

Article

# To Be at One with the Land: Māori Spirituality Predicts Greater Environmental Regard

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**Abstract:** Māori, New Zealand's indigenous population, have a unique connection to the environment (Harris and Tipene 2006). In Māori tradition, *Papatūānuku* is the land—the earth mother who gives birth to all things, including Māori (Dell 2017). Māori also self-define as *tāngata whenua* (people of the land), a status formally recognised in New Zealand legislation. Māori have fought to regain *tino rangatiratanga* (authority and self-determination; see Gillespie 1998) over lands lost via colonisation. Accordingly, Cowie et al. (2016) found that socio-political consciousness—a dimension of Māori identity—correlated positively with Schwartz's (1992) value of protecting the environment and preserving nature. Yet, Māori perceptions of land also derive from spiritual associations. Our work investigated the spiritual component of Māori environmental regard by delineating between protecting the environment (i.e., a value with socio-political implications) and desiring unity with nature (i.e., a value with spiritual overtones) amongst a large national sample of Māori (N = 6812). As hypothesized, socio-political consciousness correlated positively with valuing environmental protection, whilst spirituality correlated positively with valuing unity with nature. These results demonstrate that Māori connection with the land is simultaneously rooted in spirituality and socio-political concerns.

**Keywords:** Māori Identity; spirituality; socio-political consciousness; environmentalism; values

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*Te toto o te tangata he kai; te oranga o te tangata, he whenua*

*The blood of man is food, (hence) the life of man is the land*

(Māori Proverb, as cited in [Firth 1926](#))

As the indigenous population of New Zealand, Māori have a deep connection with the environment ([Bergin and Smith 2004](#); [Harris and Tipene 2006](#)). Indeed, past research reveals that Māori express the highest levels of environmental regard across ethnic groups ([Cowie et al. 2016](#), p. 8). Furthermore, [Cowie et al. \(2016\)](#) found that socio-political consciousness, an aspect of Māori identity encompassing an awareness of, and support for, Māori rights, correlated positively with environmental regard. This may be unsurprising to some, as features of the natural environment were thought to represent the centre and source of the sustenance upon which Māori relied ([Keenan 2012](#)), naturally facilitating a desire to protect the land.

Yet, the significance of the land goes beyond survival concerns, extending into cultural, social and spiritual domains which are rooted in, and centred around, the land ([Keenan 2012](#)) and natural resources, including the marine environment ([Jackson et al. 2017](#)). Indeed, as [Durie \(2012\)](#) notes, a substantial religious philosophy underlies Māori land customs, predicated on the belief that Māori have a shared ancestry with all aspects of the environment. As such, Māori see themselves as *part of* the environment, not masters of it ([Durie 2012](#), p. 7). Replicating and extending [Cowie et al.'s](#)

(2016, p. 9) work, the current study hypothesises that both Māori spirituality and socio-political consciousness should predict higher environmental regard. We further aim to show the connection between spirituality and environmental attitudes by highlighting the relationship between Māori spirituality and Schwartz's (1992) value of environmental unity. To these ends, we begin with a review of Māori identity, focusing on how Māori spirituality facilitates environmental values. Then, we examine how socio-political consciousness, grounded in spiritual beliefs and Māori cosmology, correlates with valuing environmental protection. We conclude by summarising the aims and hypotheses of the current study.

## 1. Māori Identity and Environmental Regard

Research examining environmental regard reveals that Māori value the environment more than other ethnic groups in New Zealand (Cowie et al. 2016, p. 9), perhaps due to the intrinsic link between Māori identity and the land. Yet, assessing something as diverse as Māori identity can be challenging for quantitative researchers. Indeed, Hokowhitu (2012, p. 355) aptly noted that colonisation has fragmented Māori identity, resulting in diverse forms of self-representation that range from iwi to Māori nationalism (and even to global indigenous movements). Accordingly, researchers have identified distinct typologies of Māori identity, distinguishing between those who are deemed traditionally/culturally Māori (i.e., those most familiar with their Māori heritage and culture), those who are 'bicultural', and those who are 'marginalised' and 'disconnected' from their heritage (Durie 1994; Williams 2000). In short, there is considerable diversity in what it means to 'be' Māori.

To capture these various components of Māori identity, Houkamau and Sibley (2010) developed the Multidimensional Model of Māori Identity (MMM-ICE)—an *emic* measure of Māori identity that assesses attitudes and feelings of what it means to 'be' Māori. Houkamau and Sibley initially uncovered six dimensions of Māori identity, with subsequent revisions to the MMM-ICE revealing additional dimensions (see Houkamau and Sibley 2015). Accordingly, the latest model of the MMM-ICE consists of the following eight dimensions: (a) group membership evaluation (e.g., the value placed on being Māori), (b) interdependent self-concept (e.g., the importance of relationships with other Māori), (c) spirituality (e.g., engagement with Māori spiritual beliefs), (d) cultural efficacy (e.g., the belief that one has the resources to engage with Māori), (e) socio-political consciousness (e.g., the importance of Māori historical rights), (f) authenticity beliefs (e.g., the perception of being an 'authentic' Māori), (g) perceived appearance (e.g., "looking" Māori), and (h) whānau efficacy (e.g., the belief that one's whānau can solve challenges).

