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## **Chapter 10: The role of emotions in education in Aotearoa**

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### **Introduction**

The emotional impact of the Christchurch 15 March 2019 terrorist attack was felt throughout Aotearoa, and reported around the world. When Prime Minister Jacinda Ardern visited a school that had lost two students, with another badly injured, a moving Tahu Pōtiki haka was performed by the grieving student body of “heartbroken children” (Wilkie, 2019). One of the students asked Ardern, “How are you feeling?” She replied, “I’m sad”, adding that, “it’s okay to grieve; it’s okay to ask for help”. Media shared clinical psychologist Karen Nimmo’s caution that traumatic emotions such as shock, sadness, fear, anxiety, and anger would “likely be running high in workplaces and schools” as a result of the attack (Tso, 2019). Emotional flashbacks might also occur, revisiting emotional trauma generated from the earthquakes that had shaken Christchurch in 2010 and 2011.

In the aftermath of the terrorist attack, senior Muslim leader Farid Ahmed publicly expressed his forgiveness of the terrorist, saying “I do not hate him, I love him” (Mead, 2019). This forgiveness resonates with the Māori concept of aroha, which is “like breathing in all the mamae (pain), hurt and worries of another and breathing out love, joy, and hope”.<sup>1</sup> Ardern thanked the Muslim community for their open-hearted response in rejecting anger and instead inviting the community to “grieve with them” (Wetherell, 2019, p. 8). Ardern’s response that “they are us”, has “spread aroha, trying to mitigate hate through love, empathy and compassion” (p. 7).

This chapter explores the role of emotion in education in Aotearoa. First, we provide an overview of current perspectives on emotions in education: emotional intelligence, emotion regulation, emotional labour theories, and Māori perspectives of emotion in education, including historical influences of colonisation. We present two worldviews of emotion in education, in a shift that eschews the “culturalism” through which Western knowledge and ideologies are treated as the universal norm, with Indigenous knowledges positioned only as differing from this norm (Andreotti & de Souza, 2008). Culturalism homogenises Western and Indigenous cultures (Battiste, 2004); in education, children, whānau (family), and teachers are treated as a single entity instead of culturally and linguistically located peoples. Secondly, we discuss research findings on students’, teachers’, and whānau emotions during and beyond the February 2011 Christchurch earthquake. We take the “He Awa Whiria—Braided River” approach (Macfarlane, Macfarlane, & Gillon, 2015, p. 52; see also Chapter 1 in this collection), drawing on and blending Māori and Western streams of knowledge to facilitate a more culturally appropriate understanding of the role of emotion in education in Aotearoa New Zealand.

### **The origin of emotion—Western perspectives**

The importance of emotions to life has relatively recently been reaffirmed by scholars and researchers from phenomenological, psychological, developmental, biological, philosophical, evolutionary, functional, and clinical theoretical perspectives (Strongman, 2003). Daniel

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<sup>1</sup> <http://etuwhanau.org.nz/our-values/aroha/>

Goleman's (1995) bestselling book, *Emotional Intelligence: Why it Matters More Than IQ*, popularised interest in emotions by sharing Salovey and Mayer's (2004) theory of emotional intelligence. This new conversation resonated internationally and crystallised the growing challenge to the centuries-old debate on the conflict between a person's thoughts and their feelings: a Western perspective that viewed intellect as superior to emotions (Barrett & Salovey, 2002).

Emotions are complex. They are integral to mental wellbeing, and play a key role in decision making, learning, creativity, and relationships (Brackett, Caruso, & Stern, 2013). While these roles were evident in oral and written traditions dating back thousands of years, Western philosophical traditions over the past two millennia regarded emotions as "less sophisticated, more primitive ways of seeing the world, especially when juxtaposed with loftier forms of reason" (Keltner, 2009, p. 50), demonstrating the longevity of influence of the early ethical philosophers. Aristotle (384–322 BC) was one of the first to propose that emotions are related to our thoughts, defining emotions as "all those feelings that so change [people] as to affect their judgements, and are also attended by pain or pleasure" (Oatley & Jenkins, 1996, p. 12).

