The importance of Latin American scholarship-and-practice for the relational turn in sustainability science: a reply to West et al. (2020)

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**ABSTRACT**

The paper, ‘A relational turn for sustainability science? Relational thinking, leverage points and transformations’ presents a compelling summary of the incipient relational turn in sustainability science. That piece and the reply and response that follow put forth important arguments about what relational thinking is and how it can infuse sustainability science research. We are grateful for this conversation, but also recognize that crucial intellectual contributions from the Global South require further treatment. In response to West et al.’s invitation to conversation, we offer a summary of a diverse body of scholarship and practice that informs sustainability science in subtle but clear ways: Latin American contributions. We first summarize a set of Latin American theoretical contributions to relational thinking relevant to sustainability science. We then offer examples of how relational thinking infuses everyday life in many Latin American contexts. We close with reflections on the importance of Latin American thinking for sustainability science and transformations toward sustainability.

West et al. (2020, 2021) and Raymond et al. (2021) introduce and foster important questions for sustainability science: what role does relational thinking play, and how can we pragmatically work with relationality in our research and practice? We deeply appreciate this conversation, and agree with its central tenets – for instance, that explorations of relational thinking in sustainability science must engage both empirical and theoretical work with reflexivity (West et al. 2020). Yet in the existing three-part conversation, we note an absence of several traditions, frameworks, and authors important to this discussion.

West et al. (2020) do not claim to comprehensively review all components of the incipient relational turn in sustainability science; they aim to open a conversation. In response to this invitation, we offer an introduction to a massive arena of scholarship and practice that we argue is fundamental to sustainability science’s relational turn: Latin American contributions. Integration of Latin American contributions into mainstream science has been hampered by geographical barriers, language barriers, and illegibility within dominant paradigms (De Sousa Santos 2015; Escobar 2019). Here, we aim to open the door to inclusion of these approaches within the current relational-turn-in-sustainability-science conversation. Of course, we are only able to discuss a subset of the relevant work in this short communication (we imagine that West et al. (2020) encountered the same constraint).

We are a group of inter-and-transdisciplinary researchers, two from Latin America and one from the United States, who are deeply concerned with the transformation toward harmonious planetary coexistence that West et al. (2020) identify. Following their example, we incorporate examples from our own research, which inspires and grounds what we present.

1. Relational thinking in Latin American scholarship

Relational thinking is pivotal to much Latin American scholarship; this foundational work should be part of the conversation about the relational turn in sustainability science. West et al. (2020) mention multiple Latin American scholars with highly relevant work (de la Cadena 2015; Merçon et al. 2019; González-Márquez and Toledo 2020). Yet extensive additional work deserves recognition. Many of the authors below began their work in the 1970s, which emphasizes the long history of relational thinking in Latin America.

Colombian sociologist Fals-Borda shaped two highly influential concepts: senti-pensar (feeling-
thinking) and participatory action research (PAR) (e.g. Fals-Borda 1988). The senti-pensar concept, inspired in living communities (Fals-Borda 2002), recognizes the inherent inextricability of emotion and cognition; it relates closely to relational themes of embodied experience and reconstructing concepts (West et al. 2020). Fals-Borda’s PAR work centers on interaction-relations, community-oriented actions, and reflexivity in relationships between researchers and research participants (Gutiérrez 2016).

Brazilian educator and philosopher Paulo Freire is widely known in sustainability and social justice education fields (e.g. Sterling 2001). His landmark book Pedagogy of the Oppressed (published in English in 1970) links education to social change. He represents a driving voice in the ecopedagogy movement (e.g. Freire 2015) that joins theory and practice to promote awareness, agency, and justice around planetary challenges (Kahn 2008). Central to ecopedagogy is Freire’s concept of conscientização (translated from Portuguese as conscientization) – critical awareness of the deeply relational realities that surround people.

Brazilian anthropologist Eduardo Viveiros de Castro and his students, including Tania Stolze Lima, developed perspectivism, a vast theoretical contribution. Perspectivism describes cosmologies that “postulate a radical relationalism” (Vanzolini and Cesarino 2018, p. np). It addresses continually unfolding processes and endlessly relational, relative entities (Viveiros de Castro 2012). As Viveiros de Castro (2005, p. 55) clarifies: “perspectivism is not relativism but relationalism”. Perspectivism, based on ethnographic work with several Amazonian Indigenous groups (Lima 1999), demonstrates the unreality of the individual (i.e. the in-dividual): relations, not entities, constitute society. Scholars worldwide have embraced and expanded upon this work, including in sustainability science (e.g. Zent 2014; Gould et al. 2015).

