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The Pursuit of Social, Economic, and Environmental Justice through Evaluation: Learning from Indigenous Scholars and the Fifth Branch of the Evaluation Theory Tree

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Background: The evaluation literature ignored, and even disparaged, philosophical frameworks of Indigenous evaluators because they did not align with the dominant narrative about the nature of ethics, reality, and epistemology. As the world faces increasing numbers of crises in the form of climate damage, violations of human rights, and inequitable societal structures, Indigenous assumptions that support strong relationships amongst humans and nature are relevant.

Purpose: This critical analysis of literature illustrates how the work of nonindigenous evaluators can benefit by learning more about values that encompass spirituality, the interconnectedness of humans with all of nature, and building culturally responsive relationships.

Setting: Not applicable.

Intervention: Not applicable.

Research Design: Not applicable.

Data Collection and Analysis: Not applicable.

Findings: The Indigenous paradigm provides guidance to evaluators on the planning, conduct and use of more just evaluations. Indigenous evaluators will prioritize the Indigenous paradigm's assumptions and can integrate assumptions of other paradigms. Nonindigenous evaluators can integrate Indigenous assumptions as a strategy for increasing the impact of their work towards justice.

Keywords: *Indigenous; transformative paradigm; justice*

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Many scientists warn that humanity is at a tipping point in terms of environmental damage and that the consequences of ignoring this escalating problem are more severe for members of marginalized communities, such as women, people with disabilities, people of color, Indigenous people, and those who live in poverty. For example, the Intergovernmental Panel on Climate Change (IPCC) provided this dire statement:

> Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability.... Across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected. (2022, p. SPM 5)

This brief statement reinforces the connections between environmental justice and social and economic justice; this intersection is also evident in the United Nations' (UN's) sustainable development goals (SDGs; 2015). All UN member countries adopted 17 SDGs that address ending poverty, protecting the environment, and improving the quality of people's lives through access to education, health care, and safe living environments. These goals are to be achieved between 2015 and 2030.

My Personal Journey: Transformative and Indigenous

As non-Indigenous evaluator, I have advocated for inclusion of the voices of members of marginalized communities, not simply on the basis of ethical principles, but also because evaluators would enhance their theory and practice by listening to these communities. I make the argument that listening to and learning from members of marginalized communities, especially from Indigenous peoples, better positions evaluators to consciously contribute to increased social, economic, and environmental justice, rather than being complicit in sustaining an oppressive status quo. (Mertens, 2022a, 2022b).

I am sometimes asked why I advocate so much for this shift in evaluation. I take inspiration from Martin Luther King, Jr. In his 1963 letter from the Birmingham jail, he wrote:

> Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly. (para. 4)

In this article I provide a brief overview of the history of philosophical paradigms and theories in evaluation which have excluded the voices of marginalized communities, including Indigenous peoples. This sets the stage for discussion of the importance of learning from Indigenous scholars how to better address issues of social, economic, and environmental justice on a global scale.

A Brief History of Evaluation Paradigms and Theories

In my fifty-plus years working as an evaluator, I have come to the conclusion that there is nothing quite as practical as a good philosophical framework that is aligned with commensurate theories of evaluation. You might wonder how I came to this conclusion given that many evaluators do not specify their philosophical assumptions, nor the theory that informs their work (Harrits, 2011). In point of fact, the ideas of philosophical frameworks and theories were not included in my academic training as an evaluator. However, living through the "paradigm wars" when the evaluation community was embroiled in negative rhetoric about which methods were best—quantitative or qualitative—led me to appreciate the early work of Guba and Lincoln (1989, 2005), in which they asserted that our arguments were not about methods. Rather, the evaluation community needed to focus on clarity about the assumptions that underlay methodological choices. Thus, they introduced the concept of paradigms and their associated philosophical assumptions to the evaluation community; an action that has had and continues to have a significant impact on discussions about methodology. Paradigms are frameworks that are made up of a number of assumptions related to the nature of ethics and values (axiology); the nature of reality (ontology); the nature of knowledge and the relationships between the evaluator and stakeholders (epistemology); and the nature of systematic inquiry (methodology; Mertens, 2018, 2020; Mertens & Wilson, 2019).

