What are Indigenous and Western Ways of Knowing?

Introduction

There is no single Indigenous or Western way of knowing. It is easy to fall into the traps of 'homogenizing' and 'othering' by reducing vast and varied traditions to simplistic and general terms. However, it is important to offer some starting point for this fact sheet as part of our effort to bring Indigenous and Western perspectives into conversation with one another.

Indigenous Knowledges

Several characteristics are considered common across many Indigenous peoples, cultures, histories and contexts. Together, these emphasize an approach to knowledge that is metaphysical, holistic, oral/symbolic, relational, and intergenerational. Indigenous ways of knowing rely heavily on many forms of intelligence, including interpersonal, kinesthetic [physical], and spiritual intelligences.[1] Within Indigenous knowledge systems, land is often regarded as Mother Earth, who provides teachings that determine traditional values or ways of knowing.[2] An important question in Indigenous knowledge is, "how am I fulfilling my role in this relationship?"[3]

Western Knowledges

Western knowledge tends to be broken into disciplines. Mathematics and linguistics are emphasized, as are logic, rationality, objectivity and the measurement of observable phenomenon. The philosophical tradition of positivism, which rejects the metaphysical or spiritual realm as a source of knowledge, has had a significant impact on Western thought. This is especially true in natural science disciplines, but it is also common in the social sciences.

Western science is often criticized for being anthropocentric (humankind as the central or most important element of existence) and reductive (presenting a subject or problem in a simplified form). Western researchers often treat knowledge as a thing, rather than as also involving actions, experiences, and relationships.[4] Western thinking tends to view the land as an object of study rather than as a relation.

Within Western ways of thinking there are some research paradigms that are more compatible with Indigenous ways of thinking. For example, feminist schools of thought give rise to methodologies that are somewhat compatible with Indigenous methods such as storytelling, as well as critical and reflexive methodologies that take into account the effect of the personality or presence of the researcher on what is being investigated.

Risks of trying to integrate these knowledges

There are risks associated with trying to *integrate* Indigenous and Western ways of knowing because philosophical differences and vast power inequalities favour settler traditions. These risks include:

1. Weakening Indigenous traditions by generalizing and taking them out of context
2. Denying cultural differences in order to find commonality
3. Assimilating Indigenous knowledge in a way that it becomes invisible

We suggest that researchers should try to bring Indigenous and Western approaches to knowledge creation into conversation, or link them for joint purposes, rather than trying to *integrate* them into one entity. To address power imbalances and philosophical differences, Western researchers must seek to learn about, preserve and build upon Indigenous knowledges and ways of knowing.

What research frameworks draw together Indigenous and Western approaches to knowledge creation?

Our research identified 19 research frameworks that attempt to link Indigenous and Western ways of knowing. We found them in scholarly articles and in conversations with key informants and Indigenous wisdom keepers. We encourage researchers to learn about and consider whether and how they could use these frameworks. It is important to recognize that each framework has a history, is based in a specific place, and may be related to the distinct character and beliefs of a specific Indigenous Nation or community. They should not be treated as easily transferable models, devoid of context.

Research frameworks that link Indigenous and Western knowledges	
4R-4D Framework	This framework draws on Aboriginal education literature, [5] including the "4Rs", [6] to develop a 4R-4D framework for understanding how narrative is sometimes used by Elders to navigate between worldviews and embrace change. The 4Rs refer to reverence, respect, responsibility and relationality—tangible obligations that cross time and space. The 4Ds refer to cultural dynamics, the cyclical and interrelated nature of existence found in time, nature, story, and ancestry. When embodied and adapted by Elders, these cultural dynamics enable a kind of dialectical movement between past and future, and between cultural domains, creating a third space of meaning. This third space can "facilitate teaching and learning in community" [7] as well as research.
Constellations model	A constellations model sees knowledge systems as continually evolving and forever in flux, containing shared, similar or different elements between them. This model proposes moving away from seeing knowledge systems as "containers with boundaries, and particularly away from binaries... [and towards] conversations about how to bring together multiple knowledge" systems.[8]

