

Social, cultural, and ecological justice in the age of the Anthropocene: A New Zealand early childhood care and education perspective

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Abstract: Educators have an ethical responsibility to uphold the wellbeing of the children, families and communities that they serve. This commitment becomes even more pressing as we move into the era of the Anthropocene, where human induced climate changes are disrupting the planet's systems, threatening the survival of not only humans, but of eco-systems and the earth's biodiversity. This paper draws upon examples from Aotearoa (New Zealand) to demonstrate ways in which a critical pedagogy of place informed by local traditional knowledges can inform early childhood education whilst also enhancing dispositions of empathy towards self and others, including more-than-human others.

Keywords: early childhood, anthropocene, pedagogies of place, Māori, New Zealand.

Introduction

Te Whāriki, he whāriki mātauranga mō ngā mokopuna o Aotearoa, the New Zealand early childhood curriculum (New Zealand Ministry of Education, 1996), contains a vision for early childhood care and education pedagogies that implicitly serves an ethic of social, cultural and ecological justice.

Aotearoa (New Zealand) is a country with a history of colonisation and concomitant marginalisation of the Indigenous Māori, despite the promises of the 1840 treaty, *Te Tiriti o Waitangi*, which allowed for British settlement. *Te Whāriki* has been visionary in that it offers a model of equitable partnership between Māori and settler descendants. Teachers are to ensure that children “develop knowledge and an understanding of the cultural heritages of both partners to Te Tiriti o Waitangi”, the 1840 treaty that had allowed British settlement (New Zealand Ministry of Education [MoE], 1996, p. 9). This clearly signals the need for strong visibility of Māori onto-epistemologies¹ within early childhood pedagogical practice.

In the two decades since the 1996 promulgation of *Te Whāriki*, New Zealand has experienced tidal changes of successive governments, swinging between conservative and liberal parties, albeit both displaying neo-liberal capture. The extended terms of each successive government has allowed for distinct phases of policy implementation, within a context whereby the national situation has been heavily influenced by the incursion of globalised neoliberalism (Duhn, 2006; Farquhar, 2012). For Māori, the relentless impositions of globalisation are a continuation, just the latest wave, of the historical colonisation processes that divested them of their languages, lands, and self-determination, whereby both people and places are exploited by capitalist and now corporatist economics (Smith, 1999/2012; Stewart-Harawira, 2005).

As we enter the age of the Anthropocene (Alberts, 2011), it is crucial that we challenge education that continues to normalise the politics of colonisation and globalisation, that is, “the production of privilege and wealth as well as the myth of limitless growth through a hidden curriculum that ignores and minimizes its social and ecological costs” (Greenwood, 2014, p. 286). Critical pedagogies of place theorise ways in which localised educational programmes can enable children (and families) to engage with local histories and ecologies, fostering a deep sense of connection to their locality, whilst learning how to maintain the delicate balances that sustain life on our planet (Greenwood, 2008, 2013). Such pedagogies can further be viewed as a response to globalised education reform policies that attempt to standardise and universalise education. They offer critique of and resistance to the western economic rationalism that is imposing these accountabilities (Greenwood, 2008). In recognising the histories of mutual co-evolution that have

¹ The term onto-epistemologies recognises the inter/intra-relationship of ontology and epistemology (Kaiser & Thiele, 2014).

enabled both cultural and biological survival, they also provide hope for the protection of linguistic and biodiversity that continue to be threatened by globalisation (Gorenflo, Romaine, Mittermeier, & Walker-Painemilla, 2012; Wehi, Whaanga, & Roa, 2009). This paper draws on research in early childhood care and education in Aotearoa (New Zealand) to explore some ways practice founded in a strong ethical foundation can foster learning outcomes reflective of social, cultural and ecological justice.