Following Aristotle's death, two contrasting philosophical traditions gained traction. Epicurean philosophy suggested humans should pursue pleasure and happiness through simple living, not seeking things that would cause anxiety or anger. The Stoic philosophers held a more radical view: emotions result from desires, thus, in order to prevent personally and socially destructive emotions such as anger, anxiety, and greed, most desires should be "disciplined out of daily experience" (Keltner, Oatley, & Jenkins, 2014, p. 13). This discipline enabled Stoics to endure pain or hardship without complaint. Stoicism was acceptable to the Romans and persisted alongside the spread of Christianity following the Christian conversion of the Roman Emperor Constantine in the 4th century. The problematic desires that should be avoided became known as the "seven deadly sins" (Sorabji, 2000, cited in Oatley, Keltner & Jenkins, 2006, p. 393). St. Paul (1st century), St. Augustine (4th to 5th century), and the Puritans (16th and 17th centuries) advised against emotional indulgence if one wanted to live an ethical life. Following the Reformation (1517–1648) and the Thirty Years' War (1618–1648), in the early enlightenment phase of the Renaissance, it became safer to think and publish without threat of persecution. In the 16th and 17th centuries, Descartes identified six basic emotions (wonder, desire, joy, love, hatred, sadness) as "passions of the soul" (1649, in Keltner et al., 2014, p. 14). Although separate from and not totally controlled by our thoughts, it was argued that our thoughts might manage these passions.

Twenty-first century re-understandings of emotion owe much to the 19th century work of Charles Darwin (the evolutionary approach), William James (the psychological approach), and Sigmund Freud (the psychotherapeutic approach) (Keltner et al., 2014). Darwin's interest in facial expressions of emotion inspired Tomkins' (1962) theory that emotions are hardwired, genetically-transmitted, human physiological responses that are distinctly experienced and facially-expressed for nine basic emotions. Tomkins' students, Izard and Ekman, visited remote cultures to test this theory. Izard later focused on the physiology of emotion. Ekman and Friesen (1978) designed the anatomically based Emotion Facial Action Coding system which focuses on the contraction of specific facial muscles for specific emotions and is used to this day (Keltner et al., 2014). William James explored the experiential and physiological aspects of emotion, and Sigmund Freud highlighted the role that past emotions play in present-day illness (see Keltner et al., 2014, for a comprehensive overview). Although early 20th century researchers continued on occasion to regard emotions as "disruptive, regrettable and obsolete" (Oatley & Nundy, 1996, p. 267)—possibly influenced by the then focus on emotional disorders—later 20th century psychological research has brought emotions back into favour, positioned as central to individual mental wellbeing and the conduct of social life.

## The origins of emotion—Māori perspectives

In Aotearoa, the word Māori refers to an Indigenous New Zealander, but the application of this collectivist term by Pākehā (European New Zealanders) through colonisation has resulted in the loss of tribal histories and traditions, including mātauranga ā iwi. Mātauranga ā iwi refers to the important knowledges from different iwi, whānau, and hapū, the social organisation before the arrival of Pākehā (Rangihau, 1981). Colonisation resulted in the loss of te reo Māori (Māori language), tikanga (tradition), and te ao (Māori ways of being). Colonisation practices, theoretical perspectives, and the historical and political context of language assimilation have caused intergenerational effects on how emotions are expressed as a collective, and as iwi Māori. Being Māori, and expressing iwi Māori emotions in te reo Māori, is complex and will be expressed differently according to iwi, hapū, and whānau.

Te reo Māori is a taonga (treasure), guaranteed protection under Te Tiriti o Waitangi (Treaty of Waitangi). A Te Tiriti relationship acknowledges that te reo Māori words have more power and influence than a simple translation in te reo Pākehā (European) text. Assimilation practices have changed the terminology describing Māori mātauranga (knowledge). This is demonstrated in Māori cultural narratives containing information about whakapapa (lineage), historical events, landmarks, geographical features, symbols, relationships with flora and fauna, and the label in English of “myths and legends”. Pūrākau—the traditional forms of Māori narratives—cannot be relegated to the position of myths and legends, or a fiction or fable from the past, because they contain “philosophical thought, epistemological constructs, cultural codes and worldviews that are fundamental to our identity as Māori” (Lee, 2009, p. 1). Similarly, translating atua to mean Māori Gods denies their significance and minimises their role as “spiritual beings who ran from the major pantheon of deities such as Rangi and Papa, to the mountains and other monumental geographic entities, right through to lesser spirits and beings whose power is more localised and defined” (Potiki, 2018, p. 138). These examples demonstrate the complexity of Māori emotions and the importance of localised contexts, and iwi and hapū mātauranga Māori in the teaching and learning of the expression of emotion.

