



Critical dialectical pluralism as a transformative multidimensional metaparadigm and metaphilosophy for mixed methods research

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ABSTRACT

Critical Dialectical Pluralism (CDP), a mixed methods research-based metaparadigm and metaphilosophy that hinges on a synthesis of diverse methodological and philosophical perspectives, substantially has influenced mixed methods research. The core tenets of CDP—social justice, inclusion, diversity, equity, and social responsibility (i.e., SIDES)—which represent the five pillars of CDP, intricately are woven into each phase of the research process, from conceptualization to dissemination, promoting an egalitarian approach that values participant empowerment and ethical considerations. After discussing the fundamentals of mixed methods research-based philosophies and addressing their respective assumptions and stances, we address how CDP redefines traditional roles within research by engaging participants as co-researchers and transforming researchers into facilitators, thereby democratizing the research process, enriching the data collection and analysis stages, and ensuring that findings are both methodologically robust and culturally pertinent. Through its application in various research settings, CDP has demonstrated significant contributions to the fields of psychology, education, health, and social sciences, among others. It has enabled researchers to tackle complex and multifaceted issues by employing mixed methods research approaches grounded in ethical practices and aimed at fostering positive social change. Therefore, CDP stands out as a critical framework for contemporary research endeavors that seek to transcend traditional academic boundaries and to make a tangible impact on society. This article highlights the pivotal role of CDP in advancing mixed methods research and underscores its potential for shaping future research paradigms/philosophies.

Research philosophies play a foundational role in the conceptualization, design, and implementation of mixed methods research-based studies (Coates, 2021; Onwuegbuzie et al., 2009). As Greene (2006, 2008) contended, philosophical assumptions and stances drive a methodology's development and provide a lens that can be applied across the research process, from research conceptualization to research planning to research implementation to research dissemination to research utilization. By aligning with the ontological and epistemological beliefs of the researcher, thereby ensuring methodological coherence, the researcher's philosophical assumptions—whether conscious or subconscious—influence all 12 components of the research process identified by Onwuegbuzie and Frels (2016), namely: problem statement, literature review, theoretical/conceptual framework, research question(s),

hypotheses, participants, instruments, procedures, analyses, interpretation of the findings, directions for future research, and implications for the field.

1. Philosophical assumptions and stances of the most common mixed methods research-based research philosophies

There are 14 most common mixed methods research-based philosophies (Onwuegbuzie and Corrigan, 2021), which include a diverse array of philosophical perspectives, each reflecting unique views on ontology (i.e., the nature of reality), epistemology (i.e., the study of knowledge and the ways in which it is acquired), axiology (i.e., the role of values and what is deemed important in research), and methodology (i.e., the

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structured approaches used to undertake research). As showcased in [Table 1](#), collectively, these philosophies underscore a commitment to a holistic and inclusive research approach to capture the complexities of human experiences and social phenomena, valuing the intricate nature of social realities and the need for methodological flexibility effectively to address complex and complicated research questions, as well as aiming to generate practical, theoretically rich, and socially responsible research outcomes.

However, what becomes clear is that, across these prominent (families of) philosophies associated with mixed methods research, there is a lack of attention to what can be referred to as *within-study social justice*, wherein there is a hierarchy privileging the researcher(s) and not the participant(s). Here, we differentiate *within-study social justice* from what we refer to as *outcome-oriented social justice* or *external social justice*, which reflects an emphasis on using research to address systemic inequities and to improve the lives of underserved and marginalized populations. Whereas within-study social justice facilitates equity throughout the research process, outcome-oriented social justice focuses on using the findings and applications of research to achieve broader societal change.

This lack of attention to within-study social justice by other research philosophies is a major void that critical dialectical pluralism (CDP) attempts to fill. CDP is a transformative multidimensional metaparadigm and metaphilosophy that enhances the integration of qualitative and quantitative research approaches, methods, and techniques, fostering comprehensive and socially responsive research practices. Unlike all the philosophies presented in [Table 1](#), CDP specifically and intentionally attempts to flatten hierarchies, to engage the participant-as-researcher, and to privilege collaborative and equity-based research practices from conceptualization to publication and presentation.

2. Mixed methods research-based philosophies as a lens for methodological development

Although all 14 mixed methods research-based philosophies have played important roles in the *conduct* of mixed methods research, one of them—CDP—stands out for its contribution to the *development* of mixed methods research across the fields of social and behavioral sciences—including the fields of psychology and education—as well as other fields (e.g., medicine, health, business, engineering, information technology, natural sciences). Indeed, CDP already has contributed significantly to the development of mixed methods research by introducing various approaches, methods, and techniques that emphasize the integration of diverse paradigms and, at the same time, promote social justice.

In what follows, we focus on CDP and dialectical pluralism (DP), its precursor and inspiration, as a mixed methods research-based philosophy. This includes a discussion about the birth and development of CDP and a comparison of CDP and DP. Finally, and most importantly, is a discussion about the ways that CDP has motivated the development of research approaches (i.e., overarching frameworks that guide the direction and context for conducting research, influencing decisions about data collection, analysis, and interpretation), research methods (i.e., specific procedures used to identify, to select, to process, and to analyze data as part of the broader research approach), and research techniques (i.e., the practical steps or operations carried out within a method to collect or to analyze data during the research process).

3. Birth of critical dialectical pluralism

Tony (first author) first embraced dialectical pluralism (DP) after attending a plenary address by Professor Emeritus R. Burke Johnson in 2011 at the Seventh International Congress of Qualitative Inquiry at the University of Illinois at Urbana-Champaign ([Johnson, 2011](#)). Inspired by Professor Johnson's vision, Tony adopted DP as his principal philosophical lens. This alignment led to fruitful collaborations with Professor

Johnson on workshops (e.g., [Tucker et al., 2015](#)) and scholarly publications (e.g., [Johnson et al., 2014](#)). To this day, Tony continues to champion DP in his academic work (e.g., [Tucker et al., 2020](#)).

However, as a long-time advocate of social justice, with early contributions including keynote addresses (e.g., [Onwuegbuzie and Daley, 1996](#)), invited talks ([Onwuegbuzie and Daley, 2001](#)), conference presentations (e.g., [Onwuegbuzie, 1997](#)), journal articles ([Onwuegbuzie, 2001](#)) and handbook chapters (e.g., [Daley and Onwuegbuzie, 2011](#)), Tony began to see that an extension of DP, a conceptually rich philosophy, could attend more deeply to social justice in a *practical sense*. In 2012, this realization deepened after attending a keynote address by Professor Emerita Marie Battiste, a Mi'kmaq educator and thought leader in Indigenous education, decolonization, and Indigenous knowledge systems. Delivered at the American Educational Research Association (AERA) conference in Vancouver, her keynote address highlighted the exploitative practices of Western researchers who historically conducted studies on Indigenous communities without providing tangible benefits to the people involved, often leaving the research site without ever returning or sharing the results—an extractive approach that she described as “take, take, take, with nothing given back.”

