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NOTE AND COMMENT

Spirituality and sustainable development: an entangled and neglected relationship

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Abstract

There is a paucity of research that examines the relationship between spirituality and sustainable development, including in relation to Indigenous or non-Western worldviews. This Comment argues that closer integration of spirituality and sustainability will enable more effective and sustainable strategies for future development.

Keywords Spirituality · Sustainable development · Climate change adaptation · Indigenous knowledge systems · Non-Western worldviews · Under-recognized interrelationship

The benefits of engaging local worldviews for effective and sustainable development

Most development programmes in the Pacific region have overwhelmingly privileged "outsider" perspectives that uncritically foreground scientific and technocratic fixes, which contrast sharply with the faith-informed worldviews and experiences of local communities. Many development and climate change adaptation initiatives have consequently not been sustainable, being contextualised, guided, and funded by external agendas (Luetz and Nunn 2020, 2021). Although spirituality is foundational to cultural beliefs and practices in Pacific Island countries (Nunn et al. 2016; Fair 2018), many development and adaptation initiatives rest on "a scientific and technocratic worldview perspective, in which climate change is seen as a science-informed issue, rather than a faith-informed issue" (Luetz and Nunn 2020, p. 293). In turn, many aid programmes and climate change adaptation initiatives fail because they do not adequately resonate with the recipients' spiritual and sustainability worldviews (Atkinson-Nolte et al. 2021; Bertana 2020). These issues also apply elsewhere in the world and involve a range of spiritual traditions and philosophies that may impinge on sustainability and land ethics (Dawson et al. 2021; De Silva 2023; Gupta and Agrawal 2017; Mamani-Bernabé 2015; Sponsel 2020; Yangka et al. 2018).

The time is ripe to recognise the interplay between local spirituality and sustainability so that community development and adaptation responses to climate-driven environmental change in such places may become more effective and enduring (McNamara et al. 2020; Leal Filho et al. 2022). More specifically, congruity between sustainability and spirituality can better overcome the well-known limits of

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climate change adaptation and/or decrease maladaptation outcomes (Barnett and O'Neill 2010, 2013; Leal Filho and Nalau 2018). Here, we explore some of the interrelationships between spirituality and sustainability, including in relation to 'denaturing', non-western worldviews, and matters related to language and justice.

Making sense of spirituality and sustainable development

As a starting point, it is important to recognise that in the literature, the nexus between spirituality and sustainability is not explicitly addressed (Gupta and Agrawal 2017). There is no consensus on what precisely constitutes human 'spirituality' or 'sustainable development' since meanings and dimensions are complex, contested, and vary by context (Zawawi and Wahab 2019; Rocha and Pinheiro 2020). Here, we review some common meanings of the concepts of 'spirituality' and 'sustainable development'.

The literature generally portrays spirituality (from the Latin *spiritus*, meaning 'breath of life') as being closely associated with what is involved with being human. This includes dimensions involving the body, mind, emotions, and spirit. In this sense, spirituality inhabits and informs the realm of the non-rational, including the psychological world and 'hidden' human yearnings, meanings, and aspects of meaning-making (Santos and Michaels 2022; Maslow 1970; Frankl 1992; Howard 2002). Scholarly conceptualisations of spirituality often cite Elkins et al. (1988) and address linkages between 'spirituality' and 'ultimate' concerns: "a way of being and experiencing that comes about through awareness of a transcendent dimension and that is characterized by certain identifiable values in regard to self, others, nature, life, and whatever one considers to be the Ultimate" (p. 10). Other definitions similarly link spirituality to the human yearning for meaning and meaning-making in life, including in areas of ultimate concerns; this may touch on and entail personal, social, physical, professional, environmental, behavioural, and end-of-life issues, among others (Elkins et al. 1988; Unruh et al. 2002; Tu 2006; Holloway and Moss 2010; Nunn et al. 2016; Scoffham 2019; Holloway and Jupp 2020; Rocha and Pinheiro 2020; Luetz and Nunn 2021; Fischer et al. 2022).

There is little agreement on the definition of 'sustainable development' which is often used to connote multiple and dissimilar concepts and meanings that both overlap and vary according to context (Enders and Remig 2016; Luetz and Walid 2019). The most prominent and widely cited definition can be found in the Brundtland Report, first put forward by the UN World Commission on Environment and Development in 1987:

> Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: (a) the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and (b) the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs (WCED 1987, p. 41).