Paradigms and the Evaluation Theory Tree

This framework of paradigms found applicability in early efforts to categorize evaluation theories. Alkin (2004, 2013) provided a metaphor to describe evaluation theories in the form of a theory tree in the book *Evaluation Roots*. In the first edition, Christie and Alkin (2004) introduced a tree whose three branches they labeled Methods, Values, and Use. These three branches align with three of the recognized paradigms that provide guidance in the evaluation field: Methods aligns with the post-positivist paradigm; Values aligns with the constructivist paradigm; and Use aligns with the pragmatic paradigm (Mertens & Wilson, 2019).

This depiction of evaluation theories was useful; however, it was missing some important paradigmatic perspectives, specifically the transformative paradigm and the Indigenous paradigm. The transformative paradigm was introduced in 1998 (Mertens), and the Indigenous paradigm was written about by Smith (2012), Battiste (2000), Wilson (2008), and Chilisa (2012). The consequence of excluding these two paradigms was the absence of the voices of members of marginalized communities (e.g., people of color, feminists, people with disabilities, and Indigenous people) from the three-branch evaluation theory tree.

The first edition of *Evaluation Roots* (Alkin, 2004) included 21 chapters that explained the roots of evaluation theories. All but one of the chapters were written by White people (one was written by a man with Asian heritage); none of the chapters were written by Indigenous people; all of the authors were drawn from the United States and Europe.

A second edition of *Evaluation Roots* appeared in 2013, and it depicted the same three-branch evaluation theory tree and contained 27 chapters describing evaluation theories (Alkin, 2013; Christie & Alkin, 2013). All chapters were again authored by people from the United States and Europe, except for one chapter on evaluation theory by authors from Australia and New Zealand. This chapter was authored by two non-Indigenous women and included brief discussions of three Indigenous evaluation theorists: Linda Tuhiwai Smith, Fiona Cram, and Nan Wehipeihana (Rogers & Davidson, 2013). Again, no people of color (with the exception of the same man with Asian heritage as in the first edition) or Indigenous people were included as chapter authors.

Alkin and his colleague Cardin (2012) justified the composition of the tree that excluded Indigenous theorists because “the nature of formal evaluation work in LMICs [low- and middle-income countries] … is not yet formalized into full prescriptive theory” (p. 102). This rationale fails to recognize that “the ways of Indigenous research are as old as the hills and the valleys, the mountains and the seas, and the deserts and the lakes that Indigenous people bind themselves to as their places of belonging” (Cram et al., 2013, p. 11). And the rationale fails to acknowledge that the works of Indigenous scholars and members of other marginalized communities have been systematically excluded from the academic literature.

In the third edition of *Evaluation Roots*, Alkin and Christie (2023) maintain the three-branch structure and have included chapters by Hopson and Shanker, two authors of color; Cram and Chouinard, two Indigenous women; and myself (White woman of European ancestry, advocate for justice) under the Values branch. Hopson and Shanker wrote about culturally responsive evaluation. Cram and Chouinard wrote about Indigenous evaluation, and I wrote about transformative evaluation. So more diverse voices are included in the third edition, but the assumptions associated with transformative, critical, liberatory, decolonized frameworks are placed under the Values branch. My position is that until we see a pervasive (meaning *throughout all the branches*) theoretical lens for evaluation that address inequities and discrimination and that provides a basis for transformative change leading to increased justice for all, we need separate branches to represent these positionalities.

Some might question whether the use of a tree metaphor to depict the philosophical and theoretical foundations of evaluation is appropriate (Mertens, 2020), since tree branches grow in independent directions and seemingly have little interaction once they have branched out from the trunk. Others suggest that a forest would be a better metaphor for the evaluation field, depicting synergistic relationships between trees that represent different philosophical frameworks. Wohlleben (2016) writes in *The Hidden Life of Trees* that the symbiosis between trees in forests demonstrates their interdependence. Elsewhere, I have suggested that characterizing the paradigms as ocean currents might be more appropriate, as they swirl through their own territories but eventually all mix together in the great conveyor under the ocean (2020). It’s possible to use all of these—or none of these. Whether we use a tree or an ocean metaphor or something else, the paradigms are useful to communicate basic assumptions that guide methodological choices.

The Transformative Paradigm: An Umbrella for the Pursuit of Justice

In the first edition of *Research Methods in Education and Psychology: Integrating Diversity with Quantitative & Qualitative Approaches* (1998), I articulated the need for a paradigm that was missing from the three-branch theory tree: one that explicitly represented the voices of those who are marginalized and experience discrimination and oppression. In the first edition, I labeled this paradigm Emancipatory, then changed this paradigm's name to Transformative in subsequent editions of the book (now in its fifth edition; Mertens, 2020).