These words had a profound, career-changing impact on Tony, illuminating the urgent need for a more critical mixed methods research philosophy to address such exploitative practices. Upon returning home, Tony immediately began drafting a manuscript and, with important contributions from Dr. Rebecca Frels (i.e., the second author) and approval from Professor Johnson to use the term, *Critical Dialectical Pluralism* (CDP), CDP made its debut ([Onwuegbuzie and Frels, 2013](#)). Since then, CDP has been heralded as a transformative, socially responsive framework that promotes culturally sensitive research ([Burnette et al., 2014](#)), culturally responsive research ([Trainor and Bal, 2014](#)), culturally engaged research ([Hayward, 2005](#)), culturally competent research (e.g., [Lee and Zaharlick, 2013](#)), and cultural progressive research ([Onwuegbuzie and Frels, 2016](#)). CDP is designed to rectify the inequities inherent in traditional research practices and to take meaningful steps to ensure that research directly benefits those participating in the study. As declared in the CDP article:

As can be seen, critical dialectical pluralism goes far beyond other transformative-based paradigms (e.g., transformative-emancipatory, critical theory, critical race theory, critical ethnography, critical quantitative research, feminist theory) by maximally involving participants as researchers throughout the (mixed) research process. The premise behind critical dialectical pluralism is that wide power differentials prevail in these transformative-based paradigms because the researchers representing these paradigms exercise control over decisions made at all stages of the research process, especially with respect to research dissemination and utilization. Because the knowledge that is constructed emanates from the participants themselves, they should have a voice as to how it should be disseminated. Too often, researchers go into study sites, collect the data they need, secure publication of their findings (e.g., journals articles, book chapters, books) in a way that advances their careers, and do not pay enough attention of how the research that they conducted impacted the participants beyond the study (i.e., long-term beneficence). When we act in this way, we assume the role more of takers than givers, which we believe is unacceptable, especially when we are conducting social justice and human rights research. Thus, we believe that critical dialectical pluralism offers a way to redress this balance. ([Onwuegbuzie and Frels, 2013](#), p. 22)

Given that CDP builds on the tenets of DP, in what follows is a closer examination of DP and an explanation of how it is a foundational concept to CDP.

Table 1
Philosophical assumptions and stances of the most common mixed methods research-based research philosophies.

Research Philosophy	Ontology	Epistemology	Axiology	Methodology
Pragmatism-of-the-middle philosophy (Johnson et al., 2007; Johnson and Onwuegbuzie, 2004)	Reality is context-dependent, action-based, and fluid, shaped by actions and experiences.	Knowledge acquisition occurs through practical action and iterative inquiry.	Value-laden, focused on outcomes and solutions. Emphasizes practical solutions over theoretical purity.	Integrative, using mixed methods research to address complex problems. Supports mixed methods research as being needed to solve practical problems.
Pragmatism-of-the-right (Putnam, 2002; Rescher, 2000)	Weak pluralism with multiple realities seen as practical constructs. Acknowledges multiple, albeit limited, realities.	Supports a moderate realism with a focus on practical knowledge.	Values are secondary to practical outcomes. Values outcomes that are pragmatically useful.	Uses mixed methods research pragmatically, tailoring approaches to the context. Employs mixed methods research with a pragmatic and realistic approach.
Pragmatism-of-the-left (Maxcy, 2003; Rorty, 1991)	Multiple co-existing realities that are socially constructed.	Strong pluralism, anti-realism, valuing diverse perspectives.	Emphasizes the importance of diverse perspectives and inclusivity.	Flexible, promoting the integration of different methodological perspectives.
Anti-conflationist (Bryman, 1992; Hammersley, 1992; Layder, 1993; Roberts, 2002)	Variable, depending on the alignment of specific methodological uses. Each method can reflect different realities.	Seeks to maintain clarity between methodology and methods. Prioritizes distinct epistemological foundations for each method.	Advocates for principled methodological integration.	Cautious about method integration, stressing epistemological and ontological consistency. Opposes combining methods with different philosophical foundations unless a common stance can be maintained.
Critical realist (Houston, 2001; Maxwell, 2004; Maxwell and Mittapalli, 2010; McEvoy and Richards, 2003, 2006)	Realism underpinned by an awareness of societal influences. Seeks to uncover deep, often hidden social structures.	Supports knowledge that acknowledges and addresses social structures. Belief in an objective reality influenced by social conditions.	Committed to identifying, challenging, and addressing social injustices and inequalities.	Often uses mixed methods research to uncover and to address layers of reality. Combines methods to reflect different levels of reality.
Dialectical stance (Greene, 2007, 2008; Greene and Caracelli, 1997; Greene and Hall, 2010; Maxwell and Loomis, 2003; Teddlie and Johnson, 2009)	Supports multiple realities that can be understood through engagement. Reality is dynamic and shaped by dialectical processes.	Dialogical engagement fosters a deeper understanding of contradictory data. Knowledge emerges from the synthesis of opposing views.	Values the productive tension between contradictory positions. Values knowledge creation through synthesis of opposing views.	Uses dialectical pragmatism to combine qualitative and quantitative stances.
Complementary strengths (Brewer and Hunter, 1989; Morse, 2003)	Maintains distinct realities for qualitative and quantitative data.	Each tradition illuminates different aspects of phenomena. Each method illuminates different aspects of a problem.	Sees value in maintaining integrity of each methodological tradition.	Keeps qualitative and quantitative methods distinct but views them as complementary.
Transformative-emancipatory (Mertens, 2003, 2007, 2010; Mertens et al., 2010)	Reality is shaped by social, political, and cultural dynamics, including power and social relations.	Knowledge is participatory and aimed at social change.	Focuses on anti-discrimination and liberation, as well as on empowerment and challenging injustice.	Employs methods that facilitate empowerment and social change, as well as address marginalization.
A-paradigmatic (Patton, 2002; Reichardt and Cook, 1979)	Acknowledges multiple realities based on context and pragmatic needs.	Practical issues guide methodological choices, independent of philosophical commitments.	Prioritizes practical outcomes over philosophical purity. Also prioritizes effectiveness and utility in research.	Chooses methods based on their practical applicability and utility for specific research contexts.
Substantive theory (Chen, 2006)	Reality is viewed through theoretical lenses.	Theoretical frameworks guide understanding and integration of methods.	Values deep theoretical coherence and insights into research topics.	Methods are selected and integrated based on their ability to serve the theory.
Communities of practice (Denscombe, 2008)	Reality varies across different communities of practice.	Knowledge is socially constructed within communities.	Values practical and community-driven research outcomes.	Adapts methods to fit the norms and needs of research communities. Adapts methods to community norms and needs.
Phenomenography (Feldon and Tofel-Grehl, 2022)	Reality is constituted by human perceptions and experiences. The reality is constituted by individual perceptions.	Focuses on understanding the variations in human experiences. Focuses on understanding the variations in people's experiences and perceptions.	Values individual perspectives as central to understanding phenomena. Emphasizes capturing and respecting personal experiences.	Identifies and describes different ways individuals experience the world.
Dialectical pluralism (Johnson, 2012, 2017; Johnson et al., 2014; Tucker et al., 2020)	Embraces a pluralist view of reality, acknowledging subjective, objective, intersubjective, and disciplinary realities.	Integrates multiple epistemological perspectives within the same inquiry.	Values the integration of diverse agreed upon viewpoints to enhance understanding and improvement in the world.	Employs a dialectical, dialogical, hermeneutical approach that focuses on the synthesis of diverse perspectives into win-win solutions.
Critical dialectical pluralism (Onwuegbuzie and Frels, 2013; Onwuegbuzie et al., in press-b)	Recognizes multiple forms of reality, including those shaped by social injustices.	Engages with multiple perspectives to uncover and to challenge underlying power structures. Integrates a critical stance on social structures into its epistemological approach.	Committed to social justice, equity, diversity, and inclusion.	Focuses on facilitating research that promotes social change and addresses power imbalances, with participants actively involved in the research process. Advocates for research practices that are culturally responsive and engage participants as co-researchers to promote global justice.

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4. Dialectical pluralism explained

DP, as developed by Professor Emeritus R. Burke Johnson, stands out as a uniquely flexible and integrative philosophical approach in mixed methods research. It offers a profound solution to some of the most persistent challenges in the field of research, particularly the long-standing divide between quantitative and qualitative research traditions. DP's emphasis on *dialectical engagement*—the process of reconciling conflicting viewpoints and integrating diverse paradigms—creates a framework that not only respects, but also thrives on pluralism, diversity of thought, and epistemological flexibility.

