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INDIAN TEACHERS AND ENVIRONMENTAL IDENTITY IN AOTEAROA NEW ZEALAND EARLY CHILDHOOD EDUCATION

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Abstract

The Aotearoa New Zealand early childhood education (ECE) landscape is becoming increasingly multicultural, in particular with a significant number of migrant Indian teachers working in the field. This paper explores the potential role of environmental identity as migrant Indian ECE teachers navigate between the Indian and New Zealand cultures, wherein the environment may hold different meanings and place in these two cultural systems. The natural environment holds a special place in Aotearoa New Zealand's cultural systems and is an integral part of the national identity. It can be argued that early childhood environmental education is important, and is already playing a part, in developing children's environmental identity across the country. In facilitating this, teachers' environmental identities can be equally important, especially in the case of migrant teachers, whose identities are influenced by different cultural systems. Our interest is in the environmental identities of migrant Indian teachers' given their growing numbers in Aotearoa New Zealand ECE.

Keywords

Environmental identity; early childhood education; Aotearoa New Zealand; Indian teachers.

Introduction

Indian immigrants are one of the fastest growing cultural groups in New Zealand (Statistics New Zealand, 2013), and this growth is being reflected in the increasing numbers of migrant Indian teachers in Aotearoa New Zealand early childhood education (ECE). These Indian teachers practising in the Aotearoa New Zealand ECE context have usually gained their teaching qualifications either in India or here in New Zealand, as is the case for the first author. They have typically emigrated from a cultural context that does not prioritise the natural environment, yet they find themselves now practising in a society that values awareness of, and interaction with, the natural environment on a regular basis (see for example, *Enviroschools 2020*; Ministry of Education 1996, 2015, 2017). Implementing an environmentally-sensitive curriculum such as *Te Whāriki* (Ministry of Education, 2017) in an environmentally-conscious context might challenge migrant Indian teachers' thinking about their own relationship with the natural environment. This consideration may influence their development of an environmental affinity and responsibility in children. Therefore, this article puts forth an argument for the importance of migrant Indian teachers' environmental identity in the context of Aotearoa New Zealand ECE.

Nurturing a relationship with the environment is more vital today than ever before. There is a growing awareness of the detrimental impact of human activity on the environment (Eames & Cutter-Mackenzie, 2017; Hill, 2008; Royal Society of New Zealand, 2016). This impact requires a re-consideration of human-environment relationships including an examination of human attitudes and behaviours that can facilitate sustainable interactions between humans and the environment (Soga & Gaston, 2016). Given this context, an individual's identity must include a human-environment element that can be explored and encouraged to bring about these desired changes.

Stets and Biga (2003) propose that the formation of an environmental identity might result in environmental attitudes that lead to positive environmental behaviour. In the educational context, a

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teacher's environmental beliefs and identity could influence her/his environmental attitudes and teaching within and outside the classroom (see for example Fang, 1996; Wilson, 2012). Importantly, teachers' environmental identities might influence or shape children's environmental identities in turn, impacting their environmental attitudes and behaviour (Davis, 1998; Kızılay & Önal, 2019; Pelo, 2009). It is also clear that identities are influenced by our experiences, which are in turn embedded in sociocultural contexts. Therefore, it is pertinent to consider how environmental identities affect, and are affected by, sociocultural factors at various stages of development and education.

Early childhood has been recognised as an important stage when children can be encouraged to develop life-long dispositions of care for the environment (Duhn, 2012; Barratt et al., 2014). In her seminal review of literature, Davis (2009) identified early childhood as a 'research hole' in the sustainability and environmental education landscape. In recent times, there has been a steady growth in research in this area, and sustainability and environmental education has received more attention (for example, Duhn, 2012; Siraj-Blatchford 2009). A review on early childhood environmental and sustainability education revealed that the number of articles being published in the field had doubled (Somerville & Williams, 2015) since the time of Davis' (2009) seminal review. In New Zealand specifically, ECE for sustainability was a 'virtually untouched' research area until recently (Duhn, 2012, p. 23). Research with pre-service early childhood teachers indicates that teachers' awareness of sustainability issues and their place in ECE might shape their initial teacher identities (for example, O'Gorman & Davis, 2013). However, in an increasingly multicultural context that gives due importance to the environment in ECE, the environmental identities of migrant Indian teachers remain unexplored so far.