Of the eight dimensions of Māori identity recognised by the MMM-ICE, socio-political consciousness and spirituality appear to be the most central to attitudes toward the environment. Indeed, Māori spirituality is arguably the root of Māori environmental regard, as this aspect of identity reflects an understanding of the cosmological order to the universe that underlies Māori ancestral customs, describes how Māori perceive their place in the environment, and explicates their relationship with the land (Harmsworth and Awatere 2013, p. 274). Māori beliefs regarding the origin of the universe are integral to this framework, as they recognise the union of Rangī (i.e., the sky father) and Papatūānuku (i.e., the earth mother) as the moment of creation—a moment that gave birth to the *atua* (gods), personifications of all natural phenomena who held authority over all aspects of existence (Mead 2003).

Notably, Māori spirituality is not purely an animistic framework. Rather, Māori spirituality holds that all things, including Māori themselves, originate from Rangī and Papatūānuku (Roberts et al. 1995, p. 8). Thus, the *atua* are kin to Māori, creating a network of relationships that connects all things in existence and which can be traced back through *whakapapa* (genealogy). This holistic framework serves as the organising principle of the universe and is a central worldview for Māori; to 'know' something is to know its *whakapapa*, and to make sense of the world is to understand its origins and history (Kawharu 2000, p. 352; Roberts 2012, pp. 35–36; Whitt et al. 2001, p. 705). Accordingly, knowledge must be considered holistically. Accordingly, to know something is to (a) acknowledge one's relationships with

the subject matter, (b) recognise one's obligations to the subject and what could be expected in return, and (c) understand how the subject relates to all other phenomena. In this sense, Māori are members (rather than masters) of the environment (Durie 2012, p. 7), as acknowledged in their status as *tangata whenua* (people of the land). Similarly, because *whakapapa* considers all things to be part of an unbroken familial lineage, the natural and the supernatural are rendered indistinguishable (Roberts et al. 1995, p. 8), as are the world and the self.

Another example of this holistic framework is the concept of vitalism, which is integral to Māori spirituality. Emerging from the union of *Rangi* and *Papatūānuku*, *mauri* (life energy) is said to infuse everything from living organisms to inanimate objects/structures (Dell 2017, p. 103). As an expression of the power of the *atua* (gods), *mauri* straddles the spiritual and physical, binding the *wairua* (spirit) with the physical body until death (Kawharu 2000, p. 357). Indeed, Henare (2001, p. 207) writes that *mauri*, as an interactive force, is vital to the subtle interplay between humanity and the forces of Mother Earth (i.e., the source of life). Paralleling this binding role between man and spirit, Māori have a reciprocal relationship with the land (Mother Earth). As such, *whenua* (land) also means 'placenta', signifying a vital relationship. Disruptions to these vital connections, or manipulations of any part of the environment, would have corresponding impacts on the *mauri* and the entire *mauri* system (Dell 2017, p. 116; Harmsworth and Awatere 2013, p. 276). Hence, a theme of responsibility and reciprocity pervades Māori perspectives on the environment.

As noted by Magallanes (2015, p. 273), *mauri* and *whakapapa* are the building blocks of the worldview of Māori and of Māori identity. This holistic worldview emphasises the kinship that Māori share with all facets of nature due to their shared ancestry that stretches back to creation itself. Thus, Māori spirituality is inextricably linked to the environment. Accordingly, we predicted that Māori spirituality should be the strongest predictor of Schwartz's (1992) value of uniting with nature.

Although Māori spiritual beliefs are intimately connected with the environment, socio-political beliefs also appear to be closely aligned with environmental regard. Indeed, researchers (Mills 2009; Keenan 2012) suggest that Māori situate environmental concerns within a wider political framework, and that attitudes toward the environment intertwine with socio-political goals for Māori rights and sovereignty. Consistent with this perspective, Cowie et al. (2016, p. 5) found that Māori socio-political consciousness correlated positively with environmental regard. Thus, we turn to a discussion on Māori socio-political consciousness in order to examine how it relates to Māori environmental attitudes.

As another core component of Māori identity, socio-political consciousness focuses on Māori rights, as well as historical factors that influence contemporary intergroup relations between Māori and other ethnicities, most notably Te Tiriti o Waitangi (The Treaty of Waitangi; Houkamau and Sibley 2015, p. 281). Te Tiriti o Waitangi is a treaty, signed in 1840, between the British Crown and the indigenous Māori, to establish the British settlement of Aotearoa and to recognise Māori sovereignty. Accordingly, Te Tiriti o Waitangi forms the foundation for contemporary Māori rights (Magallanes 2015, p. 284), particularly with regard to land. As noted by Challenger (1985), the land is a vital source of life and Māori spiritual beliefs place Mother Earth as a nurturing source of human existence. Indeed, Walker (2004) notes that the erosion of an economic land base for Māori led to cultural, spiritual and economic decrements. Hence, as Harvey (2003, p. 219) notes, land rights (and other aspects of indigenous sovereignty) do not separate subsistence from spirituality. For Māori, there is a clear connection between healthy ecosystems and the people's cultural, as well as spiritual, welfare (Harmsworth and Awatere 2013, p. 274). Thus, land provides access to resources and economic security, which allows Māori to control the course of their own lives (Dell 2017, p. 118).

As noted above, land helps Māori to re-establish a sense of control and self-autonomy. Notably, *tino rangatiratanga* (self-determination/authority) is guaranteed under the second article of Te Tiriti o Waitangi (Dell 2017, p. 120). Whilst interpretation of this term has changed, it has become a focal point of the movement to empower Māori to reclaim land rights (Dell 2017, p. 121). Thus, through the pursuit of *tino rangatiratanga*, Māori express a desire to see Te Tiriti upheld in order to gain the influence needed to chart their own future.