4.1. Embracing complexity and diversity of perspectives

DP offers researchers an invaluable metaparadigm/metaphilosophy that actively encourages the inclusion of multiple realities (i.e., subjective, objective, and intersubjective) and diverse forms of knowledge. Rather than compelling researchers to choose between one rigid tradition or another, DP fosters an environment of philosophical openness and inclusivity, which can lead to richer, more comprehensive insights into complex phenomena. By acknowledging and integrating diverse viewpoints, DP honors the complexity of reality and promotes holistic research practices that are capable of addressing multifaceted societal problems. In particular, DP has overarching traits that include, but are not limited to, the following:

- **The Power of Dialectical Engagement:** At the heart of DP is its focus on dialectical engagement, wherein researchers critically and constructively engage with contrasting paradigms, epistemologies, and traditions, a process of dialogue and synthesis that facilitates intellectual growth and the generation of new knowledge. DP transforms tensions in seemingly irreconcilable contradictory paradigms/philosophies into opportunities for greater understanding and innovative research approaches.
- **Ethical Pluralism and Reflexivity:** Rooted in reflexivity, a cornerstone of DP, *ethical pluralism* involves researchers reflecting deeply on their own positionalities, values, and biases—considering multiple ethical perspectives—and then adjusting their research practices to ensure that the research is *ethically sound* and sensitive to the varied values and needs of stakeholders. The result is *ethically responsible research* that involves respect for diversity in values, in methodologies, and in participant perspectives.
- **Promoting Interdisciplinary Collaboration:** DP particularly is effective in transcending disciplinary boundaries, facilitating collaboration among fields, such as psychology, sociology, education, and health. This cross-disciplinary approach is critical for addressing complex societal issues that cannot be understood fully from a single disciplinary lens.
- **Flexibility Without Relativism:** DP is grounded in a commitment to intellectual rigor and *theoretical synthesis*, ensuring that integration across paradigms is deeply reflective and methodologically sound. DP enables researchers to select the most appropriate methods for their research questions while still maintaining a coherent philosophical stance, thereby making DP highly applicable to a variety of research settings, from exploratory qualitative research studies to robust quantitative research designs.
- **Socially Relevant and Inclusive Research:** DP's emphasis on engaging multiple perspectives ensures that marginalized voices and alternative viewpoints are not excluded from the research process. By creating space for these perspectives, DP contributes to social justice in a *theoretical* sense, advocating for the inclusion of diverse stakeholder voices in the construction of knowledge.

Overall, DP is a process theory or general framework that integrates multiple ontologies, epistemologies, methodologies, and methods, aiming for win-win solutions and agreements. It offers specific strategies

to achieve these goals. Consequently, DP stands as one of the most promising and powerful research philosophies in contemporary (mixed methods) research. Its strength lies in its ability to harmonize opposing paradigms/philosophies, its commitment to intellectual growth through synthesis, and its dedication to ethical pluralism. DP promotes a rich, inclusive, and dynamic research environment that respects the diversity of human knowledge and experience, and it is the foundation upon which CDP was developed.

5. Critical dialectical pluralism explained

Initially conceived as CDP 1.0 (Onwuegbuzie and Frels, 2013), the metaphilosophical/metaparadigmatic framework advances the principles of DP by adopting a critical viewpoint on social issues, fostering reflexivity, confronting prevailing power imbalances, and embracing a wide range of perspectives. The CDP 1.0 framework synthesizes dialectical, dialogical, and hermeneutical elements in order to construct a distinctive and adaptable philosophical perspective specifically tailored to each individual research study or program evaluation. This is achieved through the meticulous consideration and amalgamation of various traditions, disciplines, theories, and viewpoints from both stakeholders and citizens. Additionally, CDP 1.0 prioritizes the ethical execution of research to enhance the distribution and the practical application of research outcomes, as well as the assessment of the societal impacts of such research.

CDP 1.0 also embodies a metaparadigmatic/metaphilosophical approach that encourages more holistic and ethically robust research practices. Uniquely, it transforms the role of the (mixed methods) researcher into a (mixed methods) research facilitator and redefines research participants as participant-researchers, aiming to generate actionable insights and solutions for pressing social issues, especially those pertaining to social justice. Thus, this advocacy-focused philosophy ideally is suited for research endeavors that aim to decipher complex social issues and strive to instigate change and advance justice by integrating diverse viewpoints and tackling inherent power structures within the research framework itself.

Recently, Onwuegbuzie et al. (in press-b) have expanded CDP 1.0 into what they call CDP 2.0. This version builds on its predecessor by stressing the importance of social justice, inclusion, diversity, equity, and social responsibility, collectively encapsulated in the acronym SIDES, and yielding the *Five Pillars of CDP* (Onwuegbuzie et al., in press-b). Furthermore, CDP 2.0 introduces a more refined and systematic framework for ethical research practices that actively challenge and aim to dismantle hierarchical and systemic inequities both within research environments and broader society. CDP 2.0 places a strong emphasis on the outcomes of research, ensuring alignment with the pressing educational, social, and ethical challenges of today. CDP 2.0 further refines the roles of researchers as research facilitators and participants as co-researchers, making the research process more democratic from inception to application and transforming the traditional dynamics between researchers and participants into a collaborative partnership. This marks a methodological milestone: participants are not perceived as research subjects; rather, participants are vital co-researchers. With this update, CDP 2.0 introduces a transformative research framework that conceptualizes research as a metaphilosophy of life with significant impacts on both academic and broader societal levels—one that is ethically sound, methodologically inclusive, and transformative beyond just the scholarly community. The vision for CDP 2.0—henceforth only referred to as CDP—is to foster a global shift towards a more just and equitable society.

6. Critical nature of critical dialectical pluralism

The critical nature of CDP emerges from its explicit commitment to social justice, equity, and the empowerment of marginalized voices. Although DP focuses on integrating diverse philosophies and

perspectives, CDP extends this by adopting a critical stance that challenges power structures, seeks to address societal inequities, and promotes transformative change. The *critical* aspect of CDP is derived from its alignment with critical theory (e.g., feminist theory [Sarikakis et al., 2008]; post-colonial theory [Parsons and Harding, 2011]; critical race theory [Delgado and Stefancic, 2012]) and participatory research approaches [Wallerstein and Duran, 2006]), as well as their applications to research practices, making it a pluralist framework deeply committed to activism and real-world impact.

This critical stance means that CDP researchers actively seek to include historically silenced or marginalized voices, with the goal of creating a more equitable society. A critical aspect of CDP is its emphasis on reflexivity, requiring researchers to reflect on their biases, power, and impact of their work on studied communities. Reflexivity ensures that researchers remain ethically aware, minimizing harm and maximizing benefits, while adapting their approach to keep the process equitable and transparent.

7. Dialectical nature of critical dialectical pluralism

The dialectical nature of CDP is central to its framework because it reflects the integration and synthesis of multiple, often opposing, perspectives to address complex and complicated social issues—including *wicked problems*, which refer to “problems involving multiple interacting systems, replete with social and institutional uncertainties, for which there is no certainty about their nature and solutions, and for which time is running out to find solutions” (Mertens et al., 2016, p. 225). As noted by Mertens et al. (2016), “additional concepts related to researching wicked problems include the need for researchers to address power inequities, violations of human rights and impediments to social justice, and strategizing for action in the form of policies and behaviors” (p. 225). The dialectical process in CDP involves critically engaging with contradictions and tensions among different viewpoints, traditions, or methodologies, with the aim of producing new insights and transformative change.

The dialectical nature of CDP involves the synthesis of seemingly contradictory viewpoints, traditions, or methodologies. Like DP, rather than choosing one over the other, CDP encourages researchers to engage with the strengths and weaknesses of each research philosophy, finding ways to combine them to address research questions more comprehensively. Researchers are encouraged to embrace complexity and to work through the tensions that arise in their research, a continuous engagement reflecting Hegel’s (1977) dialectical principle of thesis-antithesis-synthesis, wherein new understanding emerges from the interaction of opposing ideas.

This process supports nuanced and balanced understandings of complex and complicated issues and the critical questioning of how traditional research practices might perpetuate inequities, with diverse perspectives contributing to a unified and transformative outcome.

