Journal of the International Society for the Systems Sciences | 68th Meeting of the International Society for the Systems Sciences, J. Wilby, J. Makar, M. Friend, eds.

INDIGENOUS WAYS OF WORLDING AS SYSTEMIC UNDERSTANDING OF HUMAN AND MORE-THAN-HUMAN INFLUENCE IN GENERATING WORLDS IN BECOMING

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Abstract
In this paper I explore the participatory onto-epistemology – ways of knowing linked to ways of worlding – expressed by Indigenous sages and scholars in numerous parts of the globe. (The term *Indigenous* here signals groupings of people who have been subjected to Euro-American colonization.) I point to, and draw out, their systemic approach grounded in the understanding that "things" (including our "selves") always exist in relation. This ontology – sometimes called a *political ontology* – implies an axiological commitment to strive to heal relations that have become unbalanced among and between human and more-than-human agents (animals, plants, rivers, etc. whose agency and intelligence too must be respected). It suggests that we need to be alert to how our thinking processes, as part of a community of human and more than-human agents, willy nilly contribute to having influence on/in a world-in-becoming. Otherwise expressed, in terms of this onto-epistemology *we are enmeshed in a web of relations in which we shape worlds as we enact our thinking-and-being with others with whom/which we are engaged*. This (co)responsibility for world-forming cannot be avoided. I note that an Indigenous systemic outlook has not been highlighted in mainstream accounts of the history of systems thinking and that the superwicked crises such as appropriation of Indigenous lands to make way for the operation of global (extractive) capital, destruction of Indigenous communities along the way, superexploitation of racialized labor across the globe, superexploitation of "cheap nature", mass extinction of species due to an anthropocentric outlook, etc., have not been given due attention in the mainstream systems literature.

Key words: Indigenous onto-epistemology**;** Indigenous systemic thinking/being**;** relational co-existence; co-responsibility for world-shaping.

1. Introduction

The discussion in this paper elucidates and provide examples of how an Indigenous onto-epistemology (and attendant axiology) understands the notion of responsibility as tied to a recognition of our involvement in the shaping of worlds-in-becoming. To start with, in terms of such an onto-epistemology, all "things" are seen as having no existence apart from their being-in-relation. In the African context, the *Ubuntu* expression, translated as "I am because we are" expresses this ontology, where the "we" is not confined to human others but to the more-than-human world too as part of the community. As an epistemology, it is understood that as we "know" so we are active participants in influencing the network of relationships in which we are enmeshed (and for which we need to take co-responsibility with others). Axiologically and methodologically, as we explore our involvement in "the world", it means that we are *accountable to our relations* – which includes efforts to *strengthen relationships of reciprocity with all which we encounter.* (See Romm, 2024, for a fuller account of the ontology,

epistemology, axiology and methodology of this systemic relational approach; and Romm, 2021 for why this can be regarded as a performative approach where knowing is regarded as performing/enacting worlds.)

Ngara emphasizes that we need to be aware that our "knowing" (in encounter with others) always implies an intervention in world shaping, which can be more or less destructive of balance in relationships (2017, p. 340). Once we recognize that we are *participants* in world forming, we need to be accountable to the relations that we play a part in forming. The idea is to seek more balance/harmony in the relationships in which we are enmeshed. As she expresses it:

> "The overriding focus of life is to be in harmony with the forces of life. Harmony implies living life – not fighting or controlling life. It means steering life [acting with some agency] while understanding that there are other forces that will, in part, determine the vehicle and the direction of travel [as they too have agency, which must be respected]" (2017, p. 344).

In this process of encounter, we should recognize that the apparent *observer* "now becomes a *participator*" in that "s/he has an effect on the system she observes", on the understanding that other life forces too have agency that needs to be respected as we engage with "the world" (2018, p. 15).

