Title: Ecological counter-narratives of interdependent wellbeing

Abstract: This paper reports some insights garnered from a recent research project in Aotearoa (New Zealand) which explored possibilities for enacting ecological sustainability within early childhood education. The project was entitled: Titiro whakamuri, hoki whakamua. We are the future, the present and the past: caring for self, others and the environment in early years’ teaching and learning. The central platform for the study, which involved ten early childhood centres throughout the country, was a parallel philosophical approach of western theorising around an ethic of care, and Māori conceptualisations of inter-relatedness.

Introduction/Te Take - Tiakina i a Papatuanuku (The focus - caring for the Earth Mother)

There is growing global awareness and concern for the wellbeing of our planet and its ecosystems as evidence of their deterioration demonstrates the likely impingement of the quality of life or even the survival of our future generations. Indigenous traditions have demonstrated resilience in sustaining their ways of life over many generations and their wisdom in relation to sustainability is profound (Knudtson & Suzuki, 1992; Suzuki, McConnell, & Mason, 2007). For traditional peoples, a sense of connectedness with the earth as the source of sustenance for survival has been a constant value. Māori have a whakatauki, or saying:

“E kore au e ngaro he kākano i ruia mai i Rangiatea
The seed will not be lost
This proverb asserts resilience. Rangiatea is the spiritual homeland of the Māori people” (Grace & Grace, 2003, p. 29).

Māori recognise the importance of upholding traditional understandings handed down from the ancestors, which provide messages about caring for Papatuanuku (Earth Mother), which are grounded in recognition of the planet as the source of sustenance which enables the wellbeing of hapū (extended families), whānau (families), and mokopuna (grandchildren) who are yet to be born.

The United Nations has recognised the urgency of the imperative to generate a global awareness of the need to reconfigure our practices towards ecological sustainability, and the important role of education in this process. We are now half way through the United Nations Decade of Education for Sustainable Development, 2005-2014 (United Nations Educational Scientific and Cultural Organisation (UNESCO), 2005). Early childhood education is a potentially powerful site for educational transformation, since early childhood teachers work closely not just with the individual children in their care, but with parents, families, and the wider community.
**Theoretical background of the study – Ngā kaupapa**

Western progress and development has been founded on positivist beliefs in science and technology, supported by notions of superiority, which have justified the dominance and exploitation of the ‘other’, including black and brown-skinned peoples, animals, and the natural world (Rose, 2004; Suzuki, et al., 2007). Antonia Darder writes that “The Western ethos of mastery and supremacy over nature has, to our detriment, supported the unrelenting expansion of capitalism and its unparralled domination over all aspects of human life” (Darder, 2009, p. ix). An ethos of individualism, consumerism, and competitiveness has led to a deterioration of the sense of collectivity and altruism. Visionaries such as philosopher/theologian Thomas Berry (1999) and scientist David Suzuki (Knudtson & Suzuki, 1992; Suzuki, et al., 2007) have challenged the Western world to reconsider the attitudes and behaviours that have resulted in the degradation of our environment. They suggest that revisiting the wisdom and knowledge of traditional cultures will enable us to engage with an alternative paradigm that honours our interdependence with other living creatures and the planet itself.

Educationalists such as Nel Noddings (Noddings, 2005a, 2005b) have called for a refocussing on an ethic of care, a recognition of our intrinsic relationality, which extends beyond the immediate realm of human inter-relationships, since “Ethical life is not separate from and alien to the physical world” (Noddings, 1995, p. 186). An ethic of care is founded in an understanding of people as relational beings, and a recognition that “Our goodness and our growth are inextricably bound to that of others we encounter” (Noddings, 1995, p. 196). It can be seen as comprising three central components: “conceptual and emotive understanding, a deep respect for the intrinsic worth of others, and a willingness to act for the other” (Martin, 2007, p. 57). The imperative to act responsibly, out of care for the ‘other’, is inherent in a consciousness of relatedness.

Whilst relationality thrives in a climate of reciprocity, which involves a perception that the subject of one’s caring is responsive to this care (Martin, 2007), for philosopher Emmanuel Levinas, there is an altruistic sacred journeying involved in the justice of taking on responsibility for the Other. This thinking “otherwise” requires a willingness to relinquish control in order to assume the inverted repositioning of “being for-the-other” before oneself (Levinas, 1987, p. 25). The ‘Other’ in our study’s conceptualisation, includes our environment, our planet and universe. It recognises the spiritual and intimate sense of inter-relatedness between humans, the natural world, and the earth, and that “Taking nature seriously can and must have profound effects not just on the way we think (our theories) but on the way we live (our practices)” (M. Smith, 2001, p. 21).