8. Pluralistic nature of critical dialectical pluralism

CDP inherently is pluralistic in its approach to mental models in research, integrating multiple philosophies, perspectives, methodologies, approaches, methods, techniques, and the like, into a coherent framework designed to address complex and complicated social and health issues. CDP emphasizes the need for inclusivity and diversity in (mixed methods) research—representing the “I” and “D” in SIDE-S—acknowledging that no single approach, method, or technique can capture fully the multifaceted nature of reality, especially when addressing issues of social justice, equity, and social responsibility—representing the “S,” “E,” and “S” in SIDES. In what follows is a detailed discussion of the pluralistic nature of CDP, along with examples that highlight its pluralism.

8.1. Integration of multiple research philosophies

At its core, CDP is built on the integration of multiple research philosophies, including, but not limited to, postpositivism (e.g., Phillips and Burbules, 2000), constructivism (e.g., *social constructivism* [Vygotsky, 1962, 1978], and critical theory (e.g., feminist theory [Sarikakis et al., 2008]; post-colonial theory [Parsons and Harding, 2011]; critical race theory [Delgado and Stefancic, 2012]). Unlike research philosophies that assert the supremacy of a single worldview, CDP seeks to blend and to integrate the strengths of these multiple perspectives.

8.2. Epistemological flexibility

Whereas many paradigms are rooted in specific epistemological assumptions (e.g., the existence of objective knowledge that cannot be fully known in postpositivism or subjective knowledge in constructivism), CDP recognizes that knowledge is both multiple and context-dependent. It blends objective, subjective, and intersubjective ways of knowing, allowing for more nuanced and contextually relevant understandings of complex phenomena.

8.3. Methodological pluralism

As is the case for DP, CDP encourages the use of both qualitative and quantitative research methods. Also, like DP researchers, CDP researchers are not limited to a single methodological tradition but are encouraged to select and to combine methodological approaches that best suit the research questions and the needs of the communities involved. However, CDP extends methodological pluralism by advocating that two traditions with pluralist approaches—mixed methods research and multiple methods research (i.e., multimethod research)—be integrated within the same inquiry (Onwuegbuzie and Hitchcock, 2019a, 2019b).

8.4. Inclusion of multiple voices

CDP encourages researchers to involve participants not just as participants, but also as co-researchers, co-creators, and co-decision makers, an approach that helps to flatten traditional hierarchies and to ensure that marginalized perspectives are represented and valued. This collaborative approach fosters a more equitable and inclusive research environment, wherein knowledge is co-constructed and shared authority enhances the depth and relevance of the findings.

8.5. Ethical pluralism

Through the re-framing of participants as co-researchers, co-creators, and co-decision makers, CDP maximizes *non-maleficence* (i.e., not causing harm to others); *beneficence* (i.e., working for the benefit of others); *(social) justice* (i.e., making decisions guided by universal principles and rules, in an impartial and justified manner, to ensure fair and equitable treatment for everyone); *fidelity* (i.e., demonstrating loyalty, commitment, and faithfulness); *professional competence* (i.e., recognizing limitations and carrying out tasks within the researcher’s expertise and knowledge of the topic being studied and the results presented); *integrity* (i.e., being fair, honest, and respectful of others’ data and representing their data appropriately); *scholarly responsibility* (i.e., adhering to best practices via documentation [i.e., leaving an audit trail] and reflecting on the methodological choices made); *social responsibility* (i.e., demonstrating an awareness of the social aspects related to the underlying topic); and *respecting rights, dignity, and diversity* (i.e., making efforts to eliminate bias in the representation of others’ data and ensuring no discrimination against participants based on their unique characteristics or exceptionalities). CDP also promotes an ethical stance that is responsive to multiple moral frameworks while also taking into account the specific cultural and social context of the research. The sum of all

these ethical stances provide a pathway for researchers to be *meta-ethical*, which implies adherence to *virtue ethics* (i.e., referring to the *character* of the researcher as the impetus for ethical behavior, as opposed to focusing on rules) and *pragmatic ethics* (i.e., using the standards set by communities under the assumption that communities are progressing morally in line with the progression of scientific knowledge).

8.6. The marriage of critical, dialectical, and pluralism

The three fundamental CDP concepts—criticality, dialectics, and pluralism—inherently are compatible and co-exist harmoniously within the framework due to their interrelated contributions to a comprehensive and transformative research philosophy. Criticality ensures that the research actively seeks to dismantle oppressive structures, dialectics provide the mechanism for integrating diverse perspectives, and pluralism guarantees that a wide range of methodologies and worldviews are considered. Together, they form the foundation of CDP, which not only seeks to understand, but also aims to transform social realities for the betterment of marginalized communities.

9. Theoretical and practical applications of CDP

CDP integrates diverse epistemologies and methods, aligning them with social justice goals. It promotes empowerment and equity through dialectical engagement, reconciling different perspectives while preserving diversity throughout the research process. CDP acts as both a theoretical metaparadigm and a practical set of methods. Theoretically, it provides a framework for integrating diverse approaches with a focus on social justice. Practically, it uses participatory techniques to involve participants as co-researchers, embedding equity at every research stage. In complex studies, the theoretical role shapes the philosophical direction, while methods ensure inclusivity through actionable steps.

10. Dialectical pluralism versus critical dialectical pluralism

Table 2 provides a summary of comparisons between DP and CDP with regard to their respective philosophical assumptions and stances. As can be seen from this table, both DP and CDP share similarities in recognizing multiple realities, the integration of qualitative and quantitative research methods, and the importance of ethics and values in research. The relationship between DP and CDP becomes particularly pronounced when examining how each engages with social justice. Although both frameworks advocate for the integration of diverse perspectives and paradigms, they differ significantly in their approach to addressing power imbalances and systemic inequities. DP focuses on theoretical engagement, promoting pluralism and philosophical synthesis, whereas CDP extends these principles into practice, actively reshaping research to prioritize participant empowerment and equitable research outcomes. Furthermore, unlike DP, CDP also represents 10 metaphilosophies, something we describe later.

10.1. Social justice: dialectical pluralism versus critical dialectical pluralism

DP addresses social justice more abstractly through the synthesis of diverse perspectives and theoretical paradigms. It allows for engagement with justice-oriented paradigms but does not mandate practical actions to involve marginalized groups directly in the research process. In contrast, CDP embeds social justice into both the theoretical and the practical dimensions of research. It empowers participants as co-researchers, co-creators, and co-decision makers, prioritizing the needs of underserved, marginalized, oppressed, disenfranchised, and silenced communities and promoting equitable, socially responsible research processes. Whereas DP's philosophical approach fosters pluralism theoretically, CDP's emphasis on ethical practice and participant

empowerment makes it practical in addressing social justice issues.

10.2. Key comparisons

- **Dialectical Pluralism** focuses on integrating multiple paradigms/philosophies, including those addressing social justice, but does not center on social justice or prescribe specific actions for addressing inequities. Its strength is philosophical engagement and synthesis. It adds value through its dialectical process, fostering greater interdisciplinary integration and philosophical flexibility.
- **Critical Dialectical Pluralism** centers on social justice explicitly, emphasizing ethical engagement and flattening power hierarchies by making participants co-researchers, co-creators, and co-decision makers. It goes beyond dialogue actively to address systemic inequities, offering a more practical and socially responsible research framework. It adds value by explicitly integrating social justice principles, empowering underserved, marginalized, oppressed, disenfranchised, and silenced voices, and transforming participants into co-researchers, co-creators, and co-decision makers.

10.3. CDP extending and complementing DP

As can be seen, both DP and CDP share core elements, such as the integration of multiple perspectives and methodologies, reflecting a pluralist approach to research. Although DP focuses on the philosophical engagement and synthesis of multiple perspectives, CDP adds a critical dimension. CDP takes DP's dialectical underpinning and applies it in a way that integrates diverse paradigms and actively critiques power structures and aims to create transformative change. The socially responsive goals of CDP, such as promoting equity and addressing marginalization, make it a more targeted and action-oriented extension of the original DP framework.