Later, Wilson and I (2019) presented a tree with four branches: Methods, Use, Values, and Social Justice. The Social Justice branch aligns with the Transformative paradigm. We acknowledge that social justice cannot be considered without also considering economic and environmental justice if evaluators are to contribute to just solutions to complex problems such as the climate crisis. The Transformative paradigm was designed to provide an umbrella for evaluation theories and approaches that explicitly address issues of justice and human rights. Thus, it is inclusive of evaluators who work from theories such as human rights, feminism, LGBTQ, disability and deafness rights, as well as people of color writing from critical race theory and LatCrit theory.

Wilson and I (2019) also included Indigenous peoples under the Transformative umbrella, based on the rationale that they are marginalized and experience discrimination and oppression, and that they were not included in previous depictions of evaluation's philosophical frameworks or theories. However, based on interactions with Indigenous scholars and responding to the scholarship that these scholars have produced on the Indigenous paradigm, we noted in the fifth edition of *Research and Evaluation in Education and Psychology* (Mertens, 2020) and the second edition of *Program Evaluation Theory and Practice* (Mertens & Wilson, 2019) the need to change our thinking and for the evaluation community to learn more about the assumptions associated with an Indigenous paradigm.

Indigenous Paradigm in Evaluation

Several central concepts are integral to the Indigenous paradigm and are different from other paradigms. The history of colonization means Indigenous people share the land with their colonizers, resulting in ongoing discrimination and subjugation by colonizers. In addition, the *United Nations Declaration on the Rights of Indigenous Peoples* (UN, 2007) recognizes that Indigenous peoples have a right to self-determination; to determine their own political status; to belong to Indigenous nations; and to conclude treaties, agreements, and other arrangements with states. These rights have not been recognized by the governments in the lands of all Indigenous peoples; however, for Indigenous groups whose rights have been recognized, the issue of sovereign government is a distinctive characteristic with implications for evaluation.

Indigenous communities are not monolithic; they are complex and manifest a great deal of heterogeneity that needs to be recognized. Uniqueness is associated with different Indigenous groups and also within Indigenous groups. Thus, it should come as no surprise that there are differences of terminology describing what has appeared in Western literature as paradigms. In this article, I focus on Indigenous scholars from the United States (LaFrance & Nichols, 2010; Waapalaneexkweew [Bowman, N., Mohican/Lunaape], & Dodge-Francis, 2018), Africa (Chilisa, 2020), Australia (Moreton-Robinson, 2016) and Aotearoa (New Zealand; Chouinard & Cram, 2019; Cram & Chouinard, 2023; Cram & Mertens, 2015; Cram et al., 2018) who provide different perspectives based on their countries of origin. An important limitation to be noted is that across the world, Indigenous peoples come from countries that are not represented here, such as India, Arabic countries, Persian countries, China, and Japan. Writings of Indigenous scholars that are beyond the purview of this paper provide future opportunities to learn about different paradigmatic perspectives.

Cram, Tibbitts, and LaFrance (2018) and Chilisa (2020) find a way forward through the complexity by describing essential assumptions associated with an Indigenous paradigm. Chilisa (2020) went further and created a five-branch theory tree by adding a branch labeled Needs and Context that aligns with the Indigenous paradigm. Other authors in this special issue provide authoritative narrative on the characteristics of this paradigm; therefore, I offer only a brief description of this paradigm's assumptions and its contribution to evaluators' understanding of how to work toward increased justice, no matter what community we work with. I then address the permeability of borders across paradigms as a means to improving evaluation theories and approaches for all evaluators committed to working toward increased justice. Finally, I present questions that arise when we portray evaluation theories as branches on a tree.