Given the importance of land, a vital aspect of *tino rangatiratanga* is the responsibility of Māori for the environment. As noted by Cowie et al. (2016), Māori, connected by *whakapapa* to *Papatūānuku*, identify as *tangata whenua* (people of the land), a role recognised within New Zealand legislation. In this role, Māori are protected and sustained by the land, but are expected to reciprocate in turn—an obligation best exemplified by *kaitiakitanga* (guardianship/resource management; Kawharu 2000, p. 351). Expressing both environmental guardianship and resource management, *kaitiakitanga* is both philosophical and political. As a philosophy, it is strongly rooted in Māori cosmology, with the mortality of *mauri* sitting at the crux of environmental regard. Indeed, without proper care, *mauri* can be depleted and leave behind desolation (Head, Lyndsay Fay. *Land, authority and the forgetting of being in early colonial Maori history*, p. 138).

*Kaitiakitanga* also encompasses relationships that transcend time and space, managing the relationships between the land and the people for both the past, present and future (Kawharu 2000, p. 352). In this sense, *kaitiakitanga* taps into the historical aspects of Māori socio-political consciousness, with reference to the inter-generational obligations of Māori. Indeed, as noted by Durie (2012, p. 8), the land does not simply belong to Māori who are living, but also to the dead (and to those who have yet to be born). On the marae, the living and the dead are addressed together, with the land imbued with the ancestors themselves, holding knowledge and the history of the group's relationship with their land (Durie 2012, p. 8). Because they are related to the land through *whakapapa*, Māori become part of the land in death. By invoking the ancestral names of places, Māori reaffirm their authority and their identity as caretakers of the land, protecting the land, and, by extension, the ancestral knowledge of the ground and the source of life for Māori (Durie 2012, p. 8). The land thus provides the stability of an unbroken connection between ancestors and future generations (Dell 2017, p. 115).

As noted by Kawharu (2000, p. 353), *kaitiakitanga* helps to promote the unique status of Māori as *tangata whenua*. As such, *kaitiakitanga* is not simply a responsibility of *tangata whenua*, but an affirmation of this identity, denoting the reciprocal relationship between land and people, as well as the inseparability of the two (Dell 2017, p. 114). It is through *kaitiakitanga* that *tino rangatiratanga* is expressed. Indeed, it is telling that the Waitangi Tribunal considered *kaitiakitanga* an inherent part of the exercise of *rangatiratanga* (Mutu 1994, p. 2). As Magallanes (2015, p. 273) eloquently notes, the protection of the environment, the exercise of *kaitiakitanga*, and the preservation of *mātauranga* (knowledge) regarding the environment are inseparable from the protection of Māori culture itself. Thus, we predicted that Māori socio-political consciousness—a facet of identity that emphasises the importance of Māori rights and *tino rangatiratanga*—would be the strongest predictor of protecting the environment.

To summarise, the current study examines the role of Māori spirituality and socio-political consciousness in the unique relationship between Māori and the environment. Whilst past research found that socio-political consciousness correlated positively with environmental concern, spirituality did not (Cowie et al. 2016, p. 10). However, this may be due to the intertwined nature of the two concepts, as Māori cultural practices and rights over the land are argued to be rooted in spiritual beliefs (Durie 2012, p. 7). Thus, we sought to differentiate between environmental outcomes using Schwartz's (1992) value model. Accordingly, we hypothesised that Māori spirituality—a core component of Māori identity that positions Māori as kin to the environment—would be the strongest predictor of placing value on uniting with nature (see Schwartz 1992). Conversely, we expected that Māori socio-political consciousness (i.e., the drive for recognition of Māori rights) would be the strongest correlate of placing value on protecting the environment. In short, we predicted that the unique connection between Māori and the land would be simultaneously rooted in spirituality and socio-political concerns.

## 2. Method

### 2.1. Sampling Procedure

Data for the current study came from the Māori Identity and Financial Attitudes Study (MIFAS)—a nationwide postal survey study conducted in 2017 (Houkamau et al.). Invitations to complete the

survey were sent to a random sample of 100,000 people who identified as Māori on the 2017 Electoral roll (a registry of all New Zealand citizens who are eligible to vote), yielding 7019 participants (response rate = 7.02%).

## 2.2. Participants

Of the 7019 participants who responded to the MIFAS, 6812 provided either partial or complete responses to our variables of interest and were included in the current study (i.e., 97.1% of the sample). In terms of gender, 61.97% (n = 4221) of the sample were female and 38.03% (n = 2590) were male. The age range was 18–83, with a mean age of 48.68 (SD = 14.78).

## 2.3. Measures

The current study employed an *emic-etic* approach. An *emic* approach focuses on culture specifically, aiming to tease out and explore psychological phenomena in local cultural terms (Berry 1999, p. 166). Accordingly, an *emic* approach allows for the construction of a person's experiential world through his/her own reports and explanations, thereby providing the participant self-determination and autonomy in the research process (Helfrich 1999, p. 136). By contrast, an *etic* approach denotes the use of general, cross-cultural measures that can be applied across a variety of contexts (Helfrich 1999, p. 132). Hence, *etic* measures do not seek to explain culture as a phenomenon, but rather, such measures treat culture as a factor that influences cognition, behaviour and learning (Helfrich 1999, p. 132).

To achieve the aims of our *emic-etic* approach, we used the MMM-ICE3 (Houkamau and Sibley 2015) as a culturally specific *emic* measure of Māori identity, specifically focusing on Māori spirituality and socio-political consciousness. For our *etic* measures, we used Schwartz's (1992) value model and, in particular, the values of uniting with nature and protecting the environment. Unless noted, all items were rated on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale and were interspersed within a larger omnibus survey containing other measures outside the scope of the current study.