Research frameworks that link Indigenous and Western knowledges	
Cultural interface	This theory argues that the complex intersection between Indigenous and Western knowledge creates tension that can promote change and new knowledge.[9] The theory of cultural interface prioritizes context, privileging local place-based knowledge and sees "Indigenous knowledge as a sophisticated system rather than as a parochial limitation or obstacle."[10]
Ethical space	This concept is rooted in opportunities for dialogue between societies that have disparate views. It focuses particularly on the ethical space between that of Indigenous and Canadian legal systems.[11] This "theatre for cross-cultural conversation in pursuit of ethically engaging diversity...[requires a focus on] language, distinct histories, knowledge traditions, values, interests, and social, economic and political realities, [and an understanding of] how these impact and influence an agreement to interact."[12]
Indigenous cultural responsiveness theory (ICRT)	This decolonizing theory was created by First Nations scholars to address Indigenous wellbeing by weaving together a variety of related concepts and frameworks including, among others, ethical space[13] and two-eyed seeing.[14] It was designed to be adapted by other Indigenous communities, organizations, and individuals. The theory "prioritizes Indigenous methodologies and ways of knowing alongside evidence-based Western practices to harmonize with localized Indigenous knowledges."[15]
Insurgent research	This methodology is built on the principles of witnessing and relational responsibility; respect for, and validation of, Indigenous worldviews; and a commitment to establish research and outputs that are action-oriented, relevant and useful in Indigenous communities. It integrates knowledge systems by establishing dialogue with "both the academy and Indigenous peoples, [which forces the research to engage with] two distinct ways of knowing the world."[16]
Expansive learning	This way of teaching, drawn from environmental studies and development work, uses a multi-voice approach to bridge the gap between different knowledge systems.[17] It aims to "create space for interaction and negotiations among a diverse group of stakeholders and actors...[to reveal] the connection between action and meaning among the relevant stakeholders in a given context or situation...[and to make] the various actors aware of and conscious about their local heritage [and] environmental knowledge."[18] It sees conflict and contradictions among divergent knowledge systems as essential for learning.
Hybridity	Hybridity is a concept that employs principles from both intersectionality and queer studies. It provides an alternative way to understand "social positions within complex and intersecting systems of power."[19] It complicates rigid sex and gender categories such as male, female, homosexual and heterosexual.

Research frameworks that link Indigenous and Western knowledges	
Indigenous Métissage	This "decolonizing research sensibility"[20] is "inspired by Plains Cree and Blackfoot philosophical insights that emphasize contextualized and place-based ecological interpretations of ethical relationality."[21] This approach uses interpretations of tangible artifacts to channel multiple understandings of place, culture, and identity. In this way, "Indigenous Métissage purposefully juxtaposes layered understandings and interpretations of places in Canada with the specific intent of holding differing interpretations in tension without the need to resolve or assimilate them. The goal is to resist colonial frontier logics and instead forward new understandings of the relationships connecting Aboriginals and Canadians."[22]
Möbius strip metaphor	The Möbius Strip is a rectangle with one end twisted 180 degrees to join the other end, thus forming an infinite loop, which turns back toward its starting place. The metaphor of the Möbius Strip encourages "reflection on how the seemingly two sides [or two ways of knowing] co-create each other...[and provides] a pathway for moving together"[23] through shared experiences and knowledge, while respecting and acknowledging differences.
Polycentric global epistemology	This theory is fundamentally interested in Indigenous self-determination. It encompasses ideas from scholars whose work is considered "post-Eurocentric, postcolonial, post-Enlightenment, global, multicultural, feminist, polycentric, pluricentric, transmodern, [and] emancipatory."[24] It seeks to balance the power inherent in knowledge systems by decentering truth, acknowledging that there are multiple ways of knowing, and privileging historically excluded voices.
Rhizome	This relational theory "provides a space for thinking about research-creation practices happening on the periphery of Indigenous and Western paradigms."[25] New knowledge is co-created within an open, non-linear space and results in knowledge that is "more robust, more accountable, more usable; knowledge that 'serves locally' at a given time."[26]
Three Sisters framework	The Three Sisters is a Haudenosaune creation story[27] employed in this framework as a metaphor for bringing together multiple ways of knowing that might support and complement each other. This approach rejects the idea of a single, universal truth. "The Three Sisters [corn, beans, and squash] offer us a new metaphor for an emerging relationship between Indigenous knowledge and Western science.... I think of the corn as Traditional Ecological Knowledge, the physical and spiritual framework that can guide the curious bean of science, which twines like a double helix. The squash creates the ethical habitat for coexistence and mutual flourishing. I envision a time when the intellectual monoculture of science will be replaced with a polyculture of complementary knowledges. And so all may be fed." [28]
Transrational knowing	This methodology creates a bridge from dominant Western forms of knowledge "to …understanding important aspects of Indigenous ways of coming to know." [29] It recognizes methods that may include non-linguistic forms of communication such as "dreams, intuitions and interspecies communication... [as well as] agency in both material and non-material worlds."[30]