Adding a focus on the "triple bottom line" (social, economic, and environmental concerns) (cf. Elkington 1988; Elkington and Zeitz 2014), the Intergovernmental Panel on Climate Change (IPCC) has since adapted this definition of 'sustainable development (SD)' for use in many of its assessment reports as follows: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987) and balances social, economic and environmental concerns" (https://apps.ipcc.ch/glossary/). Other overviews of some of the divergent conceptualisations of sustainable development, including key issues and debates, have been provided by Qizilbash (1998) and Enders and Remig (2016).

Spirituality and sustainable development have an entangled relationship

Human ideas involving both spirituality and sustainability are presented in the literature as being shaped by culture, upbringing, socialisation, and formative childhood experiences (Bunting and Cousins 1985; Chawla 2002; Kellert 2002; MacDonald 2015; Güler Yıldız et al. 2021). Although Wilson's (1984) "Biophilia Hypothesis" suggests all humans are born with a certain connection to nature, a significant body of research suggests that positive affectivity is not silently inherited but must rather be nurtured, encouraged, and cultivated via experiences *in* nature (Berto et al. 2018; Kahn and Kellert 2002; Wilson 2012; Clayton and Myers 2015). While the biophilia hypothesis has also been criticised (e.g. Joye and De Block 2011), there is consensus that proximity to nature tends to be broadly conducive to environmentally sympathetic behaviours (Horwitz 1996; Nelson and Shilling 2018). In short, "greater experience with the natural environment [engenders] more pro-environmental attitudes" (Hinds and Sparks 2008, p. 110).

This innate human connection to nature has gradually become undermined by progressive urbanisation, disenchantment, and detachment of humans *from* nature, whereby "more and more people [are] congregating in cities and living removed from any immediate and direct connection with nature, and therefore, any sense of dependence on (or

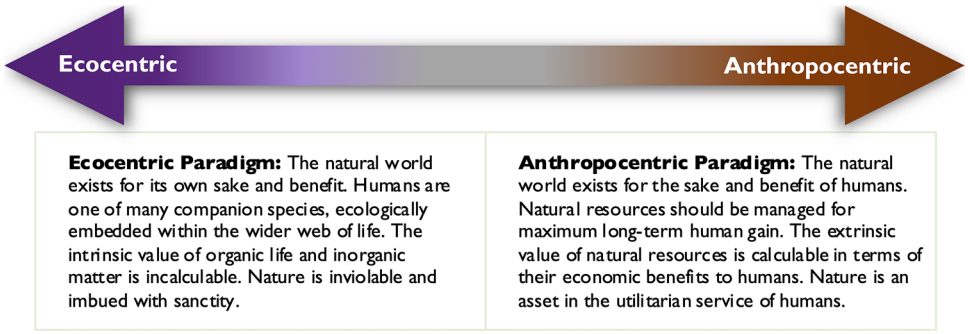

Fig. 1 Ecocentric and anthropocentric paradigms expressed along a left–right continuum (based on analysis in Luetz and Leo 2021; LaDuke 2016; Fernández-Llamazares et al. 2021; Dawson et al. 2021; Wiedmann et al. 2020; Nelson and Shilling 2018; figure by authors)

appreciation of!) the Earth for sustenance" (Buxton et al. 2021, p. 355). With more than half of all humans alive today residing in cities, UN-Habitat (2006) has coined the word "city-zens" (p. 6) to highlight this unbroken urbanisation trend. The UN (2019) estimates that by 2050 more than two-thirds of all humans will be residing in cities and that 95% of urban expansion will occur in countries of the developing world. The arising context leaves fewer immediate touch points with nature: "the natural world—our traditional source of direct insights—is rapidly disappearing. Modern city-dwellers cannot even see the stars at night" (Crichton 1988, p. x). Relatedly, Buxton et al. (2021) have noted that urban living sees modern humans engaging with nature "almost exclusively via the interface of a screen" (p. 355). In short, demographic trends are contributing to a progressive sense of human detachment *from* nature, whereby humanity is experiencing 'denaturing'.

