Title

Kaitiakitanga - Active Guardianship, Responsibilities And Relationships With The World: Towards A Bio-Cultural Future In Early Childhood Education.

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Introduction

"The world is a vast family, and humans are children of the earth and sky, and cousins to all living things. Such unity means that nature is the ultimate teacher about life" (Royal, 2010, p.9).

For Māori (indigenous peoples of Aotearoa New Zealand) the term kaitiakitanga (pronounced, kye-tee-ah-key-tar-ngah) is often used to refer to the active guardianship and management of natural organisms and their environments. Mātauranga Māori or Māori knowledge positions humans within nature and focuses on ways in which cultural understandings and inter-generational connections between people and their biophysical contexts assist in the retention and protection of biodiversity and ecologically sustainable ecosystems.

This chapter critically reflects notions of kaitiakitanga and bio-cultural connectivity as important and meaningful contributors for young children and their relationships with and for the world.

Kaitiakitanga

A Māori perspective of the natural world encapsulates a holistic epistemological world view. Our ways of knowing, being and doing are connected with Papatūānuku (earth mother), Ranginui (sky father) and their many children, including Tangaroa (oceans). All of whom act as guardians of the natural world and its domains. As ira tangata (humans) our role is that of kaitaiki (caretaker) and it is our obligation to nuture and protect the physical and spiritual well-being of the natural systems that surround and support us. Kaitiaki are agents that perform the task of active guardianship. They are charged with the responsibility to safeguard and manage natural resources for present and future generations. Decisions enacted by kaitiaki are based on the inter-generational observations and experiential understandings of mātauranga Māori or traditional tribal ecological knowledge and, pūkenga or informed

environmental practitioners and experts. This process ensures the active engagement and retention of bio-cultural information and ecological management practices into the future.

The notions and practices of kaitiakitanga have developed over generations of use and the active, sustainable guardianship of natural resources. Inter-generational observations and ecological understandings of species interactions and patterns of use, have been accumulated and grounded in the existence of Māori and Indigenous cultures, which are intimately bound to residing in one place for many generations (Cheung, 2008). "Indigenous people have traditionally acquired their knowledge through direct experience in the natural world... the particulars come to be understood in relation to the whole, and the 'laws' are continually tested in the context of every day survival" (Barnhardt & Kawagley, 2005, p.3). All forms of knowledge, was directly or indirectly sourced from the environment. The act of observation and information gathering was integral to the range of established sustainable management practices that governed the harvesting and use of natural resources.

However, kaitiakitanga is not about ownership or control of the natural world. Ownership implies the position of one who is separated, isolated and removed from that which is perceived as being owned. According to Marsden (2003) "the resources of the earth did not belong to man [sic] but rather, man belonged to the earth. Man as well as animal, bird, fish could harvest the bounty of mother earth's resource but they did not own them. Man had but user-rights" (p. 67). The principles of kaitiakitanga are derived from an organic epistemological world view whereby the concept of caring, nurturing, connecting and safeguarding the natural world is based on understandings of connectivity and relationships with the natural world and "understanding *relationship* is the key to understanding the world" (Royal, 2006, p. 15).

Kaitiakitanga takes for granted that all elements of the world are related and it is upon those relationships that survival depends. This ideology suggests that the natural world is an intricate and intimate system, comprised of many interacting and adaptive structures and components. All elements move and interact within a complex holistic framework of relationships both abiotic and biotic, each supporting and benefiting the other. This complex, uncertain and ever changing natural world system is encapsulated in predator-prey relationships, adaptation, distribution fluctuations and hierarchical disputes. Humans are positioned within the world, as an interactive, contributing and sometimes destructive component. As with all species, human presence and activities have a flow-on effect to other species and systems (Berkes & Davidson, 2008). In the natural world no species or system is an entity unto itself. Everything is connected (Dovers & Hussey, 2013). A holistic Māori worldview of kaitiakitanga considers the well-being of natural resources to be directly related to the well-being of the people.

Kaitiakitanga and Connectivity

A biological-cultural (bio-cultural) perspective positions humans within nature and focuses on the ways in which cultural understandings and interconnections between people and their bio-physical contexts produce complex, adaptive and resilient systems (Morehouse, 2008; Rotatangi & Stephenson, 2014).