In this article, migrant Indian teacher environmental identity in the ECE context is explored, along with the possible role that culture might play in its development. The first section outlines various conceptualisations of environmental identity. A discussion of the role of teachers' environmental identity in early childhood education follows. These notions are then contextualised through ideas of environmental identity and *kaitiakitanga* integrated into *Te Whāriki*, the Aotearoa New Zealand ECE curriculum (Ministry of Education, 2017). The final section is a probe into the role of culture in the development and transformation of migrant Indian early childhood teachers' environmental identities, specifically in the context of Aotearoa New Zealand ECE where they teach.

Environmental identity

A teacher's environmental identity may be crucial to a child's environmental experiences and their resulting worldview, as well as to the success of an early childhood environmental programme/component (see for example Pelo, 2009; Ritchie et al., 2010; Wilson, 1993). The environmental identity of a migrant teacher from a different cultural orientation teaching within the context of Aotearoa New Zealand ECE may make this additionally complex.

An environmental identity is considered to be a reflection of the extent to which people believe environmentalism to be a part of who they are (Gatersleben et al., 2014). Clayton's (2012) review of studies that explore identity as a concept in relation to natural environment or ecology found that identity was recognised as a crucial psychological construct relevant to environmental issues. Within these studies, the concept has been termed environmental identity (Clayton & Opatow, 2003; Weigert, 2008), environment identity (Stets & Biga, 2003), ecological identity (Thomashow, 1995), environmental self (Cantrill, 1998), and ecological self (Bragg, 1996; Naess, 1995). Researchers ascribe their own meanings to these terms. For instance, it is described as the way individuals view themselves or develop a sense of self in relation to the natural environment (Thomashow, 1995), or one's beliefs about her/his association with the natural world mediated by personal history (Cantrill, 1998). The ecological self, as described by Naess (1995), is a sense of self that extends beyond a personal self to the natural world where the interests of both are aligned. In their environmental identity model, Stets and Biga (2003) conceptualise environmental identity as a personal identity or the meaning one makes of the self in relation to the environment. This environmental identity influences and is influenced by environmental values, attitudes and behaviour (Gatersleben et al., 2014; Steg & de Groot, 2012). Environmental identity has also been considered in terms of an individual identity within a collective identity where the human-environment relationship forms a part of both these identities. Thus, it is also

interpreted as an understanding of one's self in relation to one's interactions with the natural environment, as a result of social experiences (Weigert, 2008).

Whilst these various conceptualisations of environmental identity differ in nomenclature, three common themes are evident in the research literature. First, environmental identity is a sense of self in relation to the natural environment; second, it is an individual as well as collective identity where personal and environmental interests coincide; and third, one's environmental identity is mediated by personal and social experiences. The argument put forward in this article is framed by these three themes. These themes also imply that relationships, associations, and interactions with the natural environment will determine beliefs and attitudes towards it. These premises could then have a noteworthy impact on migrant Indian teachers' environmental identities within the Aotearoa New Zealand ECE context.

Teachers' environmental identity in early childhood education

Teachers are significant others in children's early years and part of their ecological systems (Bronfenbrenner, 1979). Therefore, teachers become important facilitators of the process of children's environmental identity development. Hence, teachers' environmental beliefs and practices are likely to influence children's association with the natural environment.

Academics and authors have long advocated for children to have increased interaction with nature to develop a life-long attachment and respect for the environment (Carson, 1962; Louv, 2005; Pelo, 2009, 2014; Wilson, 1996, 2011). In their seminal works *Silent Spring* (Carson, 1962) and *Last Child in the Woods* (Louv, 2005), Carson and Louv discuss children's natural connections with the environment, and the innate sense of wonder they believe children have for the natural environment. Despite writing 43 years apart, both authors expressed concern that children may be losing their affinity with nature and stressed that this affinity needs to be rekindled. Such affinity and deep and lifelong connections with the natural environment help children view themselves as a part of the environment rather than separate from it (Orr, 1992; Pelo, 2009, 2014). Teachers can be instrumental in the development and encouragement of this sense of kinship with the natural environment.