Suppression of Māori onto-epistemologies

Māori ways of knowing, being, doing and relating have been severely impacted over the period of colonisation by Britain and settler descendants, that is, since the first missionaries arrived in Aotearoa (New Zealand) two centuries ago, in 1814, their ‘mission’ being to rescue Māori from their ‘savage’ beliefs and practices (Walker, 2004). Māori, like other Indigenous peoples elsewhere, recognise that their physical, emotional and spiritual wellbeing is closely tied to the wellbeing of their place of habitation (Williams, 2001b). They do not position themselves as superior beings to the land, flora and fauna, but as ‘co-habitators’ of these places and spaces (Penetito, 2009). Traditional Māori knowledges had been retained and transmitted largely orally, through the medium of the Māori language. With the imposition of the English language from 1840, and of laws such as the Suppression of Tohunga Act of 1907², it became difficult for Māori to uphold and retain traditional knowledges and practices.

The practice of rongoā [traditional Māori healing] was suppressed in New Zealand through the Tohunga Suppression Act 1907 (which remained in force until 1962). This Act came into force during a Māori health crisis resulting from poverty, poor sanitation, and a lack of immunity to virulent infectious diseases. Instead of responding effectively to this crisis, the Act banned the activities of tohunga, and defined a core component of Māori culture as wrong and in need of ‘suppression’. (Waitangi Tribunal, n.d., p. 2)

Māori awareness of the inter-relationship of knowledge, power and wellbeing is shown in this quote, from over a century ago, in 1910:

“Our people used to live to be 100.” said Mr Kaihau, “now they died at fifty. We still have some men who have power in faith-healing, though

² Tōhunga are traditional Māori knowledge holders, including healers

not so much power as formerly, but if we get back our old customs they will gain more power". (as cited in Williams, 2001a, p. 44)

Healing knowledges are closely related to ecological practices. It is reported that today, over 50% of plants harvested by Māori elders are for medicinal purposes (Wehi & Wehi, 2010). As awareness of the impending severity of the ecological crisis of anthropogenic climate change begins to filter into our consciousness, as educators we are challenged to reflect on ways in which our pedagogies might serve the wellbeing of both planet and humanity in this age of the Anthropocene. Revisiting traditional ecological knowledges, such as those encapsulated in ancestral sayings (Wehi, 2009), embodies the intrinsic, "inextricable link between biological and cultural survival" (Wehi et al., 2009p. 201). Traditional ecological knowledge should be viewed as an adaptive process, derived as it was from multi-generational responsive relationships with the environment. It therefore has relevance in enabling us to face the challenges of the climate change crisis (Berkes, 2009). As Chet Bowers has written:

A culturally informed knowledge of place takes account of different approaches to dwelling on the land, as well as the ability to listen to the keepers of community memory of past environmentally destructive practices and of sustainable traditions of community self-sufficiency. (Bowers, 2008, p. 325)

Thus, the study of traditional ancestral knowledges may enable us to identify pedagogical pathways for survival.

Te Whāriki as a foundation for ethical pedagogies

Te Whāriki two decades on remains a document of great vision and promise. Its sociocultural complexities continue to pose a challenge to the early childhood care and education sector in Aotearoa (New Zealand). The title of the curriculum, *Te Whāriki*, which literally means a woven flax mat, refers to the expectation that every group of teachers will work with parents and children within their education setting, to 'weave' together the principles, strands and goals of the curriculum in ways which suit the particular values and priorities of that community and locality. Yet it must be acknowledged that wider social, historic, cultural, economic and political forces constrain these potential pedagogies (Ritchie & Skerrett, 2014). Recent evaluations have demonstrated that the predominantly Pākehā (of European ancestry) teacher workforce struggles to deliver on the curriculum's expectations

that they should build meaningful relationships with Māori families and involve them in the early childhood service (Education Review Office, 2012, 2013). Recent government policy has reduced the requirement for teachers to be qualified to the current minimum of 50% of teachers in any particular service. However, potential resides within *Te Whāriki* for educators to find inspiration in formulating pedagogies of place that resist these crippling forces, and provide hope for life-serving and planet serving ethics to be repositioned at the forefront of teachers' priorities. Highlighting both the Indigenist and post-humanist possibilities of *Te Whāriki*, Iris Duhn has written that:

For pedagogy, taking place seriously means that attention shifts from the individual child to the child's entanglement with forces and forms of all sorts, both human and more-than-human. In New Zealand, we have the privilege of working with a bicultural curriculum that provides powerful entry points to a rethinking of place and belonging. Vibrant matter is a familiar concept in Maori cosmology where mauri, an elemental life force, permeates and connects all things and beings. Guardianship of 'place' means caring for life in all its forms and interconnections. (Duhn, 2012, p. 104)