Māori world views are shaped by a relational and conscious connection of humans with and within the natural world (Royal, 2010; Marsden, 2003). This worldview is central to the ways in which we experience and make sense of the world around us and our place within it (Mead, 2003; Royal, 2006; Cheung, 2008). When we introduce ourselves (within a Māori context) we do so by naming our whakapapa (genealogical ancestry) which positions our ancestral affiliation with particular mountains, rivers and land as priority. As an oceanic and seafaring people, it is fitting that we then name our waka (ancestral canoe) followed by our tribal connections, ancestors and parental lineage. Only after we have named our tribal landmarks and spoken the names of our ancestors, do we name ourselves (Royal, 2010). For many Māori, it is the tribal landmarks, events and relationships between humans and the natural world that represent the identities of the people and their connections with the cosmos. Our Māori tribal senses of identity and belonging are exemplified by the language, stories, songs, rituals and practices unique to a particular place, by a particular people, over many generations. Notions of identity and connectivity to nature, are essential to Māori epistemologies or ways of knowing, being and interacting with the world.

Part of the process of 'knowing' belies a fundamental element which reflects our abilities for survival and enhancing the collective with the knowledge that as a people we are capable of co-existing and making sense of the world around us, as our ancestors once did. It is the task of the present generation to honour our ancestors by caring for the natural world, as they had before us. In caring for the world we will in the process, strengthen our sense of place and connectivity to our ancestors and our histories, ensuring a cultural and environmental future for our grandchildren. Kaitiakitanga identifies the diverse realities of a modern world, and the ability to effectively inter-weave the past with the future, in accordance with Māori tribal and sub-tribal entities, for the betterment of ourselves and our environments (Hapū, Iwi Working Party, 2005).

Cultural connectivity encapsulates the values important for Māori to undertake activities in ways that are meaningful and pertinent to Māori. "Providing space for connectivity as it applies to young children's relationships with the natural world is about recognising that "people are considered to live culturally rather than in cultures, with the generative source of culture being human practices rather than in representations of the world" (Stephenson, 2008, p.129). At its core, the indigenous experience of the world is one of connectivity and, in particular, the experience of 'Being' as a community of interconnected living personas, only some of whom are human" (Reid et al, 2013, p.4). Connectivity is the basis on which the world is ordered, the organising principle of Māori knowledge, the sources of genealogy and the origin of all rights and obligations – including kaitiakitanga over the environment (Waitangi Tribunal, 2011).

Kaitiakitanga and Taonga

According to Marsden (2003) there is no specific term in Māori for the word value. From a "holistic view of the Universe the Māori idea of value is incorporated into the inclusive term 'taonga' – a treasure, something precious; hence an object of good or value" (p.38). From a Māori perspective the word 'taonga' as it applies to natural resources or species, are identified as those which have been harvested and the populations sustained by generations of Māori. These species are considered taonga as the knowledge and customs pertaining to traditional harvesting practices are still very present and relevant today. Examples include; when to harvest, how to harvest, environmental signs and conditions, preparation for storage and traditional management practices to ensure the sustainable future. These types of intergenerational knowledge and associated cultural practices are recognised as having survived into modern times. Hence, the title 'taonga' or treasured species.

Marsden (2003) iterates that there are three main categories of taonga. The categories are; spiritual, psychological and biological. The three categories are inter-related and are pertinent to understanding Māori principles of and for the natural world. The first category of spiritual or wairuatanga is concerned with mana (prestige, personal power), tapu (sacredness) and noa (un-sacred or common). The "importance of mana within Māori society is paramount. Mana is a difficult idea to translate succinctly into English. It embraces virtues such as honour, and prestige but also represents authority and control" (Kearney, 2013, p.9). The second category of psychological, denotes the quest for security, a sense of belonging, of place, whakapapa (genealogy) identity, self-esteem and dignity. Royal (2010) asserts that whakapapa denotes a world view of a vast and complex family, where everything, humans and non-human are related. The traditional principle of whanaungatanga or relationships denotes pertinent understandings of the natural world that are important and meaningful to Māori. The third category of biological, pertains to a conscious ethic of and for the environment, survival, resilience, connectivity and mauri (life-force). Reid et al (2013) notes that a way to approach the environment from a Māori perspective is through relational values which "are used to shape and guide practices designed to maintain and enhance mauri (the life sustaining capacity of environment and society)" (p.3).