Philosophical Assumptions of the Indigenous Paradigm

Indigenous Axiological Assumption

Axiological assumptions pertain to values and ethics. The Indigenous paradigm presents a relational axiology that emphasizes the values of relationality, respect, reverence, responsibility, reciprocity, reflexivity, responsiveness, and decolonization (Chilisa, 2020; Chilisa & Mertens, 2021; Chouinard & Cram, 2019; Cram & Chouinard, 2023; Cram, et al., 2018; Louis, 2007; Weber-Pillwax, 1999). Non-Indigenous evaluators can benefit by understanding the Indigenous ethical concept of relationality as it explicitly includes reference to the relationship between the human and physical worlds (Gallagher & Ofir, 2021). This ethical principle incorporates the ideas of wholeness and relationality, leading to the position that the evaluator has an obligation to promote the transformation of all humans and the physical world (Ramose, 2020). Thus, the Indigenous assumption regarding ethics calls upon evaluators to consider how they support decision-making about the complex problems inherent in the climate crisis that was mentioned at the beginning of this article, along with the multitude of related problems (e.g., famine, increased illness for those who live in toxic environments).

The acknowledgment of a need to redress the ongoing negative consequences of colonization, exacerbated by sharing land with their colonizers, is a unique element of the Indigenous axiological assumption; for Western evaluators, this implies a need to be critically reflective and ask themselves if their practice is continuing to oppress people with a history of colonization. A team of evaluators from England, Aotearoa / New Zealand, and Canada had the courage to challenge the colonizing nature of a funding program based in England that was designed to create partnerships between Indigenous and non-Indigenous researchers and evaluators (Edwards et al., 2020). Despite language about the intent to develop equitable partnerships between Indigenous and non-Indigenous researchers and evaluators, the power to identify the problems and solutions, along with the methodologies to be used in the investigations, were predetermined by the British funding agency. Edwards et al. did not passively accept the Western offer for funding on those terms. Rather, they produced resources to challenge colonial thinking and provide guidance for culturally responsive relationships between Indigenous and non-Indigenous researchers and evaluators (see the project website: https://www.indigenous.ncrm.ac.uk/about/).

Indigenous Ontological Assumption

The Indigenous ontological assumption states that there are multiple realities, and it adds two unique concepts of relevance for all evaluators: a spiritual reality and the interconnectedness of all living and nonliving things (Chilisa, 2020; Chilisa & Mertens, 2021; Chouinard & Cram, 2019; Cram et al., 2018; Gaotlhobogwe et al., 2018). Cram et al. provide this commentary about spirituality in evaluation:

> Of all the components of IE (Indigenous Evaluation), spirituality is among the most distinguishing and challenging for evaluators. The presence of spirit, a topic that is usually ignored in evaluation or perhaps tentatively broached by those working in some religious context, is central to Indigenous peoples' worldview and thus to IE. Indigenous well-being inevitably involves a spiritual component that may or may not be recognized by Western religion (Kennedy et al., 2015; UN Permanent Forum on Indigenous Peoples, 2008). A prime example of spirituality is the use of protocols that cover all forms of tribal meetings and gatherings, including those conducted for the purpose of evaluation. These protocols are about keeping all those who are gathered safe in a spiritual sense. Research and evaluation protocols that spell out the need for respectful engagement with Indigenous peoples often try to put into non-spirit terms the importance of proper spirit-related protocols. However, for many Indigenous peoples the roots of these protocols are in the recognition of the sacred spirit present in all things (Cram & Mertens, 2016; Weber-Pillwax, 1999. (2018, p. 11)

The inclusion of a spiritual reality may be difficult for Westerners to wrap their heads around given that Westerners, for the most part, have been taught that science and spirituality are two separate things, not to be mixed. The Indigenous philosophical stance looks at science and spirituality as part of the whole universe, without a separation between the two.

As Cram and her colleagues make clear, spirituality is a highly relevant aspect of reality in Indigenous communities. Non-Indigenous evaluators may think they do not need to include this aspect of reality because they do not work in Indigenous communities. However, I see several important implications: First, if people have a spiritual part of their existence, then what risks do we take when we exclude that part of their lives in our evaluation work? Second, how do we give consideration to keeping people safe in our evaluation work? And third, this concept of spirituality brings us back to the consideration of the interconnectedness of all living and nonliving things, as is evident in the last phrase in the Cram et al. quotation: "recognition of the sacred spirit present in all things" (p. 11).