## 2.4. Predictors

Māori spirituality was assessed using five items from Houkamau and Sibley (2015). Example items include: "I believe that Tupuna (ancient ancestors) can communicate with you if they want to", "I believe that my Taha Wairua (my spiritual side) is an important part of my Māori identity", and "I can sometimes feel my Māori ancestors watching over me". Items were averaged together with higher scores reflecting greater engagement in concepts of Māori spirituality ( $\alpha = 0.86$ ).

Māori socio-political consciousness was assessed using five items from Houkamau and Sibley (2015). Example items include: "All of us, both Māori and Pākehā, did bad things in the past—we should all just forget about it" (reverse-coded), "I think that Māori have been wronged in the past, and that we should stand up for what is ours" and "I stand up for Māori rights". Items were averaged together with higher scores reflecting greater endorsement of the relevance of historical factors to contemporary Māori ( $\alpha = 0.82$ ).

Values of uniting with nature and protecting the environment were each assessed using a single item alongside the other values included in Schwartz's (1992) model. Specifically, participants were asked to rate the extent to which they valued (a) "unity with nature" and (b) "protecting the environment".

Covariates included a number of demographics that could influence our results. These were: age, socio-economic status, deprivation, gender, education, religiousness, urban residential status, parental status, relationship status, employment status, and political orientation. Gender was assessed using an open-ended question, which was then coded as 0 for Female and 1 for Male; only 4 participants (less than 0.1% of the sample) identified as gender diverse and were excluded from the analyses. Religiousness was assessed by asking participants if they identified "with a religion and/or spiritual group (0 = No, 1 = Yes). Urban residential status was assessed using an open-ended question which was subsequently dummy-coded (0 = Rural, 1 = Urban). Conservatism was assessed using a single

item: “Please rate how politically liberal versus conservative you see yourself as being”, with a higher score indicating a more conservative ideology. Whilst only a single item, past research reveals that single-item measures of social identification (like our measure of conservatism) have validity across a wide range of social groups (Postmes et al. 2013, p. 597). Furthermore, past research in New Zealand shows that self-rated levels of conservatism correlate positively with National Party affiliation (typically thought of as the main conservative party in New Zealand), but negatively with Labour Party affiliation (typically thought of as the main liberal party in New Zealand; see Sibley and Wilson 2007, p. 77). In other words, we utilise a measure of conservatism that is valid within the New Zealand context.

### 3. Results

Given that socio-political consciousness fosters a protective attitude toward the environment amongst Māori (Cowie et al. 2016), we predicted that Māori socio-political consciousness would correlate positively with valuing environmental protection. Conversely, we expected that Māori spirituality, an aspect of identity that emphasises people as descendants of *Papatūānuku* (the Earth mother; Dell 2017), would correlate positively with valuing unity with nature.

To investigate our hypotheses, we estimated a multiple regression model in *Mplus* version 8.2 (Muthén and Muthén 1998–2017). Specifically, we used the eight dimensions of Māori identity to predict valuing environmental protection and unity with nature. In estimating our model, we also controlled for the following variables: gender, age, deprivation, socio-economic status, religiousness, parental status, relationship status, employment status, urban residential status and conservatism. Table 1 displays the correlations among these measures, as well as the corresponding descriptive statistics.

Results displayed in Table 2 reveal that those who identified as religious were less likely than their non-religious counterparts to value protecting the environment ( $B = -0.112$ ,  $SE = 0.030$ ,  $\beta = -0.048$ ,  $p < 0.001$ ). Likewise, those who lived in an urban setting ( $B = -0.084$ ,  $SE = 0.028$ ,  $\beta = -0.036$ ,  $p < 0.01$ ) and those who were in a stable romantic relationship ( $B = -0.073$ ,  $SE = 0.031$ ,  $\beta = -0.030$ ,  $p < 0.05$ ) valued protecting the environment less than did their rural and single counterparts, respectively. Conservatism also correlated negatively with valuing environmental protection ( $B = -0.039$ ,  $SE = 0.011$ ,  $\beta = -0.046$ ,  $p < 0.001$ ), indicating that the more people identified as being conservative, the less they valued protecting the environment. Similar results were found for socio-economic status ( $B = -0.002$ ,  $SE = 0.001$ ,  $\beta = -0.036$ ,  $p < 0.05$ ). Conversely, age correlated positively with valuing environmental protection ( $B = 0.010$ ,  $SE = 0.001$ ,  $\beta = 0.126$ ,  $p < 0.001$ ), indicating that the older participants were, the more they valued protecting the environment. No other covariates reliably correlated with valuing environmental protection.

After accounting for these covariates, our results revealed (consistent with our hypothesis) that socio-political consciousness correlated positively with valuing environmental protection ( $B = 0.151$ ,  $SE = 0.014$ ,  $\beta = 0.187$ ,  $p < 0.001$ ). In other words, the more socio-politically conscious participants were, the more they valued protecting the environment. Inspection of the corresponding standardized regression coefficient shows that socio-political consciousness was by far the strongest predictor of environmental regard. Of the other dimensions of Māori identity, spirituality ( $B = 0.085$ ,  $SE = 0.012$ ,  $\beta = 0.119$ ,  $p < 0.001$ ), whānau efficacy ( $B = 0.069$ ,  $SE = 0.012$ ,  $\beta = 0.069$ ,  $p < 0.001$ ), cultural efficacy ( $B = 0.040$ ,  $SE = 0.014$ ,  $\beta = 0.049$ ,  $p = 0.005$ ), and authenticity beliefs ( $B = 0.050$ ,  $SE = 0.012$ ,  $\beta = 0.060$ ,  $p < 0.001$ ) all correlated positively with protecting the environment. Conversely, interdependent self-concept correlated negatively with protecting the environment ( $B = -0.039$ ,  $SE = 0.013$ ,  $\beta = -0.047$ ,  $p < 0.01$ ), indicating that the more participants defined their identity by their interactions and relationships with other Māori, the less they valued protecting the environment, all else being equal.

