

The Evolution of Evolutionary Explanations of Culture

*How and Why Can a Critical Evaluation of Costly
Signalling Theory Enhance Our Understanding of
Cultural Practices?*

BY

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Abstract

In the last two decades, evolutionary explanations of cultural practice have become prevalent within the social sciences and humanities, including religious studies. This thesis is a critical analysis and recension of one of these applications of evolutionary theory to cultural practice. Specifically, I analyse a secondary case study to investigate the explanatory power and politico-ethical considerations that arise from the application of costly signalling theory to Māori tā moko. Utilising primary and secondary source materials, this research was conducted within an interpretivist and inductive qualitative framework with the aim of offering a reflexive critique of the explanatory power that costly signalling theory carries for tā moko and, more broadly, of the illustrative efficacy of evolutionary explanations when applied to indigenous cultural practices.

In a critique of the Cisco case study, I identify some of the more general, global deficiencies of evolutionary explanations of culture and explore the rich, indigenous narrative complexes which shape understandings of Māori tā moko. I maintain that the argument for moko as a costly signal, based, in part, upon Māori warfare is a reiteration of mythologised aspects of Māori culture which divorces tā moko from its ontological and epistemological underpinnings. In separating it from its Māori context, the reflexivity of tā moko is denied and Westernised and colonised conceptions of tā moko which etically view Māori cultural practice through a veil of alterity are perpetuated.

In response to the concerns the application of costly signalling theory to tā moko generates, I propose an alternative model: transmissive assemblage. Drawing from actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori, the transmissive assemblage model provides a symmetrical and decolonised framework which both challenges and enhances the dominant Western scientific paradigms used to explain indigenous practices. By focussing on the interactions between agents and the associations which circulate between them, rather than on the agents themselves, this integrative model makes an original contribution to scholarship in allowing the emergence of heteroglossia and by providing a balanced platform for indigenous voices and emic perspectives to be represented in the context of Western scientific research. In doing so, I argue that integrative, reflexive, and decolonised approaches to indigenous cultural practice which focus on process, as opposed to agency, enhance the explanatory power of

evolutionary explanations by affording indigenous groups the opportunity to assert their own agency within the paradigm of Western science.

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Introduction: The Evolution of Evolutionary Explanations of Culture

Introduction

In 1975, E.O. Wilson published a controversial book titled *Sociobiology: The New Synthesis* which claimed that human social behaviour is rooted in biology.¹ One year later, in the final chapter of *The Selfish Gene*, Richard Dawkins asserted that “cultural transmission is analogous to genetic transmission in that, although basically conservative, it can give rise to a form of evolution,” propelled by imitation in the form of a cultural replicator called the meme.² Concurrently, the anthropologist Marshall Sahlins referred to sociobiology, the study of the social through evolutionary processes, as “vulgar” and upbraided its champions for bringing about “the final degeneration of evolutionary biology.”³ These two polarities gave rise to a wave of work devoted to developing and analysing evolutionary explanations of culture, which, over the last two decades, has resulted in a significant increase in their use within the social sciences and humanities to explore the establishment and perpetuation of human cultural practices.⁴ In fact, Irons credits Sahlins’ initial critique of sociobiology with generating invaluable debate and discussion about the application of evolutionary processes to culture, which has led to the formation of new evolutionary explanations like costly signalling theory.⁵

¹ Edward O. Wilson, *Sociobiology: The New Synthesis* (Cambridge, MA: Harvard University Press, 2000), 2-576.

² Richard Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1989), 189, 192.

³ Marshall Sahlins, *The Use and Abuse of Biology: An Anthropological Critique of Sociobiology* (Ann Arbor, MI: The University of Michigan Press, 1976), 3.

⁴ Eric A. Smith, Monique Borgerhoff Mulder, and Kim Hill, “Controversies in the Evolutionary Social Sciences: A Guide for the Perplexed,” *TRENDS in Ecology and Evolution* 16, no. 3 (Mar., 2001): 158.

⁵ William Irons and Lee Cronk, “Two Decades of a New Paradigm,” in *Adaptation and Human Behavior: An Anthropological Perspective*, eds. Lee Cronk, Napoleon A. Chagnon, and William Irons (Hawthorne, NY: Aldine de Gruyter, 2000), 10, 15.

Today, amongst other uses, evolutionary explanations are commonly employed to identify how individual-level processes of individual and social learning inform traits or behaviours found at the population-level, accounting for increasingly complex societies.⁶ They also have been shown adept at accounting for cooperation between non-relatives, which is considered central to explaining the development of modern societies.⁷ Additionally, evolutionary explanations have been extended to account for the modification of selection pressures when organisms create niches in response to their environments. These modifications have been shown to not only affect selection pressures in their own environments but also in other environments, both locally and more distant.⁸

Evolutionary explanations have been applied to countless cultural practices. From sub-Saharan land rights, to Chinese footbinding, to the development of musicality, evolutionary explanation has far reaches and continues to grow in popularity.⁹ However, when evolutionary explanation is applied to specific cultural practices with their own underlying narratives, important questions regarding the exegetic power generated through evolutionary explanation begin to arise. In hopes of drawing attention to the significance of some of these questions, this study is devoted to an investigation of the various narratives that inform one such application of

⁶ Peter J. Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution* (Chicago: University of Chicago Press, 2005).

⁷ Brian Paciotti, Peter J. Richerson, and Robert Boyd, "Cultural Evolutionary Theory: A Synthetic Theory for Fragmented Disciplines," in *Bridging Social Psychology: Benefits of Transdisciplinary Approaches*, ed. Paul A. M. Van Lange (Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers, 2006), 366, 368; Stuart A. West, Ashleigh S. Griffin, and Andy Gardner, "Evolutionary Explanations for Cooperation," *Current Biology* 17, no. 16 (2007): R661-72; Martin A. Nowak and Karl Sigmund, "Evolution of Indirect Reciprocity," *Nature* 437, no. 7063 (2005): 1291-8; Robert Boyd and Peter J. Richerson, "Solving the Puzzle of Human Cooperation," *Evolution and Culture* (2005): 105-32; Robert L. Trivers, "The Evolution of Reciprocal Altruism," *Quarterly Review of Biology* 46, no. 1 (Mar., 1971): 35-57.

⁸ Paciotti, Richerson, and Boyd, "Cultural Evolutionary Theory," 365.

⁹ Jean-Philippe Platteau, "The Evolutionary Theory of Land Rights as Applied to Sub-Saharan Africa: A Critical Assessment," *Development and Change* 27, no. 1 (1996): 29-86; Kim Sterelny, "SNAFUs: An Evolutionary Perspective," *Biological Theory* 2, no. 3 (2007): 317-28; Henkjan Honing et al., "Without It No Music: Cognition, Biology and Evolution of Musicality," *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 370, no. 1664 (2015): 20140088, accessed July 24, 2015, <http://dx.doi.org/10.1098/rstb.2014.0088>.

evolutionary explanation to a particular cultural practice. Thus, the scope of this study is relatively modest, but, in analysing a case study and the narratives surrounding the practice in some depth, I aim to highlight important issues at a broader theoretical and political level.

Narrative, as employed throughout this thesis, is based upon a fairly basic and broad definition. Specifically, I understand narrative to be “the representation of an event or series of events.”¹⁰ I have intentionally selected a broad definition of narrative which can accommodate representations of the practice of tā moko from a myriad of perspectives. Utilising a broad definition of narrative enables the avoidance of myopia and encourages decolonisation by permitting simultaneous examination of the various ways in which tā moko narratives are crafted and perpetuated without requiring the use of a specific lens.

In 2010, a new narrative of tā moko (Māori tattooing practice) emerged. This narrative is grounded in evolutionary explanation and predominantly draws upon Pākehā (European New Zealand) sources from the 19th and early 20th centuries. This thesis considers the issues that emerge from this cultural evolutionary analysis which is out of step with the emergence of those tā moko narratives, largely drafted by Māori scholars since the 1990s, which emphasise Māori ontology and epistemology. After discussing the narratives which frame this thesis, I situate Jayme Cisco’s treatment of tā moko as a costly signal within this narrative nexus and utilise her research as a foil to examine costly signalling theory’s explanatory utility through an analysis of her claims and the broader implications of those issues that are illuminated through my investigation.¹¹

¹⁰ H. Porter Abbott, *The Cambridge Introduction to Narrative*, 2nd ed. (Cambridge: Cambridge University Press, 2008), 13. See pages 13-17 for counter-arguments to the employment of broad definitions of narrative.