Colombian-American anthropologist Arturo Escobar describes the fundamental relationality of communal Latin American praxis (e.g. Escobar 2019), then builds on this to suggest the pluriverse concept. His description of radical relationality draws heavily on cosmovisions he identifies as highly relational; in these cosmovisions:

all entities that make up the world are so deeply interrelated that they have no intrinsic, separate existence by themselves. Modern epistemology grants entities a separate existence, thanks to the foundational premises of the separation between subject and object, mind and body, nature and humanity, reason and emotion, facts and values, us and them, and so forth (Escobar 2020, p. xiii).

As he considered this type of cosmovision alongside others, he introduced the pluriverse to honor the co-existence of diverse cosmovisions. The concept offers a counternarrative to “the hegemony of modernity’s one-world ontology” (Escobar 2018, p. 4) – a point highly relevant to sustainability science’s relational turn. He stresses that relationality is foundational to thriving in a mutually respectful pluriverse (Escobar 2021).

Chilean biologists Francisco Varela and Humberto Marturana developed the concept of autopoiesis (self-production) as a fundamental characteristic of living things; autopoiesis offers an alternative to a stark social-ecological divide (Maturana and Varela 2012). Though coupled-systems research recognizes “the inextricability of humans and nature in theory”, it requires “researchers to extricate them in practice” (West et al. 2020, p. 304). Autopoiesis offers an alternative; it posits that an observer-independent interpretation of nature is impossible, because “living systems are cognitive systems, and living as a process is a process of cognition” (Maturana and Varela 2012, p. 13). Autopoiesis exemplifies relationality; it “reverses the dualism of fact and value, and of observer and observed, that has haunted the West since the 17th century” and implies “the existence of a biology of cooperation going back to millions of years” (Berman 1989, p. 2077).

Relationality is foundational for the work of scores of other Latin American scholars. Colombian geographer Astrid Ulloa demonstrated the centrality of relational thinking to diverse indigenous and local groups. She argues, for example, that carbonized nature (e.g. forests conceptualized as carbon repositories) responds to colonialists’ views of nature as an object, in conflict with local relational ways of knowing (Ulloa 2017). Mexican economist Gustavo Esteva describes grassroots relational networks that support powerful land-based movements and social commons as relationships (Esteva 2014). Bolivian sociologist Cusicanqui (2012) work offers a relational account of decolonization. Venezuelan ethnobiologist Zent’s (2013, 2014) research describes the ecogony, or network of causal reasons and relations, that structures the world of the Jotó, an Amazonian Indigenous group.

2. Relationality in everyday livelihoods and cosmovisions

Relationality infuses not only Latin America’s scholarship, but also its livelihoods and cosmovisions, symbolically and empirically (Vázquez 2012). Though limited space prevents us from providing a detailed treatment of this issue, we offer a few examples from Andean and Amazonian languages and cultures.

Andean philosophy (or pachasophy) is ecosystemic-relational, with Pachamama as the community’s core (May 2017). In this eco-centric
communist stance, humans are part of nature – symbolically and in daily actions. In this philosophy, flowing, or constant becoming, is the nature of everything; as West et al. (2020) describe of the relational turn, relationships define all processes and experiences (e.g. Gallegos-Riofrío and Jara 2007; Gonzales and Gonzalez 2019; May 2017). This cosmovision manifests in language, customary institutions, self-defined indigenous identity, and ecological knowledge in Bolivia (May 2017), Peru (Walshe and Argumedo 2016), and Ecuador (Gallegos-Riofrío et al. 2021a). We elaborate on the relational core of Andean language and institutions.

Quechua is a language of reciprocity (Mannheim 1986). Klever Naula, a Kichwa Nation scholar, explains that “to love” translates to Kichwa [Ecuador’s unified language that includes Quechua varieties in Ecuador, Colombia, and parts of Peru] as llakinimi. Llakina is a verb that means to empathize, commiserate, or comply; the suffix mi indicates affirmative voice. Love, in Kichwa, acquires meaning through taking care of the other (Naula 2022).

