A Review of Cristiano B. Moura's (Ed.) (2024) *A Sociopolitical Turn in Science Education: Towards Post-Pandemic Worlds*

Peiki Loay, *University of Manitoba*

Cristiano B. Moura's *A Sociopolitical Turn in Science Education: Towards Post-Pandemic Worlds* is an invitation to stay with the trouble (Haraway, 2016) of acknowledging science education's ongoing complicity in perpetuating social and ecological injustices. Readers are asked to grapple with the consequences of the COVID-19 pandemic for science education while recognizing that oppression in its many forms continues to inflict both quick and slow violence on our most vulnerable communities, as claimed by Sharma and Kalyanaraman in Chapter 3. As Moura comments early in the book, not everyone experienced the COVID-19 pandemic in the same way. Among other factors, injustices relating to racism, socioeconomic status, and geography are exacerbated, not created, by major disturbances like this pandemic (Alsop & Bencze, 2020). This edited volume confronts the ways in which science continues to be shaped by neoliberal, colonial, and capitalist forces, calling for the dismantling of these systems while offering new perspectives for turning towards social and ecological justice. Across 19 chapters, 35 contributing authors transport readers to geographically diverse contexts. They join hands in solidarity to articulate and advocate for a sociopolitical movement in science education that boldly re-imagines a more just future for the human and more-than-human worlds.

The book is organized into four parts with the first consisting solely of the editor's introduction. Moura provides a useful roadmap outlining each chapter and a rationale for the book's organization, adeptly situating the book within the post-pandemic context of collective—yet disparate—suffering. Importantly, the introduction distinguishes the sociocultural and sociopolitical turns in science education scholarship. Characterized by power, identities and ontologies, the sociopolitical turn moves beyond understanding culture towards transforming and dismantling oppressive structures. The second section (Chapters 2–5) then lays the foundation by introducing theoretical concepts. The takeaway is that a sociopolitical framing is needed for a vision of scientific literacy in the Anthropocene that is more equitable and less violent for our socioecological systems. Possible approaches discussed by authors include didaktik models, slow pedagogies, critical place-based pedagogies, and valuing Indigenous and land-based knowledges. Readers are urged to (re)consider human's exploitative relationships with Land by re-examining how we, as humans, might learn not only *about*, but *with* and *through* our more-than-human kin.

Diverse stories and perspectives from global contexts are featured in Section Three (Chapters 6–13). Across these chapters, authors continue challenging the Western Science hegemony that views science as objective, neutral, apolitical, and universal, reminding us that science is also emotional, embodied, spiritual, and co-constructed. Authors emphasize the importance of recognizing dominant science norms, enacting culturally relevant pedagogies, and understanding diverse knowledge systems to facilitate dialogue and cultural border crossings. Weinstein and Schafer's Chapter 7 stands out for its narratives bearing "[witness] to the suffering wrought by the 'torquing' that youth and teachers must do to survive in binary sex/gender categories" (p. 138). Their stories situate this chapter against the backdrop of a pandemic while illustrating why recommendations for queer-friendly science classrooms urgently need attending to amidst the rise of right-wing populism. Section Three also draws attention to online teacher training and digital strategies leveraged by museums to engage the public, suggesting that the sociopolitical movement need not be restricted to in-person or formal school environments.

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In the fourth and final section, Chapters 14–19 play with ideas for a re-imagined science education in a post-pandemic future. Authors describe this future as one where nature-culture, affect-cognition, and art-science binaries are disrupted. In this future, pluriversal science approaches are made familiar rather than strange (Fifield & Letts, 2014). As Lima and Martins assert in Chapter 19, the purpose of such an education is "to promote life, justice and plurality … [to] empower individuals, enhancing their strength and ability to act" (pp. 362–363). They ask science educators to consider the interconnectedness inseparable from Afro-diasporic cosmovisions. Nascimento, Ferreira, and Moura similarly invite us to understand and value diverse ontologies like perspectivism and multinaturalism for thinking differently about nature and culture in Chapter 17. Other authors, like Bazzul in Chapter 15, ask what it would mean for researchers, teachers, and students to collectively engage in acts of citizenship rooted in understandings of science-power entanglements. Bazzul contributes a Canadian and prairie perspective to the book by providing commentary on resistance to public health mandates from the 'freedom convoy' and white conservative communities. Drawing on the work of anthropologist Anna Tsing, this chapter reminds us that these relationships are what give meaning to the pandemic because "[t]*he pandemic, in itself, has very little significance*" (p. 298, emphasis in original); educators must take seriously the sociopolitical and historical contexts that are wrapped up with/in science.