**Table 1.** Descriptive statistics and bivariate correlations for variables of interest.

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender <sup>1</sup>	0.38	0.49	—								
2. Age	48.68	14.77	0.114 ***	—							
3. Education	4.06	2.77	-0.102 ***	-0.148 ***	—						
4. Deprivation	6.47	2.87	-0.028 *	0.046 ***	-0.174 ***	—					
5. Socio-economic status	48.09	17.07	-0.145 ***	-0.003	0.596 ***	-0.178 ***	—				
6. Religiousness <sup>2</sup>	0.45	0.50	-0.014	0.236 ***	-0.008	0.122 ***	0.013	—			
7. Parental status <sup>3</sup>	0.79	0.41	-0.044 ***	0.368 ***	-0.092 ***	0.051 ***	-0.002	0.090 ***	—		
8. Relationship status <sup>4</sup>	0.66	0.48	0.093 ***	0.043 ***	0.085 ***	-0.186 ***	0.111 ***	-0.028 **	0.220 ***	—	
9. Employment status <sup>5</sup>	0.71	0.45	0.025 *	-0.251 ***	0.214 ***	-0.179 ***	0.130 ***	-0.096 ***	-0.057 ***	0.180 ***	—
10. Urban residential status <sup>6</sup>	0.51	0.50	0.006	-0.119 ***	0.108 ***	-0.197 ***	0.105 ***	-0.046 ***	-0.078 ***	-0.034 **	0.076 ***
11. Conservatism	3.78	1.34	0.054 ***	0.144 ***	-0.184 ***	0.078 ***	-0.109 ***	0.175 ***	0.116 ***	0.047 ***	-0.064 ***
12. Group membership evaluation	5.29	1.36	-0.111 ***	-0.098 ***	0.139 ***	0.165 ***	0.085 ***	0.123 ***	-0.000	-0.059 ***	0.024 *
13. Cultural efficacy	4.84	1.40	-0.110 ***	-0.005	0.100 ***	0.254 ***	0.064 ***	0.191 ***	0.060 ***	-0.063 ***	-0.025 *
14. Interdependent Self-concept	4.00	1.38	-0.034 **	0.138 ***	-0.000	0.245 ***	-0.016	0.191 ***	0.069 ***	-0.107 ***	-0.092 ***
15. Spirituality	5.01	1.62	-0.197 ***	0.065 ***	0.005	0.243 ***	0.002	0.177 ***	0.084 ***	-0.103 ***	-0.050 ***
16. Socio-Political Consciousness	5.21	1.43	-0.097 ***	0.016	0.171 ***	0.150 ***	0.122 ***	0.116 ***	0.026 *	-0.065 ***	-0.018
17. Perceived Appearance	4.11	1.98	0.009	0.125 ***	-0.114 ***	0.262 ***	-0.095 ***	0.156 ***	0.120 ***	-0.050 ***	-0.058 ***
18. Authenticity Beliefs	4.01	1.37	0.032 **	0.212 ***	-0.166 ***	0.165 ***	-0.152 ***	0.167 ***	0.077 ***	-0.114 ***	-0.187 ***
19. Whānau Efficacy	4.72	1.15	-0.067 ***	-0.049 ***	0.002	0.081 **	-0.009	0.052 ***	0.000	-0.009	0.010
20. Value: Protecting the environment	6.22	1.15	-0.014	0.121 ***	-0.010	0.077 ***	-0.024 *	0.029 **	0.032 **	-0.060 ***	-0.056 ***
21. Value: Uniting with nature	5.58	1.56	-0.029 *	0.147 ***	-0.038 **	0.100 ***	-0.061 ***	0.056 ***	0.059 ***	-0.060 ***	-0.065 ***
	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
10. Urban residential status <sup>6</sup>	—										
11. Conservatism	-0.081 ***	—									
12. Group membership evaluation	-0.020	-0.130 ***	—								
13. Cultural efficacy	-0.069 ***	-0.038 **	0.568 ***	—							
14. Interdependent Self-concept	-0.084 ***	0.005	0.562 ***	0.496 ***	—						
15. Spirituality	-0.062 ***	-0.036 **	0.565 ***	0.562 ***	0.497 ***	—					
16. Socio-Political Consciousness	-0.004	-0.190 ***	0.656 ***	0.485 ***	0.440 ***	0.510 ***	—				
17. Perceived Appearance	-0.125 ***	0.082 ***	0.326 ***	0.396 ***	0.349 ***	0.364 ***	0.288 ***	—			
18. Authenticity Beliefs	-0.106 ***	0.115 ***	0.141 ***	0.144 ***	0.429 ***	0.220 ***	0.085 ***	0.138 ***	—		
19. Whānau Efficacy	-0.045 ***	0.002	0.264 ***	0.279 ***	0.206 ***	0.210 ***	0.177 ***	0.122 ***	0.118 ***	—	
20. Value: Protecting the environment	-0.062 ***	-0.067 ***	0.197 ***	0.197 ***	0.167 ***	0.243 ***	0.265 ***	0.127 ***	0.121 ***	0.128 ***	—
21. Value: Uniting with nature	-0.092 ***	-0.026 **	0.212 ***	0.214 ***	0.224 ***	0.330 ***	0.235 ***	0.159 ***	0.178 ***	0.139 ***	0.522 ***

The following variables were dummy-coded: <sup>1</sup> Gender (0 = Female, 1 = Male), <sup>2</sup> Religiousness (0 = Non-religious, 1 = Religious), <sup>3</sup> Parental status (0 = Not a parent, 1 = Parent), <sup>4</sup> Relationship status (0 = Single, 1 = In a relationship), <sup>5</sup> Employment status (0 = Not employed, 1 = Employed), and <sup>6</sup> Urban residential status (0 = Rural, 1 = Urban). <sup>+</sup>  $p < 0.10$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

**Table 2.** Summary of simple regression analyses for variables predicting value of protecting the environment and unity with nature (N = 6812).