For Māori and other Indigenous peoples, a sense of inter-relatedness with the natural world is intrinsic and has been upheld despite the impacts of colonisation (Cardinal, 2001; Haig-Brown & Dannenmann, 2002; Patterson, 2000). Māori perceive Papatuanuku, the Earth Mother, and Ranginui, the Sky Father as their ancestors, an ancestry which is shared with plants and fellow creatures. These are not inanimate, passive ancestors, however, since this world view recognises the living, sentient being-ness of Papatuanuku, Ranginui, and atua such as Tangaroa (the ‘god’ of the seas) and Tane-Mahuta (the ‘god’ of the forests). For Māori, this awareness of intersubjectivity, contains the implicit acknowledgement that our destiny is intimately/ultimately bound up with the destiny of the Earth (Marsden, 2003).
Carlina Rinaldi (2006) acknowledges the importance of recognition of interdependent wellbeing. As in Māori and other indigenous worldviews, Rinaldi’s is a collective rather than individualistic lens, recognising our inter-connectedness within communities, across cultures, and as planetary citizens. Thomas King (2005) challenges us to generate stories that enact the ethic(s) we wish to promote. We propose that counter-narratives honouring our inter-relatedness are required to provide a recuperative alternative to the potentially fatal destruction of our planet. As early childhood educators, our influence on children and families can be a catalyst towards an intergenerational change of community attitudes and behaviours. A focus of this study in enacting “an ethic of global caring” (Said, 1993, p. 21) generated within early years education, was to produce some examples of such counter-narratives.

**Te Whāriki**

Te Whāriki (Ministry of Education, 1996), the New Zealand early childhood curriculum, recognises the role of communication in reinforcing the child’s holistic self-understanding, “enhancing their recognition of their spiritual dimension and the contribution of their heritage and environment to their own lives” (p. 72). Within its “Exploration” strand, Te Whāriki includes the following learning outcomes:

- familiarity with stories from different cultures about the living world, including myths and legends and oral, nonfictional, and fictional forms;
- working theories about Planet Earth and beyond;
- a knowledge of features of the land which are of local significance, such as the local river or mountain;
- theories about social relationships and social concepts, such as friendship, authority, and social rules and understandings;
- 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 (Ministry of Education, 1996, p. 90).

Te Whāriki, then, provides early childhood educators in Aotearoa with a platform for enhancing our focus on ecological sustainability and an ethic of caring for self, others and the environment.

**Research aims**

The study had the following four aims:

- to focus on policies and practices that address the need for change towards more ecologically sustainable practices in early childhood centres;
- to identify how Māori ecological principles are informing and enhancing a kaupapa (focus) of ecological sustainability, as articulated by teachers, tamariki (children) and whānau (families);
• to understand how teachers articulate and work with a pedagogy of place that emphasises the interrelationships between ethic of care for self, others and the environment and.
• to investigate how centres work with the local community in the process of producing sustainable practices, based on an ethic of care for the self, others and the environment.

Methodology

This project utilised a critical qualitative educational research approach as advocated by Kincheloe (1991) which emphasises the importance of “social theoretical questions of ethics and democracy” in relation to educational purposes and vision (p. 82). In this study, teachers took responsibility as co-researchers, supported by research facilitators. The methodological approach was particularly informed by kaupapa Māori research methodologies which require the embedding of a Māori world view, and the application of this throughout research processes (L. T. Smith, 1999, 2005). This meant, for example, that our collective research hui (meetings) were held on a marae (traditional Māori meeting place) with the support of kuia and kaumātua (Māori elders). Another domain which was drawn upon within this project was that of ethnography which offers exploratory, naturalistic, holistic, multimodal, and interpretative approaches to the study of people and communities (Aubrey, David, Godfrey, & Thompson, 2000; Schensul, 1985). A final research mode employed was that of narrative methodology (Clandinin, 2007). As data was gathered, a process of co-theorising was employed across the various sites, involving dialogical negotiation of meanings (Siraj-Blatchford & Siraj-Blatchford, 1997) and ‘whitiwhiti kōrero’ or collaborative storying (Bishop, 1996). The project was conducted over two years, 2008-9, with most of the data gathered during a 12 month span within this overall period.