Santos, in his *Epistemologies of the South* (2015), succinctly expresses this as that: "The very action of knowing, … is an intervention in the world, which places us within it as active contributors to its making" (2015, p. 308). Put differently, we cannot escape from being influential in the world, because the stories we tell, the language we use, the models/theories we build, all are part of the process of world-forming. This is akin to Midgley's point that in creating boundaries of what to include or exclude in our exploration of "systems", this already has intervention effects. He gives the example that if our analysis is bounded by economic considerations, we can look at the economics of logging a rain forest [is there a market, will it increase GDP?] – rather than consider who are displaced from their ancestral homes and also look at the issue of preservation of diversity (2000, p. 44).

Our ways of drawing boundaries are therefore already an intervention with impacts on "the world" (a world being formed). Ngara argues that the notion that we are always participants in world construction and never simply spectators (as acknowledged in quantum physics) is present in eons of ancient Indigenous wisdom, and that quantum physics has now caught up with this wisdom (2017, p. 340). Returning to Midgley's insistence that we consider the implications of our boundary setting (by involving also those most affected by how these are drawn) we can note that the economic considerations to which he refers in the above example, are influenced by theories of what "economics" is. In terms of conventional economics, the focus is indeed on market opportunities for making a profit and also economic growth as measured through GDP. However, in ecological economics as an alternative understanding of what business involves (and can involve) the focuses shifts to considering the Environmentalism of the poor and the effects on marginalized participants socially and ecologically (cf. Martinez-Alier, 2003 https://en.wikipedia.org/wiki/Environmentalism_of_the_poor).

The mainstream economic theories which support a narrative of economic growth as the route to "development" override concerns that, for example, Indigenous sacred lands become appropriated to make way for the operation of global (extractive) capital, and Indigenous communities' ways of life become destroyed, while "business" proceeds through the (super)exploitation of cheap labor in the name of maximizing profit, with an attendant (super)exploitation of "cheap nature" (Moore, 2015, 2019). This of course has destructive consequences for furthering and strengthening what Indigenous sages and scholars name as *relational co-existence (socially and ecologically).*

It is conventional economics which also underpins what Stein et al. (2020, p. 50) call the modern-colonial way of living in "the house that modernity built". Stein et al. try to render more visible the hidden costs of "subsidizing" this house, as a backdrop to gesturing towards decolonial alternatives. Andreotti for her part (one of the co-authors of Stein et al., 2020) points to prospects for living in terms of what she (2003) calls "relational intelligence" (Andreotti, 2023).

From a decolonial perspective, addressing the interrelated superwicked problems (created by those building the house of modernity) requires a radically different approach to our engagement with the world in order to heal the destructive consequences not only for those most marginalized in social and ecological existence but indeed for everyone who becomes affected one way of another by a house with such shaky foundations.

2. Recognition of Being Active Participants in World-Shaping Implies Specific Responsibilities

What I have tried to draw out in the above discussion is that in terms of an Indigenous onto-epistemology, we are always active participants (with others, including more than human others) in world forming, whether in destructive or regenerative ways: We cannot avoid taking responsibility for theories that become developed, narratives that become told, language that becomes used, and ways in which we are (or not) responsive to the voice of what is called in Venda (South Africa) *Mupo* – the voice or spirit of nature and all her communities. Readers can turn in this regard to the contribution in this (ISSS) volume with lead-author Mphatheleni Makaulule, which is entitled "responsibly to heed the call through a community of practice: the influence of indigenous wisdom". In that paper we discuss the initiatives of the organization founded by Makaulule in 2007 called Dzomo la Mupo. As she expresses this in that paper, "a holistic view means seeing systems as more than a sum of its parts: it includes the mind, body, soul and the environment where the functions manifest". She indicates that we cannot regard ourselves as separate from "the environment" and nor can we avoid recognizing our spiritual (as well as cognitive and physical) ties to "nature". As we think and act in the world, so we contribute to either strengthening or disrupting the creative life forces of which we are a part.

The enablement of the flourishing of the spirit of Mupo as expressed by Makaulule, is threatened to be destroyed by a planned Musina-Makhado Special Economic Zone (MMSEZ), which is a megaproject proposed to be implemented through investments by Chinese-based conglomerates coming into the area, mainly for the mining of minerals, but also for industrialized agriculture. A film was created by Dzomo La Mupo as part of an awareness-raising process to resist this project before it materializes, based on challenging the narrative of "progress" by pointing to the perils associated with this narrative. (The film is called:

MMSEZ Promise of Progress and the Peril - https://www.youtube.com/watch?v=naEho-yFSdk.)