CDP builds on and extends the core principles of DP by incorporating many of its pluralist and integrative aspects, while adding a critical dimension that emphasizes CDP's five pillars and the transformation of power structures. It expands DP's philosophical and methodological flexibility to address real-world inequalities and to empower underserved, marginalized, oppressed, disenfranchised, and silenced voices in research. However, this does not render DP redundant. Both CDP and DP share foundational principles of pluralism and the integration of diverse methodologies and paradigms. DP offers a broad framework for engaging with multiple perspectives and synthesizing diverse approaches, which also is a key feature of CDP. This commonality ensures that DP remains a relevant and essential philosophical foundation. CDP should be viewed as an extension of DP rather than as a replacement. CDP advances the principles of DP by embedding them within a critical framework that actively seeks to transform societal structures. Therefore, CDP does not make DP redundant but, instead, applies DP's pluralism in more socially engaged research contexts. DP continues to serve as a useful framework for researchers prioritizing pluralism and methodological synthesis without the need for an explicit critical agenda. Both approaches are complementary, and the choice between them depends on the specific goals of the research.

11. Critical dialectical pluralism versus critical-based, participatory-based, and transformative-emancipatory research philosophies

CDP contrasts with critical-based, participatory-based, and transformative-emancipatory research philosophies. Unlike critical-based research, which often advocates for monomethod quantitative (Baez, 2007; Teranishi, 2007) or qualitative approaches (Delgado and Stefancic, 2012), CDP emphasizes mixed methods. Although participatory-based research often is qualitative (Hall et al., 2021), it sometimes maintains hierarchical structures that hinder true participant involvement (Onwuegbuzie, 2022; Onwuegbuzie et al., in press-b). CDP,

Table 2
Comparison of critical dialectical pluralism (CDP) and dialectical pluralism (DP).

Philosophical Assumptions and Stances	CDP (Critical Dialectical Pluralism)	DP (Dialectical Pluralism)	Similarities	Differences
Ontology	Multiple constructed realities focused on social justice, with participants as co-researchers, co-creators, and co-decision makers. Reality is co-constructed through the 10 CLEAR STEPS (i.e., <u>C</u> ultural, <u>L</u> ife, <u>E</u> nvironmental, <u>A</u> cademic, <u>R</u> esearch, <u>S</u> piritual, <u>T</u> heoretical, <u>E</u> thical, <u>P</u> olitical, and <u>S</u> ocietal) metaphilosophies. The five pillars of social justice, <u>i</u> nclusion, <u>d</u> iversity, <u>i</u> nclusion, and <u>s</u> ocial responsibility (i.e., SIDES) frame all interpretations and actions, integrating interdependence among global and local realities.	Multiple realities (subjective, objective, intersubjective), integrated dialectically through humanistic engagement.	Both recognize multiple constructed realities and focus on diverse perspectives.	CDP emphasizes CLEAR STEPS metaphilosophies, prioritizing empowerment and social justice (the “critical” in CDP underscores the particular focus on social justice), whereas DP integrates realities dialectically without centering explicitly on social justice.
Epistemology	Knowledge is co-created by blending diverse perspectives, academic and spiritual inquiry, and cultural experiences, advancing equity and inclusivity. Reflexivity, inclusivity, and lived experience are central.	Epistemological pluralism, integrating subjective and objective knowledge through dialectical synthesis, valuing theoretical and practical synthesis for problem-solving.	Both emphasize multiple forms of knowledge and the importance of integrating diverse perspectives.	CDP explicitly ties epistemology to CLEAR STEPS, focusing on participant engagement as well as underserved, marginalized, oppressed, disenfranchised, and silenced perspectives, whereas DP emphasizes theoretical integration without a direct empowerment agenda.
Methodology	Integration of qualitative research methods and quantitative research methods, focusing on ethical, participant-centered research. Methodologies are participatory, integrating cultural, environmental, and societal dimensions of CLEAR STEPS to address global challenges holistically. Ethical participant involvement is prioritized.	Combines diverse methodologies while rejecting rigid paradigmatic boundaries, encouraging practical pragmatism in research.	Both support methodological pluralism and the integration of qualitative research and quantitative research approaches.	CDP explicitly aligns methodology with CLEAR STEPS, emphasizing social justice and participant inclusion, whereas DP focuses specifically on pragmatic synthesis without explicit systemic empowerment.
Rhetoric	Ethical, transparent communication (aligned with Ethical and Societal dimensions) focused on democratizing research and flattening power structures. This communication fosters participatory dialogue and amplifies underserved, marginalized, oppressed, disenfranchised, and silenced voices. Power redistribution is key.	Dialectical engagement with clear communication among different paradigms in order to ensure clarity and intellectual engagement.	Both emphasize effective communication across paradigms.	CDP focuses on democratizing communication and redistributing power, whereas DP centers on intellectual clarity without explicit empowerment goals.
Nature of Knowledge	Knowledge integrates the Cultural, Life, Academic, and Spiritual dimensions of CLEAR STEPS. It is transformative, advancing equity and inclusion. Practical and theoretical knowledge are essential. Underserved, marginalized, oppressed, disenfranchised, and silenced voices and interdisciplinary approaches are central.	Synthesized knowledge from diverse paradigms and disciplines, focused on interdisciplinary understanding, and creating coherent, pluralistic understandings.	Both support the integration of multiple forms of knowledge. Both value interdisciplinary and practical knowledge.	CDP explicitly advances inclusivity and equity through CLEAR STEPS, whereas DP specifically seeks broad epistemic coherence without a primary focus on addressing inequities.
Knowledge Accumulation	Promotes equitable knowledge distribution, ensuring that participants’ insights are valued. Knowledge grows through reflexive, equitable sharing aligned with Cultural, Life, and Academic dimensions. Emphasis is placed on lived experiences and empowering diverse participants.	Knowledge is accumulated through continuous dialectical engagement among paradigms, refining understandings across paradigms.	Both emphasize the continuous and iterative nature of knowledge accumulation through engagement.	CDP prioritizes equitable sharing and participation in knowledge creation (CLEAR STEPS), whereas DP emphasizes paradigm integration without an explicit equity agenda.
Goodness or Quality Criteria	Quality is assessed based on SIDES pillars (<u>S</u> ocial justice, <u>I</u> nclusivity, <u>D</u> iversity, <u>E</u> quity, and <u>S</u> ocial responsibility). Research is evaluated for its societal and ethical impact.	Quality is derived from rigorous dialectical synthesis, ensuring coherence and inclusivity across paradigms.	Both emphasize quality through ethical engagement and rigorous integration.	CDP directly links quality to the SIDES pillars and societal transformation, whereas DP emphasizes philosophical rigor and dialectical synthesis.

(continued on next page)

Table 2 (continued)