Teachers from five of the ten centres had participated as co-researchers in previous studies (J. Ritchie & Rau, 2006, 2008), and therefore had some experience in data gathering and co-theorising which they were able to share with colleagues who were newer to researcher activities. The research was facilitated in the nine North Island centres by four university based project co-directors, and in the single South Island centre by an additional local research facilitator. We also had the enduring support of our kuia and kaumātua (Māori elders).

A preliminary collective hui (gathering) was held to discuss research ethics and data gathering strategies. From there, each group of educators focussed on their own approaches to data gathering, which included conducting recorded discussions with children and families, and amongst themselves. Teachers also wrote their own narratives pertaining to the understandings that were being gathered from the activities that were being instigated within their centres and communities. Relevant centre documentation was also shared with the project, including children’s artwork, stories and photographs. Data from across the centres was shared at on-going co-theorising sessions, deepening understandings of both data gathering possibilities and of pedagogies for enacting the research focus. At a final collective hui, all the teams presented their findings and shared responses in a final co-theorising opportunity.
Counter-narratives

At the initial hui, teachers were given an introductory framework to the kaupapa Māori aspects of the study, which included notions such as manaakitanga (caring for others), kaitiakitanga (stewardship over land and resources), and wairuatanga (spiritual interconnectedness) (Marsden, 2003; J. E. Ritchie, 1992). Some participating centres already had a strong component of Māori understandings within their programmes, although this may not have been explicitly connected to ecological sustainability. For some of the centres already committed to ecological sustainability, applying these Māori understandings was a new challenge. Two centres who are part of the EnviroSchools movement (EnviroSchools/Kura Taiao, 2009) were already very actively implementing ecological sustainability pedagogies informed by Māori perspectives. In this section, for reasons of word constraints, data will be drawn from only three centres.

As teachers began to strengthen their programmes in line with the research focus, examples of data gathered indicated that this had great resonance for the children and their families. The teachers at Richard Hudson Kindergarten in the South Island city of Dunedin, with the support of a Kaumātua, introduced versions of Māori creation stories as a key focus for their involvement in the research project. This traditional legend portrays the separation of Papatuanuku (the Earth Mother) and Ranginui (the Sky Father) by their son Tane-Mahuta, in order to create space and light for all the children of Ranginui and Papatuanuku. Teachers observed ways in which the children at this kindergarten began to spontaneously re-enact the separation story:

- P-C and friends used dramatic play to represent their understandings of the story of Rakinui/Ranginui and Papatuanuku. The height they could get to on the jungle gym represented the realm of the sky. This kingdom was a magical place, whereas Papatuanuku was reality – down on the ground, kindergarten. One is everyday, common, reachable and touchable. The other is less defined, more special and harder to reach [Teacher, RH, data set 1].

- Children were able to make a connection with caring for the environment through their engagement with Rangi(nui) and Papa(tuanuku), the Sky Father and Earth Mother. They carried these new understandings with them back to their families, as illustrated in this note from a parent:

  The other day we were a bit late for school. Petra wanted to pick up the rubbish around the neighbourhood. She said there was rubbish on the Earth Mother’s Body (Papatuanuku). She is quite concerned about smoke going into Rangi the Sky Father’s lungs and it would be hard for him to breathe! We want to do a beach clean up too [Parent, RH, data set 1].

Later in the project, teachers from this kindergarten reported that:

- The children at Richard Hudson Kindergarten have been a part of an exciting journey of exploration into the myth of ‘Ranginui and Papatuanuku’. The myth in summary is
about ‘the creation’ and how in the beginning Rangi and Papatuanuku were close together. Their children were squished in the middle and decided to push Rangi and Papatuanuku apart to create light in between them. The ideology of this story has led us, as a community of learners, to create this amazing display on the veranda. Many children have offered valuable input and participated in creative learning experiences to put the pieces of the display together. An important disposition that has continued to develop as a result of this experience is the children’s knowledge skills and attitudes towards ecological awareness. All the creative media we used has been recycled and this remains a strong focus within RHK to date. The children have been immersed in learning about sharing ways, and participating in ways we can care for Papatuanuku. The children have developed a significant respect for Maori tikanga and te reo Māori (Māori culture and language). It has been so exciting to be a part of, and the children’s interest and empathy has been increasingly significant. They have explored working theories about Papatuanuku and developed a relationship with the natural environment as well as a sense of responsibility for the well being of Papatuanuku, and how we can care for it [Teachers, RH, data set 3].