Māori emotions come from our atua, from the creation of the world and the beginning of people (humanity) and these emotions are represented in our stories. There are many different versions of the creation stories of te timatanga o te ao (the beginning of the world) (Reilly et al., 2018) which can be summarised into the following shorter version of the whakapapa of this story as retold by Tame Kuka (2009):

Ko te kore (the void, energy, nothingness, potential)

Ko te pō (from the void of the night)

Ko te whai ao (to the glimmer of dawn)

Ko te ao marama (to the bright light of day)

Ko te ao (the world)

Tīhei mauriora (there is life)

Within this whakapapa there are many other ways of describing the states and depth of layers within te kore, te pō, and te ao Marama. Each concept is expressed further with descriptions of these states in te reo Māori (Reilly et al., 2018) and contains mātauranga Māori that is taught within each whānau, iwi, and hapū. The creation story contains elements for teaching emotional wellbeing and aroha for humanity. There is much to learn from these stories in a contemporary

world and these cultural narratives are taonga tuku iho; that is, teachings handed down from our ancestors in order for future generations to learn.

### **Theories of emotion—Western perspectives**

There are more than 150 theories of emotion (Strongman, 2003). One of the more comprehensive psychological theories to have persisted is Lazarus's (1991) theory. Lazarus defines emotions as "cognitive–motivational–relational configurations" (p. 38) that change according to how we appraise or the effect of any change in our environment in relation to our goals or priorities, at any given moment. Lazarus addresses the inter-relationship between thought and emotion, expanding the idea of three entwined functions of mind, namely: motivation, cognition, and emotion (Snow, Corno, & Jackson, 1996). Lazarus's theory underlies emotional intelligence (Salovey & Mayer, 2004) and emotion regulation theories (Gross, 2013).

Emotions are biologically complex, comprising "neuromuscular/expressive and experiential aspects" (Izard, 1991, p. 42). The biological complexities in the entwining of the emotion, endocrine, autonomic (unconsciously regulates heart rate and breathing), and somatic (connects the central nervous system to the muscles and organs of the body) systems, are captured by Lazarus's (1991) theory. The *neuromuscular/expressive* component underlies the behavioural responses or action tendencies (private impulses) that are associated with different emotions, such as the fight, flight, or freeze response in fear. In anxiety, the dominant action tendency is avoidance, and in anger it is primarily to attack. When feeling pride, love or unity, there may be a tendency to express "expansiveness, by telling people" (p. 272). People may not necessarily follow their instinctive action tendency, but muscle tension towards that action may still be observable, such as clenching one's hands, instead of lashing out in anger. The *experiential* aspect refers to the individual's subjective experience of their physiology, such as an increased heart rate in fear, or heightened energy in excitement. Experiential aspects may be referred to as affect or feelings. In sadness and grief, the action tendency is to withdraw. Because this experience may merge with one's quality of life over a period of time, becoming more "diffuse" (p. 251), this might be considered a mood. Mood and emotion have the same biological and cognitive origins, differing mainly in the intensity and duration of the experience. Moods are maintained states that "... typically last for hours, days or weeks, sometimes as a low-intensity background. When it starts or stops may be unclear" (Oatley et al., 2006, p. 30).

From the cognitive perspective, Lazarus has identified the typical thoughts associated with 15 basic emotions. For example, anger tends to be experienced in response to a perceived demeaning offence to oneself or loved ones, or when our goals are perceived as unfairly thwarted (e.g., road rage); happiness tends to indicate that things are progressing well towards our goals, such as "I'm fine". Lazarus's theory helps us understand the moment by moment, ebb and flow of our emotions in daily life, and why different people may respond differently to the same event. This adaptational response also provides a diagnostic perspective, in that "emotions are a valuable source of information about persons and how they are getting along in their worlds" (Lazarus, 1991, p. 40). If we ask how someone is feeling, this is often a first step in identifying whether all is well or not. We saw the effectiveness of this when the student asked Ardern how she was feeling.

From the social perspective, emotions are communicative both to the self and to others, and are socially and culturally constructed (Averill & Nunley, 1992). In the next section, we explore these sociocultural understandings of emotion through the lenses of Māori emotion theories. Bridging from the Western perspective to this discussion, Strongman (2003, p. 3) sums up the various emotion perspectives as follows:

Emotion permeates life, it is there as a sub-text to everything we do and say. It is reflected in physiology, expression and behaviour; it interweaves with cognition; it fills the spaces between people, interpersonally and culturally. Above all emotion is centred internally in subjective feelings.