As one brief example, the Māori text within *Te Whāriki* contains the following invitation to *kaiako* (educators):

*Rangahautia ngā whakatauākī mō te whenua me ngā kōrero mō Papatūānuku me ana tamariki. Rangahautia ngā kupu e pā ana ki te whenua pēnei i te pito, i te tūrangawaewae, i te papakāinga, i te mauri, me te wairua kei roto i te whenua, te rāhui, me te ūkaipō. Rangahautia ngā kōrero pūrākau, ngā kōrero mō ngā taniwha, ngā waiata, me ngā haka mō ngā whenua o ngā mokopuna.*³ (New Zealand Ministry of Education, 1996, p. 36)

Educators are asked to research the traditional ancestral sayings pertaining to the land, and the stories of Papatūānuku, the Earth Mother and her children (in Māori cosmology all living creatures are descended from

³ Literal translation: *Research the ancestral sayings for the land and the stories for the Earth Mother, and her children. Research the words related to the whenua/the womb, the umbilical cord, the place of belonging, the homeland, the life force, and the spiritual interconnectedness within the land, the protective prohibitions, and the source of sustenance. Research the traditional stories, the stories relating to traditional spirit guardians, the songs and the dances for the land of the grandchildren [translation by author]*

Papatūānuku and Ranginui the Sky Father). They are to study the words pertaining to the land, such as the *'pito'*, the umbilical cord, which ties people to their ancestral lands, their *whenua* (placenta) having been buried on their *whenua* (land); their *tūrangawaewae* (place of belonging through ancestral connection); and *papakāinga* (home village; the *mauri* (life force) and *wairua* (spiritual interconnectedness) within the land; the *rāhui* (prohibitions protecting the lands, rivers or seas), and *andukāipō* (sources of sustenance). They are to research the *pūrākau*, ancient stories, stories of *tāniwhā* (spiritual guardians), the *waiata* (songs), and *haka* (dances) for the *whenua* (land) and the *mokopuna* (children/grandchildren). Whilst the beauty and wisdom of the Māori section of the early childhood curriculum is undeniable, the fact that it remains untranslated means that it is largely ignored by the vast majority of teachers since very few are literate in Māori.

The English text of the curriculum requires that “Decisions about the ways in which bicultural goals and practices are developed within each early childhood education setting should be made in consultation with the appropriate tangata whenua [Indigenous people]” (New Zealand Ministry of Education, 1996, p. 11). Under the strand of ‘Belonging’, educators are to ensure that “Liaison with local tangata whenua (Indigenous people) and a respect for papatuanuku [sic] should be promoted” (New Zealand Ministry of Education, 1996, p. 54). Goal 4 of the ‘Exploration’ strand requires that children develop “respect and a developing sense of responsibility for the well-being of both the living and the non-living environment” (New Zealand Ministry of Education, 1996, p. 90). These examples demonstrate that *Te Whāriki* can serve as a text for decolonising place-conscious pedagogies that bridge cultural and environmental aspirations (Greenwood, 2013)

The New Zealand government’s education auditing body, the ‘Education Review Office’ (ERO) highlights that the sector is failing in delivering on the expectations within *Te Whāriki* that Māori language and ways of being, knowing, doing and relating be incorporated into pedagogical practice for the benefit of all children attending the service: “ERO’s findings suggest that *Te Whāriki* is not well understood and implemented as a bicultural curriculum. Although the intent of *Te Whāriki* is recognised in some services there is not sufficient guidance to help services realise this intent” (Education Review Office, 2013, p. 13). Even if pre-service teacher education providers do their utmost to instil within their predominately *Pākehā* (of European descent) teacher education students a commitment to honouring the intent of *Te Whāriki* with regard to recognition of the implications of *Te Tiriti o Waitangi* (the 1840 treaty that allowed British settlement and promised protection

of Māori self-determination), it seems that this is often not sustained once graduates join the teaching workforce, as dominant, hegemonic, western settler discourses prevail (Calderon, 2014).