Teachers' own environmental understandings, ethical values, and educational philosophies impact on their teaching (Sandell et al., 2005, as cited in Årlemalm-Hagsér & Sandberg, 2011). A teacher's interest in, and attitudes towards, the environment is crucial to the child's environmental experiences and their worldviews, as well as to the success of an early childhood environmental education programme (Pelo, 2009; Ritchie, et al., 2010; Wilson, 1993). Teachers can also support children to break down global issues into locally relevant understandings that will enable action and change (Årlemalm-Hagsér & Sandberg, 2011). These processes require a teacher to be environmentally conscious and aware. Therefore, a teacher might be required to become more aware of her/his environmental beliefs, attitudes, and behaviour in order to facilitate positive environmental associations, interactions and identities in young children, as per their curriculum and professional obligations (Ministry of Education, 2017; Education Council, 2017). This awareness implies that there is a need to explore teachers' environmental identity as a significant influence on children's environmental identities.

Although teacher identity has been researched from the perspective of personal and professional identities, teachers' environmental identities have received less attention. Research with pre-service outdoor/environmental educators by Payne (2001) found that an insight into one's own being or identity enabled teachers' understanding of how they identified with the environment. Educators also expressed the view that keener insights into themselves could yield better educational practices. Deeper engagement with environmental education and its integration in ECE might encourage commitment and prompt actions for the environment among teachers for themselves and children.

Environmental identity in Aotearoa New Zealand early childhood education

The environment has a strong place in Aotearoa New Zealand ECE. Using concepts drawn from *te ao Māori* the Māori world, the Ministry of Education developed and then revised *Te Whāriki, He whāriki mātauranga mō ngā mokopuna o Aotearoa*, the overarching curriculum framework for early learning in Aotearoa New Zealand (Ministry of Education 1996, 2017). *Te Tiriti o Waitangi* the Treaty of

Waitangi is an agreement between the Crown and Māori that is the founding document for New Zealand. In light of this agreement, the authors of *Te Whāriki* acknowledge and integrate the two predominant cultures of the country, Māori and European. Although bicultural in nature, the document also takes into account the multicultural nature of New Zealand society and provides for the inclusion of children and their families from all cultures within ECE (Ministry of Education, 2017).

Te whāriki the woven mat is a metaphor for the ECE curriculum. The four *Te Whāriki* curriculum Principles are interwoven with five curriculum Strands that form the basis for Goals and Learning Outcomes for children. The curriculum authors envisage children in this country growing up as capable learners with strong cultural identities. There is also a strong focus on the country's "bicultural foundation, multicultural present and the shared future" (p. 2), and the natural environment is woven into *Te Whāriki* through the Principles and Strands. The curriculum framework recognises the place of environment in its many guises in ECE through aspects such as spiritual development, exploration of the natural environment and physical spaces, as well as a sense of place. Emphasis is also given to children developing a sense of respect for the natural environment that derives from the Māori worldview through an ethic of care and a sense of *kaitiakitanga* or guardianship (Ritchie et al., 2010).

To explore teachers' environmental identities, it seems pertinent to touch upon their role as early childhood *kaiako* or teachers. Within the context of Aotearoa New Zealand, *Te Whāriki* (Ministry of Education, 2017) recognises teachers as the key resources in ECE. Teachers engage in intentional pedagogy (p. 59) based on their professional and personal identities in order to facilitate children's identity development. Teachers are expected to support cultural diversity to ensure an inclusive environment that nourishes all identities (p. 35), which includes awareness and knowledge of environment as an integral component of New Zealand culture and a part of children's identity. Teachers also support and guide children's learning and development, by taking into account three integral aspects—identity, culture and language (p. 12). It is the responsibility of the teacher to understand how children and their *whānau* make sense of the world and respect and appreciate the natural environment (p. 46). They should instil in the children a sense of reverence for, and affinity with, the environment as well as diverse ways of doing the same. Teachers are also responsible for creating opportunities for developing a sense of environmental stewardship or *kaitiakitanga* in children (p. 46). Teachers can achieve these goals through providing continuous and meaningful experiences in the natural environment and making connections with material drawn from nature.

In *Te Whāriki* identity development is recognised as an important aspect of ECE. The role of teachers in facilitating children's identity development in accordance with their cultural orientation, while simultaneously developing their sense of belonging or environmental identity in the New Zealand context is also acknowledged. Consequently, as teachers form an integral part of children's ecological systems (Bronfenbrenner, 1979), their sociocultural orientation is likely to have an impact on children's environmental identity.