¹¹ Jayme Cisco, “Maori Moko: A Costly Signal?,” (M.A. Thesis, University of Missouri-Columbia, 2010).

Moko generally refers to the facial tattoos of the Māori (indigenous people of Aotearoa New Zealand) which, though now typically done with a modern tattoo machine, historically involved using a chisel to tap a deep groove into the face into which pigment was rubbed.¹² Costly signalling is a theoretical model adapted from behavioural ecology for the human realm in an attempt to explicate the perpetuation of high cost behaviours despite evolutionary pressures against them.¹³ In seeking to explain tā moko through costly signalling theory, Cisco's research reveals a reinvented, inaccurate, and mythologised version of Māori tā moko which denies Māori narratives and, in fact, re-colonises them.

Although Cisco argues for moko as a costly signal and provides detailed evidence in support of her claims, her case study brings to light a number of issues that arise when applying Western evolutionary explanations to non-Western cultural practices. In addition to examining some of the confusion that her research into tā moko reveals, particularly surrounding the general premises of costly signalling theory, such as the identification of signallers and receivers and what constitutes a signal, I am also interested in what Cisco's treatment of tā moko as a costly signal illuminates about how costly signalling theory treats the selection processes that led to the development of tā moko, how it accounts for the contents of what is signalled or transmitted, and how this accords with Māori understandings of tā moko. To frame this discussion, I pose the central research question of this thesis: how and why can a critical evaluation and decolonised recension of costly signalling theory enhance our understanding of cultural practices?

¹² Rawinia Higgins, "Tā Moko—Māori Tattooing—Origins of Tā Moko," *Te Ara: The Encyclopedia of New Zealand*, last modified August 13, 2013, accessed January 28, 2015, <http://www.TeAra.govt.nz/en/ta-moko-maori-tattooing/page-1>. Though still uncommon, in the last decade, a resurgence in the chisel technique has emerged.

¹³ Herbert Gintis et al., "Strong Reciprocity and the Roots of Human Morality," *Social Justice Research* 21, no. 2 (2008): 249; Joseph Henrich, "The Evolution of Costly Displays, Cooperation, and Religion: Credibility Enhancing Displays and Their Implications for Cultural Evolution," *Evolution and Human Behavior* 30 (2009): 244.

For indigenous peoples, the term *research* is often loaded with negative connotations, generated from the impact of colonisation and imperialism.¹⁴ In the words of Linda Tuhiwai Smith, “the ways in which scientific research is implicated in the worst excesses of colonialism remains a powerful remembered history for many of the world’s colonised peoples.”¹⁵ Yet, within evolutionary explanations of culture, indigenous peoples’ views of their own practices are absent, instead replaced with a linear, Westernised voice. By divorcing the practices from their innate ontological and epistemological contexts, they are easily misconstrued and, rather than serving as an affirmation of identity and belonging, are morphed into a non-descript context of alterity. However, this does not have to be the case.

There is room for evolutionary explanations of culture to evolve. As this study suggests, by encouraging heteroglossia and non-agentic dependence, costly signalling theory can be updated into an integrative and symmetrical form. Moreover, by resisting the tendency to agentially contour costly signalling, Māori tā moko is effectively decolonised. As we shall see, when the focus falls on the associations between agents, rather than on the agents themselves, the mechanisms that support existing power dynamics crumble and are replaced with a reassembled social network determined by connections, in the space between which Māori holistic reality is more readily reflected.¹⁶

Though I do not use heteroglossia in the Bakhtinian sense to focus on the “complex stratification of language,” my understanding and usage of heteroglossia is still inspired by Bakhtin’s emphasis on language and, in this case, narrative as a means through which we engage

¹⁴ Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books; Dunedin, N.Z.: University of Otago Press, 1999), 1.

¹⁵ Ibid.

¹⁶ For an explanation of holistic reality see pages 29-30 of this thesis.

“in a historical flow of social relationships, struggles, and meanings.”¹⁷ I specifically employ heteroglossia as a means to highlight the tensions and conflicts that arise from the socio-historical associations that determine the various ways moko is interpreted and conveyed through a multiplicity of narratives.

From the outset, readers should be aware that this thesis is not about signalling theory which is a vast and complicated area. Whilst costly signalling theory is part of a vast literature within signalling theory, I emphasise that it is not my intention to engage or critique signalling theory as a whole, aside from where becomes necessary for elucidating and contextualising costly signalling theory. Neither is this study intended to serve solely as a critique of Cisco’s research into tā moko as a costly signal.

Rather, this study is a reflexive critique, both interpretive and conceptual in nature, of costly signalling theory’s explanatory power for Māori tā moko and, more broadly, about the illustrative efficacy of evolutionary explanation as applied to indigenous cultural practices. I utilise Cisco’s research only as a case study to illuminate some of the insensitivities and issues that can arise when utilising Western scientific explanations to account for an indigenous practice. Thus, my primary aim is not to produce a treatise based upon a critique of Cisco, *per se*, but rather to illuminate problematic areas within costly signalling theory that become apparent in the application of costly signalling theory as an explanation for tā moko and to discuss possible alternative ways to approach costly signalling in order to enhance its exegetical vigour. In the discussion of alternatives to costly signalling theory, I seek to illuminate the key features that a more symmetrical and decolonised model of costly signalling theory would have.

¹⁷ M.M. Bakhtin, *The Dialogic Imagination: Four Essays* (Austin, TX: University of Texas Press, 1981), 270-3, 291, 501; Sue Vice, *Introducing Bakhtin* (Manchester, U.K.: Manchester University Press, 1997), 18; Benjamin Bailey, “Heteroglossia,” in *The Routledge Handbook of Multilingualism*, eds. Marilyn Martin-Jones, Adrian Blackledge, and Angela Cresse (New York: Routledge, 2012), 501.

Background

In many ways this thesis mirrors my own evolution as a scholar. When I first encountered evolutionary explanations of culture, I was a bit incredulous. My own background in the study of mythology caused me to wonder what they provided that more traditional accounts of culture and cultural practice did not. However, after exploring cultural evolutionary theory and other evolutionary explanations of culture, I was left with a sense that science had finally put to rest many of the issues that had plagued studies of culture for decades.

Thus, when I initially began this project, I was convinced that costly signalling theory possessed some critical explanatory power for tā moko (Māori tattooing) that more traditional methods did not.¹⁸ I was certain that it provided a new account of the reasons behind the development and perpetuation of tā moko. The linear signaller→signal→receiver relationship was simple and straightforward. This was exciting, particularly since I have always been fascinated by body modification and tattoo; the thought that science might provide new perspectives on age-old practices was enticing. In asking how and why evolutionary explanations enhanced our understanding of cultural practice, I was sure that they did and, specifically, that they provided us with unique ways to isolate specific cultural interactions.

However, the shift in my question is indicative of my own change of heart over the course of this thesis journey. Whilst I still believe that evolutionary explanations of culture have

¹⁸ “Explanatory power” is a phrase used throughout this thesis and is commonly found in the scientific discourse. For a detailed explanation of explanatory power, see Jonah N. Schupbach and Jan Sprenger, “The Logic of Explanatory Power,” *Philosophy of Science* 78, no. 1 (2011): 105-27. For relevant examples of its employment, see James Farris, “The Logical Basis of Phylogenetic Analysis,” in *Conceptual Issues in Evolutionary Biology*, 2nd ed., ed. Elliott Sober (Cambridge, MA: The MIT Press, 1994), 340-56 and Robert Frank, ed., *The Explanatory Power of Models: Bridging the Gap between Empirical and Theoretical Research in the Social Sciences* (New York: Springer Science+Business Media, 2002). Explanatory power describes how well a theory is able to account for the subject it seeks to explain. I have also used explanatory force, explanatory utility, exegetical capacity, exegetical vigour, exegetical utility, and illustrative utility as alternatives to explanatory power.

explanatory force, I maintain that for them to reach their explanatory potential requires that they, themselves, evolve. Such evolution can only occur through active attempts at critical evaluation and recension, whereby evolutionary explanations of culture can be updated and re-synthesised into more integrative and symmetrical versions of themselves. This study is one attempt to utilise critique and recension to elucidate how one small part of the vast array of evolutionary explanations, costly signalling theory, might evolve into a more symmetrical and decolonised form.