Philosophical Assumptions and Stances	CDP (Critical Dialectical Pluralism)	DP (Dialectical Pluralism)	Similarities	Differences
Values	Research is value-laden, promoting inclusion, equity, and social justice. Values are rooted in SIDES, guiding research and life practices to promote inclusivity, diversity, equity, and social responsibility. These values guide everyday behavior, decision making, and relationships.	Reflects a variety of values integrated through dialectical processes. Values reflect humanistic pluralism, emphasizing respect for diverse cultural and ethical standpoints without prioritizing equity or justice.	Both acknowledge the role of values in shaping research and decision making.	CDP centers its values on the CLEAR STEPS meta-framework and explicitly promotes systemic change, whereas DP incorporates pluralistic values without explicit prioritization of justice or equity.
Ethics	Ethics emphasize power redistribution, amplifying underserved, marginalized, oppressed, disenfranchised, and silenced voices, and promoting equity (CLEAR STEPS). Ethical decision making reflects Cultural and Societal dimensions.	Focuses on ethical pluralism, ensuring that multiple ethical perspectives are considered, accommodating varied cultural standpoints.	Both acknowledge the importance of ethical considerations in research and practice.	CDP explicitly prioritizes addressing systemic inequities through meta-ethical frameworks, whereas DP accommodates multiple ethical frameworks.
Inquirer Posture	Reflexive, humble, and inclusive. Researchers and participants are co-researchers, co-creators of knowledge, and co-decision makers working collaboratively to dismantle hierarchies (CLEAR STEPS).	Researchers engage dialectically, maintaining respect for diverse paradigms and fostering understanding through synthesis.	Both emphasize reflexivity and active engagement in the research process.	CDP emphasizes power redistribution and participant empowerment, whereas DP focuses on dialectical engagement among paradigms.
Training	Researchers should be trained in ethical, inclusive methods that dismantle hierarchies. Training also emphasizes critical thinking, empathy, reflexivity, and the SIDES pillars. It incorporates lifelong learning and preparation to address global issues inclusively.	Training focuses on understanding and integrating multiple paradigms, as well as developing analytical and integrative skills for synthesizing paradigms.	Both emphasize the importance of training in understanding paradigms and for comprehensive and reflective training.	CDP integrates the CLEAR STEPS metaphilosophies into training, fostering inclusivity and empowerment, whereas DP emphasizes skills for theoretical synthesis and focuses on philosophical integration.
Qualitative Analysis	Centers on participants' lived experiences, narratives, and storytelling to ensure inclusive and equitable research outcomes (CLEAR STEPS).	Qualitative insights are integrated dialectically to bridge paradigms and to inform broader synthesis.	Both support the use of qualitative analysis and value the richness and depth of qualitative data.	CDP prioritizes empowering underserved, marginalized, oppressed, disenfranchised, and silenced voices and addressing systemic inequities through qualitative analysis, whereas DP focuses on integrating qualitative insights into broader dialectical frameworks.
Quantitative Analysis	Quantitative data are used to complement qualitative findings, emphasizing equity and justice in alignment with the SIDES pillars. Data inform actionable societal change.	Combines quantitative data and qualitative data dialectically in order to create synthesized, holistic insights.	Both advocate for integrating quantitative and qualitative analyses.	CDP explicitly aligns quantitative analysis with addressing societal inequities and systemic challenges, whereas DP emphasizes balanced integration of data across paradigms without specifically prioritizing equity.

Adapted from "Philosophical assumptions and stances of the most common mixed methods research-based research philosophies," by Onwuegbuzie, (2024c), Unpublished Manuscript. Copyright 2024 by Anthony J. Onwuegbuzie.

in contrast, ensures participant involvement *throughout* the process, with mixed methods supporting social justice through both qualitative and quantitative data (Mertens, 2007). Transformative-emancipatory research also uses mixed methods but focuses on marginalized groups, aiming for participatory and emancipatory research (Mertens, 2003, 2007, 2010; Mertens et al., 2010). However, researchers still mediate participant voices (Onwuegbuzie and Frels, 2013), maintaining control over key decisions (Onwuegbuzie and Frels, 2013; Onwuegbuzie et al., in press-b). CDP, by contrast, offers a more inclusive approach, prioritizing participant involvement at every stage as co-ideators and co-decision makers (Onwuegbuzie and Frels, 2013).

12. Critical dialectical pluralism as a multidimensional metaphilosophy

CDP, originally introduced as a research framework, has evolved into a multidimensional philosophy centered on social justice, inclusion, diversity, equity, and social responsibility (SIDES) (Onwuegbuzie et al., in press-b). As seen in Table 2, CDP goes far beyond academia by addressing the complexities of human interaction and societal development through the CLEAR STEPS meta-framework, which encapsulates

10 interconnected metaphilosophies: Cultural (i.e., emphasizing the values, traditions, and practices that shape identity and interactions; [Onwuegbuzie and Abrams, 2024a]), Life (i.e., highlighting the interconnectedness of all living beings and promoting holistic well-being; [Onwuegbuzie et al., in press-b]), Environmental (i.e., exploring human-nature relationships to foster sustainability; [Onwuegbuzie and M. L. Abrams, 2024]), Academic (i.e., focusing on inclusive learning environments and critical thinking; [Onwuegbuzie and Abrams, 2024b]), Research (i.e., advancing systematic inquiry for societal benefit; [Onwuegbuzie and Abrams, 2024d]), Spiritual (i.e., engaging with existential and transcendent values for moral living; [Onwuegbuzie, 2024b]), Theoretical (i.e., developing frameworks to understand complex phenomena; [Onwuegbuzie and Abrams, 2024e]), Ethical (i.e., guiding just and equitable actions; [Onwuegbuzie and Abrams, 2024c]), Political (i.e., focusing on governance and equitable societal organization; [Onwuegbuzie, 2024a]), and Societal (i.e., analyzing systems and relationships that sustain human life; [Onwuegbuzie and C. Abrams, 2024]). Collectively, these metaphilosophies create a meta-framework represented by the acronym "CLEAR STEPS," which underscores the interconnected nature of human experience, promoting inclusivity, reflexivity, and empowerment across

various domains.

Each of these 10 metaphilosophies is articulated fully in separate works (i.e., Abrams and Schaefer, in press; Onwuegbuzie, 2024a, 2024b; Onwuegbuzie and Abrams, 2024a, 2024b, 2024c, 2024d, 2024e; Onwuegbuzie et al., in press-a), further solidifying the depth and scope of CDP 2.0. These 10 metaphilosophies make CDP 2.0 not just a metaphilosophy and metaparadigm, but a *multidimensional metaphilosophy and metaparadigm*, emphasizing inclusivity, empowerment, and sustainability across diverse contexts. Importantly, CDP plays a significant role in the daily lives of the authors of this article, influencing their personal interactions, decision making, and commitment to promoting social justice in every facet of their lives. By integrating the 10 CLEAR STEPS metaphilosophies, CDP 2.0 represents the most far-reaching philosophy used by mixed methods researchers, addressing global challenges with innovative, collaborative, and just solutions.

13. CDP-driven mixed methods research approaches

13.1. Integrated mixed methods design-based research

Onwuegbuzie et al. (2023b) applied CDP to design-based research (DBR), which is a methodology used in education wherein researchers collaborate with practitioners, such as teachers and other stakeholders, like parents, to create and to apply several versions of an intervention within a genuine educational setting. This application yielded what these authors referred to as integrated mixed methods design-based research (IMM-DBR). CDP has motivated the development of IMM-DBR via its focus on the integration of diverse philosophical and methodological perspectives that honor the voices and the contributions of all participants, especially those from marginalized, underrepresented, oppressed, displaced, ignored, and silenced groups. This integration is not merely theoretical; it is operationalized through critical participatory research practices that transform both participants and researchers into active co-investigators. This collaborative approach ensures that the research is grounded in the realities of the participants' lives, enhancing both the relevance and the impact of the findings.

Historically, DBR has not utilized fully its potential for integration within mixed methods research approaches (Maxwell, 2016), often limiting the interaction of qualitative and quantitative elements to the interpretation stage rather than throughout the research process (Onwuegbuzie et al., 2023a). Through CDP, this limitation is addressed by promoting a more profound integration wherein these diverse methods and perspectives are not only mixed, but also are fundamentally interwoven, from the conceptualization stage through to the implementation and dissemination stages. This approach allows for a richer, more nuanced and critical understanding of educational phenomena and fosters more robust, actionable solutions that are sensitive to the complexities of real-world educational settings.

13.2. Mixed methods narrative inquiry and mixed methods narrative research

Onwuegbuzie and Abrams (2024f) outlined both mixed methods narrative inquiry and mixed methods narrative research, which are research approaches that involve the integration of the methodologies and principles of mixed methods research (e.g., Creamer, 2018) with those of narrative inquiry and narrative research, respectively. These approaches aim to capitalize on the advantages of both quantitative and narrative research methodologies. They involve the systematic collection, analysis, and interpretation of narrative and quantitative data to investigate and to comprehend complex phenomena and to answer research questions effectively.