### **Theories of emotion—Māori perspectives**

In 2016, Te Kotahi Research Institute held a conference where invited speakers presented and debated examples of concepts of emotion in te reo Māori, such as aroha and riri (anger). Tom Roa (Te Kotahi Research Institute, 2016) presented two important ideas about emotion from his Waikato–Maniapoto viewpoint. He first expressed caution with the interpretation of emotions in te reo Māori as they are descriptions, not prescriptions, and should not be taken as a literal definition to be used as the only way that an emotion is experienced or expressed. His second point was that describing emotions was preferable to defining them, because expressed emotions impact both the individual and others. Roa explained the concept of hopo which describes feelings of being fearful, apprehensive, superstitious, or overawed in the event of a transgression of tapu (sacred tradition) or tikanga (protocol). Hopo may impact either the transgressor or someone else connected to the person, resulting in sickness. Hopo can be healed through a process whereby a skilled person with the iwi mātauranga vocalises karakia (incantations), and uses wairua (spirituality) to help the transgressor understand what has occurred, therefore lifting the tapu. This process heals both the sickness and the emotions. Roa emphasised that emotions have mauri or an essence that makes us human, and that the two main senses used in te ao Māori, are te kite me te rongō; that is, to see and to feel.

Matamua (Te Kotahi Research Institute, 2016) proposed that there are universal principles and elements in te ao Māori that Māori collectively understand about emotions, such as the concept of whakamā (shame or embarrassment), and exceptions to this rule. Matamua is Ngāi Tahu and explained that the emotions we experience will differ according to the connections we feel to the specific location, context, and environment in which we live, and the associated atua. For example, riri is a broad context-dependent state which can be expressed in a variety of ways. Riri can be expressed in short moments of anger or can be carried intergenerationally. From a relationship perspective, some historical events may cause feelings of discontent in the environment where someone was raised or through an iwi perspective. Matamua expressed the importance of te reo Māori in the expression of individual emotions when he presented at least 13 words in te reo Māori to describe the state of riri including pukuriri (livid with anger), whakatariri (outraged), and the kīwaha (idiom) puku te rae, used to express anger. We can see, therefore, that the emotional concepts of hopo, aroha, and riri come from Māori deities and whakapapa, whānau, hapū, iwi, and reo Māori contexts. This whakapapa confirms the importance of Māori language and Māori worldviews in the way that all emotions are valued and expressed, formed and experienced at all stages of growth and development and within relationships.

### **Emotions in education**

Education, as a formal system, brings thousands of individuals into socially interactive spaces on a daily basis. Despite the potentially emotional nature of classrooms, the study of emotions in education was “slow to emerge” (Schutz & Pekrun, 2007, p. 3). Student test anxiety was an early research topic, with more widely encompassing emotion research in education latterly confirming the significance of emotion in student cognition, motivation, learning engagement, and outcomes. An extensive literature review focusing on the content, sources, and functions of academic emotions of secondary school and university students found that “there was virtually no major human emotion not reported by participants, disgust being the notable exception” (Pekrun, Goetz, Titz, & Perry, 2002, p. 93). Students’ academic emotions may be

elicited prior to, during, and following learning activities, such as anticipatory joy or anxiety, concurrent enjoyment or boredom, and retrospective relief or disappointment. Students' social interactions with their teachers and peers bring a further range of interpersonal emotional triggers.

Research into students' social emotions has been conducted under the Social Emotional Learning (SEL) umbrella. SEL refers to various programmes introduced usually (but not exclusively) into schools, for the purpose of improving students' social and emotional wellbeing. Recent international meta-analyses (e.g., Taylor, Oberle, Durlak, & Weissberg, 2017) provide robust evidence that when young children successfully learn and practise how to understand and manage their emotions, the improvement in their social emotional wellbeing, academic outcomes, and life path trajectories can persist, even up to 18 years later. This success also depends on the preparatory provision of SEL for teachers delivering the programme. Within SEL, students with emotional intelligence—defined as the capacity to both reason about and use emotion to enhance thinking and problem solving (Salovey & Mayer, 1990)—experience less anxiety and depression, are less likely to abuse drugs, alcohol, and cigarettes, are less aggressive, and less likely to bully others. They also have greater leadership skills, are more attentive and less hyperactive in school, and perform better academically, compared to other students (Brackett et al., 2013). Emotional intelligence can be learnt through emotional literacy programmes that include developing students' emotion vocabularies.

