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Digging Deeper to Unearth the Roots of Pro-Environmental Behaviour

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Janika Liv Marais (Heyerdahl) is a Life and Natural Science teacher with a passion for education for sustainable development (ESD). She holds a BSc in Biochemistry from the University of Cape Town with a focus on terrestrial ecology and climate change mitigation, a Post Graduate Certificate in Education from the University of South Africa and is a Master of Research candidate at Hartpury University. Janika's interest in sustainable development and the natural environment inspired her to found Huruma Education, a consulting organization that facilitates the development of environmentally, socially and economically sustainable practices in schools. Janika earned a Certificate in Education for Sustainable Development from the University for Peace and develops educational programmes and teachings based on the Earth Charter Principles for secondary education.

After completing the Earth Charter Educators course and designing a number of learning programmes geared at facilitating the development of sustainable behaviours, the more critical part of me began to wonder what impact this work would really have on most of the students' actual behaviour later in life. I looked at myself and some of my loved ones critically, and even with all the knowledge and empathy that we had, this did not always translate into sustainable behaviours in our lives. Why was this? Was it because we didn't have the right systems in place in South Africa, recycling systems, sustainable packaging options or affordable options of renewable energy sources? Upon moving to England and devising a research question for my master's, I settled on the question of determinants translated into actual recycling behaviour in England. There was an easy and efficient recycling system, and my husband and I became avid recyclers very quickly. I dove deep into the literature around recycling behaviour and what was termed other 'pro-environmental' behaviours. I learned very quickly that easy and efficient systems did not translate into recycling behaviour, with England struggling to combat their low recycling rates, well below their target. And, in fact, well below South African recycling rates (due to recycling in the informal sector). I started to see patterns in the literature. Pro-environmental behaviours were very seldom predicted by external factors such as systems, financial incentives, financial penalties or guilt tripping media. In some cases, these external factors would increase engagement in the particular behaviour that they targeted but would not spill over into other behaviours or would even reduce engagement in other behaviours. With the bigger picture in mind, it was clear that external incentives and individual types of behaviours such as recycling behaviour were not sufficient to combat the global environmental and associated social crisis we face. It seemed that intrinsic motivators were important predictors of a wider range of pro-environmental behaviours. I started to see patterns in the literature, with moral or social norms and values playing an important role in pro-environmental behaviours. Identity as a 'green' person predicted some pro-environmental behaviours, but a stronger predictor was environmental identity, where an individual included aspects of nature into their personal identity. I reflected on this literature and was compelled to try and understand how these factors formed and how they might be encouraged in a formal education environment. I started to think of these factors relative to known lines of human development such as moral intelligence, spiritual intelligence and identity which I had read about in Ken Wilber's books, "Integral Psychology and Sex, Ecology and Spirituality". What if these intrinsic factors were capacities that developed at some of the higher stages of human development? I started to scour the literature and did not find much that investigated the relationship between known models of moral or spiritual development and pro-environmental behaviours. If a relationship could be established between these lines of development, this could provide evidence for integrating workshops that facilitate the development of these 'soft skills' into formal education settings with

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the goal of encouraging pro-environmental behaviours. Inherently, development of these capacities would allow for an increase in pro-social behaviour as well. Also, I was intrigued by environmental identity linked to mystical experiences as a construct that consistently predicted pro-environmental engagement. Also, it is an identity that could reasonably be assumed to allow one to engage in the highest forms of moral reasoning and decision making, as one is acting not from a case of mistaken or fragmented identity, but rather from a sense of oneness with all life. Below is a brief summary of my dissertation that resulted from this questioning.

The Earth Charter takes an optimistic view on the potential for humanity to create a just, peaceful and sustainable society. Pillars II and III of the Earth Charter, Ecological Integrity and Social and Economic Justice, emphasize environmentally sustainable behaviour as crucial components in creating a just, sustainable and peaceful world. The potential and the necessity for humanity to reach spiritual and moral maturity and a mature sense of identity is reflected in the Earth Charter Principles.

Models of human development also reflect an optimistic view, with humanity's highest stages of morality, identity and spirituality being more inclusive and compassionate. The environmental issues that we face are systemic in nature and therefore require systemic solutions. It is arguable that globally, the predominant systems that exist today largely reflect the predominant sense of spiritual capacities and associated identity, worldview and moral competence. Both private-sphere behaviours, like personal recycling and waste and energy use reduction and public-sphere behaviours, including environmental education activism, lobbying governments for policy change and organizing protests to create awareness are necessary to create the Earth Charter vision (2000). It is well accepted in the field of environmental psychology that intrinsic motivations such as identity, morals and values are predictors for engaging in a wide range of sustainable behaviours (Gatersleben et al., 2014; Steg et al., 2014). Because interventions to encourage sustainable behaviours often require extensive financial and human resources, it is important to identify the interventions that produce the

widest ranging results in sustainable behaviours. Therefore, it is important to encourage the development of intrinsic motivations which result in a wide range of private- and public-sphere sustainable behaviours.