Andean reciprocity-and-complementarity customary institutions also embody relational thinking. Andean institutions (with their various local forms) often follow the principle of randy-randy. This translates as mutual giving. It manifests as alli kawsay, or living in harmony, balance, and plentitude for the good of the community (past, present, and future together), as explained by an Amawtay Yachag (wise teacher) from the Intercultural University of Nationalities and Indigenous Peoples Amawtay Wasi (Gallegos-Riofrío and Jara 2007). Agroecosystem management in the central highlands of Ecuador (Gallegos-Riofrío et al. 2022) provides one example of alli kawsay: this management is deeply respectful, since it is about the relationship with Pachamama (Mother Earth). Farmers ask her permission to cultivate and make offerings that are part of soil fertilization strategies.

The holiday “Day of the Dead”, also celebrated in Mesoamerica, offers one example; it is a feast with the ancestors. The conception is that ancestors interact with the living, in time that is spiraling rather than linear (Gallegos-Riofrío and Jara 2007). Another example is the Andean minga, minka, or ayni (roughly translated as “give a hand”), which demonstrates communal action and relationality as praxis (Walshe and Argumedo 2016; May 2017; Gallegos-Riofrío et al. 2021a). More generally, Andean institutions based in reciprocity and solidarity mobilize multiple forms of circular economies (Calvo et al. 2017), which are widely recognized as important for sustainability transitions (Geissdoerfer et al. 2017).

These relational psycho-socio-cultural institutions help to maintain healthy agroecosystems via collective efforts to care for Pachamama (Walshe and Argumedo 2016; Gallegos-Riofrío et al. 2021a, 2021b). These complex energy loops have assured sustainable diets for generations (Gallegos-Riofrío et al. 2021b). The praxis based in randy-randy represents a multidimensional web of relationships, because partaking in the ecological community involves reciprocity, redistribution, and respect (Gallegos-Riofrío et al. 2021a).

Amazonian peoples provide another rich set of examples of how relationality infuses everyday life. A central idea for most of these peoples is the non-existence of a concept of or word for nature, as an entity separated from the human sphere. Relations explain the system and its dynamics (Zent 2013). An eloquent expression of this non-dual notion of reality is the endless construction of biocultural diversity in Amazonia by Indigenous peoples and quimbos (Cunha et al. 2021; Zent and Zent 2022).

We provide a few examples from the variety of ways relationality can manifest. As has been recorded among many groups (after Viveiros de Castro’s seminal publication of Viveiros de Castro 1977), the Yawalapiti and Araweti do not differentiate between humans, animals, plants, and spirits (Viveiros de Castro 1986); all have personhood, because personhood results from produce-reproduce sharing relationships. For the Makua, notions of space and person are interdependent and fused (Cayón 2008). The Jotí curate complex inter-relationships with their surroundings using a set of strategies (dispersion of seeds of hundreds of species, management of pollinators as bees and coleoptera, cultivation of natural clearings) to construct patch-based forest communities (Zent and Zent 2002). In an especially rich and increasingly well-known example of relationality-dependent biocultural diversity, diverse Amazonian peoples (in Colombia, Brazil, Bolivia, and Peru) have for millennia domesticated and semi-domesticated plants and created terra pretá do índio (Amazonian dark earth; i.e. anthropogenic fertile soil) (Morcote-Rios et al. 2013; Levis et al. 2017).

3. Implications for sustainability science

We appreciate the point made by Raymond et al. (2021) about the need to be explicit about how the relational turn impacts sustainability science in practice, and suggest that Latin America’s rich intellectual and lived history offers multiple lessons for sustainability science.

Indigenous (and indigenist) intellectuals in Latin America draw on ancient Andean and Amazonian sustainability ethics and customary practices to design and implement public policy and programing (e.g. Acosta 2017; May 2017; Zent and Zent 2022). The global sustainability science community can
learn from these experiences in multiple ways—for instance, by exercising the same degree of respect that these intellectuals have for local sustainability ethics and customary practices, and by employing similar methods to involve communities in co-creation and long-term sustainability efforts.