There is also an argument that the roots of modern human separation from nature can be traced to the onset of the scientific revolution and enlightenment era in Europe and beyond. This period in history brought about a shift in the perception of nature from humans intrinsically 'belonging to it' (and considering themselves as an integral part of it) to humans impartially 'observing it' (and somehow viewing themselves as being on the outside and separate from it) (Shapin 1996; Luetz et al. 2020). According to Nelson (2020), the perception of "subject/object duality created a machine model of the universe where 'man' could dissect and control nature for his own desires" (p. 6). This separation (or even estrangement) from nature has hastened the commodification of nature through extraction, expropriation, and environmental exploitation, the subject of open lament by Indigenous scholars (Alfred 2009; Banivanua-Mar 2016; LaDuke 2016; Nelson 2020).

There is considerable empirical support for the view that the ecocentric and nature-embedded way of life of many Indigenous[1] societies is more sustainable than the anthropocentric and nature-extractive practices that underpin the modern global economic system (Dawson et al. 2021; Ellis et al. 2021; Fernández-Llamazares et al. 2021; Fischer et al. 2022; Salmón 2000; Yunkaporta 2019). Many of the most biodiverse areas of the planet have remained intact because of the stewardship of traditional cultures living sustainably within them through "time-tested land-care practices of reverential reciprocity" (Nelson 2020, p. 10). Hence the nature-immersive and ecocentric *kastom*[2] and traditional practices of Indigenous peoples, whereby nature is appreciated or even revered as proximate, sacred, or even 'en-spirited', is raised as an auspicious alternative model to the quasi-ubiquitous anthropocentric worldview that rationally and dispassionately regards nature as existing predominantly for the sake and benefit of humans (Walshe and Nunn 2012; LaDuke 2016; Luetz and Leo 2021; Wiedmann et al. 2020; Schlehe 2010; Fischer et al. 2022). Worldview, and by extension spirituality, may therefore be associated with notions of sustainability, both philosophically and practically (Hoffman and Sandelands 2005; LaDuke 2016; Atkinson-Nolte et al. 2021). Of course, this state of play does not negate the possibility of an anthropocentric spirituality. Relatedly, it cannot be ruled out that secular technocratic development approaches may engage with some aspects of traditional or ecological knowledge while simultaneously being hostile to a community's spiritual belief systems (Nunn et al. 2016). Transcending these and other complexities, contrasting worldview perspectives of ecocentrism and anthropocentrism may be presented along a left–right continuum, wherein spirituality plays an important role (Fig. 1).

Research has highlighted the benefits of so-called 'reversals of learning' whereby Indigenous communities, which are sometimes denigrated simply as being poor, rather "teach the profligate and so-called 'developed' rich about the interwoven nature of frugality, modesty, contentedness,

[1] As is customary in other Indigenous research (Fischer et al. 2022), "the capitalisation of the word Indigenous gives commonality to a diverse group of people" (p. 272) that may identify as Indigenous, Traditional Peoples, or First Nations.

[2] Bislama (Vanuatu) adaptation of the English word "custom", used to convey notions of precolonial Melanesian knowledge that encapsulates traditional culture, religion, art and magic, among others (Walshe and Nunn 2012).

