertinent evaluation questions opens the door for mixed method research (17-18). “Mixed methods allows the evaluator to answer questions about the context, recruitment, causes of the problem, quality of implementation, barriers to adoption or participation, and reasons for success or failure” (18). Within this paradigm, mixed methods research is still primarily quantitative yet allowing qualitative research to fill in the gaps (15).

In direct contrast to the postpositivist paradigm, the constructivist paradigm emphasizes qualitative research (15), but despite this, they still value mixed methods as an “opportunity to assess the interpretive, contextual level of experience where meaning is created” (18-19). The constructivist paradigm sees realities as socially constructed with multiple potential realities being constructed from various vantage points (18). Qualitative methods enable the evaluator to understand and relate these multiplicitous realities, be interactive with stakeholders, and produce respectful relationships with stakeholders (18). This paradigm also posits that qualitative research is well-suited to establish causal claims, either in addition to or in a way superior to quantitative methods (19, 37-38). They emphasize qualitative approaches as central to understanding the contextual experiences on an interpretivist level (18-19), which is best done through qualitative inquiry, which play a central role in the evaluation (15, 37). At the same time, mixed methods research further supplements such qualitative analysis, adding to its richness. Constructivist mixed methods studies, for example, enable evaluators to answer broader interpretivist questions about the cultural responsiveness, inclusion, ethics, and participant receptiveness towards the program design (37-38).

To sidestep the ontological and epistemological differences between the postpositivist and constructivist paradigms, the pragmatist and transformative paradigms emphasize axiological and practical nature of evaluation research as the primary driving force for developing methodologies (19-20). Within pragmatism, mixed methods research enables the flexibility necessary to answer the driving evaluation research questions in a way that is balanced, complete, and useful for stakeholders and decision-makers (20). Evaluation must be practically useful, which they view as speaking to stakeholders, addressing their questions driving the evaluation, and informing practical policy decisions (16). They “share ‘an explicit concern for the ways in which the evaluation information will be used and focus specifically on those who will use the information’” (16). Evaluation developers should tailor the research to these stakeholders and to the researchers’ needs as these researchers seek to address the former (15, 20). They advocate a “what works” approach in which the evaluation questions should direct the evaluation, and whatever research methodologies is necessary to meet these goals is best (20). This methodological flexibility often promotes mixed methods research, because such research produces a more balanced and complete view of the questions from multiple perspectives (20). “Different methods are right for answering different questions” (41).

Like the pragmatist branch, those in the transformative branch seek to conduct axiologically useful research, but they seek to do so by making the evaluation useful for those marginalized. For advocates of the transformative paradigm, “the use of mixed methods designs in evaluation allows for the capture of different realities in their complexity from the view of stakeholders’ lived experiences” (21). In response to a history of evaluations being done “on” marginalized individuals and communities, they strive to conduct evaluation research that speaks with and of their experiences and effects a beneficial change in their lives (20-21). Such change should both address the structural systematic change through social justice and help create culturally responsive strategies that respectfully engage with a diverse set of stakeholders (21) and include in the conversation those typically underrepresented (72). Mixed methods research facilitates both objectives. “The combination of quantitative and qualitative strategies and data provides multiple opportunities for use of data by different stakeholders throughout the course of the evaluation,” and when used in conjunction with critical theories, mixed methods can shift the kinds of questions asked towards providing support for systematic and structural changes (21).

As shown, based on their different methodological vantage points, all four paradigms have unique justifications to conduct mixed methods evaluation research. I will now use complexity theory and dialectical pluralism to draw connections between these paradigms and their methodology, positing three potential strategies to connect the paradigms. Dialectical pluralism, supported by complexity theory, provides space for these paradigms to interact and intersect. According to Mertens dialectical pluralism views reality as plural, seeking to use multiple approaches to knowledge construction under a “both/and” logic (22). The goal is to create creative syntheses by establishing “a respectful forum where multiple voices can be brought into decisions about evaluation questions and study design as well as in the data collection, analysis, interpretation, and use phases of the study” (22). Mertens describes a period known as a period known as the “paradigm wars” when postpositivists and constructivists debated vigorously and dogmatically defined themselves in contradistinction to the other (23). In this context, dialectical pluralism represents the call for peace and mutual understanding. This peace allows mutual understanding and permeability between the borders of these paradigms, highlighting their interrelatedness (23). As such, dialectical pluralism’s peace also functions to further mixed methods research, as the boundaries that created distinct conceptions of qualitative and quantitative thinking start to come down.

