

From Bricolage to Métissage: Rethinking Intercultural Approaches to Indigenous Environmental Education and Research

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In his book *From Bricolage to Métissage: Rethinking Intercultural Approaches to Indigenous Environmental Education and Research*, Gregory Lowan-Trudeau shares a vision for the future of environmental education (EE) in Canada and beyond. The book, emanating from two studies carried out by the author, explores several socio-ecological concepts, including that of ecological métissage, ‘a blending of two or more ecological worldviews at a personal and/or cultural level as represented in personal identity, philosophies, and practices’ (p. 5). He does this against the backdrop of the growing number of scholars and educators calling for education that acknowledges not only Western science but also Indigenous cultural systems, to address environmental crises (Hatcher, Bartlett, Marshall, & Marshall, 2009; Kimmerer, 2002; Kulnieks, Longboat, & Young, 2013).

Importantly for scholarship of this nature, Lowan-Trudeau positions himself for his readers, sharing his background as a Métis-Canadian of mixed Algonquian and European ancestry. Although raised in a city, he acknowledges living a childhood characterised by a ‘constant métissage of urban and rural environments’ (p. 7) and outlines that his professional background includes vast experience as an outdoor and environmental educator. With this positioning comes the adoption of a reflexive posture throughout his research journeys. Also important, particularly for an international readership, the author situates his discussion by offering an overview of the Canadian context, sharing facets of the country’s cultural background and roots, history of colonisation and its effects on Indigenous peoples, and aspects of what he terms the ‘Canadian ecological identity’. Given a historical context in which Western perspectives have often conflicted with Indigenous cultural understandings, Lowan-Trudeau’s work is an important addition to the voices calling for critical consideration of the value of Indigenous knowledge.

In his discussion, Lowan-Trudeau draws on the findings of two studies that he undertook. The first, which led to his doctoral dissertation, involved interviews with 10 Indigenous and non-Indigenous intercultural environmental educators from diverse backgrounds across Canada, whose various traditions — Western, Indigenous, and other cultures — have informed their ecological identities, philosophies, and practices. The study was meant to provide insight into such questions as whether Western and Indigenous knowledge can be blended, what characterises the ecological identities of contemporary intercultural environmental educators, whether these identities embody ecological métissage, and how ecological métissage might reshape EE in Canada. One of the main findings from the study was that although all the educators recognised Aboriginal and Western influences on their pedagogies, there was slight divergence, with ‘some

participants [as] strong proponents of *transcultural* métissage — seeking new blended, hybrid creations that draw on the strengths of both to create something new, [while] others recommended a more cautious *intercultural* approach reminiscent of bricolage ...' (p. 94). The idea for the latter group is that, notwithstanding the similarities among Western and Indigenous knowledge, the two should never be completely blended. Lowan-Trudeau concludes that with reference to EE initiatives that 'bring together Western and Indigenous knowledge and philosophies, the best approaches begin as an intercultural, integrated *bricolage* of two or more epistemological and ontological approaches, being careful to recognise and discuss the original sources of the knowledge that you are presenting' (pp. 97–98).

The author's second research undertaking is a pilot study in which he carries out interviews with three educators who are first-generation immigrants to Canada. He explores their 'formal and informal educational experiences ... regarding Indigenous ecological knowledge and philosophy' (pp. 102–103). Questions such as their perceptions of Indigenous ecological knowledge and how they and other educators could better respond to educational contexts characterised by cultural complexity were explored. Although all participants had some level of formal schooling in Canada, the study found limited significant exposure to Indigenous philosophies through their formal educational experience, and underscored the importance of experiential work and/or study opportunities in Indigenous communities in the formation of participants' identities. Additionally, drawing from the participants' narratives, the author speaks to 'the potential for re-imagining cultural complexity as a strength rather than deficit for collaboratively addressing contemporary socio-ecological issues through formal and informal education' (p. 105).