Currently there is very little funding provided by the Ministry of Education for ongoing professional learning support for teachers. These issues become even more salient in the face of international globalising forces of normativisation and standardisation (Comber, 2011). This narrow instrumentalist focus which is allegedly about increasing student achievement, is in fact narrowing the curriculum, contributing to a widening gap between rich and poor, impacting on community well-being, and ignoring the increasingly serious portents of the impending climate crisis (Furman & Gruenewald, 2004).

Pedagogies for the Anthropocene

In the remainder of this article I draw on previous research to explore pedagogical possibilities that are illustrative of an ethic of care, which is founded in recognition of and respect for the interdependence, and dependence of humans with/in our environment and with our more-than-human co-habitants. This ethic of care requires fostering empathy for ourselves, other humans and for the more-than-human others with whom our lives are entangled. It involves a commitment to social, cultural and ecological justice as a pedagogical goal (Furman & Gruenewald, 2004), whereby teachers foster programmes in which children actively engage in exercising an emotionally and spiritually engaged response-ability for caring for and within their places (Haraway, 2012). The examples of teachers' and children's work in the following sections are drawn from a research project in Aotearoa New Zealand which involved ten early childhood centres from around the country, and focussed on "caring for ourselves, others and the environment", drawing upon both Indigenous and Western perspectives (Ritchie, Duhn, Rau, & Craw, 2010)⁴.

⁴ Grateful acknowledgements to the Teaching and Learning Research Initiative for funding the project, to the teachers, children and families from the early childhood settings, and to co-directors Cheryl Rau, Iris Duhn and Janita Craw. Please see the full report for full details of research design and implementation (Ritchie, Duhn, Rau, & Craw, 2010).

Indigenous locatedness as a source of wellbeing and belonging

'Indigenous', according to Lewis Cardinal, comes from Latin, and means "born of the land" (2001, p. 180). He writes that Indigenous perspectives are created from the environment, from their lands, in relationship with those lands:

Indigenous peoples with their traditions and customs are shaped by the environment, by the land. They have a spiritual, emotional, and physical relationship to that land. It speaks to them; it gives them their responsibility for stewardship; and it sets out a relationship. (Cardinal, 2001, p. 180)

As our western life-styles become increasingly urbanised, our experiences filtered second-hand through screens, Indigenous relatedness can offer insights that reflect communities which are inclusive of specificities of place, of collective commons and of the knowledges that the more-than-human have to teach us. Jay Johnson (2012) links Indigenous efforts to maintain/reclaim self-determination, with the protection of Indigenous knowledges: "It is the struggle to protect place and all of the wisdom/learning/knowing associated with places that leads us not only to place-based struggle for community self-determination but also for the protection and continuation of community knowledge" (p. 833).

In a small rural community, teachers at Hawera Kindergarten skilfully made connections with past and present local Indigenous knowledges. They did this in several ways. The first was to position the seasonal activities undertaken in the kindergarten as reflective of the comparable traditional Indigenous practices. They introduced this framing their activities as follows: "The Maori Months of the Year. Some of the main tasks and work carried out by Maori in pre-European times. And some of the tasks and work we carry out now, presented within the framework of *ngaMarama Maori o te Tau* [the Māori Months of the Year]"⁵. As they began to report their work for the project, it was winter: "Pipiri, (June). All things of the earth are contracted owing to the cold, as also the people. For Māori this meant...

⁵ For further information on the *maramataka* Māori, the Māori calendar, see <http://www.teara.govt.nz/en/maramataka-the-lunar-calendar/page-1>

- Bird snaring and rat trapping
- All game was preserved
- Moki, Warehou [kinds of fish] and kakahi mussels were collected
- Breaking up new ground for planting of crops began
- Fungi was collected for medicinal purposes”

They then proceeded to describe the pedagogical activities that were undertaken at the centre at that time, which included using the Māori gardening calendar to guide their work in their raised vegetable gardens, “The children and Judith [teacher] got outdoors between showers and began weeding the raised garden beds. We talked about getting the gardens ready for planting, and about putting good things back into the soil so our plants will grow well”. They planted seeds in special seed-raising soil, made vegetable soup together, said *karakia* (grace) before eating, and recycled food scraps to compost.