Kaitiakitanga and Children

Kaitiakitanga acknowledges the role of humans including young children to undertake active guardianship and responsibilities for the ecological communities and environments on which our survival and continued existence depends. As previously stated from a Māori perspective people are not superior but related through whakapapa (genealogy) to all aspects of the environment. Whakapapa denotes the genealogical descent of Māori from the divine creation of the universe to the living world (Berryman, 2008). It informs relationships and provides the foundation for inherent connectedness and interdependence to all things (Cheung, 2008). Māori can trace genealogy back to through whakapapa to Papatūānuku (the earth mother) therefore they not only live on the land but are part of the land (Ministry of Justice, 2001). Humans are not superior but are related through whakapapa to all aspects of the environment, connected to everything in it; therefore it requires respect.

In Māori cosmology, the gods (ngā Atua) are the origin of species. For example, the offspring of Tāne, Tū, Tāwhiri, Tangaroa, Rōngo, Haumia (and some 70-odd others) eventually populated the universe with every diverse species known. Under this system, humans are related to both animate and inanimate objects, including animals, fish, plants and the physical environment (land, rocks, water, air and stars). Thus there is no separation between the physical and spiritual worlds; in the holistic Māori worldview they are continuous (Cheung, 2008, p. 3).

Māori children are therefore intimately connected to people and land; past, present and future, to the spiritual world and the universe (Mead, 2003; Te Rito, 2007) and gaining knowledge and experience of this connectivity is imperitive for active participation in the community. Traditionally this knowledge aquisition sometimes began before birth and continued through life. It was essential that young children acquired the appropriate knowledge, skills and expertise to contribute to the community and in so doing support the survival of the present and future generations. Teaching and learning was therefore an important community responsibility. The young child's education was primarily within the whānau (Makareti, 1986; Te Rangi Hiroa,1987). Within these traditional contexts teaching and learning was supported by highly sophisticated knowledge structures, educational practices and principles. These processes aimed to maintain and extend knowledge and develop understandings of harnessing, sustaining, and extending environmental resource bases (Berryman, 2008; Hemara, 2000; Salmond, 1983).

Living and sleeping in an intergenerational environment allowed the transmission of important knowledge from the old people to the young – knowledge of history, stories, legends and their environment. Te Rangi Hiroa (1987, p. 358) explains that "Much, if not most, of the personal instruction in early years, was received from grandparents as a convenient result of three generations of the family living together in a common household". In this way inter-generational ecological knowledge, grounded in that specific place of existence was handed down through the generations. These elements of a classical education in family and tribal history continued on through adolescence. Makareti (1986) describes how:

From the old people, the children learn much in the way of folk-lore, legend, genealogy, and tradition...The old man would teach them their line of descent from that ancestor, and from other noted ancestors back to the time of the arrival of the great fleet...They told the children how dear their home and lands were to them...they taught the names of birds of the forest, and the different tree and shrubs and plants...and wonderful stories of the mountains, rivers, and streams...They talked of these and many other things until the little people fell asleep. And so they grew up with the stories and deeds of their ancestors. (pp. 151-152)

Education of the Māori child was therefore related to preparing the child to actively participate in Māori society, and to ensure the survival of future generations through coexisting, making sense of the world and protecting the well-being of natural

resources.Learning experiences had immediate practical application. As the child matured the tasks became more complex. Children absorbed cultural mores by following adults, and learning through observation, imitation and practice (Berryman, 2008; Hemara, 2000; Salmond, 1983). There was a therefore a fundamental relationship between theory and practice and a requirement that learners demonstrate this in the context of their learning. These understandings are consistent with holism, which has a critical role in the theoretical foundations of contemporary early childhood education practices in Aotearoa New Zealand.

Kaitiakitanga and Early Childhood Education

Te Whāriki is the New Zealand Ministry of Education's early childhood curriculum policy statement. Te Whāriki: He Whāriki Matauranga mo ngā Mokopuna o Aotearoa/Early Childhood Curriculum (Minstry of Education, 1996) is a bicultural, socioculturally conceived curriculum document, written in Englsih and Māori, founded on the aspiration that children "grow up as competent and confident learners and communicators, healthy in mind, body and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society" (p. 9). Te Whāriki translates to 'a woven mat' that allows for diverse patterning depending on knowledge bases, beliefs, and values which all may stand upon. Accordingly, "...the whāriki concept recognises the diversity of early childhood education in New Zealand. Different programmes, philosophies, structures and environments will contribute to the distinctive patterns of the whāriki" (p. 11).