Throughout the book, the author grapples with significant questions, including whether Indigenous, Western, and other philosophies can and should be blended; whether blending is possible without diminishing the value of Indigenous knowledge; and whether Indigenous knowledge can be deemed scientific in nature. For those new to these debates, the similarities and differences between traditional ecological knowledge (TEK) and Western science are discussed. For instance, similarities include a systematic observation of the natural world and a quest to understand how the natural world is ordered and the ways in which it works. Differences between the two include an Indigenous holistic view as contrasted with the compartmentalised and reductionist view of Western science, and Indigenous belief in the interconnectedness of the metaphysical and physical worlds as opposed to Western science's primary focus on the physical world. Lowan-Trudeau also articulates similarities and differences between and within Indigenous peoples. These sections are important, as various scholars also have made it clear that Indigenous knowledge is not a homogenous entity (Hatcher et al., 2009; Kulnieks et al., 2013). A significant conclusion arrived at after his deliberations is that TEK is a 'valid way of knowing and understanding the world without forcing it to conform to the norms and values of Western science' (p. 68).

Lowan-Trudeau's scholarship takes the audience through his research and the aforementioned critical questions. He also skilfully navigates readers through various concepts such as 'Two-Eyed Seeing' — 'viewing the world simultaneously through one Western and one Indigenous eye to form a balanced and unified whole' (p. 102) — and 'Three-Eyed Seeing' — 'simultaneously viewing and addressing contemporary ecological issues from Western, Indigenous, and other cultural perspectives' (p. 6). He speaks to his own methodological journey from bricolage — drawing on various cultural and academic sources to form an 'ultimately deconstructable whole' (p. 18) — through to métissage, in which the blending is so complete that the component parts are no longer clearly discernible and extractable from the whole. At times, there is a necessity for a

reread to grasp the distinctions between the various concepts. Notwithstanding this, the work is an important contribution to this field.

At present, the global community is faced with ‘wicked’ problems, problems that are ‘highly resistant to solution’ and that are characterised by, among other features, difficulty in defining them, interdependencies and multiple causes, and social complexity (Australian Public Service Commission, 2007, p. 3). These problems necessitate an EE approach that involves various stakeholders, since both the causes of and the actions to try to address these problems transcend any single actor. Lowan-Trudeau succeeds in highlighting the usefulness of multiple perspectives in addressing these problems. He concludes that:

pedagogical models that promote the participation of multiple stakeholders to consider and address wicked environmental problems, such as Two- or Three-Eyed Seeing and ecological métissage, hold great promise as they allow for the contribution of Western, Indigenous, and other culturally rooted understandings from around the globe. (p. 125)

He leaves his audience to consider the question:

How much further ahead would we be in considering and addressing wicked problems such as climate change, widespread fisheries and wildlife depletion, seasonal flooding, and other highly complex socio-ecological problems if the wisdom and knowledge of Indigenous and other non-Western peoples had been equitably included from the start? (p. 126).

In an earlier work, Lowan-Trudeau issues a call for all scholars to engage with Indigenous knowledge (Lowan-Trudeau, 2012), and by sharing his work in a personal, engaging, and accessible manner, he paves the way, not only for scholars and environmental educators, but also for the general public to engage with Indigenous philosophies. Additionally, although the studies centre on educators throughout Canada, Lowan-Trudeau highlights these participants’ diverse cultural backgrounds. He also makes reference to international case studies such as the Rediscovery programs and a ‘living village’ in Minamata in Japan, in which traditional farming, fishery, and forest skills and knowledge are preserved and shared with visitors from urban areas. The intercultural backgrounds of his participants and the examples he shares highlight the relevance of his discussion for a global audience. As a non-Indigenous environmental educator in the Caribbean, I was able to appreciate the significance of Lowan-Trudeau’s deliberations on Indigenous and Western knowledge for a global sustainability imperative.

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Reviewer Biography

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