	<i>Protecting the Environment</i>				<i>Unity with Nature</i>			
	<i>B</i>	<i>SE</i>	$\beta$	<i>p</i>	<i>B</i>	<i>SE</i>	$\beta$	<i>p</i>
<b>Demographic Covariates</b>								
Gender <sup>1</sup>	0.047	0.029	0.020	0.104	0.038	0.037	0.012	0.305
Age	0.010	0.001	0.126	<0.001 ***	0.014	0.001	0.129	<0.001 ***
Education	0.000	0.007	0.000	0.988	0.009	0.009	0.016	0.323
Deprivation	-0.005	0.005	-0.011	0.398	-0.009	0.007	-0.016	0.204
Socio-economic status	-0.002	0.001	-0.036	0.027 *	-0.006	0.001	-0.065	<0.001 ***
Religiousness <sup>2</sup>	-0.112	0.029	-0.048	<0.001 ***	-0.133	0.039	-0.042	0.001 **
Parental status <sup>3</sup>	-0.058	0.037	-0.021	0.115	-0.036	0.049	-0.010	0.463
Relationship status <sup>4</sup>	-0.073	0.031	-0.030	0.018 *	-0.072	0.042	-0.022	0.083
Employment status <sup>5</sup>	-0.014	0.033	-0.006	0.661	-0.003	0.043	-0.001	0.948
Urban residential status <sup>6</sup>	-0.084	0.028	-0.036	0.003 **	-0.163	0.036	-0.052	<0.001 ***
Conservatism	-0.039	0.011	-0.046	<0.001 ***	-0.030	0.015	-0.026	0.044 *
<b>Identity Dimensions</b>								
Group Membership Evaluation	-0.005	0.016	-0.005	0.781	-0.005	0.022	-0.004	0.817
Cultural Efficacy	0.040	0.014	0.049	0.005 **	0.018	0.019	0.016	0.352
Interdependent Self-concept	-0.039	0.013	-0.047	0.003 **	-0.007	0.018	-0.006	0.689
Spirituality	0.085	0.012	0.119	<0.001 ***	0.237	0.016	0.245	<0.001 ***
Socio-Political Consciousness	0.151	0.014	0.187	<0.001 ***	0.102	0.018	0.093	<0.001 ***
Perceived Appearance	0.002	0.008	0.003	0.832	0.005	0.011	0.007	0.607
Authenticity Beliefs	0.050	0.012	0.060	<0.001 ***	0.090	0.016	0.079	<0.001 ***
Whānau Efficacy	0.069	0.012	0.069	<0.001 ***	0.090	0.017	0.066	<0.001 ***
<b>Model Summary</b>								
R <sup>2</sup>	0.116				0.152			

The following variables were dummy-coded: <sup>1</sup> Gender (0 = Female, 1 = Male), <sup>2</sup> Religiousness (0 = Non-religious, 1 = Religious), <sup>3</sup> Parental status (0 = Not a parent, 1 = Parent), <sup>4</sup> Relationship status (0 = Single, 1 = In a relationship), <sup>5</sup> Employment status (0 = Not employed, 1 = Employed), and <sup>6</sup> Residential status (0 = Rural, 1 = Urban). \*  $p < 0.05$ . \*\*  $p < 0.01$ . \*\*\*  $p < 0.001$ .



In terms of our predictors of valuing unity with nature, the rightmost columns of Table 2 show that those who lived in an urban environment valued unity with nature less than did their rural counterparts ( $B = -0.163$ ,  $SE = 0.036$ ,  $\beta = -0.052$ ,  $p < 0.001$ ). Similarly, religiousness ( $B = -0.133$ ,  $SE = 0.039$ ,  $\beta = -0.042$ ,  $p = 0.001$ ), socio-economic status ( $B = -0.006$ ,  $SE = 0.001$ ,  $\beta = -0.065$ ,  $p < 0.001$ ), and conservatism ( $B = -0.030$ ,  $SE = 0.015$ ,  $\beta = -0.026$ ,  $p < 0.05$ ) correlated negatively with valuing unity with nature. Finally, age correlated positively with valuing unity with nature ( $B = 0.014$ ,  $SE = 0.001$ ,  $\beta = 0.129$ ,  $p < 0.001$ ). No other covariates were reliably associated with valuing unity with nature.

After controlling for these covariates, Māori spirituality correlated positively with valuing unity with nature ( $B = 0.237$ ,  $SE = 0.016$ ,  $\beta = 0.245$ ,  $p < 0.001$ ). Consistent with our hypotheses, spirituality was by far the strongest identity-based predictor of valuing unity with nature. As for the other Māori identity variables, socio-political consciousness ( $B = 0.102$ ,  $SE = 0.018$ ,  $\beta = 0.093$ ,  $p < 0.001$ ), authenticity beliefs ( $B = 0.090$ ,  $SE = 0.016$ ,  $\beta = 0.079$ ,  $p < 0.001$ ), and whānau efficacy ( $B = 0.090$ ,  $SE = 0.017$ ,  $\beta = 0.066$ ,  $p < 0.001$ ) correlated positively with valuing unity with nature. No other Māori identity variables were reliably associated with valuing unity with nature.