Mertens demonstrates how the various components complexity theory – nonlinearity, emergency, adaptiveness, uncertainty, dynamism, and coevolution – ground mixed methods research (11-12), which is true and important, but complexity theory also demonstrate the importance of dialectical pluralism. By demonstrating that reality is complex with overlapping layers, complexity theory illustrates the necessity of dialectical pluralism’s call to view reality as plural and to seek complex yet integrated approaches to understand all of these layers fully.

Based on dialectical pluralism, I propose the following dialectical plural ways of integrating the four paradigms using mixed methods research. Postpositivist and constructivist groups have defined themselves against the other for a long time, which has had, in my opinion, a destructive influence on how researches understand both quantitative and qualitative methodologies. Postpositivism emphasizes deductive, reductionist experimental research design; whereas, constructivism emphasizes inductive, interpretivist paradigms. Being historically connected, both are ultimately useful and fill each other’s weaknesses. The paradigm wars have created a sense that quantitative and mathematical analysis is necessarily deductive and reductionist (c.f. Plesis 60-61 as an example of this), and more consideration into inductive, multidimensional, and interpretive mathematical and algorithmic approaches (such as certain forms of data science) could shed new light into each paradigm and allow new and stimulating forms of cross-pollination between their methodologies.[[2]](#footnote-2)

Evaluators can bridge the pragmatic and transformative paradigms by using the evaluation process work with stakeholders to understand and transform the driving research questions in a more just and inclusive way. Using evaluation research to systematically (re)evaluate the best evaluation values and questions incorporates the pragmatists’ focus on practically informing decision-makers on policy decisions and the trasformativists’ focus on including the marginalized. In instances of underrepresentation and injustice, the evaluation process itself can help analyze the various overlapping layerings of interests and values within the evaluand and to propose solutions that speak against and help address the injustice. Butler’s vision for evaluation anthropology exemplifies this: using anthropology to make the cultural complexities of evaluation explicit and to bridge multiple values, which she uses to propose practically useful responses for decision-makers (72-73, c.f. my other essay for a more detailed analysis on this). The complexity of this would, of course, require mixed methods.

On a situational level, I also propose what I call *dialectical complementarianism*, a unique practice within dialectical pluralism. I have built this instinct over years of as both “math guy” and “anthropology guy”, having formally studied and worked within both. In evaluator research projects given the perspectives or “camps” of whoever I am working with, I tend to complement them by representing the other side(s) as a sort of devil’s advocate. When I am working with quantitative researchers, I emphasize the importance of qualitative methodologies and weaknesses of quantitative approaches, and when I am working with qualitative researchers, I emphasize the importance of quantitative practices. When working with pragmatists, I emphasize those excluded, and when working with those in the transformative paradigm, I emphasize the importance of enacting effective change. Even though, its worst, it can lead to all camps being frustrated with you, it exemplifies the type of eclecticism and willingness to personally embody the open space that dialectical pluralism seeks to create. This approach on an individual and situational level is an attempt to be the “mix” in mixed methods.

In conclusion, all four paradigms – postpositivism, constructivism, pragmatism, and transformationism – have unique justifications for mixed methods research, and dialectical pluralism, supported by complexity theory, through its advocacy of mutual understanding and cross-pollination, enables these paradigms to speak to each other. Dialectical pluralism provides space for much needed integration of the perspectives. Dialectical pluralism’s greatest weakness, however, is that by establishing groups made of representatives whose still base their criteria for rigor from their respective camps (c.f. 48-50), it reifies the paradigms as distinct parties. Dialectical complementarianism described above exemplifies the required next step within dialectical pluralism: to blend the four perspectives both in practice and in theory until the distinctions between them become too muddled to easily decipher. Dialectical pluralism functioned as the peace treaty between the perspectives, a necessary cessation of open antagonism, and if literal conflicts between groups of people offers any insights, inter-marriage, trade of ideas, and travel of individuals between them that bind the groups in lasting ties of unity and peace need to come next.

1. Mertens, Donna M. 2018. Mixed Methods Design in Evaluation. Thousand Oaks, CA: Sage. [↑](#footnote-ref-1)
2. It would take me well beyond the scope of this essay to justify the two arguments made in this sentence, but suffice to say for now that I intend to write a much longer paper arguing these points in a future essay. [↑](#footnote-ref-2)