One influential movement relates to the *sumak kawsay* concept (with regional variants Alli/Allin Kawsay and Suma Qamaña; translated to Spanish as buen vivir and to English as living well and good co-existence) (Hidalgo-Capitán and Cubillo-Guevara 2017). *Sumak Kawsay* offers an alternative to the Eurocentric framework of sustainable development (Acosta 2017). The concept is defined differently in various communities (Gudynas and Acosta 2011), but all definitions foreground sustainability as a necessary condition. The care central to Andean thinking is evident in the Kichwa definition of sustainability: “guagua guagua,” translated as caring for the next generations (Gallegos-Riofrío et al. 2021b). This forward-looking philosophy is paired with a sustainability-based system of knowledge and technology (Carrasco-Torrontegui et al. 2021). Sustainability, in Kichwa, emerges intuitively from the experience of life as relational.

*Sumak kawsay* has been integrated into the national constitutions of Ecuador and Bolivia (Hidalgo-Capitán and Cubillo-Guevara 2017). Ecuador’s constitution (2008), for example, opens with aspirations toward a “new form of public coexistence, in diversity and in harmony with nature, to achieve the good way of living, the *sumak kawsay*” and later describes a “healthy and ecologically balanced environment that guarantees sustainability and the good way of living.” *Sumak kawsay* remains an ongoing and highly active area of scholarship and action (e.g. Yampara 2011; Oviedo-Freire 2016; Chuji et al. 2019).

Ecuador and Bolivia, building on this landmark legal framework, have engaged in innovative sustainability efforts. For example, Ecuador’s Socio Bosque and Socio Paramo programs, begun in 2008, invite indigenous and other rural communities to participate in the conservation of 1.6 million hectares of tropical forests and 0.8 million hectares of high plateau (Ecuador Ministry of Environment 2022). Bolivia’s similar FONABOSQUE initiative aims to implement programs and projects for the sustainable development of forest areas, framed within the *suma qamaña* principle (Bolivia Ministry of Environment and Water 2021).

Overall, these long-standing traditions and their recent manifestations demonstrate how the relationality that infuses language, culture, and politics in Latin America offers multiple lessons and pathways toward sustainability for global society. The risk of institutionalization, however, is a government in power may appropriate the concepts for political reasons. This could distort their profound meaning to Indigenous worldviews, knowledge systems, and communities (Cuestas-Caza 2018). The same basic potential for appropriation is present for global society employing concepts generated in Latin America. This means that crucial elements of moving forward are to ensure adequate representation in any effort to translate concepts generated in one context to another, and to exercise reflexivity (as recommended in West et al. (2020)). These approaches boil down to work that foregrounds the sovereignty and self-determination of peoples—as reflected in most of the work cited above, most notably in Fals-Borda’s PAR and Freire’s critical pedagogy.

4. Conclusion

The relational turn is an avenue to a sensitive reno-vation of sustainability science; it entails an embrace of an ecological paradigm from which modern societies should never have diverged. It can channel real-life efforts toward sustainability transformations. Yet the full realization of the potential of sustainability science’s relational turn, we argue, is only possible if colonialism is contested, so as to genuinely open a window to the pluriverse—i.e. to diverse ways of knowing and being, including the many that are strongly relational. We know that West et al. (2020) and Raymond et al. (2021) agree with this ethos, and hope that this piece contributes to the shared goal of addressing our sustainability challenges with a blend of pluralism and practicality.

Much of Latin American scholarship, as described above, emphasizes that thinking is an orphan without feeling and action. Sustainability science in Latin America has developed with constant infusions from sociocultural forms of relationality. Scientific discourses from the South have long recognized human-nature connectedness as relational (Kothari et al. 2014; Escobar 2019). We hope this contribution helps to expand the borders of sustainability science beyond sources imbued with symbolic power (notably, Western European scholarship), and thus leads to greater epistemic justice. Future work should endeavor to assess the magnitude and capacity of Latin American scholarship to inform sustainability science and its applications. The relational turn must integrally connect with communities in Latin America (and the Global South more broadly), for at least two intertwined reasons: first, because the linguistic and epistemological resources therein manifest “the relational turn” in profound ways; and second, because in many Latin American contexts, relational concepts are foundational to ongoing mobilization, social change, and transformation.
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Author contributions

A.G.R, R.K.G and E.Z. planned and designed the reply; C. A.G.R. wrote the paper with substantial input from R.K.G and E.Z; C.A.G.R. and R.K.G did the editorial work.

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