#### 4. Discussion

Past research suggests that Māori express greater environmental regard than other ethnic groups in New Zealand, as land and the environment are located at the centre of a broader Māori socio-political struggle for self-determination (see Cowie et al. 2016, p. 12; Grimes et al. 2015). Tellingly, Klein (2000, p. 119) argues that Pākehā hold a more anthropocentric and utilitarian view of nature than Māori, whereas Māori perceive a greater responsibility for the environment than Pākehā and believe that, by claiming *mana* (authority) over the environment, one must accept unconditional responsibilities for care and protection (Patterson 1994, p. 401). As such, we expected that socio-political consciousness would correlate positively with valuing environmental protection. Yet, spirituality is also integral to the worldview of many Māori, as Māori laws, customs, and socio-political attitudes towards the environment are based upon an underlying spiritual philosophy (Durie 2012, p. 7). Indeed, Māori spirituality encompasses a holistic view of the world that positions Māori as members—but not masters—of the environment (Dell 2017, p. 165). Accordingly, we also expected that Māori spirituality would correlate positively with valuing unity with nature.

As hypothesised, our results showed that socio-political consciousness was by far the strongest predictor of protecting the environment. Indeed, Māori rights are firmly rooted in the land because, as Dell (2017) notes, land allows for self-determination and the charting of one's future. Additionally, as *tangata whenua*, Māori are legally recognised as custodians of the land. As such, New Zealand has a responsibility to protect this important source of wellbeing for Māori (Kawharu 2000, p. 351). In accordance with these views, our results imply that socio-political consciousness underlies environmental concern among Māori.

Also consistent with our hypotheses, Māori spirituality was the best predictor of valuing unity with the environment. Māori spirituality emphasises the interconnectedness of all-natural phenomena, including Māori, through *whakapapa* (Dell 2017, p. 165). Furthermore, all things are said to be infused with *mauri*, the disruption of which could cause catastrophic outcomes (Henare 2001, p. 207). As such, it is critical to not only protect the environment, but to also ensure that Māori are able to freely unite with nature in order to preserve these vital forces. Collectively, our results reveal that socio-political consciousness and Māori spirituality foster the unique connection between Māori and the land.

Although these results were consistent with our hypotheses, a number of other sub-dimensions of Māori identity predicted attitudes toward the environment. Both cultural and whānau efficacy, as well as authenticity beliefs, correlated positively with protecting the environment. Likewise, authenticity beliefs and whānau efficacy correlated positively with valuing unity with nature. To a large extent, these results are to be expected, as higher scores on these scales reflect a stronger commitment to traditional Māori values which, in turn, coalesce around resource protection. That spirituality would predict protecting the environment above and beyond these other important facets of identity is also

perhaps unsurprising. Māori spirituality incorporates *mauri* and *utu* (reciprocity)—beliefs that underlie the role of Māori as *kaitiaki* (guardians) and foster guardianship of the land (both in terms of physical and spiritual management; see Kawharu 2000, p. 359). Similarly, Māori culture is deeply interwoven with the land. Consistent with this perspective, Roberts and colleagues (1995) note that tribal histories, ancestry and *whakapapa* play key roles in land narratives that help to define Māori identity. Indeed, land narratives help to build resilience and strengthen bonds to facilitate positive transformation (see Dell 2017). Hence, the defence of ancestral land is vital in the pursuit of *tino rangatiratanga*.

Although many aspects of Māori identity correlated with our outcome measures in an intuitive manner, we surprisingly found that interdependent self-concept correlated *negatively* with protecting the environment. This seems to indicate that Māori who feel embedded within a collectivist identity network, as opposed to ascribing to individualistic (traditionally Western) notions of the self (Houkamau and Sibley 2010, p. 13), are less likely to value protecting the environment—at least after accounting for the other predictors in our model. This finding is counterintuitive, as protecting the environment is arguably an expression of Māori rights and a validation of the environmental responsibilities of Māori (Gillespie 1998, p. 20). Yet, as Gillespie (1998) notes, environmental concern may not be an end goal, but rather, must be considered with regard to the land in question and the attitudes of the *kaitiaki*. Indeed, Māori have a responsibility not just to the land, but also to each other. Thus, circumstances may arise where Māori find it necessary to utilise the land in order to provide for the group (Gillespie 1998, p. 22). In other words, because Māori have been (and continue to be) disenfranchised by colonization, the fight for *tino rangatiratanga* and empowerment (Dell 2017, p. 146) may require the use of land and its resources to improve the well-being of the Māori people.

Importantly, the above discussion need not imply that spiritual concerns conflict with the socio-political concerns of *tino rangatiratanga*. Rather, our results reveal that, whilst spirituality was the strongest correlate of valuing unity with nature, socio-political consciousness also predicted this aspect of environmental regard. Thus, Māori socio-political identity is intrinsically tied to a sense of unity with the environment. In this sense, *tino rangatiratanga* is not only expressed by reclaiming land, but also by reuniting with it. Accordingly, socio-political consciousness, particularly the concept of *kaitiakitanga* (i.e., an expression of Māori rights, guardianship and identity as *tangata whenua*), is deeply rooted in spirituality through *whakapapa* and *mātauranga* (Kawharu 2000, p. 362). Indeed, *mātauranga* emphasises the importance of the environment in transmitting knowledge vital to self-determination and is seen as an extension of nature (Johnson and Murton 2007, p. 122). In short, our results reveal that Māori have a unique connection with the land, as multiple aspects of Māori identity correlate with a desire to be close to, or facilitate a bond with, nature.