Chilisa and Tsheko (2014) demonstrated how Indigenous studies incorporate attention to spiritual realities in their development and evaluation of an intervention to reduce HIV/AIDS in young people in Botswana. Rather than make assumptions about what methods would be best for data collection and what intervention should be implemented, they began with an elicitation phase to determine how best to proceed. The young people were involved as co-researchers in order to embed the *ubuntu* principles of "spirituality, love, harmony, and community building" (p. 223). The reality of HIV/AIDS reflected in the students' experiences was elicited through storytelling and examination of proverbs that were widely known. The early data collection revealed the spiritual component of the effect of HIV/AIDS on these young people in that they reported a sense of sadness at the loss of so many friends and family members. This shifted the focus of the intervention from a knowledge-transmission model (i.e., how to prevent HIV/AIDS) to an experiential model that started with the emotional state of the students and how their spirits were affected by the high rates of infection and death.

The Indigenous ontological assumption includes the idea of the interconnectedness of humans and nature, with implications for evaluation to attend to that interconnectedness (Gaotlhobogwe et al., 2018). Piccioto described this as follows:

> The ontology of indigenous evaluation brings to the table a recognition that humans have duties to land, animals, and other living things. It is a frame of mind that resists the silencing of rivers, the destruction of watersheds, the razing of mountains for mining, the pollution of air, water, and so forth. (2020, p. 44)

When this interconnectedness is ignored, it can have disastrous consequences. Many international development agencies have a primary goal of reducing poverty, implying that economic development should be prioritized. When economic development is prioritized over environmental and social justice, people, animals, rivers, and plants suffer. For example, In West Java, the government supported the development of a textile plant to create jobs. However, the textile plant resulted in "high levels of air and water pollution, dumping 20,000 tons of waste and 340,000 tons of wastewater into the Citarum River every day" (Tarahita & Rakhmat, 2018, as cited in Widianingsih & Mertens, 2019, p. 31). This is the third-largest river in Java and is extremely polluted with industrial chemicals, plastic rubbish, trash, waste, and dead animals.

> Its levels of lead are 1,000 times worse than the U.S. standard for drinking water. Yet, 25 million people depend on it for drinking water, irrigation of crops, and energy production. The result is that many people who use this heavily polluted water and breath[e] the contaminated air now suffer from health problems such as scabies, infections, and respiratory distress. (Widianingsih & Mertens, 2019, p. 32)

If an Indigenous lens had been used to inform the creation and evaluation of economic development interventions, the intersection of environmental, economic, and social justice would have been prioritized. Local voices would have been listened to, and collective decision-making would have been employed.

Widianingsih and I (2019) developed a transformative–Indigenous mixed-methods design in order to address the three types of justice: social, economic, and environmental. Farmers in West Java formed consortiums that had regular meetings. At each meeting, participants talked about their challenges and solutions in three circles: the farmers, their wives, and young people. Data from these circle-meetings were used to inform government agencies and policy makers about the types of interventions that they viewed as having potential to preserve the environment, generate sufficient income to take care of their families and employ the youth in the rural areas, and protect their rights to live in a healthy space.

The Indigenous ontological assumption also has implications for who determines the methodologies through which reality can be known (Chilisa & Mertens, 2021). Chilisa (2020) and Chilisa and I (2021) describe the relationship between Indigenous ontology and methodologies with a Made in Africa (MAE) approach:

> The ontological assumption associated with an MAE approach holds that Africans are to play a greater role in solving their own problems; thus, questions on who prioritizes, initiates, and designs community programs and projects are essential. All areas of culture, living experiences, and Indigenous knowledge systems must be utilized to come up with a methodology through which the realities can be known. Reality is contextual and cultural[ly] bound. The evaluator should examine the history of the program, the location and its people, all connections and interconnections and interrogate how spirituality, relational power, political discursive, [sic] and historical temporal power (Cavino, 2013) shape the evaluand. Under this assumption, the main question addressed by the evaluation is: Whose priorities and aspirations are addressed by the evaluation? (Chilisa & Mertens, 2021, p. 246–247)

The Indigenous ontological assumption prompts all evaluators to ask about whose reality is being privileged and the consequences of accepting one version of reality over another. This is a critical aspect of both Indigenous and transformative ontological assumptions. Versions of reality come from different social positionalities, and some versions of reality lead to continued oppression, while others lead to an increase in justice. Evaluators' responsibility is to make visible those versions of reality that can lead to increased justice and to critique those that sustain oppression. This raises questions about the degree to which we are inclusive of culture, history, and context in our evaluations. Further discussion of the methodological assumptions of the Indigenous paradigm appears after the section on epistemology.