CDP's focus on social justice, inclusion, diversity, equity, and social responsibility aligns well with the goals of both narrative forms of research, which often seek to tell the stories of individuals and communities that typically are excluded from mainstream research. The

collaborative nature of CDP is particularly valuable in narrative inquiry, wherein the authenticity and the depth of the narratives are enhanced when participants-as-co-researchers are empowered to share their stories in their own words and through their own perspectives. Moreover, the methodological flexibility of CDP supports the use of mixed methods research to enrich both narrative inquiry and narrative research. For instance, quantitative data can provide a broader context for the individual stories collected through qualitative methods, whereas the qualitative data can add depth and personal dimensions to the statistical patterns observed in the quantitative data. This interplay between qualitative and quantitative elements under a CDP framework supports research that is both comprehensive and profoundly connected to the participants' realities, fostering research outcomes that are academically robust and socially transformative.

13.3. Integrated mixed methods autoethnography

Onwuegbuzie et al. (2024a, 2024b) introduced the concept of *integrated mixed methods autoethnography*, which is an approach whereby qualitative and quantitative elements of an autoethnography are combined in such a way that they become interwoven and mutually enriching, leading to a seamless blending of different methodological elements for a unified analysis and interpretation. CDP offers a robust framework to enrich the development and implementation of integrated mixed methods autoethnography by emphasizing a comprehensive integration of ontological, epistemological, axiological, and methodological perspectives that cater to both universal and local contexts. This approach actively engages the autoethnographer's personal experience while employing mixed methods research strategies to enhance the depth and scope of research findings. CDP's foundational principles of social justice, equity, and inclusivity—coupled with CDP's reflexivity—ensure that the self-reflective autoethnographic narratives take shape through the critical examination of power dynamics and societal structures that influence individual experiences.

By leveraging CDP, integrated mixed methods autoethnographers can transcend traditional research boundaries to explore and to articulate complex personal and cultural intersections in ways that otherwise are limited by existing structures. This critically based integration encourages a dialogue between subjective personal narratives and objective methodological rigor, providing a richer, multi-layered understanding of the research phenomenon. CDP's commitment to ethical considerations and empowerment of marginalized voices ensures that the research process becomes a tool for social change, enhancing the relevance and impact of the research within broader societal contexts.

13.4. Mixed peace research

CDP has provided a robust framework for advancing mixed peace research (Onwuegbuzie and Tashakkori, 2015), a methodology that involves integrating qualitative and quantitative research approaches via the adoption of a critical stance to address complex issues in peace studies. By emphasizing social justice, inclusion, diversity, equity, and social responsibility in research processes and outcomes, CDP aligns well with the goals of peace research, which often involves understanding and addressing multifaceted and deeply rooted conflicts.

CDP has played an important role in the development of mixed peace research because CDP supports the critical integration of qualitative and quantitative methodologies to capture the complex realities of conflict and peace and to foster a deeper understanding of peace phenomena. This approach aligns with Onwuegbuzie and Tashakkori's (2015) principles of *critical integrated research and evaluation* (CIRE), which promotes the combination of quantitative and qualitative research approaches to address multifaceted questions in peace research.

Moreover, CDP's focus on procedural and philosophical justice (i.e., fairness and ethical treatment based on principles of equality and moral

rights) can enhance the legitimacy and impact of mixed peace research. By involving participants in decision making, CDP ensures that the research process is participatory and empowering for all involved, helping to make the research more relevant and actionable for policy and practice in peacebuilding. This critical, participatory approach also helps to democratize the research process, reducing power imbalances and fostering a more equitable production of knowledge, ultimately contributing to more effective and sustainable peace interventions.

13.5. Mixed methods impact evaluations

Onwuegbuzie and Hitchcock (2017) introduced a meta-framework for conducting critical impact evaluations that they referred to as *mixed methods theory-based impact evaluations* (MMTBIEs), wherein mixed methods techniques are used at every phase of the research and evaluation process. CDP is particularly relevant for developing MMTBIEs due to its focus on inclusivity, reflexivity, and the integration of diverse epistemological and methodological approaches. The commitment of CDP proponents to egalitarianism and social justice aligns well with the goals of MMTBIEs, which aim to provide a comprehensive understanding of the impacts of interventions by integrating both quantitative and qualitative data. This pluralistic stance enables researchers to draw on a broad array of data sources and analytical techniques, fostering a more nuanced and complete picture of the impacts being evaluated. By valuing multiple kinds of reality (subjective, objective, intersubjective), CDP encourages the use of mixed methods research to capture the complexity of social phenomena and to address the needs and perspectives of diverse stakeholders.

Moreover, CDP's emphasis on reflexivity and dialogical engagement with different paradigms and stakeholder perspectives is crucial for MMTBIEs. The goal of these evaluations is critically to assess the outcomes of interventions and to understand the underlying processes and causal mechanisms. By integrating theories from evaluation science, social science, and program theory, MMTBIEs can provide deeper, critical insights into why and how interventions work, thereby enhancing their utility and relevance for policymakers and practitioners. CDP's explicit approach to stating and to embedding the epistemological and sociopolitical values of both researchers and stakeholders into the research process ensures that the findings are contextually grounded and ethically sound, ultimately leading to more effective and socially just interventions.

13.6. Child-parent research

Abrams et al. (2017, 2020) developed the concept of what they called child-parent research, a critical methodological approach that intentionally aims to dismantle traditional hierarchical structures in research and to elevate voices that often are marginalized and/or silenced (Abrams et al., 2017, 2020; Schaefer et al., 2020, 2021). This approach supports the *child-as-researcher* who actively participates as an equal partner in the creation of knowledge and of the research process, itself. According to Abrams et al. (2020), child-parent research promotes a collaborative environment wherein youth are co-researchers and co-constructors of meaning at every stage of research, from its conceptualization to its dissemination and application.

CDP provides a robust framework that can drive the critical development of child-parent research through CDP's core values of inclusivity, empowerment, and a flattening of hierarchical structures traditionally seen in research methodologies. By applying CDP to child-parent research, the traditional roles of the researcher and the participant are transformed, enabling youth and adults to participate as co-researchers (Abrams and Schaefer, in press, 2022; Onwuegbuzie, 2020). This approach aligns well with the social justice and equity aims of CDP, ensuring that research practices are not only about knowledge production, but also about fostering genuine partnerships and dialogue among all participants involved.

This methodologically pluralistic approach encourages a reflective practice wherein all participants, regardless of age, engage critically with the research process, contributing to a more ethical and equitable production of knowledge. By implementing CDP in child-parent research, the methodology becomes a tool for social change, empowering participants and acknowledging their capacity as knowledge creators, not just knowledge participants. This reimagined approach to child-parent research under the guidance of CDP promises to advance our understanding of educational and developmental processes and practices in more holistic and innovative ways.

14. CDP-driven mixed methods research methods

14.1. Transformational assessment

Onwuegbuzie et al. (2024) outline the concept of *transformational assessment*, which they refer to as a critically based approach that fundamentally reimagines traditional assessment practices by emphasizing participant involvement throughout the entire assessment process. This includes developing learning outcomes, selecting or developing assessment tools, collecting and interpreting data, and using the results in a way that promotes equity and dismantles hierarchical structures within research methodologies. CDP can enhance significantly the development of transformational assessment in research via the dismantling of traditional power hierarchies within assessment practices and the redefining of the roles of researchers and participants in ways that promote equitable power distribution and participant engagement throughout the research process. In transformational assessment, the shift from traditional, often hierarchical, research and assessment approaches to more participant-centered methods is evident because participants are both subjects of research and active co-researchers and decision makers. This transformation is crucial in ensuring that assessments are not only about participants, but also are conducted with them, ensuring that their voices and perspectives fundamentally shape the research outcomes. This inclusive approach is intended to combat the inherent biases and power imbalances that historically have skewed research processes and outcomes, particularly those that disproportionately affect marginalized groups.