Research frameworks that link Indigenous and Western knowledges	
Etuapmunk, or Two-eyed seeing	Mi'kmaq Elder Albert Marshall has developed this metaphor for negotiating between two cultures.[31] It requires "learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to use both these eyes together, for the benefit of all."[32] Common ground is pursued between the "different scientific knowledges"[33] of Indigenous and Western science within a co-learning, active and inclusive environment.
Guswentah, or Two-row wampum	This is a metaphor that emphasizes the value of space for each system to enhance the other.[34] The Two-Row Wampum was a friendship treaty between the Dutch and the Haudenosaunee (Iroquois) with "rows of beads on the belt [representing] Dutch vessels and Iroquois canoes, traveling side by side down 'the river of life'"[35] without interfering in each other's wellbeing.
Working the hyphen	This theory sees the hyphen "as a marker, which indicates a relationship between collaborating peoples as well as their respective relationship to difference…[36] This relationship is formed when "the researcher (the Self) and the researched (the Other) are joined."[37]
Kaupapa Māori	Kaupapa Māori is a methodological framework that combines Western critical theory and Māori ways of knowing, which include "an inseparable relationship between the worlds of matter and spirit."[38] It is a form of resistance and agency.[39] The framework uses the principles of "whakapapa (relationships), mana (justice and equity), tika (research design) and manaakitanga (cultural and social responsibility)"[40] to organize ethical practices across the Māori community.[41]
Living on the ground	This methodology is rooted in both feminist and Indigenous knowledges. It requires learning through the senses and letting go of previous notions of learning through intellect, a move that requires use of the whole body "as a vehicle for my learning — my physical, intellectual and spiritual body. I learnt to dream and to feel and believe in the Tjukurrpa [Dreaming]. Living on the ground with the women elders enabled me to experience the women's world: not in place of them, but with them."[42]

Because Indigenous and settler societies are here to stay, identifying ways to hold and honour different worldviews is essential, especially "with a real appreciation on the part of the Europeans for the gulf which they need to travel within themselves in order to be ready, at last, to see and hear the subtle knowledge, wisdom, and awareness which is held and practiced by the peoples Indigenous to this land. This bridge-building is now being called for by the planet itself."[43] With a cautious approach that recognizes the pitfalls and power inequalities, these linking frameworks may have the potential to facilitate truth-telling, redress, reconciliation and the creation of new ways forward.

Conclusion: Learning from multiple ways of knowing

Despite the differences between them, and the risks posed by *integration,* several scholars and wisdom keepers argue that we can and should try to learn from bringing together Indigenous and Western ways of knowing. Their complementarity will allow us to gain new ways of thinking about and approaching existing problems.[44]

In the next fact sheet in this series, we explore how intersectionality can be brought to these frameworks. Intersectionality offers a lens to help identify the layers of power at work between Indigenous and Western knowledge systems.[45]

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