Teachers' emotions in education were highlighted by Hargreaves' (1998) finding that teaching is an emotion laden profession with emotions at its "very heart" (p. 835). Teachers experience a wide range of emotions on a daily basis, from joy, excitement, and satisfaction, through to frustration, guilt, and anger (Sutton, 2004). These emotions usually occur in response to their cognitive appraisals (Lazarus, 1991) about their students' successes and failures, and their social interactions with students, parents, colleagues, and administrators (Sutton, 2004). Such a range of emotional experiences in the public eye, where teachers need to appear and act professionally, contributes to the emotional labour of teaching, often leading to emotional exhaustion and burnout.

Emotional labour refers to the expectation that employees in caring professions and public domains should express certain emotions during their social interactions as part of the job (Hochschild, 1983). Many teachers see this positively as "a labour of love" (Hargreaves, 1998, p. 840). Emotional labour requires planning and effort, using surface or deep acting strategies. Surface acting involves pretending or faking the appropriate emotion while hiding any inappropriate emotions. Deep acting involves a more genuine expression of the appropriate emotions by sincerely feeling these, and is less taxing of a person's emotional energy (Hargreaves, 1998). Emotional labour demands can be job focused (such as workload, time pressure, lack of professional opportunities, and lack of perceived support) or employee focused, referring to the individual's emotional responses to their job-focused demands (Brotheridge & Grandey, 2002). Teaching involves extensive emotional labour, with teachers continually drawing on "their regulatory resources" (Keller et al., 2014, p. 2). Surface acting tends to drain these resources more readily, leading to emotional exhaustion, which is highly prevalent in teaching (Taxer & Frenzel, 2015). In te ao Māori, burnout can be augmented by the inability to identify as Māori, that is to teach or live as Māori in the professional or cultural aspects of a dominant Western educational system (Naylor, 2006).

Specific emotions contributing to teachers' emotional exhaustion include frustration, anger, anxiety, guilt, shame and sadness and the experiential intensity of these (Keller, Chang, Becker, Goetz, & Frenzel, 2014). Frustration and anger usually occur when teachers feel they have little or no control over a situation, or as a result of conflict. Anxiety and guilt usually relate to

ongoing stress (Chang, 2009). Emotional exhaustion is “feeling emotionally overextended and having depleted one’s emotional resources” (Chang, 2009, p. 218); it is an early symptom of burnout, which is associated with chronic stress and is prevalent in teaching (Näring, Briët, & Brouwers, 2006). However, teachers with higher emotional intelligence experience less stress and burnout, more self-efficacy, more positive emotions, and greater job satisfaction (Brackett et al., 2013). Within emotional intelligence, higher emotion management (regulation) was significant in reducing burnout in British secondary school teachers (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010).

Emotion regulation refers to “the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1998, p. 271). Teachers continually regulate their emotions (Sutton, 2004). They may do this consciously or unconsciously before (preventative), during, or after (responsive) an emotional response. For example, teachers may generate enthusiasm *before* an unpleasant task by saying something motivating to themselves, or they might imagine “putting on my teacher’s hat” as they start their day. *During* an emotional experience that cannot be avoided, teachers might fake or mask (suppress) their emotion through their facial expression. Suppression involves resisting the action tendency of an emotion (Lazarus, 1991), such as holding down a smile when amused, or clenching a fist instead of throwing something in frustration. After an experience, teachers might reappraise the situation in order to feel more positive about it (Jiang, Vauras, Volet, & Wang, 2016). Reappraisal involves rethinking or re-evaluating a situation in order to change the emotional response (Lazarus, 1991). A teacher might try to think differently about a student’s late assignment, so that the initial anger or frustration dissipates naturally (Sutton, 2004). Reappraisal is a preferable regulation strategy for health and wellbeing because it tends to decrease stress-related physiology (sympathetic nervous system activation), such as increased heart rate in anger, to a more optimal physiology when no longer angry, and feeling calm (parasympathetic nervous system activation) (Gross, 2013). Emotion suppression has the opposite effect and, if habitually used, leads to chronic health problems (see Gross, 2013).

### **Emotion and the impact of disaster**

As outlined in our introduction to this chapter, experiencing a natural disaster in the school environment may anchor traumatic emotional triggers to the school environment. Highly significant and sudden events that elicit intense emotional responses have the potential to create “flashbulb memories” (Brown & Kulik, 1977), whereby that moment is stored in memory as a highly detailed and highly vivid “snapshot” which we might later recall in absolute detail and fully experience emotionally, as though we are back in that moment. This can be reactivated years later in new trauma, as expressed by Karen Nimmo at the start of this chapter.