The next report was written in July, Hōngongoi. They wrote that in traditional times, “People are now exceedingly cold, they kindle the fires to warm themselves. For Māori this meant...

- Birds were caught by hand
- Karengo sea weed was collected
- Brushwood and trees were cut to make new cultivations
- Eels and kakahi mussels were gathered inland
- Moki and other fish were caught at sea
- Birds and rats were preserved”

Whilst at the kindergarten, the teachers shifted their focus to rongoā, traditional Māori healing practices. They reported that “We are learning about sustainability through traditional Maori practices. We are including a focus on rongoa (traditional Maori medicine) and how important Papatuanuku (Mother Earth) is in the Maori world”. They used the picture book “Koro’s Medicine” (Drewery, 2004) and other books to identify medicinal plants in the kindergarten grounds and later expanded this to incorporate stories of local Māori women traditional healers (Tito, Pihama, Reinfeld, & Singer, 2007), some of whom were related to children attending the centre. The teachers’ wrote “In sharing these stories with the children, rongoa [healing] comes in many forms and one adapts to the environment they live in”. Their pedagogical work highlighted the environment as a source of spiritual wellbeing: “Some ways our environment nurtures our Wairua:

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 [children] 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.”

The teachers continued this juxtaposition of past/present Indigenous understandings during the entire year of data collection for the study. This example demonstrates pedagogies reflective of deep place knowing that is embodied, localised, and storied (Sommerville, 2010). Connections were made with ancestral Māori knowledges, making these visible and affirming their contemporary relevance. These connections resonated a recognition of place as integral to the teachers’ role in generating for children and families a sense of belonging, one of the strands of the *Te Whāriki* curriculum. In the following excerpt I have inserted some Māori concepts that relate to those listed by Flinders, as these seemed very salient:

Fundamental to the culture of belonging is a strong sense of reciprocal connection to the land where one lives, empathic relationship to animals, self-restraint, custodial conservation [kaitiakitanga], deliberateness, balance, expressiveness, generosity [manaakitanga], egalitarianism, mutuality [aroha ki te tangata], affinity for alternative modes of knowing, playfulness, inclusiveness, nonviolent conflict resolution [rangimarie], and openness to spirit [wairuatanga]. (Carol Lee Flinders, as cited in hooks, 2009, p. 217)

‘Knowing to care’: Fostering empathy

A disposition of empathy, that is self-empathy and empathy towards others, including more-than-human others, seems to me to be a crucial, fundamental pedagogical aspiration, sitting at the heart (and guts) of our work as educators. Lesley Jamison writes that:

Empathy comes from the Greek *empathēia* – *em* (into) and *pathos* (feeling)- a penetration, a kind of travel. It suggests you enter another person’s pain as you’d enter another country, through immigration and customs, border crossing by way of query: What grows where you are? What are the laws? What animals graze there? (Jamison, 2014, p. 6)

At Richard Hudson Kindergarten in the South Island city of Dunedin, a local Kaumātua (Elder) told stories to the children of the Māori cosmology legends particular to that region. According to Marie Battiste, Indigenous origin stories such as this “offer multiple layers of lessons and teachings that inspire and enable peoples to find guidance for their daily lives. They represent the living and patterned, habitual, and ceremonial relationship in performance with the land and relationship building with others...” (Battiste, 2004, p. 4). They foster empathy with the land and all who are dependent upon it. These stories had great resonance for children at Richard Hudson Kindergarten. One child, Lily, reflected on the separation of Ranginui (Sky Father) and Papatūānuku (Earth Mother) by their children, who sought light and space to move and grow. Her empathy for their situation is evident in the story she wrote to accompany her depiction of the separation: “Rangi is at the top. He is really, really close to the children. You can’t see the baby because he’s in the ground with his mother. They pushed them apart. The earth mother wasn’t close to Rangi anymore. So. So. So. So. Sad.” The teachers recorded that:

The story of Rakinui/Ranginui and Papatuanuku is a wonderful story for young children to be exposed to. It gives them a personification of sky and earth to embrace and understand. It invites them to see the earth and sky through their own eyes and through their understanding of family. A mother, a father and some children – just like themselves. A family. A family who have had to face challenges and change, and who have new challenges to face and problems to solve. Perhaps, just like them. Knowledge of Rakinui/Ranginui and Papatuanuku also gives our tamariki a seed of knowledge and concern about the vulnerability of our world. We must all do what we can to look after Mother Earth and Father Sky. By giving the young learners of our society ecological strategies in a realistic context, we are laying the foundations of a generation of earth users who know to care.