Indigenous Epistemological Assumption

Epistemologically, Indigenous knowledge (IK) is viewed as relational and inclusive of spiritualty and visions (Chilisa, 2020; Chilisa & Mertens, 2021; Waapalaneexkweew [Bowman, N., Mohican/Lunaape], & Dodge-Francis, 2018). In colonized countries, IK and Indigenous culture and language have been suppressed, resulting in generations of Indigenous peoples who are not connected with their roots. The effects of this suppression, along with political actions that stripped Indigenous peoples of their land, are evident in the disparities in health, education, safe living conditions, and economic opportunities that continue to affect these communities. The Indigenous epistemological assumption calls for valuing knowledge that comes from Indigenous peoples and developing relationships that consciously address power differences and historical legacies. It calls for seeking knowledge from Indigenous peoples to inform understandings of their needs and to develop interventions that are culturally responsive. Thus, methodologies are needed that are able to make these realities visible so that the focus of evaluation reflects the priorities of Indigenous peoples. Knowledge is not viewed as simply an objective phenomenon that can be measured quantitatively; rather, knowledge is imbued with the sense of spiritual connection and is built through an understanding of history and cultural connections.

Wilson (2008) clarified the meaning of relational knowledge:

> An Indigenous paradigm comes from the fundamental belief that knowledge is relational. Knowledge is shared with all of creation.... It is in the cosmos; it is with the animals, with plants, with the earth that we share this knowledge.... You are answerable to all your relations when you are doing research. (p. 56)

The interconnectedness of humans and nature is a strong presence in Indigenous assumptions. The need for the inclusion of Indigenous knowledge was also noted in the report from the IPCC cited earlier in this article, which stated, "This report recognises the value of diverse forms of knowledge such as scientific, as well as Indigenous knowledge and local knowledge in understanding and evaluating climate adaptation processes and actions to reduce risks from human-induced climate change" (2022, p. SPM 5).

There is a tension associated with characterizing IK as separate from scientific knowledge. Kolawole (2022) reminds us, "IK is as old as humans' existence" (p. 133). Indigenous peoples created knowledge about the land, water, plants, animals, solar systems, and human nature to survive for centuries in balance with nature. Their experimentation with agriculture, architecture, music, textiles, and medicinal plants is recognized as having relevance today. Kolawole recognizes that the significance of Indigenous Local Knowledge in

> addressing global environmental issues such as climate change and problems associated with inorganic agriculture cannot be overstated. Many efforts emphasizing the need to move away from chemical agriculture but revert to organic farming or conservation agriculture enshrined in LK [Local Knowledge] are already underway. (p. 135–136)

This recognition of the importance of Indigenous local knowledge and its contribution to scientific thinking can be found in books such as *Fresh Banana Leaves* (Hernandez, 2022) and *Braiding Sweetgrass* (Kimmerer, 2013).

The epistemological assumption is about the nature of knowledge and about the relationships between the evaluator and the stakeholders. The relationship needs to be critically examined because of power inequities in this context. Non-Indigenous evaluators can ask themselves: How do I address power differences so that those who have been historically excluded are included in respectful ways? What strategies are used that clearly value knowledge from those with lived experience in the cultural context in which we work? What is the historical legacy that is present in the community in which we work? How does our methodology allow us to value community-based knowledge and ensure that this is the basis for the development or revision of interventions? How does the data we collect embody the full range of knowledge of relevance in this context, including spiritual knowledge? How are we being responsive to the community as well as the earth, the sky, the waters, the plants, the animals, and all of creation?

Indigenous Methodological Assumption

Methodologically, the Indigenous paradigm includes the use of decolonizing methodologies that make use of traditional Indigenous strategies for engaging with community, such as talking circles (Chilisa, 2020; Chilisa & Tsheko, 2014). The methodological implications of the axiological assumption of relationality include designing the study to value community strengths and building relationships that prioritize the knowledge that Indigenous peoples bring to inform the purpose, questions, methodologies, data collection strategies, reporting, and dissemination of the evaluation. The studies need to be designed in ways that provide reciprocity to Indigenous peoples by supporting increased social, economic, and environmental justice; resisting colonizing forces that silence them; and contributing to their health and welfare (Chilisa & Mertens, 2021). Chilisa and I recommend a “transformative participatory lens for mixing Indigenous qualitative and quantitative methods with Western quantitative and qualitative methods” (2021, p. 246).