Although the Earth Charter emphasizes the importance of moral and spiritual education, programmes for sustainable development, known modes of psychological development and their associated interventions to facilitate the development of moral reasoning capacities, spirituality and identity have not been included in education for sustainable development models. Developmental psychology posits that moral reasoning, identity and spirituality develop incrementally throughout an individual's life span. As with much learning and development, these capacities need to be intentionally facilitated (Lind, 2019).

Moral development refers to an increase in the capacity for moral reasoning. Moral reasoning refers to the justification given for a moral decision. Moral competence is the ability to consistently apply a type of

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justification in various moral dilemmas. There are six stages of moral development according to Kohlberg's model which has been widely adapted and applied (Kohlberg et al., 1983). At stages one and two, the lowest stages of development, moral reasoning is based on punishment or reward, while stages two and three, the middle stages, involve compliance and obeying rules, laws or social norms. At stages five and six, the highest stages of moral development, an individual is consistently able to critically consider their social norms and values to apply a deeply held set of universal ethical principles such as justice, equality, dignity and respect when reasoning through moral dilemmas, even if this means breaking societal norms or rules (Kohlberg et al., 1983). All these universal ethical principles are reflected in the Earth Charter as necessary for a peaceful, just and sustainable future (Earth Charter, 2000).

The Earth Charter emphasizes a need for individuals to identify with the whole earth community and relates this to establishing a universal sense of responsibility (Earth Charter, 2000). The former echoes of environmental identity (Clayton, 2003) and the latter of the highest stages of moral development (Kohlberg et al 1983). Environmental identity, a collective identity that includes an individual's moral, emotional and cognitive connections to the natural environment, has been identified as a consistent predictor of a range of environmentally sustainable behaviours (Olivos & Aragonés, 2011; Tam, 2013; Davis et al., 2011; Alisat & Riemer, 2015).

However, it is not clear how this identity forms, nor has it been framed in relation to existing models of moral development. Identification with the natural world or all material reality appears in many of the world's wisdom traditions through mystical experiences of union with all of reality. Spiritual intelligence is a construct that is in its infancy and involves the ability to cognitively process non-material reality. It is a measure of an individual's awareness of a reality that transcends the material world, the ability to cognitively process the non-material world, the ability to critically process existential questions, to create personal meaning out of experiences and expand their consciousness (King & DeCicco, 2009).

Until this study, environmental identity, moral reasoning and spiritual intelligence had not been investigated in relation to each other or to environmentally sustainable behaviours. This study sought to determine whether higher levels of moral development, spiritual intelligence and environmental identity were associated with engagement in private and public-sphere pro-environmental behaviours via online survey study and also, whether moral development and spiritual intelligence were associated with higher levels of environmental identity, a known predictor of pro-environmental behaviours.

For my research, I conducted an online survey to determine whether there was a relationship between moral competence, stage of moral reasoning development (Lind,2019), environmental identity (Clayton, 2003), spiritual intelligence (King & DeCicco, 2009) and self-reported pro-environmental behaviours in the private and public sphere. Participants were sourced via online snowball sampling through my personal social media and through Facebook groups with an interest in environmentalism and sustainability. The survey sample size was 304 people, a large proportion of whom were college-educated (87,5%), women (76,3%) and ranging in age from 18 to more than 65 years old. Multiple linear regressions were run to analyze the effect that moral competence, stage of moral reasoning development, environmental identity and spiritual intelligence had on self-reported pro-environmental behaviours in the private and public sphere and also on how moral competence, stage of moral reasoning development and spiritual intelligence influence environmental identity. The most significant findings are reported below.

Environmental identity was the only variable in this study that significantly predicted both private-sphere and public-sphere pro-environmental behaviours and accounted for 28% and 33% of the variability in each of the respective behaviours. Environmental identity is associated with feelings of closeness (Olivos & Aragonés, 2011) with nature and relatedness to nature (Balundė et al., 2019). Environmental problems that are more relevant to an individual's sense of self can attract more attention, arouse more emotion and connect more to other aspects of their lives and behaviours (Clayton, 2003). Therefore, in individuals with higher levels of environmental identity, environmentally unethical or unsustainable activities may

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cause them to become more emotive, and these individuals may be more sensitive to and more aware of environmentally unethical or unsustainable activities in their daily lives. More personally significant issues move the individual to mitigate the perceived environmental threats or to reduce their role in environmental damage (Clayton, 2003).