The teachers noted further that:

We, as teachers and co-researchers, were hoping to inspire others into ecological friendliness through this research project, but we feel that we have inspired ourselves as much as the many others we have come into contact with. We are in a spiral of promoting, acting, teaching, learning and enthusing and it feels very satisfying. If we hadn’t had the challenge of bringing in a Māori component to the project, it just would never have had the depth, the emotion, the identity and the wholeness that weaving te ao Māori has accorded [Teachers, RH, data set 3].

In addition, these teachers were conscious of children’s burgeoning empathy toward our planet, an aspiration that is consistent with the Earth Charter’s expectation that we “respect and care for the community of life”, the earth and “all its diversity” with “understanding, compassion, and love” in order to “build democratic societies that are just, participatory, sustainable, and peaceful (as cited in Greenwood, Manteaw, & Smith, 2009, p. 96). They were also appreciative of the opportunity that the research had afforded them to enhance the Māori understandings being enacted within their teaching.

At Hawera Kindergarten, situated in a small rural Taranaki township, two of the three teachers were Māori. The teachers there recognised the significance of the reciprocal interdependence of people and nature. They also highlighted their awareness of wairuatanga, or spiritual interconnectedness as being integral to the kaupapa of ecological sustainability:

Some ways our environment nurtures our Wairua (spiritual dimension):

- Papatuanuku (Earth Mother) and Ranginui (Sky Father) look after all of us. The sun, wind, rain and air look after the plants that look after us. We are nurturing our tamariki to look after their environment.
In caring for our natural environment, the tamariki are developing respectful relationships with nature whilst nurturing their health, well-being and wairua (spirituality/soul) within [Teacher, HK].

The recognition of a spiritual dimension, wairuatanga, is a very central component of a Māori worldview (Marsden, 2003; J. E. Ritchie, 1992). This acknowledgement is also consistent with the early childhood curriculum, Te Whāriki, which requires under the principle of Holistic Development – Kotahitanga, that there should be “recognition of the spiritual dimension of children’s lives in culturally, socially, and individually appropriate ways” (Ministry of Education, 1996, p. 41).

Another way the teachers at Hawera Kindergarten enacted recognition of the reciprocal interdependence of people and nature, was to draw on traditional Māori knowledges around sustainability practices. They juxtaposed the traditional Māori calendar, or maramatanga, which dictated seasonal activities for agriculture and fishing, with their own centre activities such as gardening:

Our little pot plants had finished flowering so we recycled them by transplanting succulents in the pots. First we had karakia (a spiritual incantation) to acknowledge Tane Mahuta (God of the Forests), then broke off pieces of the succulent plants, sat them in the pots and watered them. The children carried river stones from the gravel pit and poured them into the planter boxes. We talked about gardening, looking after the plants, where the stones came from and experienced the mauri (life force) in the plants and stones. It was a good team effort. When we had finished, the children admired their work. When one works with Papatuanuku, one can find it relaxing and peaceful. It teaches patience and nurtures the soul. [HK].

Recognition of the mauri, or life force, within everything - including inanimate objects - is central to Māori spiritual interconnectedness. Mauri has been described by a prominent Māori theologian as pre-eminent within all creation, in that it is the “life-force which generates, regenerates and upholds creation...giving creation its unity in diversity. It is the bonding element that holds the fabric of the universe together” (Marsden, 2003, p. 174). Another tohunga (spiritual expert), Hohepa Kereopa, also views mauri as a spiritual undercurrent of extreme significance:

What matters is the mauri... Without that mauri there is nothing... It is all about mauri. That is what people have forgotten. Mauri is what gives karakia (incantations) their impact. Because if I just say the words of a karakia without any mauri, then it has no impact. It’s just words, nothing else. The whole community needs to feel what the mauri of a karakia is. It’s not just about knowing about karakia, it’s knowing about the force, the life-force of karakia that makes it happen. (Kereopa as cited in Moon, 2003, p. 93).