Towards the end of the project, the teachers reflected on the children’s ability “to connect the ancient story of Ranginui and Papatuanuku to their present day lives” and to “articulate great understandings of the interconnections between Rangi and Papa’s reality and their own reality, and [to] put their knowledge into practice.” This kindergarten tended gardens, planted fruit trees and raised chickens. They also focussed on what they termed ‘community empathy’, which they fostered through provision of a wide range of pedagogical experiences which included regular visits to a home for the elderly, and to a local park to clean up rubbish; fund-raising for the Soci-

ety for the Prevention of Cruelty to Animals, along with a visit from and to that service; fundraising for the local Children's Autism Support Group, in solidarity with a child and family who attended the kindergarten; and running an aerobics fitness session for parents and children once a week at the kindergarten. Across all the sites in the study, the children's commitment to caring for the environment resonated outwards from their learning in the early childhood setting, into their homes and communities.

Concluding thoughts – Towards enhancing critical social, cultural, and ecological transformational capacity

At this point, I would like to echo a question raised by colleagues in Australia: How might our pedagogies assist young people to make sense of the world they inhabit and the possibilities of transforming social, cultural and ecological injustices that they encounter? (McInerney, Smyth, & Down, 2011). I would also like to apply this provocation to the sector of early childhood care and education, one which has great potential as a site of transformation, since it potentially engages not just the individual children, but their families and communities. *Te Whāriki*, the New Zealand early childhood curriculum, takes a dispositional approach to children's learning. In its introduction, the document states that:

Each community to which a child belongs, whether it is a family home or an early childhood setting outside the home, provides opportunities for new learning to be fostered: for children to reflect on alternative ways of doing things; make connections across time and place; establish different kinds of relationship; and encounter different points of view. These experiences enrich children's lives and provide them with the knowledge, skills, and dispositions they need to tackle new challenges. (New Zealand Ministry of Education, 1996, p. 9)

Te Whāriki locates dispositions as 'habits of mind' and as 'learning outcomes'. Children are to participate in activities that "encourage robust dispositions to reason, investigate, and collaborate, [by being] immersed in communities where people discuss rules, are fair, explore questions about how things work, and help each other" (New Zealand Ministry of Education, 1996, p. 44). Whilst *Te Whāriki* contains a learning outcome that aims to foster empathy for other children, I would like to suggest that there could be a stronger emphasis placed on such dispositions of respect and empathy, including self-respect and self-empathy, and respect and empathy for the

lands upon which they reside, and the traditional stories and knowledges of those peoples and places. From this dis/positionality, children may learn to advocate on behalf of their local environment and those who are its traditional guardians.

Indigenous peoples' wellbeing is tied closely to the wellbeing of their lands. Settler colonisation has inflicted incalculable harm to both peoples and lands, resulting in layerings of intergenerational trauma that is invisible to those who have not learnt these histories, have not learnt to empathise with this pain (Pihama et al., 2014; Tracey, 2013). Generating dispositions of empathy is therefore an ethical stance that should be prioritised, yet this needs to be done with great sensitivity, and of course, with empathy. Western globalised corporatized capitalism continues to inflict misery, injustice and harm on people and the planet, promoting recklessly unsustainable practices in pursuit of profits for the elites. David Greenwood asks us how we might work to “*decolonize* unsustainable relationships with self, other, place, and planet” (Greenwood, 2014, p. 285). In this paper I have suggested that early childhood care and education teachers in Aotearoa (New Zealand) draw upon the wisdom contained within *Te Whāriki*, and its validation of Māori onto-epistemologies, to weave their own centre ‘*whāriki*’ (flax mat) of inclusiveness via relationships with local Māori, their stories, and ecological and healing knowledges. In adopting the dispositional approach to learning advocated in *Te Whāriki*, teachers can also model and foster deeply respectful empathic, ethical relationships with and between children, families, along with the more-than-human co-habitants of their places. This ethical responsibility becomes ever more salient as the need for radically changing our ways of living on our planet becomes increasingly evident.