Throughout my study, I have consistently wondered why more critical analysis of this theoretical tradition has not taken place in relation to the study of cultural practices. Sure, there are countless articles on discrepancies about the finer points of cultural evolutionary theory which tend to take for granted its explanatory power. Additionally, broad, misinformed attacks which tend to avoid addressing the actual mechanics of the models themselves also circulate. Yet, little exists in the way of critical, scholarly analysis of evolutionary explanations of culture and their approaches to the study of cultural practice and, specifically, indigenous cultural practice.

Utilising Cisco's treatment of tā moko through a costly signalling theory lens as a case study reveals that more explanatory power is generated in the critique of evolutionary explanation than through the assumption of its exegetical utility. Indeed, through the examination of costly signalling theory's mechanics and approach to tā moko, a great deal of light is shed on areas where the theory may benefit our understanding of Māori tā moko but also where it falters. As I have learned, it is perhaps only through a critical treatment of current evolutionary theories as applied to cultural practice that the need for their own evolution will be realised.

Rationale

Although I do believe that theoretical applications of costly signalling are useful in identifying the selective mechanisms and evolutionary patterns of certain cultural practices from a Western scientific perspective, I remain doubtful about the depth of its explanatory power for human behaviour, outside of theoretical applications. I have specific reservations regarding costly signalling theory's ability to illuminate new processes or features of indigenous cultural practices in ways that are relevant to indigenous groups and not already identified and accounted for within the epistemological and ontological realities of the group itself. I utilise Cisco's treatment of tā moko through a costly signalling framework to further highlight and investigate the legitimacy of these reservations.

The exploration of the Cisco case study leaves us with the sense that it is only through evolutionary explanations of cultural practice that the selective mechanisms and processes which shape cultural practices can be identified. The implication is that the groups from which cultural practices are derived, in this case Māori, do not have the exegetical capacity or appropriate tools to identify and expound upon these mechanisms and processes. Hence, Western, academic explanation is necessary, since it is only through the discourse of science that the specific processes and mechanisms which develop and mould culture can be understood.

Yet, indigenous groups, like Māori, often possess their *own* accounts of their cultural development and evolution, as well as detailed elucidations of the selective mechanisms which influence their practices; and, though the language employed differs considerably from the explanations posed through the guise of Western science, the content is not always so

dissimilar.¹⁹ As June George affirms, “a community’s practices and beliefs pertaining to the conduct of its members’ lives often deal with the same content areas that are dealt with in conventional science.”²⁰

Whilst the lack of research from within evolutionary explanations regarding alternative views of cultural evolution and what they potentially could offer Western perspectives of cultural evolution is disappointing, simultaneously, this gap represents an exciting area for new research explored in this thesis. Indeed, such a deficit reflects a need to examine the relationship between evolutionary explanations of culture and indigeneity, and, specifically, to explore the emic/etic dynamics between etic evolutionary explanations and emic understandings of the practices they claim to explain. It is my aim, in the chapters which follow, to address this dynamic by using Cisco’s application of costly signalling theory to Māori tā moko as a case study to critique costly signalling theory and by advancing an alternative model, *transmissive assemblage*, which utilises aspects of costly signalling but which also incorporates actor-network theory and elements of indigenous ontological perspectivism and Kaupapa Māori, which may afford indigenous groups a more symmetrical platform for the expression of their perceptions of their own practices within the context of evolutionary explanation. Transmissive refers to the communicative aspect borrowed from costly signalling theory. Assemblage is intended to reflect that the composition of the model is composed any number of agents and perspectives.

The rationale behind situating this thesis within religious studies is three-fold. Firstly, religious studies is concerned with the interdisciplinary study of religious and spiritual practices

¹⁹ Arun Agrawal, “Indigenous and Scientific Knowledge: Some Critical Comments,” *Development and Change* 26, no. 3 (1995): 413-39.

²⁰ June M. George, “Chapter Three: Indigenous Knowledge as a Component of the School Curriculum,” in *What is Indigenous Knowledge?: Voices from the Past*, eds. Ladislaus M. Semali and Joe L. Kincheloe (New York; London: Falmer Press, 1999), 85.

and beliefs. Admittedly, Māori religiosity, in the sense of whether or not Māori beliefs can be described as religious, is debatable. As Henare explains, much of the difficulty that arises in defining religion within a Māori context is attributed to the fact that, “Maori religion is not found in a set of sacred books or dogma, the culture is the religion.”²¹ Yet, as slippery as attempts to define and interpret traditional Māori religion with Western labels are due to its embeddedness within Māori life, Māori spirituality is not debatable; and, any study that involves a facet of Māori life must take into account the spirituality by which it is shaped.²²

Discussions of Māori spirituality can be somewhat challenging, since it is what is lived and not what is theologised or idealised.²³ Within the Māori world, there was and is no separation between the sacred and secular. Tā moko (the practice of moko) was and is part of the ritualised expression of this spiritual world, a point underscored by its mythological origins, which, for Māori, express beliefs and values that influence social structures and inform identity.²⁴ However, Moira McClellan cautions that Māori spirituality encapsulates more than prayer, rituals, or delineating specific times for spiritual practice; rather, she impresses it is embedded in all aspects of Māori life, underscoring that its application is the key to its understanding.²⁵ Thus, the lived-ness of Māori spirituality must be contextualised by its

²¹ Manuka Henare, “Te Tangata, te Taonga, te Hau: Māori Concepts of Property,” in *Conference on Property and the Constitution, Wellington for the Laws and Institutions in a Bicultural Society Research Project* (Hamilton, N.Z.: University of Waikato, 1998), 3; Ella Henry and Hone Pene, “Kaupapa Maori: Locating Indigenous Ontology, Epistemology and Methodology in the Academy,” *Organization* 8, no. 2 (2001): 235.

²² James Irwin, *An Introduction to Māori Religion: Its Character Before European Contact and Its Survival in Contemporary Māori and New Zealand Culture* (Bedford Park, S. AUS: Australian Association for the Study of Religions, 1984), 73.

²³ T.P. Tawhai, “Maori Religion,” in *The World’s Religions: The Study of Religion, Traditional and New Religion*, eds. Stewart Sutherland and Peter Clarke (London: Routledge, 1991), 96-8; Henry and Pene, “Locating Indigenous Ontology,” 235-6.

²⁴ Michael O’Connor and Angus MacFarlane, “New Zealand Maori Stories and Symbols: Family Value Lessons for Western Counsellors,” *International Journal for the Advancement of Counselling* 24 (2002): 231.

²⁵ Moira McClellan, “Maori Spirituality, Christian Spirituality, and Spiritual Direction,” a paper submitted in partial fulfilment of the requirements of the Spiritual Directors’ Formation Programme of Spiritual Growth Ministries, 2010, accessed May 22, 2016, <http://www.sgm.org.nz/Research%20Papers/Maori%20Spirituality,%20Christian%20Spirituality%20and%20Spiritual%20Direction%20-%20Moira%20McClellan.pdf>.

application within the fluidity of a cultural landscape impacted and shaped by over 200 years of Western and Christian religion, thought, culture, and beliefs.

Likewise, the same pliancy evident in the lived-ness of Māori spirituality must also be reflected, more generally, in our understandings of religion and spirituality. Religion and spirituality are not static; they evolve, shift, and are re-conceptualised within the context of environmental and cultural changes that affect all populations. Such flexibility is reflected in the myriad of definitions and interpretations both religion and spirituality evoke.²⁶ Brian Zinnbauer and Kenneth Pargament even challenge the utility of the very categories themselves, given the inherent adaptability of these systems and the way they evolve “in the life of an individual.”²⁷ Yet, despite the challenges presented by the tractability of spirituality, generally, and Māori spirituality specifically, spirituality is central, not only to the methodologies employed within this study but also to shaping the case study research through which the central argument and conclusions emerge.

Secondly, when indigenous groups are the subjects of a study framed by Western science, their inherent religiosity or spirituality is often overridden or ignored, despite the fact that it is their practice(s) being studied, a point which often remains unacknowledged within the realm of evolutionary explanations of culture. Cisco’s handling of Māori tā moko unearths issues that arise when indigenous holistic realities are not considered integral to dialogues about indigenous peoples’ own practices. In part, this inattention is due to existing tensions within evolutionary explanation regarding its relationship to religion. For instance, Dawkins condemns

²⁶ Brian J. Zinnbauer et al., “Religion and Spirituality: Unfuzzifying the Fuzzy,” *Journal for the Scientific Study of Religion* 36, no. 4 (Dec., 1997): 549-50.