A critical systemic perspective in this context (in Venda and indeed in all similar contexts of extractive global capital) requires taking some responsibility for challenging/subverting the (destructive) influence of dominant narratives of "progress" defined in terms of "development", which in effect destroy Indigenous ways of living in tune with nature regarded as sacred. Inoue, Ribeiro, Gonçalves, Basso & Moreira (along with other Indigenous authors) refer to this as *a way of worlding in terms of planetary justice* and they point out that struggles of Indigenous people and others involved in global environmental justice movements

> "involve people(s) in their complex relations to land, sea, rivers, mountains, forests and plants, animals, and other beings. … these conflicts and people involved in such struggles are also resisting attempts against their *ways of knowing and living* and against other-than-human beings ([e.g.] Blaser 2009, Escobar 2016 … .]" (Inoue et al. 2023, p. 3, my emphasis).

They indicate that "these struggles also offer concrete ways to reimagine just relations" (2023, p. 3).

As another example with which I am familiar of trying to take action to preserve the ways of worlding (systemic understandings and practices) of Indigenous communities, I refer to the research undertaken by Adyanga and Romm in Uganda in 2021/2022, where participants in the (four) focus groups expressed their concerns about the irresponsible practices of certain foreign investors who had been invited into the country (Adyanga & Romm, 2022a). According to the participants, they had wreaked relational havoc (socially and ecologically). We wrote up this project in chapter in McIntyre-Mills and Corcoran-Nantes edited volume (2022) which is part of the *Contemporary Systems Thinking* series. Our chapter is entitled: "collective action for regeneration of the web of life in the face of disruptive injustice".

We cited various ways in which the participants expressed how their ways of life (and understandings of relationality) had become threated by the practices of the investors. As one woman expressed this:

> *(Woman speaking): Let other people be careful next time they want to receive investors from outside our country. Now I know that if care is not exercised and investors are allowed in the community without proper laws guiding them, they end up abusing the community generosity. They should be accountable to the people and their waters, trees, land, soil, religion, and culture but should not behave like [the] factory that has no regards for all this.* (Cited in AAA & Author, 2022a, p. 101)

This is just one pertinent quotation highlighting how the participants' reflections and expressions during the focus group sessions that we facilitated were clearly based on their indigenous recognition that *the mode of operating of foreign businesses to the exclusion of social and environmental justice is anathema to indigenous appreciations of the web of life*. They did not express that all foreign-owned enterprise must be relinquished; but they expressed that operating out of maximization of profit in terms of a *non-ecological and socially irresponsible business model*, could not be "just" and they reflected (using traditional dialogical modes of knowing together), how as a community they could mobilize their collective power to act.

We further explored the relational views expressed by these Ugandan participants in an article published in *The Qualitative Report* (Adyanga & Romm, 2022b). We indicated in more depth how these participants understood that the striving for profit at the expense of people and the planet could and should be "shamed" instead of treated as normal. Ramose – a South African philosopher – in his endorsement on the front cover of the book entitled: *Pluriverse: A post-development dictionary* (2018) aptly summarizes how mainstream economics perpetuates the "free market economic delusion that the natural imperative for survival demands possession and use of money, permitting injury to other human beings and the wholeness of nature in an unceasing accumulation of money."

Various authors hailing from "the West" have appreciated the contribution of Indigenous philosophies to challenging what is taken to be the "normal" direction of development as expressed in dominant narratives. For instance, in a chapter entitled "Transmaterial Worlding as Inquiry," Simon and Salter (2020) lament the "binary constructions of 'us' and 'them'" attendant on processes of colonization, which in effect have occasioned "an unmitigated loss of Indigenous knowledge and contextual know how" (p. 89). This, as far as they see it, has resulted in "catastrophic changes in societies and land ownership, such as loss of rainforests, sustainable communities, homelands, dunes, clean air, uncontaminated sites, the ozone layer and much, much more" (2020, p. 89). Therefore, they suggest that it is imperative to ask as researchers, "What and who are in focus? And why?" and "How can other silent voices or erased matters be animated and rendered audible through our research?" (2020, p. 90). This concurs with Midgley et al.'s (2007) insistence in their article discussing the evaluation of community environmental management programmes with Màori participants, that we need to carefully consider what and who is included in the research undertaking, recognizing too that these decisions inevitably will shape the worlds being "explored". As they explain, "agents (including researchers and other types of systems practitioners) are *active parts of the world around them and are therefore incapable of avoiding intervention*" (2007, p. 239, my emphasis).