References

- Alberts, P. (2011). Responsibility towards life in the early anthropocene. *ANGELAKI. Journal of the theoretical humanities*, 16(4), 5-17.
- Battiste, M. (2004). *Animating sites of postcolonial education: Indigenous knowledge and the humanities*. Paper presented at the Annual meeting of the Canadian Society for Studies in Education,, Winnipeg, MB, May.
- Berkes, F. (2009). Indigenous ways of knowing and the study of environmental change. *Journal of the Royal Society of New Zealand*, 39(4), 151-156.
- Bowers, C. (2008). Why a critical pedagogy of place is an oxymoron. *Environmental Education Research*, 14(3), 325-335.
- Calderon, D. (2014). Uncovering settler grammars in curriculum. *Educational Studies: A Journal of the American Educational Studies Association*, 50(4), 313-338.

- Cardinal, L. (2001). What is an indigenous perspective? *Canadian Journal of Native Education*, 25(2), 180-182.
- Comber, B. (2011). Making space for place-making pedagogies: Stretching normative mandated literacy curriculum. *Contemporary Issues in Early Childhood*, 12(4), 343-348.
- Drewery, M. (2004). *Koro's medicine*. Wellington: Huia.
- Duhn, I. (2006). The making of global citizens: Traces of cosmopolitanism in the New Zealand early childhood curriculum, Te Whāriki. *Contemporary Issues in Early Childhood*, 7(3), 191-202.
- Duhn, I. (2012). Places for pedagogies, pedagogies for places. *Contemporary Issues in Early Childhood*, 13(2), 99-107.
- Education Review Office. (2012). Partnership with whānau Māori in early childhood services. Wellington: Education Review Office. Retrieved from <http://www.ero.govt.nz/National-Reports/Partnership-with-Whanau-Maori-in-Early-Childhood-Services-Feb-2012>.
- Education Review Office. (2013). Working with Te Whāriki. Wellington: Education Review Office. Retrieved from <http://www.ero.govt.nz/National-Reports/Working-with-Te-Whariki-May-2013>.
- Farquhar, S. (2012). Narrative identity and early childhood education. *Educational Philosophy and Theory*, 44(3), 289-301.
- Furman, G. C., & Gruenewald, D. A. (2004). Expanding the landscape of social justice: critical ecological analysis. *Educational Administration Quarterly*, 40(1), 47-76.
- Gorenflo, L. J., Romaine, S., Mittermeier, R., A., & Walker-Painemilla, K. (2012). Co occurrence of linguistic and biological diversity in biodiversity hotspots and high biodiversity wilderness areas. *Proceedings of the National Academy of Sciences of the United States of America*, 109(21), 8032-8037. Retrieved from <http://www.pnas.org/content/8109/8021/8032>.
- Greenwood, D. A. (2008). A critical pedagogy of place: From gridlock to parallax. *Environmental Education Research*, 14(3), 336-348.
- Greenwood, D. A. (2013). A critical theory of place-conscious education. In R. B. Stevenson, M. Brody, J. Dillon, & A. E. J. Wals (Eds.), *Research on environmental education* (pp. 93-100). New York: AERA/Routledge.
- Greenwood, D. A. (2014). Culture, environment, and education in the anthropocene. In M. P. Mueller, D. J. Tippins, & A. J. Stewart (Eds.), *Assessing schools for generation R (Responsibility). A guide for legislation and school policy in science education* (pp. 279-292). Dordrecht: Springer.
- Haraway, D. (2012). Awash in urine: DES and Premarin® in multispecies response-ability. *WSQ: Women's Studies Quarterly*, 40((1 & 2)), 301-316.
- Hooks, B. (2009). *Belonging. A culture of place*. New York: Rutledge.
- Jamison, L. (2014). *The empathy exams*. Minneapolis, Minnesota: Graywolf Press.
- Johnson, J. T. (2012). Place-based learning and knowing: Critical pedagogies grounded in Indigeneity. *GeoJournal*, 77, 829-836.
- Kaiser, B. M., & Thiele, K. (2014). Diffraction: Onto-epistemology, quantum physics and the critical humanities. *Parrallax*, 20(3), 165-167.
- McInerney, P., Smyth, J., & Down, B. (2011). 'Coming to a place near you?' The po-