The magnitude 6.3 earthquake that struck Christchurch in February 2011 was not the first earthquake-related trauma for Christchurch children, being part of the aftershock sequence of a 7.1 magnitude earthquake that had struck the city at 4.35 am on 4 September the previous year, violently thrusting people from their beds shortly before dawn. Five months later, the more devastating and fatal February earthquake struck in the middle of a school day, reactivating previous trauma and exacerbating this for children who were placed in extreme danger, or who witnessed death. Some children were reluctant to re-enter school classrooms 3 weeks later because they had been so frightened at the time (O’Toole, 2017). Both earthquakes contributed to an unusually prolonged and intensive aftershock sequence, leading to hypervigilance and everyone feeling “on edge” as one teacher put it.

This was the ‘new normal’ for several years, with more than 11,000 earthquake aftershocks recorded in the first 2 years up to September 2012 (Wilson, 2013). A significant education-related impact was the temporary or permanent relocation and closure of many schools. This

created further upheaval for whānau and students, who required additional pastoral care from teachers (Mutch, 2015). These impacts were reflected in 2012 survey data from the Youth 2000 National Project (Fleming et al., 2013). Christchurch secondary school students who had experienced the earthquakes reported higher levels of stress, emotional health difficulties, lower emotional wellbeing, fewer positive experiences in some aspects of schooling, and less involvement in some positive daily activities, compared to secondary school students from similar backgrounds nationally across Aotearoa.

Liberty, Tarren-Sweeney, Macfarlane, Basu, and Reid (2016) found that primary school children's behaviour problems as reported by teachers in schools serving heavily damaged neighbourhoods had more than doubled after the earthquakes, with associated increased rates of post-traumatic stress disorder. One significant finding counter to this was that Māori children did *not* show a significant increase in post-traumatic stress disorder, consistent with other research findings that Māori adults were less affected by anxiety and stress (Hogg, Kingham, Wilson, Griffin, & Ardagh, 2014).

### **Teachers as first responders**

Veronica O'Toole's research into Christchurch teachers' emotional coping as first responders when the February 2011 earthquake struck showed that their first priority was their students' physical and emotional safety (O'Toole & Friesen, 2016). Their emotion perception and emotion regulation factors (extracted from an emotional intelligence self-report) (Schutte, Malouff, & Bhullar, 2009) contributed to their recalled management of their immediate fear response, in order to respond to the disaster. In line with the emotional labour perspective, several teachers explained that, in that moment, being in their professional role in front of the children helped them cope with the first response demands, because they simply *had* to regulate their emotions. One teacher said "I think the kids did me a favour really, because if they weren't there, I could have gone to pieces" (O'Toole & Friesen, 2016, p. 62).

The majority of the teachers recalled cognitive reappraisal as their main emotion regulation strategy to "put aside" their shock and fear, so as to appear calm, trying to stay standing so that the children could see them. Cognitive strategies included self-talk, "pull yourself together", "you're a professional practitioner", "get on with it". Behavioural strategies included taking deep breaths, creating a calm face, "faking it till you make it", "squash the emotion", "stamp down the emotion". Taking a deep breath is an intuitive way to activate the parasympathetic nervous system towards a genuine calmness, whereas the latter methods suggest emotional suppression. While emotional suppression works well for the emergency response, for health reasons, a subsequent debrief and cognitive reappraisal (as occurs for professional first responders) is required (Cicognani, Pietrantonio, Palestini, & Prati, 2009; Gross, 2013). Some teachers recalled responding automatically, or "running on adrenaline". Almost half the teachers were in imminent danger, with several experiencing a realistic, genuine, and immediate fear of death, both their own and their children's; such intense peritraumatic fear presents a risk of subsequent post-traumatic stress (Grimm, Hulse, & Schmidt, 2012).

Eighteen months later, Christchurch teachers' levels of emotional exhaustion and burnout were associated with personal, school, and citywide disaster impacts, along with an increased workload, while also having to balance home and school demands, especially school relocation which was the most significant predictor of burnout (O'Toole & Friesen, 2016). This was consistent with international (Qi & Wu, 2014) and local findings (Kuntz, Näswall, & Bockett, 2013). There was also a modest negative association with emotion perception: less emotion perception as a component of teachers' emotional intelligence correlated with higher levels of burnout (O'Toole & Friesen, 2016).

At a qualitative level, two teachers whose burnout scores (Milfont, Denny, Ameratunga, Robinson, & Merry, 2008) were amongst the highest, and who also reported lower emotion perception and emotion regulation, used the term “stoic”, to describe how they were feeling 18 months on. One teacher said, “You’ve got to keep reminding yourself that there’s always people worse off, being *stoic* about it.” The other teacher said:

We used to joke about it you know before it became super popular and it’s a bit overused now, ‘keep calm and carry on’ sort of thing. I think it was that kind of *stoic* feeling like, ‘this isn’t great, but I just have to do it’.