²⁷ Brian J. Zinnbauer and Kenneth I. Pargament, “Chapter Two: Religiousness and Spirituality,” in *Handbook of the Psychology of Religion and Spirituality*, eds. Raymond F. Paloutzian and Crystal Park (New York: The Guilford Press, 2005), 27.

religion, claiming it “subverts science and saps the intellect.”²⁸ Although such comments are typically directed toward monotheistic traditions, such vehement reactions to religion also result in the dismissal of indigenous ontological and epistemological views as primitive and philistine.²⁹ Yet, indigenous groups, generally, and Māori, specifically, have sophisticated understandings of the universe and their place within it, views which offer accounts for cultural evolution and are capable of identifying the selective mechanisms and influences which facilitate change.

Thirdly, a significant portion of research within costly signalling centres on establishing explanations for the evolution of religious practices and behaviours, which means that religion serves as a foundational framework for costly signalling theory’s own development. The link between religious signals and group cooperation is not new; Émile Durkheim had come to this conclusion at the beginning of the 20th century.³⁰ In the 1960s, Clifford Geertz proclaimed the anthropological study of religion dead; however, later scholars within anthropology, such as Alexander Gallus, Eugene d’Aquili, and William (Bill) Irons turned to evolutionary explanation to identify the selective mechanisms and pressures that evolved to allow for religious thought and the development of religious practices.³¹ Where E.E. Evans-Pritchard denounced the ability to construct cross-chronological generalisations about religious behaviour and its evolution

²⁸ “Fundamentalist Religion and Science,” Talk of the Nation, *NPR*, October 6, 2006, <http://www.npr.org/templates/story/story.php?storyId=6210151>.

²⁹ Richard Dawkins, *The God Delusion*, especially pages 35, 41, 52, 213, 254, 318.

³⁰ Émile Durkheim, *The Elementary Forms of Religious Life*, trans. Karen E. Fields (New York: Free Press, 1995), 24, 29; Richard Sosis, Howard C. Kress, and James S. Boster, “Scars for War: Evaluating Alternative Signaling Explanations for Cross-Cultural Variance in Ritual Costs,” *Evolution and Human Behavior* 28 (2007): 234; Joseph Bulbulia et al., “Why Do Religious Cultures Evolve Slowly? The Cultural Evolution of Cooperative Calling and the Historical Study of Religions,” in *Mind, Morality, and Magic: Cognitive Science Approaches in Biblical Studies*, eds. Istvan Czachesz and Risto Uro (West Nyack, New York: Acumen Publishing, 2013), 197, 206.

³¹ Clifford Geertz, *The Interpretation of Cultures: Selected Essays* (London: Fontana, 2003), 87-8; Alexander Gallus, “A Biofunctional Theory of Religion,” *Current Anthropology* 13, no. 5 (1972): 543-68; Eugene G. D’Aquili, “Human Ceremonial Ritual and the Modulation of Aggression,” *Zygon* 20, no. 1 (1985): 21-30; William Irons, “How Did Morality Evolve?” *Zygon* 26 (1991): 49-89.

through time, those employing evolutionary explanations in the context of religion “necessarily assume that the relevant behaviors can be generalized across time and space.”³²

In 2006, Richard Sosis discovered that religious behaviours meet Rebecca Bliege Bird and Eric Smith’s criteria for costly signals.³³ The range of religiosity within different groups was deemed unobservable. Group members were shown to benefit from “accurate” transmission of variation, because the more extreme a believer’s commitment the more he or she is perceived to be cooperative, and the more desirable he or she becomes as a “social partner” to within group members.³⁴ Indeed, religious group members are met with many advantages of belonging to the group that entice others, without the same commitment, to infiltrate the community in hopes of gaining these benefits. Yet, despite these findings, Irons and Joseph Bulbulia observe that little exists to explain why, in evolutionary terms, religion would be selected as a preferred means of signalling over other signs of commitment. That advantage simply cannot be clearly identified.³⁵

Literature Review

As an interdisciplinary and transdisciplinary study, this enquiry traverses the literature of a number of different areas. The literature I canvass in the following review derives from the areas of anthropology, religious studies, indigenous and Māori studies, theoretical biology, cultural evolutionary theory, and costly signalling theory. Although this literature covers a wide range of

³² E.E. Evans-Pritchard, *Theories of Primitive Religion* (Oxford: Clarendon Press, 1965); Richard Sosis and Candace Alcorta, “Signaling, Solidarity, and the Sacred: The Evolution of Religious Behavior,” *Evolutionary Anthropology* 12 (2003): 264.

³³ Richard Sosis, “Religious Behaviors, Badges, and Bans: Signaling Theory and the Evolution of Religion,” in *Where God and Science Meet: How Brain and Evolutionary Studies Alter Our Understanding of Religion*, ed. Patrick McNamara (Westport, CT: Praeger Publishers, 2006), 61-86; Sosis, Kress, and Boster, “Scars for War,” 235.

³⁴ Sosis, Kress, and Boster, “Scars for War,” 235; Randolph M. Nesse, “Natural Selection and the Capacity for Subjective Commitment,” in *Evolution and the Capacity for Commitment: A Volume in the Russell Sage Foundation Series on Trust*, ed. Randolph M. Nesse (New York: Russell Sage Foundation, 2001), 19.

³⁵ William Irons, “Morality as an Evolved Adaptation,” in *Investigating the Biological Foundations of Human Morality: An Interdisciplinary Perspective*, Symposium Series vol. 37, ed. James P. Hurd (Lewiston, NY: The Edwin Mellen Press, 1996), 10, 26-8, 30-1; Joseph Bulbulia, “The Cognitive and Evolutionary Psychology of Religion,” *Biology and Philosophy* 19 (2004): 663-4.

theories, this literature review is framed through a lens of reflexivity. I am specifically concerned with the occurrence of reflexivity or lack thereof within early and contemporary literature, as well as with how the presence and absence of reflexivity paves the way for the development of decolonised methodologies of cultural practice, which I later use to critique Cisco's analysis of tā moko and to develop a framework for my own model of transmissive assemblage.

Evolutionary Theory

In his 2007 article, entitled "SNAFUS: An Evolutionary Perspective," Kim Sterelny defines a fitness trap as "a situation created by a strategy that sweeps the population because it is individually advantageous when not universal, but once fixed, the strategy reduces the absolute fitness of everyone."³⁶ In following pages, Sterelny cites female genital mutilation and Chinese footbinding as examples supporting the existence of fitness sinks, per his definition. Though an interesting proposition, upon closer examination a number of issues concerning the cultural application of fitness sinks to footbinding surface.

One issue that comes to the fore is the idea of footbinding as "individually advantageous when not universal." If we consider Chinese footbinding superficially, this is a sensible statement. Footbinding did emerge out of the upper echelon of Chinese society and, upon its initial emergence and for some time after, served as a signal that a woman was highly cultured and amongst the elite. However, further research reveals that, even at its inception, footbinding was not the only signal to indicate a woman of elite status, a fact entirely absent in Sterelny's analysis. This is problematic for making the argument for footbinding as a fitness sink, since, the historical record indicates that footbinding, in and of itself cannot be identified as a single strategy resulting in increased fitness benefits for those who engage in the practice. Rather, elite

³⁶ Sterelny, "SNAFUS," 320.

Chinese women were expected to have a package of characteristics which differentiated them from commoners; footbinding was only one part of the whole package. Training in classical literature and embroidery skills were integral to the elite package women in the upper strata of society were expected to possess.³⁷ Furthermore, when prospective brides were being assessed for marriageability, it was not just that the woman's feet were bound, but the shoes, which covered the woman's feet, were scrutinised and deemed an important criterion for brides-to-be. Bridal daughters were literally judged by the shoes they made, and it was the shoes that were actually checked not the bound feet.³⁸

There is evidence to indicate that when a matchmaker went to a groom's house, a shoe made by the potential bride was taken along as a sample of her accomplishment and ultimately as a testament to her inherent worth.³⁹ Textile skill served to signal a woman's moral and economic worth, and certain social gradations were reflected in the fabric and construction of the lotus shoes themselves.⁴⁰ Thus, the shoes a woman created and the embroidery adorning them were more indicative of a woman's worth than the simple fact that she was footbound.⁴¹ Dorothy Ko goes so far as to assert that shoes had more to do with footbinding than the body did; thus, she emphasises how critical the shoes were to the whole establishment of the practice of footbinding.⁴² If this was the case, then it was not the act of footbinding that conferred an advantage for elite women but actually the embroidery skills a woman possessed.