This of course means that an ethical approach has to be included from the outset. Cordoba-Pachon takes this further by suggesting how we can "secure a future for systems thinking that provides a wider understanding of the dynamics and intertwining of knowledge unfolding and ethics in society" – with attention to "continuous ethical vigilance in thinking and acting in our relations with ourselves and others" (2020, p. 2). The focus here again is on how relationality as a matter of knowing-and-acting in the world can be strengthened. Romm and Lethole (2021) indicate implications for relations of mutuality also with more-than-human others, by exploring the importance of totems such as animals, lakes, trees, etc. in African traditions and other Indigenous cultural heritages.

A far as the Indigenous focus on relationality as a way of thinking-and-being which can animate the voice of nature in global discourses is concerned, Walsh et al. note that "unlike Western environmentalism, these [Indigenous] traditions do not relate to the environment as something 'out there' that needs to be protected" (2020, p. 4). Rather, they (Indigenous peoples) generally "perceive themselves and nature as part of the same family sharing origins and ancestral bonds" (p. 4). This tallies also with Pinzon-Salcedo, Bernal-Alvarado, Ramírez-Franco, & Pesca-Perdomo's (2023) account of the systemic perspective springing from Amazonian communities which is based on a cosmology which is "entwined with a non-anthropocentric ecological ethics" (2023, p. 2). This, they note, patently has practical implications for "relations with nature". They argue that the "contributions of Amazonian systems thinking can be particularly helpful to find answers to the planet's ecological and sustainability problems" (p. 1). They

indicate, however, that we must take cognisance that "the Amerindian systemic perspective is based on ideas that grew completely apart from current Western systems thinking" (p. 1). In Romm (2024) I offer a detailed argument concerning the lacuna in mainstream accounts of the history of systems thinking, where prominent authors storying this history do not give credit to the systemic onto-epistemology put forward by Indigenous sages, scholars and supporters (which pre-dates Western-inspired systems thinking).

When Walsh et al. are discussing approaches to ethics in sustainability studies, they aver that Indigenous relational approaches "are marginalized within sustainability scholarship" (2020, p. 7). This conclusion of theirs would be consistent with Indigenous authors who argue that their specific contributions to sustainability science and sustainable ways of living have not been sufficiently influential in academic and in political discourses across the globe. In the article by Adyanga and Romm (2022b) we attempted to rescue the relationally deep insights of the Ugandan participants as an input into discourses towards conceiving "development" as a life-enhancing process.

3. Axiological Commitment

What I have attempted to draw out in the discussion above is that the axiology of a relational systemic approach demands paying attention to how we enact our worlds with others (including more-than-human ones), so as to try to create more balanced/reciprocal/non-exploitative relations all round. Authors such as Chilisa (2020); Kovach (2009); Ngara (2017, 2018); Nobrega, Alencar, Baniwa, Buell, Chaffe et al. (2023); Romm (2014); Stein, Andreotti, Suša, Amsler, Hunt … et al. (2020); and Pereira & Tsikata (2021) express this axiological commitment in various ways. They point to (and advocate) options for enacting radically different ways of co-existing from those dominating the globe at present.

Stein et al. (2020) contend that these alternatives are needed to counteract the modern-colonial house that modernity has built, which involves continuing devastating "hidden costs", including "historical and on-going expropriation [of Indigenous lands], land-theft, exploitation [of people and planet through the workings of global capital], destitution, preventable famines, incarceration, dispossession, epistemicides, ecocides, and genocides" (2020, pp. 49-50). Their reference to epistemicides echoes Ndlovu-Gatsheni's exploration of the dynamics of epistemological decolonization in the 21st century in an effort to activate what he calls "epistemic freedom" and associated onto-epistemological struggles (2018).