The teachers experiencing the most intense imminent danger at the time also reported their greater appreciation for life, indicating some post-traumatic growth. However, their burnout data indicated more tiredness and exhaustion. Qualitative descriptions included: “my [emotional] reservoir isn’t filling up as fast as I’ve used draining it”; “I’ve lost my mojo”; “presenting an image”; “normalising for the children”. Positive emotions such as their continued love of teaching, excitement, and anticipation of improvement were also expressed.

One teacher who reported the lowest level of burnout, alongside higher levels of emotion perception and emotion regulation, said she was “recharging”, having requested and obtained time out from school and spending time in the bush. This teacher explained how she maintained her positive energy for teaching 18 months on:

I’d call it ‘good old kiwi’ actually, well, ‘just get on with it’. ‘Kia kaha’ actually was very powerful too, like ‘We can do it!’ I love that sense of Papatūānuku you know, the land and us. At first, there was a lot of blame for the ground, like I was feeling for the first time in my life, quite vulnerable with the ground. I was always quite a land girl, and just realising that there was this fragility between me and the ground, Papatūānuku. And then I just had to let go of that and—nature will do what it has to do, so that was also a really bizarre thing for my love of the land.

With ‘kia kaha’ I could feel a sense of my grandfathers who had been through the war. I could feel a sense of other people that I admire in the world that have been courageous and coped through things, so that is why my point is being in the now, and I’ll try and be as better a person I can be, in the best way that benefits me, and other people and the environment.

Thus, this teacher of European descent referred to “kia kaha” (be strong) as reminding her of her grandfathers’ historic trauma, and her connectedness with the land. This was an improvement from feeling “in the void” (O’Toole, 2018) in the early earthquake aftermath. Her narrative resonates with the Māori creation story, moving from ko te kore (the void) to recharging her energy to rejoin ko te ao (the world) and celebrating her enjoyment of life “my life is good”—tīhei mauriora (there is life). This early childhood teacher’s narrative was expressed naturally without any overt reference to *Te Whāriki* (Ministry of Education, 2017), the bicultural early childhood curriculum document, perhaps reflecting her internalisation of its Māori values. Her narrative also gave insight into her burnout score, which was the lowest in the group, compared to the higher burnout scores reported by the two teachers who were feeling stoic.

### **Historical trauma and emotion in education**

Maria Yellow Horse Brave Heart (2003) defines historical trauma as the “cumulative emotional and psychological wounding, over the lifespan and across generations, emanating from massive group trauma experiences” (p. 7). Iwi Māori have experienced similar wounding and “cultural and spiritual genocide” (Wirihana & Smith, 2014, p. 198) through the colonisation practices outlined earlier in this chapter. While the healing of the loss of stories, tikanga, language, and

cultural ways of being is ongoing in Aotearoa, iwi Māori continue to struggle to maintain their cultural and linguistic identities (Martin, 2016). If emotions are embedded in oral traditions of language and culture, which are subsequently lost, how can those affected support and express their emotional wellbeing? In Aotearoa, trauma is evident not only in loss and stress due to colonisation, but also the loss and stress of collective trauma with a large group experiencing the same dilemmas, caused by disaster such as that experienced by the people of Christchurch.

The long-term effects of disaster trauma experienced in the Christchurch earthquakes have meant changes in the whole community and environment. Emergent bilinguals still learning te reo Māori further lost the ability to understand and express their language identities due to losing their homes and whānau, and shifting away, leaving the city or moving overseas to escape the disaster (Martin, 2016). This affected their psychosocial wellbeing as they experienced present day loss of community connectedness on top of historic losses. This has compounded the earthquake impact for those Māori still in the revitalisation mode of learning Māori language. Ruhia is an emergent bilingual and her narrative below expresses these feelings, demonstrating collective and historical trauma due to language loss as she realises that she has lost the support of her reo Māori community. Ruhia laments:

But who am I? What is that to me now? I don't feel very connected to my roots and culture, that was such a journey for me my seven years at home in New Zealand. I actually find it really hard now. There's lots of tikanga that I know the do's and don'ts about for different things but I don't really know the legends and I can't tell them the reason why it is this when it comes to Te Ao Māori and that makes me sad, that I'm not really knowledgeable of my own culture. Becoming connected in New Zealand, I was learning more and feeling more me and now I'm feeling a little bit disconnected. (Martin, 2016, p. 135)