One of the strands of Te Whāriki, Exploration, incorporates the view of the child as an explorer who learns through active exploration of the environment. A number of general goals highlight the importance of respect for the natural environment for all New Zealand children. These include the goal that young children develop:

- a relationship with the natural environment and a knowledge of their own place in the environment;
- respect and a developing sense of responsibility for the well-being of both the living and the non-living environment;
- working theories about the living world and knowledge of how to care for it (p. 90).

The Māori text of Te Whāriki, provides more specific, historical and cultural imperitives in order for young children to develop understandings and make meaningful connections and contributions to the natural world. Mana Aotūroa relates to children's learning; exploring and seeking knowledge and understandings of their world and their relationships to it. Mana at a basic level can be translated as "authority, control, influence, prestige, power, psychic force, effectual, binding, authoritative ... and take effect" (Hemara 2000, p. 68). It is a crucial aspect of Māori perceptions of the world and of the self. Aotūroa translates to 'light of day' or 'this world'. When the word aotūroa is broken into its three sections, 'ao-tū-roa', "it relates to the infinity of the universe, and implies an extensive breadth of all the elements that make up the universe. Humankind is an important element of the universe" (Early Childhood Development, 1999, p. 24). Mana Aotūroa in the context of the curriculum statement refers to metaphysical or intellectual journeys of self discovery about the world and one's place in it.

The following is an interpretation by one of the authors of excerpt from the Māori text of Te Whāriki. It highlights our responsibilities of kaitiakitanga for the natural environment and reflects Māori perceptions of the natural environment as taonga to be nurtured and preserved Mana Aotūroa connects the young child to the natural world and everything in it.

The child learns his/her similarities and differences with the natural world. The child is able to see the depth and breadth of the gifts of the world, the trees, the animals, the food, the fish, the stars in the sky, the gifts of creativity The child's develops understandings of the form of land, the world and people.

Mana Aoturoa involves goals/aspirations for the child learning. The child understands that all living things have a spiritual element. From these understandings the child is familiar with Ranginui (sky father), Papatūānuku (earth mother) and their children. The child develops warmth and compassion for Papatūānuku and works to nurture the land. The child learns about the environment through listening, seeing, hearing, smelling, touching, seeing, and from the heart.

Some thoughts for teachers and families to consider. Research the gifts of the environment, the natural world, utilising the the knowledge of the ancestors and others. Develop understandings of the complex nature of Papatūānuku, Ranginui and their children. Develop understandings that asptect the world is within the person.. Develop understandings around the negative effect of polution on the environment. Develop understandings of the signs of when to plant food, when to catch fish to ensure a sustainable sea food resource. Develop understandings of the appearance of the insects, birds, stars and fish. In this way the child is strengthened to learn.

(Ministry of Education, 1996, p. 37)

Whilst we acknowledge the English version of Te Wh \bar{a} riki offers a starting place for the development of cennectivity to and understandings of the environment and natural world we argue that a more purposeful and coherent approach is required for young children and the future wellbeing of the natural environment. The Maori text of Te Wh \bar{a} riki highlights the critical place of kaitiakitanga in ensuring a sustainable and healthy environment and offers a coherent and sustainable approach to implementation.

Conclusion

There is growing evidence that accelerated biodiversity decline has a direct effect on human well-being, and the need to sustain both cultural diversity and ecological diversity is becoming increasingly apparent (World Wildlife Foundation, 2014). The complexity of connections in socio-cultural-ecological communities cannot be explained by knowing the details of each species in isolation, because the emergent pattern cannot be predicted or revealed until the ecosystem is understood as an integrated whole (Miller & Spoolman, 2012; Marsden, 2003; Rotarangi & Stephenson, 2014).

Indigenous cultural beliefs are often found to be a key factor in apparent long-term sustainable use of resources by many groups around the world. This is especially pertinent to "knowledge related to the maintenance of ecosystem resilience... (and) integrated human-nature concepts of the environment. Cultural diversity may be related to biodiversity and both may be important for improving the sustainability of the world's ecological systems (Berkes & Folkes, 1994).

Kaitiakitanga is about relationships and is as much spiritual and intellectual as it is physical and political (Royal, 1999). "Without a doubt our most significant resource and potential lies in our people and so looking into the future, how we nurture and support each other's potential and how we plan for the future will have a significant bearing on what we achieve for ourselves and future generations (Te Rūnanga o Ngāti Awa, 2010, p.4).

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