What then can we as systemic thinkers/actors in the so-named "system community" do in terms of our co-responsibilities?

In response to this question, I suggest that in the named "systems community" (so-named by, for example, Klein et al. 2021, p. 720; and 2023, p. 973), more attention needs to be given when speaking about systems thinking and its future agenda, to the onto-epistemology of Indigenous systemic thinkers who urge decolonial alternatives to the "house modernity built". Thus far in the mainstream narrations of the history of systems thinking in the named field, the systemic ideas displayed by many Indigenous scholars and sages across the globe, are not afforded due notice and arguably have become drowned in the presented histories (Romm, 2024).

Being part of the systems community, we can begin to take corrective action as a matter of (co)responsibility by revisiting mainstream accounts of what systems and systemic thinking and being involves, which in turn are not politically neutral in impact. Blaser (2009, 2013) introduces the term *political ontology* to point out that the proposed and enacted ways of worlding as advanced by Indigenous sages and scholars (and those supporting them) imply a radically new agenda. The (political) ontology which suggests that worlds are *enacted/performed* rather than "observed" (Inoue et al., 2023, p. 5) means that our *thinking matters* (that is, is consequential in creating outcomes, as also expressed by McIntyre-Mills, 2021, p. 1317).

4. Conclusion: New Openings

By way of conclusion, I point to come considerations taken from my recent (2024) article regarding how we could re-set the agenda of the "systems community" to better embrace the contributions of indigenous relational systemic knowing. In the context of their agenda-setting for the systems community for 2024, Klein et al. provide an account of what they take to be the current polycrisis, which they suggest we (as a systems community) need to "navigate" (p. 973). In their list of crises in the polycrisis, they mention issues such as the "climate crisis, the loss of biodiversity, the ebb and flow of economic crises and inflation, the energy crisis, inequality, poverty, hunger, armed conflict, and outright war" (p. 974). Notably, they do not mention the (other) interrelated costs of the house of modernity identified by, for example, Stein et al. (2020), including *displacement of Indigenous people from land to make way for transnational corporations, exploitation (of cheap labor and of cheap nature which is not regarded as kin/family), destitution (which surpasses poverty*), etc.

In Klein et al.'s way of speaking about the polycrisis, I would argue that the words they use distract attention from the *proposed and enacted ways of worlding* which Indigenous scholars and communities offer as manifesting *radically alternative relational co-existence*. In short, the very way in which the polycrisis is envisaged by them, is itself socially and ecologically consequential (and arguably exclusive) in its agenda in excluding the kinds of issues that I have named above.

McIntyre-Mills (2024, in this volume, under the title of "multi-species apartheid") suggests that one way in which we can be more attuned to the consequences of our way of our thinking (for example, in relation to perceived crises) is to consider if-then scenarios – much in the way that the methodology of Structured Dialogical Design (SDD) develops these. SDD offers a way of inviting stakeholders (those most concerned and affected) to consider influence relationships between pairs of ideas that are put forward, towards collectively prioritizing action-resolutions. The methodology of SDD has been recorded in a myriad of articles in systems journals, chapters in books, and books (see, for example, Christakis & Bausch, 2006; Flanagan, 2021; Laouris & Dye, 2024). In an article in the *European Journal of Operational Research*, Laouris and Romm (2022) provide a detailed justification for SDD being named as a problem structuring method (PSM) along with other PSMs.

The approach of SDD was introduced by Aleco Christakis to Native American leader LaDonna Harris in the 1980s (as noted by Christakis, 2014): She felt that it resonated with Indigenous understandings of ways of collective knowing, because it involved concerned and affected stakeholders to think through, with others, the ideas they are putting forward and to consider (again together) how these ideas could be exerting influence, so that they could prioritize those

deemed to be most influential. Also important is the way the SDD became used with Native American, Màori and other ISSS participants at the 47th ISSS conference (when Christakis was past President in 2003). The SDD process was arranged as a ceremony, in keeping with traditional understandings of the importance of ceremony (see also Wilson, 2008). Christakis and Harris explain the set up as follows:

> "Forty Indigenous leaders from the Americas and New Zealand and several non-Indigenous participants sitting in the traditional Comanche Tribe circle began the forum by sharing their "medicine" – inner strength or personal power [power to transform relations in the face of unchecked globalization]. They evoked in various ways a common deep spirituality based on a respect for the earth, ancestors, family, and peaceful coexistence" (2004, p. 251).