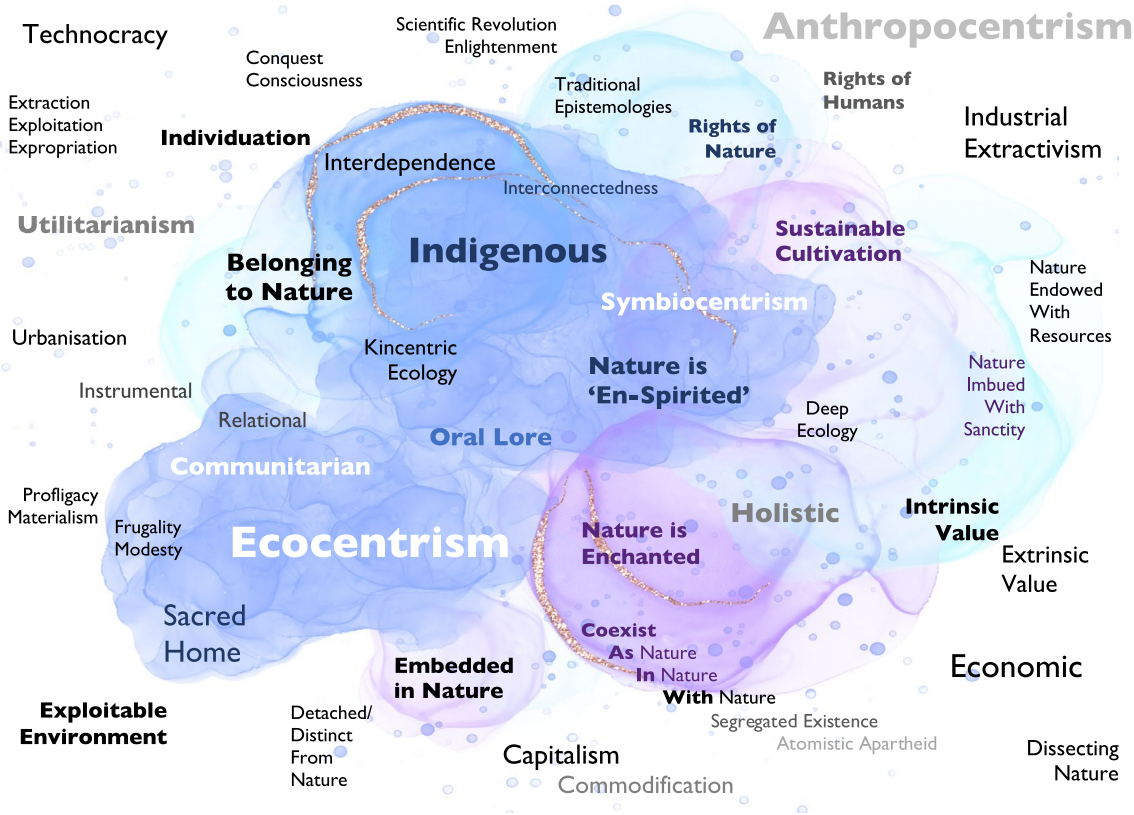

Fig. 2 Schematic representation of sustainability and spirituality as enmeshed concepts, denoted by mixed watercolours (based on Luetz and Nunn 2020; O'Neill et al. 2008; O'Connor and Kenter 2019; Albrecht 2015; Buxton et al. 2021; Luetz and Leo 2021; EEA 2023; EESC 2019; concept by authors)

spirituality and sustainability" (Luetz et al. 2019, p. 132). Indigenous peoples have lived sustainably for thousands of years (Dawson et al. 2021; Ellis et al. 2021; Fischer et al. 2022; Leal Filho et al. 2021; Walshe and Nunn 2012) so it seems appropriate to invite, study, and use their worldview orientations as foundations for place-based future coping (Fernández-Llamazares et al. 2021; Granderson 2017; McMillen et al. 2017; Yunkaporta 2019). There is a compelling research-informed case to engage more actively with Indigenous local knowledge so that it may more effectively inform the global sustainability agenda and support initiatives such as the UN 2030 Agenda for Sustainable Development (UN 2015; Leal-Filho et al. 2021; Fischer et al. 2022).

Exploring spiritual values and narratives promises to restore a more harmonious human coexistence with and *in* nature; by extension, this involves cultivating a new sensitivity to the spiritual dimensions of the interrelationship between spirituality and sustainability (Chawla 2002; Gupta and Agrawal 2017; Nunn 2017; Stein 2019). Knight (2006) has posited that humans "at their deepest level are motivated by metaphysical beliefs" (p. 19), and there is support in the literature for the idea that spirituality may be leveraged as a "cultural resource" (Hulme 2017, p. 15) to further the cause of sustainability (LaDuke 2016; Scoffham 2019). This is because spirituality is "a motivational force not mirrored by economics or science" (Fair 2018, p. 4).