- litics and possibilities of a critical pedagogy of place-based education. *Asia-Pacific Journal of Teacher Education*, 39(1), 3-16.
- New Zealand Ministry of Education. (1996). Te Whāriki. He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum. Wellington: Learning Media. Retrieved from <http://www.education.govt.nz/early-childhood/teaching-and-learning/ece-curriculum/tewhariki/>.
- Penetito, W. (2009). Place-Based education: Catering for curriculum, culture and community. *New Zealand Annual Review of Education*, 18:2008, 5-29.
- Pihama, L., Reynolds, P., Smith, C., Reid, J., Smith, L. T., & Te Nana, R. (2014). Positioning historical trauma theory within Aotearoa New Zealand. *AlterNative: An International Journal of Indigenous Peoples*, 10(3), 248-262.
- Ritchie, J., Duhn, I., Rau, C., & Craw, J. (2010). 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. Final Report for the Teaching and Learning Research Initiative. Wellington: Teaching and Learning Research Initiative. Retrieved from <http://www.tlri.org.nz/tlri-research/research-completed/ece-sector/titiro-whakamuri-hoki-whakamua-we-are-future-present-and>.
- Ritchie, J., & Skerrett, M. (2014). *Early childhood education in Aotearoa New Zealand: History, pedagogy, and liberation*. New York: Palgrave MacMillan.
- Smith, L. T. (1999/2012). *Decolonizing methodologies. Research and indigenous peoples*. London and Dunedin: Zed Books Ltd and University of Otago Press.
- Sommerville, M. J. (2010). A place pedagogy for 'global contemporaneity'. *Educational Philosophy and Theory*, 42(3), 326-344.
- Stewart-Harawira, M. (2005). Cultural studies, indigenous knowledge and pedagogies of hope. *Policy Futures in Education*, 3(2), 153-163.
- Tito, J., Pihama, L., Reinfeld, M., & Singer, N. (Eds.). (2007). *Matarakau. Ngā kōrero mō ngā rongoā o Taranaki. Healing stories of Taranaki*. Taranaki: Karangaora.
- Tracey, N. (2013). Working at the interface of education and trauma in an Indigenous pre-school. The importance of "deep soul listening" In M. O'Loughlin (Ed.), *Psychodynamic perspectives on working with children, families and schools* (pp. 133-152). Plymouth: Jason Aronson, Rowman & Littlefield.
- Waitangi Tribunal. (n.d.). Rongoā (traditional Māori healing). Ko Aotearoa Tēnei – Factsheet 8. Wellington: Waitangi Tribunal. Retrieved from <http://www.justice.govt.nz/tribunals/waitangi-tribunal>.
- Walker, R. (2004). *Ka Whawhai Tonu Matou. Struggle without end* (revised ed.). Auckland: Penguin.
- Wehi, P. M. (2009). Indigenous ancestral sayings contribute to modern conservation partnerships: examples using *Phormium tenax*. *Ecological Applications*, 19(1), 267-275.
- Wehi, P. M., & Wehi, W. L. (2010). Traditional plant harvesting in contemporary fragmented and urban Landscapes. *Conservation Biology*, 24(2), 594-604.
- Wehi, P. M., Whaanga, H., & Roa, T. (2009). Missing in translation: Maori language and oral tradition in scientific analyses of traditional ecological knowledge (TEK). *Journal of the Royal Society of New Zealand*, 39(4), 201-204.
- Williams, D. (2001a). Crown policy affecting Maori knowledge systems and cultural

practices. Wellington: Waitangi Tribunal. Retrieved from <http://www.justice.govt.nz/tribunals/waitangi-tribunal>.

Williams, D. (2001b). Mātauranga Māori and taonga. The nature and extent of Treaty rights held by Iwi and Hapu in Indigenous flora and fauna, cultural heritage objects, valued traditional knowledge. Wellington: Waitangi Tribunal. Retrieved from www.waitangi-tribunal.govt.nz.

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