Environmental identity and socio-cultural orientations

Socio-cultural orientations are likely to influence migrant Indian ECE teacher environmental identities in Aotearoa New Zealand. In turn, they would engage with students in ways determined by their culturally-influenced environmental identities. In this article, culture is defined as a broad spectrum of values, beliefs, and practices related, but not limited, to racial, ethnic, and national culture.

From a socio-cultural perspective, identity is a construct developed through interaction between a person and her/his ecological systems (Bronfenbrenner, 1979). Vygotsky's approach to identity development also acknowledged the importance of individual functioning along with sociocultural processes as determinants of an individual's identity formation (Penuel & Wertsch, 1995). According to this perspective, an exploration of identity formation requires an examination of the particular cultural and historical contexts. Research also suggests that people's environmental attitudes are influenced by cultural values and beliefs (see for example Milfont & Schultz, 2016; Schultz, 2002; Schultz et al., 2000). Thus, in order to gain an understanding of environmental identity, understanding and learning about the cultural beliefs, knowledge, ideas, and funds of knowledge that shape that identity is called for (Esteban-Guitart & Moll, 2014). For example, some scholars (Dwivedi, 1990, 1993; Ravindaranath, 2007) propose that Eastern religious philosophies facilitate strong human-nature

relationships, while others (such as Narayanan, 2001; Tomalin, 2002) caution against making assumptions about the bearing that nature-related religious values have on pro-environmental attitudes and behaviour.

Pelo (2009) believes that a sense of place shapes our environmental identity. A conscious connection and relationship with our place helps in the development of an ecological or environmental identity. She states that within the ECE context, it is the teacher's responsibility to support children to develop a sense of place and in turn nurture their environmental identity. It is important for children to make connections with their places in order to develop a sense of belonging (Ministry of Education, 2017). In order to do so, teachers need to be conscious and aware of their own sense of place and environmental identity.

Studies also show that acculturation into place can bring about changes in environmental attitudes and identity. For instance, Noe and Snow (1990) conducted a study to determine the influence of culture on environmental concerns among Hispanic youth living in the United States. They found that although Hispanic youth might have had a particular ecological perspective owing to their cultural heritage, their environmental beliefs and values were also influenced by their visits to natural parks and bays in their adoptive cultural space. Similarly, the study by Johnson et al. (2004) on ethnic variations in environmental beliefs of African-Americans, foreign-born Latinos, and white Americans, found that beliefs about the environment vary by ethnicity and that the extent of acculturation into place influences environmental beliefs and behaviour.

A sense of place as part of one's environmental identity is especially significant in these times of increased migration and human movement. A sense of place may hold significant value for a teacher whose place changes, such as with migrant Indian teachers. A sense of belonging to one's place of origin and one's place of being both contribute to one's sense of self. A place holds meaning for one's existence and hence identity (Elbaz-Luwisch, 2004; Orr, 1992). A migrant teacher's original sense of place and the new sense of place might create tense or smooth transitions.

Vygotsky's (1998) socio-cultural perspective implies that a teacher's learning and identity are influenced by their interaction and participation within a given socio-cultural context. For a migrant teacher to Aotearoa New Zealand, this may mean exploring new environmental ideas and practices alongside their existing cultural beliefs and potentially integrating a new environmental identity into an existing one. Vygotsky (1998) also stressed the importance of understanding the context of children's lives in terms of cultural material, symbols, artefacts, and tools. A migrant teacher would need to gain an understanding of the new cultural tools and materials in the Aotearoa New Zealand context, building upon their understandings of their own cultural tools and materials. The environment and children's interaction with it form an integral part of the cultural tools for children in the Aotearoa New Zealand context, which might not have been the case in the teacher's original socio-cultural context. This change might present a dilemma for the teacher, which may be either easily resolved or become challenging.

Whatever the orientation, it is well established that human constructs, such as environmental identity in this case, have a cultural history (Bishop, 1990; Bronfenbrenner, 1979; Vygotsky, 1998) that is located in their historical and physical contexts. Given this context, the next section focuses on migrant teachers from India specifically.