Waapalaneexkweew (Bowman, N., Mohican/Lunaape) and Dodge-Francis (2018) and Chouinard and Cram (2019) add to the richness of Indigenous methodology in their writings about culturally responsive Indigenous evaluation (CRIE). They emphasize the importance of collecting data about the historical and legal context, especially as it regards the breaking of treaties, stealing of land, and the sovereignty of Indigenous governments for recognized tribes in the United States. The CRIE model includes strategies for inclusion of “culture, language, community, context, and sovereign Tribal governance when conducting research, policy, and evaluation studies” (Waapalaneexkweew [Bowman, N., Mohican/Lunaape] & Dodge-Francis, 2018, p. 22). It calls upon evaluators who work in Indigenous communities to use “traditional knowledge and contemporary Indigenous theory and methods to design and implement an evaluation study so it is led by and for the benefit of Indigenous peoples and Tribal nations” (p. 22).

Non-Indigenous evaluators can learn from the Indigenous methodological assumptions to be more inclusive of culturally responsive methods, no matter what populations we work with. We can ask: Who leads the evaluation effort? What measures are we taking to build capacity to prepare community members to be leaders in evaluation? How do we design the study to value community strengths and build culturally responsive relationships? How do we include strategies for valuing community-based knowledge? To what extent are community members legitimately involved in deciding the purpose, questions, methodologies, data collection strategies, reporting, and dissemination of the study? How do we provide for reciprocity in the form of benefiting the community and contributing to a more just world? To what extent have we considered the historical and legal context and the continuing effects of oppression? How do we share power with members of communities who have traditionally been excluded from evaluation funding, planning, and implementation?

Permeability of Borders Across Paradigms

Learning from Indigenous evaluators does not mean that the philosophical frameworks and theories created in the West need to be discarded. At the same time, Indigenous scholars warn against wholesale borrowing from Western paradigms and methods:

> Indigenous pathways to evaluation should emanate from Indigenous world views and philosophies, and Indigenous knowledge not available to nonindigenous evaluators. An evaluation methodology separated from its overarching paradigm is not sufficient for addressing epistemic violence and decolonization of Western thought. (Chilisa & Mertens, 2021, p. 244)

Chilisa and I also contend that Indigenous approaches, especially Made in Africa approaches, are suitable for integration with other paradigmatic perspectives.

> For example, the African ethical principle of *motho ke motho ka batho* holds that evaluators have an ethical responsibility to design their work to support positive transformation in the human and physical world because we are all related. This aligns with the pursuit of social, economic, and environmental justice as an ethical remit in evaluation, an assumption found in the transformative paradigm (Mertens & Wilson, 2019). In the MAE ethical view, there are no boundaries between knowledge systems; thus, it can be integrative, bringing together Western and Indigenous perspectives. It promotes global partnerships of knowledge systems and of evaluation actors and stakeholders. It seeks to stamp out decontextualized evaluation and the silencing of non-Western ontological, epistemological, and axiological assumptions in evaluation. (2021, p. 246)

Thus, there is an argument for permeability across the paradigmatic borders. Cram and I (Cram & Mertens, 2015; Mertens & Cram, 2016) discussed the added value of putting the Indigenous and transformative paradigms together in order to raise different issues through each lens. For example, the transformative paradigm is viewed as an inclusive umbrella for groups that experience discrimination, thus raising the issue of intersectionality in Indigenous communities. Indigenous communities raise issues that are integral to transformation in their communities, such as spirituality, land sovereignty, and decolonization.

Lucero and colleagues (2018) conducted an Indigenous/transformative evaluation concerning health disparities in Native American communities. They said that they

> ...integrated a mixed methodology at all stages of the research process, often revisiting stages to incorporate new knowledge gained from practice. We refer to this as an iterative integration approach, in which our interdisciplinary team was grounded in an indigenous-transformative paradigm that recognized different ways of knowing at each stage and at critical decision points. (p. 57)

The project was co-led by the National Congress of American Indians Policy Research Center, the University of New Mexico Center for Participatory Research, and the University of Washington Indigenous Wellness Research Institute. The Indigenous lens was used to frame the study by inclusion of data on the history of Native American communities, institutional racism, culture, political policies, access to funding, and the history of collaboration between communities and academics. The relationship building process reflected both the Indigenous and transformative lenses in that it focused on diversity, complexity, sharing power; individual dynamics such as core values, motivations, cultural identity, spirituality, and humility; and relational dynamics such as trust, safety, language, leadership, power dynamics, and participatory decision-making. The Indigenous paradigm was reflected in the researchers' stance toward decolonizing the research by acknowledging historical abuses and honoring cultural strengths and community knowledge. Community members held power in the evaluation to inform the process and bring their Indigenous knowledge into all aspects of the study. This aligns with both the Indigenous and transformative paradigms as a way to support transformations that are valued by the communities.