³⁷ Yuan-Ling Chao, "Poetry and Footbinding: Teaching Women and Gender Relations in Traditional China," *World History Connected* 6, no. 2 (2009), accessed September 13, 2015, <http://worldhistoryconnected.press.illinois.edu/cgi-bin/cite.cgi>.

³⁸ Dorothy Ko, *Every Step a Lotus: Shoes for Bound Feet* (Berkeley; Los Angeles, CA: University of California Press, 2001), 77, 79.

³⁹ *Ibid.*, 61.

⁴⁰ *Ibid.*, 79, 81; Chao, "Poetry and Footbinding."

⁴¹ Ko, *Every Step*, 85.

⁴² *Ibid.*, 104.

Additionally, there was a great deal of regional variance when it came to footwear.⁴³ Research shows that the type of shoe, including embroidery work and regional reflection is what actually indicated the status of a woman. As Yuan-Ling Chao observes, "...the shoe for the bound feet became the site for the expression of refinement through intricate embroidery."⁴⁴ The desire for the "smallness" achieved through binding was defined in different ways depending upon region. In some areas, small might mean less width, a smaller arch, tiny ankles, or tips that came to a point.⁴⁵ All of these traits were determined by the trends celebrated in a particular part of China; though the ideal woman would have bound feet with all of these characteristics.⁴⁶ Whilst most women who bound tried to achieve this "ideal," "the majority of women could only hope to accentuate their best feature while hiding the worst."⁴⁷ Thus, it becomes apparent that not all footbound women had the advantage of higher status when the practice was rare, which is essential for footbinding to be classified as a fitness sink. There still was considerable variation amongst footbound women, including genetics, which determined how small binding could make their feet, type of binding which was determined by region, embroidery and textile skills, and materials involved in the crafting of shoes. Moreover, even if we were able to confidently establish that all footbound women benefitted from elevated status, we cannot confidently assert whether it is the footbinding, some other practice in the expected package of characteristics, or the entire package itself that resulted in an advantage for elite women.

Although this study is not about Chinese footbinding or fitness sinks, this example provides a good illustration of some of the dangers and shortcomings of the practical application

⁴³ Ko, *Every Step*, 109-11.

⁴⁴ Chao, "Poetry and Footbinding."

⁴⁵ Ko, *Every Step*, 99.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.* For more information on Chinese footbinding and revisionist views of the practice, see Dorothy Ko, *Cinderella's Sisters: A Revisionist History of Footbinding* (Berkeley; Los Angeles, CA: University of California Press, 2005).

of evolutionary theories of culture, particularly when considered within a historical context. Though, theoretically, Sterelny's concept of a fitness sink is possible and provides an interesting framework to analyse the spread of such an unusual and painful custom, ultimately the literature on Chinese footbinding does not support his argument and, to the contrary, provides a great deal of fodder against it. At the very least, it suggests that footbinding, itself, would not be the cause of a fitness sink.

We would hope that this is not a recurrent theme within evolutionary explanations of culture, but unfortunately it is. Whether it is underdeveloped case studies, like the footbinding example, niche-construction theory whose champions regularly only cite two main human examples, lactose intolerance and sickle-cell anaemia, in support of their claims, or memetic (meme) theory, which suffers from a vague and unclear unit of selection (the meme), the difficulties of translating evolutionarily based models to culture are seen time and again, leaving behind a trail of questions about their illustrative efficacy and place within studies of culture.⁴⁸

As Soros explains, the contributions of science are of unparalleled significance, but precisely because of its achievements, its explanatory power may have been "carried too far."⁴⁹ What Soros goes on to describe is the tendency of the natural sciences, when applied to human phenomena, like culture, to unnaturally separate thought and fact. Though in the natural sciences human thoughts about a subject, by design, do not affect fact, within the social sciences and

⁴⁸ Pascale Gerbault et al., "Evolution of Lactase Persistence: An Example of Human Niche Construction," *Philosophical Transactions of the Royal Society B: Biological Sciences* 366, no. 1566 (2011): 863-7; Michael J., and Kevin N. Laland, "Genes, Culture, and Agriculture," *Current Anthropology* 53, no. 4 (2012): 440-5; Thomas C. Scott-Phillips et al., "The Niche Construction Perspective: A Critical Appraisal," *Evolution* 68, no. 5 (2014): 1232-4; John F. Odling-Smee, Kevin N. Laland, and Marcus W. Feldman, *Niche Construction: The Neglected Process in Evolution* (Princeton, NJ: Princeton University Press, 2003), 251; For a thorough discussion of objections to meme theory, see Dan Sperber, "An Objection to the Memetic Approach to Culture," in *Darwinizing Culture: The Status of Memetics as a Science*, ed. Robert Aunger (Oxford; New York: Oxford University Press, 2000), 163-73.

⁴⁹ George Soros, "Theory of Reflexivity," lecture, MIT Department of Economics World Economy Laboratory Conference, Washington, D.C., April 26, 1994.

humanities thoughts about a subject are integral to our understanding of a phenomenon. Accordingly, Soros asserts that “if the study of events is confined to the study of facts, an important element, namely the participants’ thinking, is left out of account.”⁵⁰ This omission is the focal point of tensions that arise between the etic application of evolutionary theory and emic indigenous perspectives on cultural beliefs and practices, so it is timely now to turn to anthropology to explore these issues further.

Anthropology

Though the use of evolutionary theories to explain culture is relatively recent, questions about the explanatory efficacy of cultural theories when contextualised and applied within indigenous populations are long-standing. Throughout the 20th and 21st centuries a number of scholars within the social sciences and humanities have contributed to the development of a cross-disciplinary dialogue about reflexivity grounded in the work of early anthropologists. In 1887, Franz Boas proposed the need to consider endemic views of culture, positing that “the main object of ethnological collections should be the dissemination of the fact that civilization is not something absolute, but that it is relative, and that our ideas and conceptions are true only so far as our civilization goes.”⁵¹ Bronislaw Malinowski expressed a keen awareness of the significant challenges posed when studying indigenous groups, embodied within the tentative space between the observer and the observed, both living and interpreting the world within the constraints of their humanness.

⁵⁰ Soros, “Theory of Reflexivity.”

⁵¹ Franz Boas, “Museums of Ethnology and Their Classification,” in *Museum Studies: An Anthology of Contexts*, 2nd ed., ed. Bettina Messias Carbonell (Malden, MA: Blackwell Publishing, Ltd., 2012), 128.

In Ethnography, the writer is his own chronicler and the historian at the same time, while his sources are no doubt easily accessible, but also supremely elusive and complex; they are not embodied in fixed, material documents, but in the behaviour and in the memory of living men... The Ethnographer has...the duty before him of drawing up all the rules and regularities of tribal life; all that is permanent and fixed; of giving an anatomy of their culture, of depicting the constitution of their society. But these things, though crystallised and set, are nowhere formulated. There is no written or explicitly expressed code of laws, and their whole tribal tradition, the whole structure of their society, are embodied in the most elusive of all materials; the human being.⁵²

Boas and Malinowski were instrumental in the inaugural understanding of cultural relativism, a term first coined by Alain Locke.⁵³ Both men can be considered pioneers in the effort to combat the ethnocentric voice that characterised Victorian scholarship by developing an academic awareness of the effects generated by the methods employed to study indigenous groups and the interpretive mechanisms utilised to draw conclusions about a given culture's practices and beliefs. Evans-Pritchard further questioned anthropological practice, drawing attention to the difficulties of translating one's experiences of an outside culture into a form that has meaning and relevance to both oneself and within one's own culture.⁵⁴

Twenty years later, interdisciplinary American scholar James Clifford continued to explore the role of the anthropologist in constructing representations of indigenous people. His work initiated a reflexive movement within cultural anthropology, art history, and other disciplines, to historically and rhetorically examine the effects of globalisation and decolonisation on contemporary indigenous populations, on the portrayal of indigeneity, and on

⁵² Bronislaw Malinowski, *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagos of Melanesian New Guinea* (London: George Routledge and Sons, Ltd., 1922), 3, 12.

⁵³ "cultural, *adj.* and *n.*," *OED Online*, Oxford University Press, accessed January 25, 2015, <http://www.oed.com/view/Entry/45742?redirectedFrom=cultural+relativism#eid129084834>, citing Alain Locke's article "The Concept of Race as Applied to Social Culture," *Howard Review* 1 (1924): 290-9.