Indian early childhood teachers' environmental identity in Aotearoa New Zealand

Due to an influx of skilled migrant teachers and increasing numbers of international students in Initial Teacher Education (ITE) programmes, the Aotearoa New Zealand ECE landscape is becoming increasingly multicultural, in terms of children, families and teachers. For instance, of the total number of Asian early childhood teachers, the percentage of registered teachers has been steadily increasing over the past two decades from just 24.7 percent in 2002 to 76.2 percent in 2013 (Education Counts, 2020). The Ministry of Education Annual Report (Ministry of Education, 2019) states that teacher supply has been facilitated through increased recruitment of Aotearoa New Zealand qualified or overseas-qualified teachers and improved funding for ITE. These provisions imply that there will be an increased number of Asian teachers in the near future, which will include teachers from India.

Therefore, the Aotearoa New Zealand ECE sector is facing a simultaneous increase in Asian teachers as well as a growing need for environmentally-conscious practices and philosophies. What does this mean for migrant Indian teachers in the New Zealand early childhood context? Coming from another culture with diverse cultural beliefs and practices, Indian ECE teachers are faced with needing to develop a different set of cultural sensibilities and competencies in order to promote an inclusive environment through their teaching. In Aotearoa New Zealand ECE, it is clear that local culture and policy demand that they become aware of their current context so that they can facilitate children's identity development in relation to the environment. Children need to be supported to make connections amongst their various cultural communities and settings, the environment being one such context (Ministry of Education, 2017). Thus, migrant Indian teachers need to be familiar with the environmental culture of the Aotearoa New Zealand ECE context.

As professionals, teachers should be able to use their teaching skills in any cultural context and setting, irrespective of whether they identify with the particular culture or not (Elbaz-Luwisch, 2004). Teachers in India are generally educated and practise in a manner different from that of New Zealand teachers. There is variation in terms of the ECE curriculum, goals, and daily practices, such as learning documentation and parent-teacher interaction. It is likely that their Indian national cultural identity and context influence their professional philosophy and practice as early childhood teachers. On the other hand, although migrant Indian ECE teachers in Aotearoa New Zealand hail from different cultural contexts in India, they are familiar with and experienced in multicultural teaching contexts due to the vast cultural diversity within their country itself. Working with children from diverse socio-cultural backgrounds equips them with skills and tools to consider varied perspectives and sensibilities while simultaneously bringing in a collective learning and development pedagogy. This enables the teachers to cater to the individual as well as collective needs of the children. It also becomes a psychological cultural tool (John-Steiner & Mahn, 1996) that the teacher can employ in multicultural educational contexts such as Aotearoa New Zealand ECE settings.

It is critical for teachers to understand how they view the links between the environment and education, and then translate that into their teaching practices (Sauvé, 2009). This comprehension will determine how they understand environmental identity and the role it plays in children's development and their own. Because these meanings and understandings vary from one culture to another, Indian teachers face the same situation when they bring their Indian cultural orientation into the Aotearoa New Zealand ECE practice.

Therefore, the Indian teachers' ecosystems deserve consideration (Bronfenbrenner, 1979). Their ecosystems likely include their cultural identity as Indian teachers, as well their identity as Aotearoa New Zealand ECE teachers in the local context. Their interactions in and with these systems impact on their teaching ideas, philosophies and practices. These teachers may need to consider their knowledge of place, observational capacity, and a sense of care for the new context in order to be able to promote children's environmental identity (Orr, 1992, cited in Thomashow, 1996). Thus, they may need to navigate these co-existing ecosystems where each context desires and necessitates diverse identities, especially with respect to the environment. They need to find a balance between what they bring from their own culture and what they learn in a new one.

Conclusion

Environmental identity is a recent consideration in early childhood education. Specifically, migrant Indian teachers' environmental identity in the Aotearoa New Zealand ECE context is an uncharted territory. As the literature discussed in this article illustrates, there is a need to examine connections between the role of the environment in ECE, teachers' environmental identity and the role of culture. We assert that migrant Indian early childhood teachers' environmental ideas, beliefs and practices as educators in their current contexts may be influenced by their cultural orientations. Gauging migrant Indian early childhood teachers' understandings and perceptions of environmental identity within the context of Aotearoa New Zealand ECE could offer insights into this significant cohort of migrant teachers in an increasingly multicultural context. An awareness of how migrant Indian teachers transition from one socio-cultural context to another with reference to their environmental identity could

also provide critical input for initial teacher education (ITE) as well as teaching practices of culturally-diverse teachers. This is an area worthy of further research.

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