Furthermore, transformational assessment under CDP involves the critical utilization of mixed methods research to integrate various data sources and perspectives, thereby enriching the understanding and applicability of research findings to the communities involved. It underscores a critical reassessment of traditional assessment strategies, urging a reimagined approach that aligns with principles of social justice, equity, inclusion, and diversity. This reimagined approach challenges existing assessment paradigms and aims to establish new norms that honor the knowledge and experiences of all participants, especially those from historically underrepresented groups.

14.2. Mixed methods bibliometric studies

Onwuegbuzie et al. (2018) conceptualized what they coined as a *Mixed Methods Bibliometric Study*, wherein bibliometric quantitative data (i.e., numerical and statistical information used to analyze various aspects of academic and scientific publications) are integrated with qualitative data. This integration aids researchers in identifying publication patterns within specific fields, disciplines, or knowledge areas (i.e., the quantitative component[s]/phase[s]) and in comprehending how these patterns and trends have developed (i.e., the qualitative component[s]/phase[s]). The goal is to assess the extent of development across different fields, disciplines, or knowledge areas.

CDP encourages a blending of quantitative bibliometric methods with qualitative insights, ensuring that data-driven findings are contextualized within the cultural, social, and philosophical landscapes that influence research trends. Thus, by applying CDP, a mixed methods bibliometric study can be designed critically to map scholarly outputs

and to understand the societal, economic, and personal impacts of research. This approach challenges the traditional bibliometric analysis, which primarily focuses on citation counts and co-authorship networks, by incorporating qualitative methods that can examine the reasons behind citation practices, the influence of social networks on research impact, and the broader societal implications of research trends. CDP fosters a research environment wherein these diverse methodologies coexist and complement each other, leading to a more holistic understanding of bibliometrics.

Furthermore, the emphasis of CDP on dialectical processes—wherein multiple, often conflicting, viewpoints are synthesized to form a more comprehensive understanding—can lead to innovative approaches in handling bibliometric data. Researchers can explore, for instance, how different disciplines address similar research questions or how interdisciplinary approaches impact the citation structures and development of new research fields. This holistic approach underpinned by CDP enriches the bibliometric analysis and aligns with broader social justice goals by highlighting the contributions and challenges of underrepresented groups in academia, thereby influencing future research policies and practices.

15. CDP-driven mixed methods research techniques

15.1. *Transparent, rigorous, equitable, and ethical sampling designs*

CDP is linked intricately to the development of sampling designs that embody the principles of being transparent, rigorous, ethical, and equitable (TREE; Corrigan and Onwuegbuzie, 2023). This critically based framework is especially poignant in mixed methods research, wherein the complexities of integrating multiple research approaches and methodologies heighten the necessity for thoughtful and deliberate sampling strategies that uphold these principles.

The TREE framework, deeply rooted in the philosophy of CDP, underscores that the goal of research should be to strive for procedural and philosophical justice and also to promote a synthesis of universalistic theoretical knowledge and local practical knowledge. This is particularly significant in mixed methods research wherein the challenge lies in balancing diverse epistemological stances and methodological approaches to provide a comprehensive understanding of research phenomena. The emphasis of CDP on inclusivity and equity guides researchers in creating sampling designs through a critical lens that are reflective of the diversity and complexity of human experiences, ensuring that no group is systematically marginalized or misrepresented.

Moreover, a metamethodological approach imbued in CDP (i.e., whereby the process of research is as critically important as its outcomes) aligns with the TREE principles through sampling designs that are rigorous in their methodological coherence and are transparent in their processes, ethical in their execution, and equitable in their impact. The TREE framework, therefore, serves both as a methodological guideline and a reflection of the ethical stance and social responsibility. This integrated approach ensures that mixed methods research conducted under the lens of CDP both adheres to methodological rigor and contributes positively to the broader social contexts with which it engages, making the research process a site of social justice action.

15.2. *Optimal matching of participants involved in the qualitative and quantitative phases/components*

Onwuegbuzie and Corrigan (2021) developed a framework to ensure that the groups involved in the qualitative phase(s)/component(s) and quantitative phase(s)/component(s) are as similar as possible—what they refer to as the *optimization of intra-study matching*—accounting for factors like demographics, personality, and affective variables. CDP has influenced profoundly the development of intra-study matching in mixed methods research by emphasizing the TREE principles. CDP is

crucial for developing robust sampling designs that respect the welfare of research participants and address potential biases in mixed methods sampling designs. This alignment with TREE principles ensures that sampling designs are scientifically robust and are socially responsible and ethically sound.

CDP drives the development of intra-study matching by advocating for matching techniques that minimize bias across different phases or components of mixed methods research. Techniques, such as exact matching, greedy matching, and optimal matching, are explored to enhance the comparability of different groups within a study. This approach supports consistency and reliability in the findings and interpretations by carefully planning and implementing sampling strategies that account for the diversity of participant experiences and characteristics.

Moreover, the CDP framework enhances the process of intra-study matching by fostering an inclusive and critical research environment wherein all participants' voices are considered important. This is particularly significant in studies involving diverse populations for whom equity and representation are crucial. Through a CDP lens, the sampling process is methodologically sound and simultaneously aligns with broader ethical and social justice goals, thereby making the research process itself a reflective practice of the principles that it espouses.

15.3. *Participant-driven focus group discussions*

Termed *critical dialectical pluralist focus group discussions* (CDP-FGDs) by Onwuegbuzie and Frels (2015), these are designed and conducted by the research participants. CDP significantly has informed and driven the development of CDP-FGDs by emphasizing participant-directed processes and empowerment at every stage of the research. This model restructures the traditional FGDs, which typically centralize control in the hands of the researcher, into a participant-driven process wherein power is equitably distributed among all participants. Via a critical lens, this model challenges the conventional hierarchy within research processes and promotes a more democratic and inclusive approach to data collection and analysis.

In CDP-FGDs, participants actively are involved in every decision making step—from the formulation of research questions to the design and conduct of the discussions, and finally to the analysis and dissemination of the findings. This shift fundamentally alters the role of the researcher from a director to a facilitator or enabler, supporting participants who act as co-researchers. Similar to the aforementioned methods and philosophies, CDP-FGD is rooted in the belief that those most affected by the research are best placed to guide it, reflecting a commitment to social justice, equity, and the validation of local and experiential knowledge. Relatedly, by empowering participants to dictate the flow of the discussion and to contribute to the analysis, the research outputs are more likely to reflect the true and diverse perspectives of the participants, thereby enhancing the authenticity and applicability of the research. Thus, this participatory approach addresses power imbalances and fosters a research environment wherein participants' insights and lived experiences genuinely are valued and are central to the research outcomes.

16. Conclusion

As can be seen, CDP has emerged as a transformative multidimensional metaparadigm and metaphilosophy in the field of mixed methods research, reshaping traditional methodologies by integrating diverse philosophical and methodological perspectives to foster a more inclusive, ethical, and socially responsible approach to research. In particular, this article has explored how CDP has been applied across various stages of the research process, from conceptualization through dissemination and application, emphasizing CDP's role in promoting social justice, equity, and participant empowerment.

CDP challenges the traditional researcher-participant hierarchy by redefining participants as active co-researchers and positioning researchers as facilitators. This approach enhances the validity and relevance of research findings, and it ensures that the research process contributes to social change. By advocating for a comprehensive integration of qualitative and quantitative research approaches, methods, and techniques, CDP enables a deeper understanding of complex phenomena and encourages solutions that are informed by a broad spectrum of perspectives, particularly those of marginalized, underrepresented, underserved, oppressed, and/or silenced communities.

In conclusion, CDP represents a significant advancement in mixed methods research. Its focus on ethical practices, social justice, and methodological inclusivity aligns well with contemporary challenges in the social sciences, making it an essential framework for researchers aiming to conduct dynamic and transformative research. By continuing to adapt and to apply the principles of CDP, the mixed methods research community can address better the intricate realities of human experience and contribute to meaningful societal progress.

CRedit authorship contribution statement

Anthony J. Onwuegbuzie: Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Investigation, Formal analysis, Conceptualization. **Sandra Schamroth Abrams:** Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Investigation, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data were used for the research described in the article.

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