⁵⁴ Evans-Pritchard, *Primitive Religion*, 8-19.

the role and ethical responsibility of those studying and writing about indigenous groups.⁵⁵

Synchronously with Clifford's work, similar currents of thought around societal power dynamics and the subjectivity of human experience began to emerge in sociology. French sociologist Pierre Bourdieu became preoccupied with dynamics between colonial observers and the indigenous groups they observed. In critically analysing the space between the observer and the observed, Bourdieu confronted the biases projected onto indigenous cultural groups from within the "scholastic" culture of academia.⁵⁶ To Bourdieu, the reflexive process is the only way to accurately illuminate one's prejudices.⁵⁷ In light of Bourdieu's contributions, this thesis is framed by a reflexive approach.

Religious Studies

Similar reflexivity is present within religious studies, as enquiries into the effects of imperial, colonial, and global powers on contemporary religions are numerous.⁵⁸ Peter Beyer has produced a number of treatises on the effects of globalisation, paying particular attention to how global change has affected the outward manifestation and meaning of religious practice.⁵⁹ *Selling*

⁵⁵ James Clifford and George E. Marcus, eds. *Writing Culture: The Poetics and Politics of Ethnography*, (Berkeley: University of California Press, 1986); James Clifford, *Routes: Travel and Translation in the Late Twentieth Century* (Cambridge, MA: Harvard University Press, 1997); James Clifford, *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge, MA: Harvard University Press, 1988).

⁵⁶ Pierre Bourdieu, *Homo Academicus* (Stanford, CA: Stanford University Press, 1984).

⁵⁷ Michael Grenfell and David James, *Bourdieu and Education: Acts of Practical Theory* (London: Psychology Press, 1998), 39-41; Pierre Bourdieu and Jean-Claude Passeron, *The Inheritors: French Students and Their Relation to Culture* (Chicago: The University of Chicago Press, 1979).

⁵⁸ Richard A. Horsley, *Religion and Empire: People, Power, and the Life of the Spirit* (Minneapolis, MN: Fortress Press, 2003); Morny Joy, "Beyond a God's Eyeview: Alternative Perspectives in the Study of Religion," *Method and Theory in the Study of Religion* (2000): 110-40; Morny Joy, "Postcolonial Reflections: Challenges for Religious Studies," *Method and Theory in the Study of Religion* (2001): 177-95; Malory Nye, "Religion, Post-Religionism, and Religioning: Religious Studies and Contemporary Cultural Debates 1," *Method and Theory in the Study of Religion* 12, no. 1 (2000): 447-76; Walter Mignolo, "Decolonizing Western Epistemology/Building Decolonial Epistemologies," in *Decolonizing Epistemologies: Latina/o Theology and Philosophy*, eds. María Isasi-Daíz and Eduardo Mendieta (The Bronx, NY: Fordham University Press, 2012), 19-43.

⁵⁹ Peter Beyer, *Religion and Globalization* (London: Sage Publications, Ltd., 1994); Peter Beyer, ed., *Religion in the Process of Globalization* (Würzburg: Ergon Verlag, 2001); Peter Beyer, *Religions in Global Society* (London: Routledge, 2006); Peter Beyer and Lori Beaman, eds., *Globalization, Religion, and Culture* (Leiden, The Netherlands: Brill, 2007).

Spirituality is an attempt to expose the commodification of spirituality and reclaim spirituality from its current neo-liberal, “sanitised” state.⁶⁰ In *Empire of Religion*, David Chidester seeks to provide an alternative methodology for the academic study of religion which sheds light on the imperial and colonial powers that have shaped religious studies but have largely been ignored.⁶¹

Reflexive attempts to decolonise religion have also been applied in specific spiritual and religious contexts. Many of these efforts occurred during the 1980s and 90s within studies of the effects of imperial and colonial influences on Hinduism and the East.⁶² Other attempts at critical analyses of the application of religious studies methodologies have been conducted on groups throughout the world. In *Decolonising African Religions*, Okot p’Bitek seeks to reveal the European infrastructure through which indigenous, African spirituality has assumed its current identity, thus validating the cultural mandate of African spiritual cultures to de-Hellenise, in hopes of allowing them to be understood on their own terms.⁶³ Likewise, an anthology edited by David Joy and Joseph Duggan delves further into the process of decolonising religions, with topics ranging from decolonising the constructed identity of Christ to reformulating Asian

⁶⁰ Jeremy Carrette and Richard King, *Selling Spirituality: The Silent Takeover of Religion* (New York: Routledge, 2005).

⁶¹ David Chidester, *Empire of Religion: Imperialism and Comparative Religion* (Chicago: The University of Chicago Press, 2014).

⁶² Rana Kabbana, *Europe’s Myths of the Orient* (London: Macmillan, 1986); Phillip Almond, *The British Discovery of Buddhism* (Cambridge: Cambridge University Press, 1988); Donald Lopez, *Prisoners of Shangri-La: Tibetan Buddhism and the West* (Chicago: The University of Chicago Press, 1998); Mani Lata, *Contentious Traditions: The Debate on Sati in Colonial India* (Berkeley, CA: University of California Press, 1998); Richard King, *Orientalism and Religion: Post-Colonial Theory, India and the Mystic East* (Routledge: London, 1999). For a more contemporary source see Koenraad Elst, *Decolonizing the Hindu Mind: Ideological Development of Hindu Revivalism* (New Dehli, India: Rupa and Co, 2001).

⁶³ Okot p’Bitek, *Decolonizing African Religion: A Short History of African Religions in Western Scholarship* (New York: Diasporic Africa Press, 2011). For earlier supporting arguments, see Kwasi Wiredu, “Toward Decolonizing African Philosophy and Religion,” *African Studies Quarterly* 1, no. 4 (1998): 17-46 and Ifi Amadiume, *Re-inventing Africa: Matriarchy, Religion and Culture* (London: Zed Books, 1997); David Chidester, *Savage Systems: Colonialism and Comparative Religion in Southern Africa* (Charlottesville, VA: The University Press of Virginia, 1996). For a reference on similar efforts that have taken place within the Caribbean, see Noel Leo Erskine, *Decolonizing Theology: A Caribbean Perspective* (Maryknoll, NY: Orbis Books, 1981). See also Shelley C. Wiley, “Chapter Seven: Postcolonial Studies and Decolonizing Spiritualities: Reading Haitian Vodou with Rosemary Reuther and Frantz Fanon,” in *Voices of Feminist Liberation*, eds. Emily Leah Silverman, Dirk von der Horst, and Whitney A. Bauman (New York: Routledge, 2014), 99-114.

theology by addressing existing tensions “between an ‘original’ Christianity and its ‘Asianized’ derivative.”⁶⁴

Mythology, my own area of expertise, also participates in the move towards reflexive methods in the study of cultural processes. Paul Ricoeur, a phenomenologist, maintains that the best place to begin to understand religious experience is through the language that is used to describe it. Thus, the starting place for any discussion of a group’s understanding of their own practices is from within the culture itself.⁶⁵ Sam Gill also employs myth to investigate scholarly practice when interpreting a group’s beliefs and practices. In acknowledging the persisting colonial agenda evident through the study of myth, Gill stresses the need for the decolonisation of modern academia to find a middle ground between objectivism and subjectivism.⁶⁶ Gill’s awareness of the need for decolonisation within academia is significant, in that it aligns with the aims of this study by underscoring the dangers of studying cultural groups through the lens of alterity and by encouraging reflexivity within the academic tradition through the cultivation of a multiperspectival approach to non-Western epistemology and ontology.

Wendy Doniger’s writing on myth focuses on storytelling and how a culture’s myths provide self-definition. She remains acutely aware that the entry point into understanding any cultural group is from within their own stories and their own views of the meaning behind them.⁶⁷ This entry point is encapsulated by Doniger’s term “metamyth,” or what, in this thesis, is called *narrative assemblage*. A narrative assemblage is an overarching, theoretical narrative (a

⁶⁴ David Joy and Joseph Duggan, eds., *Decolonizing the Body of Christ: Theology and Theory after Empire*, vol. 1 (London: Palgrave MacMillian, 2012). For a postmodern critique of Biblical narrative and themes, see Mark Brett, *Decolonizing God: The Bible in the Tides of Empire* (Sheffield, England: Sheffield Phoenix Press, 2008).