Chilisa and Tsheko (2014) illustrate the permeability between the Indigenous paradigm and the post-positivist paradigm in their study of an HIV/AIDS prevention program for students in Botswana. The Indigenous framework informed the design of the evaluation and permeated every decision made throughout the study. Part of the evaluation also included a randomized controlled trial (RCT) of an intervention that had been developed entirely through community consultation. It reflected the cultural knowledge and the respectful relationships so important in Indigenous communities. Chilisa and Tsheko formed three advisory boards: an expert advisory board to address methodological issues; a community advisory board that included educators, health care workers, church members, and parents; and a youth advisory board that met separately from the others to insure they could speak frankly. The development of the intervention was based on feedback from these three groups, as well as surveys and interviews with students, in order to embody an Afrocentric approach. Data methods were also reflective of cultural practices such as yarning, talking circles, and storying. During the study, the experimental group received the HIV/AIDS prevention intervention and the control group received a course in improving their health generally. At the end of the study, the control group schools were then offered the experimental treatment.

Conclusion

Some Indigenous scholars have expressed discomfort with the use of a Western-created typology to characterize Indigenous assumptions about research (e.g., Kovach, 2010; Tuck & Yang, 2012; Wilson, 2008). I agree with Held (2019) in arguing that paradigms "help us make sense of the world as it relates to scientific inquiry by guiding the research process from conception to…dissemination" (p. 3). By articulating the four basic assumptions, i.e., axiology, ontology, epistemology, and methodology, we are able to clarify beliefs and values that underlie our research approaches. This makes conversation across paradigms possible, enabling us to learn and expand our understandings. The purpose of this article was to illuminate some of the benefits of cross-conversation between the transformative and Indigenous paradigms.

The evaluation community was late to the game in recognizing the importance of Indigenous philosophies and theories, despite recognition that business-as-usual evaluations were not sufficiently addressing the crises of our times (Loud, 2021; Schwandt, 2019). The transformative paradigm tried to fill this gap by including Indigenous scholars because of their shared interest in pursuing justice, working toward transformation, and fighting systemic discrimination (Mertens & Wilson, 2019). However, the transformative paradigm was inadequate to the task of representing the philosophical assumptions of the Indigenous paradigm. The Indigenous assumption about ethics (axiology) uniquely includes spirituality and relational ethics. The Indigenous assumption about ontology includes recognition of a spiritual reality and the interconnectedness of all living and nonliving things. The Indigenous assumption of epistemology calls for valuing Indigenous knowledge and forming relationships that are based on cultural respect. The Indigenous methodological assumption calls for decolonizing methodologies by placing the power for decision-making in the hands of Indigenous people. The evaluation design needs to recognize the history of colonization and land stealing, and the sovereignty of Indigenous governments in recognized tribes in the United States. It also needs to include strategies for providing reciprocity to the communities so that they are better off than before the study and they have mechanisms in place to sustain changes that they value.

Reflection on the Indigenous assumptions provides the opportunity for non-Indigenous evaluators to learn from the Indigenous scholars so that evaluators globally can work toward increased justice. For example, non-Indigenous evaluators can ask themselves about the risk they take when they exclude the spiritual reality of communities. The Western canon has historically held that spirituality and science should not mix. However, evaluators work with real people in real-world conditions in which spirituality plays a role in the health of communities, both the people and the environment. If we focused on the interconnectedness of all things, living and nonliving, how would that change the design of our evaluations? How would we insure that social, economic, and environmental justice was served by design? What strategies would we need to truly value community-based knowledge and allow that to inform the evaluation process from beginning to end? How can evaluators improve their theory and practice by examining the permeability of borders between paradigms? These are challenging questions, but the planet we live on is in peril. We can choose to change our thinking about the role of evaluation to contribute to a more just world, but it is not an easy path. Fortunately, if we expand the evaluation theory tree to include a fifth branch informed by the Indigenous paradigm, we will have additional light on that path that would otherwise be obscured in darkness.

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