By organizing the chapters into sections focused on theorizing foundational concepts of the sociopolitical turn, exploring diverse local experiences, and reimagining possibilities, the editor, Moura, succeeds in tracing a narrative for science education that maps its past, present and future. Despite their different emphases, the curated chapters are collectively united in their commitment to the sociopolitical turn. Bringing international experiences together is another strength of this book. Readers have opportunities to engage with scholarship from 13 countries across the Americas, the Caribbean, Europe, and Oceania. The book transcends not only geographical boundaries, but also those of physical classrooms. We learn about glaciers in a national park in Torres Olave and Guerrero's Chapter 5, about public health from science museums in Navas Iannini and Pedretti's Chapter 8, and even from dancing around a metaphorical bonfire in Lima and Martins's Chapter 19.

The target audience for this theoretically dense book is clearly science education researchers. However, as a scholar-practitioner, I find it worthwhile to highlight a few tangible examples from the chapters that provide inspiration for how science educators might enact pedagogies aligned with the sociopolitical turn. Gandolfi's Chapter 4 provides sample teaching sequences for two socioscientific issues originally used with middle-years students: tantalum and niobium mining and preservation of biodiversity. In these activities, learners are invited to discuss environmental and social issues relating to metal extraction and consider the impacts of a proposed macaw nature reserve. Dumrauf et al.'s Chapter 10 outlines the content and activities of their online science course. Although their chapter is situated in Argentina, themes like nutrition and food or health and vector-borne diseases can certainly be adapted for different contexts. In Chapter 11, Robles-Piñeros and Abella offer an example of how the dimensions of an Intercultural Science Education Curriculum with sociopolitical commitments could inform a biology course. A useful table is provided to show how various natural phenomena and potential action projects intersect with their framework.

My primary critique of this book centers on each chapter's treatment of the post-pandemic context. While the chapters are all relevant to the sociopolitical turn and associated

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period, they are inconsistent in foregrounding the pandemic context itself. In Chapters 8 and 10, which discuss online engagement with educators and the public in direct response to COVID-19, the pandemic connection is self-evident. Some chapters also situate their theoretical discussions in close conversation with the pandemic. Chapter 15, which explores self-disclosure through the relationship between religious confessionals and vaccine mandates, is one such example. Conversely, other chapters, including but not limited to Chapter 2, present excellent discussions of visions for scientific literacy in the Anthropocene but only superficially mention the post-pandemic. Consistent weaving of the pandemic throughout all chapters would have strengthened the book because this context is what makes Moura's volume especially compelling in relation to other science education books on social justice and the Anthropocene, such as *Nature of Science for Social Justice* (Yacoubian & Hansson, 2021) and *Reimagining Science Education in the Anthropocene* (Wallace et al., 2022). Explicitly centering the pandemic throughout all chapters would have further distinguished Moura's book from others in the field.

The way Indigenous knowledge systems are discussed in Chapter 12 is another critique. It matters what words we use to talk about these knowledges because, as evident in Jacobs (2025), Indigenous peoples from around the world hold deep scientific wisdom. Although Nazir's Chapter 12 advocates for cultural border crossings, it subsumes Indigenous ways of knowing into "alternative knowledges" (p. 249) and positions them in opposition to "scientific theories" (p. 249). This inadvertently construes Indigenous knowledges as 'not science.' Also problematic is how the term Indigenous knowledges is conflated with religion and magic in this chapter. As Snively and Corsiglia (2016) have discussed, spirituality is inseparable from Indigenous knowledge systems and not synonymous with religion as understood from a Western lens. Rather, "spirituality means life with consciousness … the land, the plants and animals, and people all have their own spirit, integrity, and substance; they must be respected" (p. 89). These issues in Chapter 12 could be addressed by more carefully differentiating between terms and concepts, as well as clarifying whose knowledge systems are considered Indigenous in a multiethnic Trinidad and Tobago context, where this chapter is situated. Spirituality with/in science education demands further consideration in the post-pandemic era. As Tolbert and Azarmandi remark in Chapter 13, "a strident secularism in the sciences has been used to render 'less than' those knowledge systems, such as many Indigenous knowledge systems, in which spirituality is entangled—with detrimental effects" (p. 258).

Overall, Moura's (2024) book makes a valuable contribution to science education scholarship by exploring how ongoing social and ecological injustices intersect with major disturbances like the COVID-19 pandemic. Though the pandemic context could be more explicit in places, the volume provides a timely and unique lens for *in education* readers to consider the sociopolitical turn in science education. I recommend this book primarily to science education researchers, though practicing K–12 educators could also draw insights from the text. This book calls on science educators to join the sociopolitical movement so that the brave will no longer be the "few, inhabiting the margins of a tiny field" (p. 18). If nothing else, readers can take Moura's key message as the editor: Educators have the privilege, power, and agency to "create new worlds in science education capable of forging eco-just futures" (p. 18). Let us interrogate hegemonic science norms and become interlocutors between diverse science knowledge systems. With the hopeful, dreaming hearts described by Higgins and Sanchez in Chapter 16, let us give meaning to this post-pandemic moment by honouring our ethical response-abilities for the planet.

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