Ruhia's narrative typifies the experience of the emergent bilinguals in Rachel Martin's study. In contrast, skilled bilinguals in her study experienced the disaster trauma differently. They knew the importance of sharing whakapapa stories about Ranginui and Papatūānuku and their child Ruāumoko (deity of earthquakes and volcanoes) to demonstrate the connection between land, atua, and language. Bilingual participants told the story of Ruāumoko, created songs and poems, and wrote about Ruāumoko using te reo Māori and te ao Māori as a way of healing disaster trauma. This was a way to share emotions, wairua (spirituality), and whakapapa connections from the environment to the layering of people and connections to atua. There was a shift in awareness from the feelings of terror experienced during the earthquakes to understanding the physical environment created by Ruāumoko and how iwi Māori are connected. This Indigenous method of healing, sharing of emotions, and viewing the world is using the spiritual as well as physical aspects of disaster trauma and demonstrates emotional strength in identity and language. This holistic approach to wellness is advocated by Durie in his Whare Tapa Whā model of health and wellbeing (1982, in Durie, 1997). Taha wairua—the spiritual domain and self-management—were critical for emotional wellbeing during trauma, alongside taha hinengaro (personal empowerment, self-esteem, and resilience), and taha tinana (personal and collective safety) which was lost during disaster trauma and required whole community healing and taha whānau (development and implementation of healthy relationships).

Sonja Macfarlane (in McCrone, 2014) suggests that Māori children in Liberty et al.'s (2016) study cited above, coped better psychologically with disaster trauma because of the close support of whānau, a spiritual approach, and the narratives associated with Ruāumoko, shared from the whakapapa perspective. Macfarlane said that earthquakes were explained to children

in a human context, not as a science lesson in plate tectonics (McCrone, 2014). The use of Māori values and the support of the community collective, language, and identity response during the disaster period supported their trauma healing. Martin (2016) adds *reo ā iwi* and *taonga tuku iho* to Durie's health and wellness model because, without the inclusion of *te reo Māori* in all of these aspects, wellness would not be achievable. Additionally, Glover et al. (2017) recommend inclusion of *te ao tūroa*, the long-standing environment, to situate Durie's model "within the wider sociohistorical political environmental context. The four sides of the house and its environment are interdependent" (p. 2). This acknowledges the *ao Māori* connection to the land environment that needs protection now, as the world continues to have environmental catastrophes. *Iwi Māori* are returning to using traditional *mātauranga* to heal long-term practices that have changed or taken away *mātauranga* connected to the land and wellbeing.

### **Confluence in the riverbed**

In this chapter, we have followed two streams of knowledge, inspired by *He Awa Whiria*, and we have arrived at the riverbed together. We have reviewed historical perspectives of emotion from both Western and Māori streams of knowledge. We have shared findings that can mutually inform and contribute to this interdependent stream, where emotion regulation methods reported in Western research as beneficial for daily and post-disaster emotion management can only benefit from the richness of *mātauranga Māori* narrative methodologies, such methodologies demonstrating potential in helping Māori children, *whānau*, and teachers understand and manage their emotions. The narratives shared in this chapter help us understand our links to *whakapapa*, *atua*, cultural narratives, and *te ao Māori* as healing practices, as a resource for emotion regulation for all in Aotearoa. In an Aotearoa and *Te Tiriti* context, teachers, parents and *whānau*, *hapū*, and *iwi* are part of a whole community as demonstrated in the Christchurch disasters. While emotions are present and experienced by all in different ways, there are aspects that improve wellbeing and sharing and caring experienced in *te ao Māori* through *aroha*, and *manaakitanga*, the arts, and storytelling. *Ka'ai* and Higgins (2004) refer to *ngā rā o mua*, meaning the days are in front of us to move forward, and the future is *ngā rā kei muri*, meaning the days after. This creates a Māori worldview where the past guides the future and the past is carried with us. Based on what we have learnt on our journey down these two streams, the inflow of *mātauranga Māori* narrative emotional healing practices blending with the inflow from the Western stream to this braided river will augment and enhance the *wairua* and energy resources, for all involved in education in Aotearoa. Accordingly, we conclude with a well-known *whakataukī* in *te ao Māori*: *ka mua, ka muri* (walk backwards into the future). In the education context of Aotearoa, we can return to the original; a vision of the importance of history, and learning from those who have gone before us, as future pathways are mapped.

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