Stage 5 moral preference, the ability to apply a deeply held set of universal ethical principles such as justice, equality, dignity and respect consistently, and moral competence or consistency significantly predicted environmental identity. Therefore, as postulated, an identity that prioritizes the natural environment may be related to a universal sense of moral responsibility. Moral reasoning capacity may indirectly influence private-sphere and public-sphere pro-environmental behaviour through environmental identity. A significant relationship was found with both moral competence and stage 5 moral reasoning. Moral reasoning at this stage involves reflecting on inconsistencies in one's community's values and addressing inconsistencies to preserve one's rights and the right of others to promote the greatest good for the greatest number (Kohlberg 1984).

Spiritual intelligence also significantly predicted environmental identity, particularly the factor of critical existential thinking which accounted for 25% of the variation in environmental identity. Critical existential thinking is the subcategory within

spiritual intelligence that can be applied to any life issue, as an object or event that can be viewed relative to one's existence, including nature (King & DeCicco, 2009). Individuals develop personal philosophies or conclusions about reality by contemplating existential issues, using critical thinking and integrating scientific knowledge and personal experience (King & DeCicco, 2009). Through this kind of analysis of reality, individuals might come to a sense of identity that involves recognition of the similarity of self and nature, and this may play a role in providing one with a sense of connection and being part of a larger whole (Clayton 2003), leading to high levels of environmental identity.

This research provided the first evidence for a relationship between moral reasoning stages and environmentally sustainable behaviours. Stage 4 moral reasoning is where the individual has a sense of duty and obligation to uphold laws and rules based on the assumption that if one person violates the law, then everyone might (Kohlberg 1984). Stage 4 moral preference significantly predicted private-sphere pro-environmental behaviour (p=0,24), which can be explained by private-sphere pro-environmental behaviour rapidly becoming moral or social norms and are perceived as normative behaviours or governed by unspoken moral law (Steg et al., 2014). As expected, the research found no significant relationship between moral stage 4 preference and public-sphere pro-environmental behaviour because it is an inherently activist type of behaviour that challenges policy or law rather than abides by it (Sloot et al., 2018; Alisat and Riemer, 2015). Public-sphere behaviours are, however, necessary to allow for the radical change of harmful systems that is required. Therefore, it is important that we educate beyond morality based on rules and regulations and facilitate the development of stage 5 and 6 moral reasoning where deeply held universal ethical principles such as justice, equality, dignity and respect are consistently applied in scenarios involving nature despite what current unsustainable societal norms or laws dictate.

The values of justice, equality, dignity and respect are clearly stated as crucial for a just and sustainable world in the Earth Charter. The capacity to reason through moral dilemmas and to apply these values universally arises at the highest stages of moral reasoning development. This study shows a relationship between levels of moral development and increases in environmentally sustainable behaviours and environmental identity. Because of this connection, moral development should be incorporated into school curricula. There are existing education programmes involving discussion of various moral dilemmas that can be implemented and allow for the development of moral competence (Lind, 2019). These may be added to existing interventions to encourage sustainable or pro-environmental behaviours. he Earth Charter states that spiritual and moral education is important for creating a just, peaceful and sustainable world (Earth Charter, 2000); however, known models of moral and spiritual development have not been given much attention in research or widespread

education programmes. For example, the Eco-Schools Program, which is the most widely applied environmental programme in schools, has failed to have a measurable effect on children's behaviour (Boeve-de Pauw & Van Petegem, 2013) and may benefit from including pedagogies that facilitate the development of spiritual and moral capacities. Developing critical existential thinking and personal meaning production might allow individuals to realize the unity of all reality and assign meaning to life and therefore decide to engage in pro-environmental behaviours as a result. Future studies may determine pedagogies such as mindfulness practices that might allow for the development of spiritual intelligence.

Perhaps the most notable findings of this study are that spiritual intelligence and moral competence and stage 5 moral reasoning significantly predict environmental identity ($p=0.001$), which is, in turn, a significant predictor of both private-sphere ($p<0.001$) and public-sphere ($p<0.001$) pro-environmental behaviours. This provides evidence that moral and spiritual education is indeed necessary for creating a just and sustainable future as it may allow for individuals to cognitively reason through moral dilemmas relating to the environment with an understanding of the reality of existence, having come to the realization of their oneness with the natural world. Further, research has shown that morality and environmental identity can be developed through education interventions (Young et al., 2020; Clayton, 2003; Lind, 2019). Moral competence does not develop naturally but is fostered through discussion, debate and intentional facilitation (Lind, 2019). Given the significant contribution of spiritual intelligence and moral competence in predicting environmental identity, education programmes that increase levels of environmental identity (Stapleton, 2015; Young et al., 2020) to enhance motivation to engage in pro-environmental behaviour may benefit from adding components that increase spiritual intelligence and moral competence.

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