⁶⁵ Paul Ricoeur, *Figuring the Sacred: Religion, Narrative, and Imagination* (Minneapolis, MN: Augsburg Fortress, 1995), 35.

⁶⁶ Sam D. Gill, *Storytracking: Texts, Stories, and Histories in Central Australia* (Oxford: Oxford University Press, 1998).

⁶⁷ Wendy Doniger, *Other Peoples’ Myths: The Cave of Echoes* (Chicago: The University of Chicago Press, 1988); Wendy Doniger, *The Implied Spider: Politics and Theology in Myth* (New York: Columbia University Press, 2011).

narrative about narratives) comprised of any number of narratives or parts of narratives gathered into a single context. The narrative assemblage “enables us to look at all of the variants [of narrative] at once and ask our various questions simultaneously.”⁶⁸ In critiquing issues that emerge from Cisco’s account of tā moko, the narrative assemblage exposes the layers of etic discourse involved in the construction of Cisco’s mythologised narrative. The narrative assemblage cultivates further reflexivity by encouraging reflection upon the ways in which narratives are discovered or constructed and by providing a platform where this awareness can be utilised to foster constructive dialogue to decolonise and revise existent narratives through heteroglossia.

Indigenous and Māori Studies

The reflexive work on myth within religious studies resonates within indigenous and Māori studies. Eduardo Viveiros de Castro, whose work scaffolds onto Edward Tylor’s early anthropological approach to religion, probes the structurality of the foundational concepts of nature and culture within Western and non-Western, specifically Amerindian (indigenous peoples of the Americas), groups. He explores the relevancy of traditional, Western divisions made between nature and culture as applied to non-Western cosmologies. His observations of the drastic differences between Western and non-Western cosmological constructions prompts de Castro to introduce the term *multi-naturalism* to describe non-Western cosmologies where “culture or the subject” takes “the form of the universal, whilst nature or the object” assumes

⁶⁸ Doniger, *Other Peoples’ Myths*, 100; Wendy Doniger, “Minimyths and Maximyths and Political Points of View,” in *Myth and Method*, eds. Laurie L. Patton and Wendy Doniger (Charlottesville, VA: University Press of Virginia, 1996), 116.

“the form of the particular.” This is in contrast to Western, “multiculturalist” cosmologies, which maintain a universality of nature through the gaze of cultural plurality.⁶⁹

The multi-naturalist perspective affords scholarship a holistic, metaphysical lens inclusive of all cosmological aspects of existence. By ceasing to cling to the anthropocentricity of Western models, de Castro provides an integrative model whereby humans cannot be separated from the rest of the natural world in which they live. This allows scholars a rare opportunity to extend ontological and epistemological perceptions ad infinitum, in turn giving indigenous groups a multi-vocal platform from which to articulate their own metaphysical realities without the strain of intermediaries who inevitably distort the message.⁷⁰

Indigenous ontological perspectivism’s integrative nature is not limited to human agents, rather any object, animal, etc. that is ascribed “a soul is capable of having a point of view,” yet the original condition of man and animals described within mythological accounts is human.⁷¹ The perspective that animals are originally human in nature overturns the assumption that the inherent animalistic nature of humans requires palliation that only culture can provide.⁷² As de Castro elaborates, “if we conceive of humans as somehow composed of a cultural clothing that

⁶⁹ Eduardo Viveiros de Castro, “Exchanging Perspectives: The Transformation of Objects into Subjects in Amerindian Ontologies,” *Common Knowledge* 10, no. 3 (2004): 463-5. See also Sir Edward Burnett Tylor, *Primitive Culture* (New York: Harper and Row, 1958), particularly pages 8-19, 80-6, and 444-7.

⁷⁰ For work on the “ontological turn,” whereby certain anthropologists seek to transform ethnography into “a mode of translation” and skepticism surrounding claims “ontological relativity,” see Amiria Salmond, “Transforming Translations (part 2): Addressing Ontological Alterity,” *HAU: Journal of Ethnographic Theory* 4, no. 1 (2014): 155-87; Amiria Henare, Martin Holbraad, and Sari Wastell, “Introduction: Thinking through Things,” in *Thinking through Things: Theorising Artefacts Ethnographically*, eds. Amiria Henare, Martin Holbraad, and Sari Wastell (London: Routledge, 2007), 1-31. For a critique of these arguments, see Morten Axel Pedersen, “Common Nonsense: A Review of Certain Recent Reviews of ‘The’ Ontological Turn,” *Anthropology of This Century* 5 (Oct., 2012), accessed September 18, 2015, http://aotcpress.com/articles/common_nonsense/.

⁷¹ De Castro, “Exchanging Perspectives,” 464-5, 467.

⁷² *Ibid.*, 465; De Castro, “Cosmological Deixis,” 470. For more on the debate about human cultural exclusivity, see Christophe Boesch, “Is Culture a Golden Barrier between Human and Chimpanzee?,” *Evolutionary Anthropology: Issues, News, and Reviews* 12, no. 2 (2003): 82-91; Kevin N. Laland and Vincent M. Janik, “The Animal Cultures Debate,” *TRENDS in Ecology and Evolution* 21, no. 10 (2006): 542-7; Andrew Whiten, “The Scope of Culture in Chimpanzees, Humans and Ancestral Apes,” *Philosophical Transactions of the Royal Society B: Biological Sciences* 366, no. 1567 (2011): 997-1007.

hides and controls an essentially animal nature, Amazonians have it the other way around: animals have a human, socio cultural inner aspect that is “disguised” by an ostensibly bestial bodily form.”⁷³ Despite the fact that, at their cores, humans, animals, and other entities are human, the “way that humans perceive animals and other subjectivities that inhabit the world differs profoundly from the way in which these beings see humans (and see themselves).”⁷⁴ Thus, to understand the past, or even our current state, requires that we come to know “the mind of the narrator.”⁷⁵ The result of this relationship, inverse to Western conceptions, is the attribution of “social relations” to “nature.”⁷⁶

De Castro further develops this relationship: “animals and spirits see themselves as humans: they perceive themselves as (or become) anthropomorphic beings when they are in their own houses or villages and they experience their own habits and characteristics in the form of culture.”⁷⁷ For instance, as jaguars feast on the blood of a recent kill, they view themselves as imbibing manioc beer. In like manner, de Castro maintains that animals’ social institutions are identical to human organisations, replete with shaman, chiefs, and meaningful ceremonies.⁷⁸

De Castro turns to conflicting ontologies to further elaborate upon this inversion. Where Western, multiculturalist ontologies are based upon “the mutually implied unity of nature and multiplicity of cultures,” indigenous ontologies are multi-naturalist, reflecting “spiritual unity and corporeal diversity” and perceiving nature as the particular and culture as the universal form.⁷⁹ Thus, Western ontological models presume one’s perspective or point of view is

⁷³ De Castro, “Exchanging Perspectives,” 465; De Castro, “Cosmological Deixis,” 469.

⁷⁴ Ibid., 466; Ibid., 469.

⁷⁵ Rawiri Te Maire Tau, “Tirohia Atu Nei Ka Whetū Rangitia, Minding the Past,” *Te Pouhere Kōrero 5: Māori History, Māori People* (2011): 11.

⁷⁶ De Castro, “Exchanging Perspectives,” 465; Eduardo Viveiros de Castro, “Images of Nature and Society in Amazonian Ethnology,” *Annual Review of Anthropology* 25 (1996): 191.

⁷⁷ De Castro, “Cosmological Deixis,” 470.

⁷⁸ Ibid.

⁷⁹ Ibid., 470; De Castro, “Exchanging Perspectives,” 466.

generated from the subject, whereas indigenous models more often purport that the point of view generates a subject. This suggests that process determines subject.