Finally, we should note that, despite finding that Māori spirituality predicted greater pro-environmental attitudes, we also found that religiousness, when included as a covariate, correlated negatively with valuing environmental protection and uniting with nature. This is likely a product of religion's countervailing effect on pro-environmental attitudes. White (White 1967, p. 1204) argued that Judeo-Christian beliefs may have a negative impact on environmental concern through biblical narratives of people being given dominion over nature. Although this assertion has been countered by those who argue that religion may also foster concern through narratives of environmental stewardship (Bulbulia et al. 2016, p. 279), past research has found support for both perspectives (Bulbulia et al. 2016; Sherkat and Ellison 2007, p. 80). Indeed, research seems to indicate that reading scripture can have a negative impact on environmental intention by increasing bibl literalism and religious fundamentalism (Bulbulia et al. 2016, p. 286). However, stewardship beliefs correlate positively with pro-environmental attitudes (Sherkat and Ellison 2007, pp. 79–80). In relation to our results, Māori spirituality may capture the concept of stewardship through traditional Māori beliefs that emphasize the role of Māori in *kaitiakitanga*. Hence, religiousness likely correlated negatively with environmental attitudes because we accounted for stewardship with our measure of Māori spirituality. Indeed, the correlations displayed in Table 1 reveal that religiousness correlated positively with both environmental values at the bivariate level of analysis.

## 5. Strengths, Limitations and Future Directions

The current study demonstrates that both socio-political concerns and spirituality foster environmental regard among Māori. Specifically, we used nationally representative data to examine the unique relationships between distinct aspects of Māori identity and the environment. To these ends, our results corroborate the literature on indigenous relations with the environment to show that both spirituality and socio-political consciousness are vital to the connection between Māori and the land.

Although our sample is nationally representative, it is important to note that our response rate was low (i.e., 7.02%). However, our response rate is consistent with international trends—especially those for random mail surveys—which have been declining for decades for a multitude of reasons (Houkamau et al., p. 13). Importantly, research reveals that response rates are *not* related to non-response bias and, thus, are not necessarily indicative of data accuracy (Groves 2006, p. 663). Indeed, a low response rate is only problematic if the sample differs systematically from non-respondents. To these ends, Houkamau et al. (, pp. 14–19) compared MIFAS data with that of past New Zealand census and Te Kupenga data. They found that, whilst the MIFAS tended to over-represent women, the elderly, and those with a higher education, MIFAS data were largely comparable to these other reputable datasets. As such, the risks of non-response bias within the MIFAS can be accounted for statistically, rendering it a sample largely representative of the Māori population within New Zealand. It is also important to note that our conceptualisation of socio-political consciousness—an intrinsic part of Māori identity—rests largely upon one's awareness of Te Tiriti. Some, however, have criticised such a focus, as emphasising Te Tiriti arguably ties Māori identity to colonial history and defines Māori in relation to colonisation (see Hokowhitu 2012, p. 355). Tying Māori identity to colonialism is problematic because doing so may encourage Māori to accept the role of the oppressed, thereby legitimising the power dynamic between the colonized (i.e., Māori) and the colonizers (Memmi 1965, p. 133). However, Māori history is a history of contact (Keenan 2012), and the implications of Te Tiriti on modern Māori cannot be overlooked. Indeed, it is important to consider the extent to which the desire to be connected or united with the land is a result of colonisation itself (i.e., having the land removed from Māori has created a strong desire to reconnect with it, particularly for those who are politically conscious). Thus, whilst the narratives of colonisation and Te Tiriti have the potential to disempower Māori, it is important to acknowledge that the historical injustices suffered by Māori at the hands of colonization continue to influence contemporary society. It is this awareness of past—and present—injustices that forms the core of our measure of Māori socio-political consciousness.

Future research may wish to examine important boundary conditions of the relationships identified in the current study. To these ends, one possible moderator of the noted relationships is the salience of climate change and environmental degradation. As Milfont et al. (2014, p. 5) note, physical proximity to the coastline correlates positively with concern over climate change. Similarly, occupation type may affect the relationship between Māori identity, as farmers and other households dependent upon agriculture are under increasing threat due to climate change (Hertel 2015). Moreover, whilst the impacts of environmental degradation may not directly affect participants, family ties to small island countries (i.e., those most vulnerable to climate change; see Mimura 1999) may increase the salience and urgency of the need for environmental protection. Thus, future research might extend upon our work to examine possible moderators of the relationships Māori spirituality and socio-political consciousness have with attitudes toward the environment.

## 6. Conclusions

The current study investigated the unique relationship that Māori, as *tangata whenua*, have with the land. Accordingly, socio-political consciousness acknowledges the rights of Māori over the land. Because land provides socio-political influence (see Dell 2017), reclaiming the land by Māori serves not only to return that which was stolen through colonization, but also to restore self-determination, efficacy and pride to Māori. These beliefs are rooted in a spiritual tradition that places Māori as members (but not masters) of their environment and emphasizes the importance of adapting to the

land as part of *kaitiakitanga*. Without careful resource management, the land may lose its *mauri* and its ability to sustain the people. Indeed, land is the life of Māori; it tells the story of Māori (Firth 1926). Through the relationship between the land and the people, Māori are able to establish their sense of spiritual connection, self-determination and identity.

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