Further to this, Harris and Wasilewski (2004a,b) and Christakis and Harris (2004) wrote up in *Systems Research and Behavioral Science* the contribution they felt could be made by Indigenous thinking (and being) to the wider systems community. But as I argued in Romm (2024), these contributions as a way of knowing as tied to relational being did not enter mainstream expositions by those in the community writing/narrating the history of systems thinking. Nor did the work of sages and scholars (either in the general social research community or the systems one) become recognised as important contributions to the systems community, despite their often naming their contributions as systemic and indeed as a route to healing and repairing the damaged relations which beset the current era (as they highlight). We could now as a community commit to involvement in SDD-type processes to (re)explore, among others, the kinds of issues/crises identified, *inter alia*, by Stein et al. (2020).

It is noteworthy in this regard that Laouris facilitated a fruitful SDD process as part of the ISSS 67th conference based on the "triggering question": *What actions could we (as ISSS members) take to make the visibility, impact, and societal contributions of ISSS more robust, effective, and meaningful?* (Laouris, 2023). The process began *virtually* one month prior to the conference. This is significant given the logistical challenges of convening individuals for extended periods. (The virtual nature of the SDD process broadens its applicability, particularly in addressing global challenges where stakeholders are dispersed across different continents (Laouris & Metcalf, 2024).)

Various ideas became generated, which are still to be further explored in further SDD sessions so that pair-wise influence decisions can be generated to collectively map (using specific software) what is called in SDD parlance a "tree of influence". Laouris is keen to continue this endeavor for ISSS (personal communication with Laouris, 5 May 2024). Among the many ideas generated in terms of the above triggering question to help the ISSS in its social mission, I noticed one idea that struck me (as forwarded by author Lisa Sattell). Her idea was: **"**Be a Touchstone for Co-created culture, community and storytelling (of systems and systems thinkers)**".** She explained this as follows:

> "Build on current momentum in the ISSS ecosystem hosting spaces for intellectual rigor and exploration of systems and multi contextualities as well as seed the conditions for emergence, play, resonance and respect for participants from multiple linguistic and cultural backgrounds in honest and courageous dialogue" (Cited in Laouris, 2023).

This idea of holding such conversations resonates with the point made by Andreotti in her plenary presentation to ISSS in 2022, where she suggested that:

> "The artistic and educational interventions of the Gesturing Towards Decolonial Futures (GTDF) collective aim to build stamina to navigate volatility, uncertainty, complexity, and ambiguity and to *hold space for difficult conversations about wicked social and global challenges"* (Andreotti, Abstract of plenary presentation, ISSS, 2022, my emphasis).

I would suggest that the SDD process begun in 2023 with ISSS members, which can be further discussed and "mapped" in ISSS fora, is one way for us to instantiate our collective responsibilities in the shaping of worlds-in-becoming in more inclusive ways (that include efforts to revive what Andreotti (2023) calls relational intelligence as understood through also drawing on Indigenous cultural heritages).

In short, if the ideas generated through Laouris's facilitated process from June 2023 can be further explored (through structured dialogical design processes) in ISSS, this would be a way forward for us to fulfil collective responsibilities in defining the future agenda of ISSS and its possible place in world-shaping. This is important because as Laouris further remarked to me:

> "contemporary crises facing democratic systems and the profound challenges stemming from the emergence of AI underscore the necessity of engaging individuals from diverse backgrounds and geographical regions to develop viable solutions. In the ONLIFE Manifesto, the imperative for convergent dialogues, such as those facilitated by SDD, was identified as a key challenge confronting humanity in an increasingly online world" (Laouris, personal communication, 5 May 2024, citing also Laouris, 2015).

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