Teachers from “Aotearoa Kids”, an urban early childhood centre, reflected deeply on their learnings from their involvement over the duration of the study. In response to a question they posed for themselves regarding ways in which they had integrated Māori understandings into their daily practice, one teacher made a connection to the historical
Treaty of Waitangi, which promised Māori that in return for allowing British settlement, their values and lands would be protected (Orange, 2004):

*I think that there is a natural Māori Kaupapa around the sustainability project at A.K. We don’t only educate children about manaakitanga (caring for others) but also whakawhanaungatanga (relationship building), teaching children about other people around the world, and cause and effect. When educating children about manaakitanga there is a sense of governorship which we are advocating for which also helps us uphold the Māori treaty principles.* [Teacher A, AK]

Her colleague also shared her understanding of ways in which Māori constructs fit with her centre’s commitment to ecological sustainability, recognising our interdependence with the natural world:

*In terms of sustainability I think (from reading I have done) that our approach to care of the environment is fairly compatible with manaakitanga (caring) and kaitiakitanga (stewardship). I personally believe that nature is not something we can own and control. We are a part of (not above) nature and have a responsibility to use resources in a way that doesn’t damage the system as a whole. If we don’t take this responsibility seriously it is likely to cost us dearly.* [Teacher B, AK]

This position is similar to that expressed by Māori educationalist Wally Penetito (2009), who in advocating for place-based pedagogies points out that for Indigenous peoples the “relationship between themselves and their environments is one of co-habitors” (p. 20). He considers that a “pedagogy capable of embodying ways of knowing and being requires a sense of consciousness, a union of mind and spirit, the mauri (life force) and wairua (spirit)” (Penetito, 2009, p. 20).

A teacher who worked with the under-two year old age group of children at this centre noted a particularly touching example of two very young children “Caring for each other – little acts of kindness, helping, having high expectations of social competence”:

*After watering the mint plant N picked some mint to smell, A was close by so she passed him some too. N sniffed the mint and held it under A’s nose too, so he knew what to do with it. They both looked at each other with great thoughtfulness.* [Teacher E, AK]

Despite interpretations of Piagetian theory that have suggested that very young children are too ego-centric to demonstrate empathy and altruism, an alternative understanding recognises that “our capacity for empathy is innate” (Dalai Lama, 1999, p. 123). In te ao Māori, the Māori world, the values of aroha (love) and manaakitanga imply an obligation to care for other people, whilst kaitiakitanga extends this same expectation to the natural world.

**Concluding Thoughts**

Thomas Berry has suggested that we need to learn a “new story” to replace the dominant paradigm of exploitation of our environment (Berry, 1988, p. 123). This proposed new story offers a new way of understanding values, based in returning to a more traditional context,
one which is much more in tune with “guidance from the very structure and functioning of the universe” (Berry, 1988, p. 137). He suggests that “there is an abiding need to assist succeeding generations to fulfil their proper role in the ongoing adventure of the earth” (Berry, 1988, p. 135). Antonia Darder envisions an eco-pedagogy in the pursuit of social justice and peace which recognises “the need to embrace the fundamental relationship of interconnectedness that we share with all life on this planet” (2009, p. ix). Through the enthusiasm and pro-activity of these teachers, the children and families in this study gained access to narratives and pedagogies, many drawing upon te ao Māori perspectives, which in generating a sense of relatedness to the planet, also enabled a re-positioning of members of these early childhood centre communities as kaitiaki or stewards of the earth.

**Glossary of Māori terms**

- **atua** - ‘gods’
- **hapū** – sub-tribes or wider extended families
- **hui** - meetings or gatherings
- **kaitiakitanga** - stewardship over lands and resources
- **karakia** - spiritual incantation or prayer
- **kaumātua** - Māori elders
- **kaupapa** – focus, topic, subject, philosophy
- **kaupapa Māori** – underpinned by a Māori philosophy
- **kuia** – female Māori elder
- **manaakitanga** - caring for others
- **marae** - traditional Māori meeting place, centre-point of village
- **maramataka** - calendar
- **mauri** - life force
- **mokopuna** - grandchildren
- **Papatuanuku** - the Earth Mother (Rangi)
- **Rangiatea** - the spiritual homeland of the Māori people
- **Ranginui** - the Sky Father (Papa)
- **tamariki** – children
- **Tane-Mahuta** - the ‘god’ of the forests
- **Tangaroa** - the ‘god’ of the seas
- **te ao Māori** - the Māori world
- **te reo Māori** - Māori language
- **tikanga** – Māori culture and values
- **wairua** – spiritual dimension, spirituality
- **wairuatanga** - spiritual interconnectedness
- **whānau** - families
- **whitiwhiti kōrero** - collaborative storying

**References**


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i The author acknowledges the wisdom and work of the three other co-directors of this project, {names removed}, and also the Teaching and Learning Research Initiative for funding support for our work.

ii Centre names are used with permission.