Leveraging spirituality and sustainability jointly will also create synergies for holistic development practice that will produce a combined impact more significant than the sum of their separate effects. More specifically, worldview-informed approaches may transcend the limitations of so-called coproduction (Goodwin 2019) and may also more comprehensively inform the processes and methodologies of the nature-value assessment conducted by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (Pascual et al. 2017, 2022). Thankfully, there is growing evidence, both in IPBES assessments and some institutions, of a gradual increase in sensitivity to Indigenous ways of knowing (UNESCO 2022) and the significant role spirituality may play in shaping place-based coping and ethics of land care (IPBES 2022; EEA 2023). In summary, there is a growing empirically-based case for spirituality supporting environmental sustainability (Fischer et al. 2022; Luetz and Nunn 2020, 2021; Nelson and Shilling 2018). The coalescence of spirituality and sustainable development can be illustrated as fundamentally enmeshed concepts (Fig. 2).

Language and lore can be challenges and/or opportunities for adaptation

The interrelationships between language and social justice have been amply documented, including in the Pacific Islands (Saft 2021). Language can be used to promote understandings of justice or perpetuate racism, prejudices, and social inequalities (Baugh 2018; Rickford and King 2016). Language is critical to ensure that colonial-era injustices and inequities are not perpetuated (Saura 2015). Hilhorst and Jansen (2012) have critiqued the use of language by aid agencies as a means of legitimising their programmes and presence. Referring to the terms 'rights' and 'human rights', they found that humanitarian aid language can "stand for genuine desire to protect, or … mundane organisational politicking on the part of agencies looking for a greater piece of the donor-funds pie" (p. 902). Thus, language informs conceptualisations and explanations that may be tactically or strategically employed to engage different stakeholder groups and advance or legitimise development and adaptation approaches (Hilhorst and Jansen 2010). Conceptualisations and explanatory frames are intertwined with language. For example, if a language does not have a word for 'adaptation', how can people think about adapting to changes in their local communities or environments (even though they may have been doing it for generations)? Or if people believe that a deity causes environmental change, can they wholeheartedly embrace science-based projections, problem analyses, or technocratic solutions?

As this comment has shown, spirituality and sustainable development are intertwined concepts that cannot be meaningfully discussed in isolation from each other (Gupta and Agrawal 2017). This is especially true in Pacific Island countries, which are characterised by both high degrees of vulnerability to climate change and high degrees of religious engagement (Bertana 2020; Nunn 2017). The literature on climate change adaptation remains surprisingly 'muted' on the beneficial role that spirituality may play as an adaptation-enabling force (Luetz et al. 2023). Against this background, it is timely to re-examine and rediscover the sustainability-spirituality relationship from the perspective of Pacific Island communities that have sustainably inhabited their environments for thousands of years (Walshe and Nunn 2012; Leal Filho et al. 2020; Ellis et al. 2021; Fischer et al. 2022; Nunn 2007).

As noted, the lessons reach well beyond the confines of the Pacific and readily apply in other geographical contexts that may exhibit a diversity of non-Western epistemologies, Indigenous worldviews, and/or spiritual traditions and philosophies that may impinge on sustainability (Dawson et al. 2021; Mamani-Bernabé 2015; Sponsel 2020). Selected examples include virtues such as frugality, modesty, humility, happiness, peace and contentment (e.g. Gupta and Agrawal 2017; Yangka et al. 2018), the deep ecology movement (e.g. Næss 1973, 1995; cf. Lovelock 2009; Fellows 2019), oriental expressions of place-based spiritual sustainability (e.g. De Silva 2023), and sensory–spiritual practices such as mindfulness (Wamsler 2018), among others. Even in the Judeo-Christian culture, Pope Francis' (2015) encyclical Laudato Si' can be considered an example of how Christianity may resonate with sustainability to bridle capitalism and extractivism (Nelson and Luetz 2019). These examples indicate that spirituality and sustainability transformation may also be encountered outside of Indigenous communities and may even be nurtured within urban metropolitan communities and among "city-zens" (Berejnoi et al. 2019; Cloutier 2015; UN-Habitat 2006).

Given the entanglements of spirituality and sustainability, we propose that contemporary adaptation and development policy and practice should engage them in tandem, both to harness their synergistic capacity as well as to enable more effective sustainable development and climate change adaptation (Nunn et al. 2016; Fair 2018). Closer integration of spirituality and sustainability will create understandings that are conducive to longer-lasting and more environmentally sympathetic development (Yunkaporta 2019; Luetz and Nunn 2020, 2021).

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Declarations

Conflict of interest The authors declare no conflicts of interest.

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