Although there are significant differences between Māori and Amerindian groups, de Castro's emphasis on ontology through relationality marks a major turn in anthropology, which has been lauded and utilised within Māori contexts.⁸⁰ McCarthy explains that de Castro's employment of relationality to forgo the subject/object duality so prevalent in the West translates well into Polynesian and Māori ontologies and practices where a perspective shaped by connectedness prevails.⁸¹ Even whakapapa, the foundation of Māori social structure, can be "more broadly interpreted" as being shaped by relationships "of all kinds that connect everything: not only humans, but also animals, plants, the land, and natural forces."⁸²

Corroborating evidence of the applicability of de Castro's multi-naturalist and relational ontological stance within a Māori context is also present within Tau's work. According to Tau, the world was created by the atua in both a physical and human sense, "because atua also signified and created thought."⁸³ Tau maintains that not only were atua "spiritual" entities, but recently deceased ancestors and unusual or significant "natural phenomena," in some Māori traditions, were also atua.⁸⁴ Whilst Tau's view is controversial and simplistic, with regards to his narrow treatment of the deceased, importantly it does affirm that causal agents for Māori are many, and that any concept of agency needs to be extended to atua and other natural entities which are central to Māori holistic reality.⁸⁵

⁸⁰ Henare, Holbraad, and Wastell, "Thinking through Things," 1-31; Conal McCarthy, "'Historicising the 'Indigenous International': Museums, Anthropology, and Transpacific Networks," in *TransPacific Americas: Encounters and Engagements between the Americas and the South Pacific*, eds. Eveline Duerr and Philipp Schorch (London; New York: Routledge, 2016), 3-26.

⁸¹ McCarthy, "Historicising," 8.

⁸² *Ibid.*, 9.

⁸³ Tau, "Minding the Past," 11.

⁸⁴ *Ibid.*, 19.

⁸⁵ *Ibid.*, 26.

De Castro's ontological position also inverts evolutionary explanation which has broader implications for indigenous groups, including Māori, and draws attention to the tensions that arise when Western science is employed to account for indigenous practice, as the Cisco case study reveals. The anthropocentric nature of Western evolutionary explanation does not translate into many indigenous conceptions, which allow for anthropomorphism but which are not particularly anthropocentric, since other entities, aside from human beings, are considered to be "human."⁸⁶ Anthropocentric tendencies of Western explanations of cultural evolution occlude a key ontological perspective for indigenous groups, making explanations of cultural evolutions irrelevant for the very groups whose practices and beliefs evolutionary explanations seek to clarify. This is unfortunate, because as Gill observes, academia exists to help bridge "the reality of our world and our understanding of it."⁸⁷ If explanations of cultural practice have no relevance to the indigenous groups to whom the practices belong, then we, as scholars, are failing in the endeavour to bridge this gap.

Also aware of the divergences between indigenous and Western perspectives, Sahlins, the anthropologist who castigated sociobiology, delivers a compelling critique of the ways in which Western, ethno-historical accounts have shaped cultural narratives for both the West and indigenous "others." To overcome the Western tendency to categorise and label, Sahlins seeks to rise above the limitations of Western ontological and epistemological conceptions and challenges the anthropological community to deconstruct their narratives of alterity that are projected onto indigenous groups. To replace these narratives, Sahlins suggests establishing a framework through which indigenous ontologies can be appreciated on their own, rather than in

⁸⁶ De Castro, "Exchanging Perspectives," 467.

⁸⁷ Gill, *Storytracking*, 3.

juxtaposition to Western modes of existence.⁸⁸ As Joseph Epes Brown remarks of indigenous groups:

We are still very far from being aware of the dimensions and ramifications of our ethnocentric illusions. Nevertheless, by the very nature of things we are now forced to undergo a process of intense self-examination; to engage in a serious re-valuation of the premises and orientations of our society.⁸⁹

In a reflexive study of Māori anthropology, Amiria Henare, a proponent of de Castro, exposes the conflict between cultural and social theory and indigenous realities. She concludes that Māori anthropologists have adopted Western anthropological theories “in an attempt to articulate (possibly untranslatable) concepts of their own.”⁹⁰ Yet, within anthropology, the idea that Māori may actually view the world differently is dismissed precisely because they utilise Western social theories, an act lamented by the wider anthropological community as a “tragic irony that such people can only proclaim their difference using ‘our’ language, because they are no longer themselves.”⁹¹

Māori historians assert that the very foundations of Western scholarship are “shaky” and challenge the application of empirical methodologies grounded in 19th century interpretive evidence when studying Māori people.⁹² As Nepia Mahuika observes, Western constructions of Māori history essentialise Māori people by “reducing them to a homogenous group.”⁹³ To

⁸⁸ Marshall Sahlins, *How “Natives” Think: About Captain Cook, For Example* (Chicago: The University of Chicago Press, 1996), 5, 8. For more on Sahlins’ framework and anthropological approach, see Marshall Sahlins, *Culture in Practice: Selected Essays* (New York: Zone Books, 2000).

⁸⁹ Joseph Epes Brown, *The Sacred Pipe: Black Elk’s Account of the Seven Rites of the Ogala Sioux* (Norman, OK: The University of Oklahoma Press, 1989), xv.

⁹⁰ Amiria Henare, “Nga Rakau a te Pakeha: Reconsidering Maori Anthropology,” in *Anthropology and Science: Epistemologies in Practice*, eds. Jeanette Edwards, Penny Harvey, and Peter Wade (Oxford: Berg, 2007), 108. See also Anne Salmond, “Ontological Quarrels: Indigeneity, Exclusion, and Citizenship in a Relational World,” *Anthropological Theory* 12, no. 2 (2012): 115-141 and Chris Gosden, *Knowing Things: Exploring the Collections at the Pitt Rivers Museum 1884-1945* (Oxford: Oxford University Press, 2007). For Henare’s positive commentary on de Castro, see Henare, Holbraad, and Wastell, “Thinking through Things,” 7-10.

⁹¹ Amiria Henare, “Reconsidering,” 108.

⁹² Tau, “Minding the Past,” 8-9.

⁹³ Nepia Mahuika, “Kōrero Tuku Iho: Our Gift and Our Responsibility,” *Te Pouhere Kōrero 4, Māori History, Māori People* (2010): 27; Nepia Mahuika, “‘Kōrero Tuku Iho’: Reconfiguring Oral History and Oral Tradition,”

combat this tendency, Mahuika emphasises the role of oral history in Māori constructions and understandings of the past. However, because Māori conceptions of time defy Western, historical definitions of the past which are situated in an empirical context, Mahuika questions whether Māori history can even be written, maintaining that if it is, then it will likely be “Western in conception.”⁹⁴

As Tuhiwai Smith admits, “imperialism frames the indigenous experience,” in part by regulating and shaping the emergence of cultural narrative.⁹⁵ In light of this imperialistic framework, Kaupapa Māori was designed to allow Māori to regain their own cultural autonomy, in part, by challenging “unequal power relations” so evident in “the dominant hegemony of westernized positivistic research.”⁹⁶ Within Māori communities, it is widely acknowledged that Western models of research often breach unspoken epistemological and metaphysical boundaries that are known and sacred to Māori.⁹⁷ Having to explain or justify what is often something inherently understood because it is lived, serves as a constant reminder to Māori of their position as “other.”⁹⁸ Yet, evolutionary explanations of culture do not acknowledge this.

The recognition of the power of the colonial discourse to subordinate and diminish indigenous realities has been acknowledged throughout the humanities and social sciences.⁹⁹

PhD diss., The University of Waikato, 2012; Rangimarie Mahuika, “Kaupapa Māori Theory is Critical and Anti-Colonial,” *Mai Review* 3, no. 4 (2008): 1-16.

⁹⁴ Mahuika, “Our Gift,” 27.

⁹⁵ Tuhiwai Smith, *Decolonizing Methodologies*, 19; Edward W. Said, *Culture and Imperialism* (London: Vintage, 1994), xiii.

⁹⁶ Leonie Pihama, Fiona Cram, and Sheila Walker, “Creating Methodological Space: A Literature of Kaupapa Māori Research,” *Canadian Journal of Native Education* 26, no. 1 (2002): 31; Shayne Walker, Anaru Eketone, and Anita Gibbs, “An Exploration of Kaupapa Maori Research, Its Principles, Processes, and Application,” *International Journal of Social Research Methodology* 9, no. 4 (2006): 332.

⁹⁷ Walker, Eketone, and Gibbs, “An Exploration,” 334.

⁹⁸ Helen Moewaka Barnes, “Kaupapa Maori: Explaining the Ordinary,” *Pacific Health Dialog* 7, no. 1 (2000): 16.

⁹⁹ Said, *Culture and Imperialism*, xi-380; Gayatri Chakravorty Spivak, *A Critique of Postcolonial Reason: Toward a History of the Vanishing Present* (Cambridge, MA: Harvard University Press, 1999), ix-449; Tuhiwai Smith, *Decolonizing Methodologies*, 1-215; Martin Nakata, “Indigenous Knowledge and the Cultural Interface: Underlying Issues at the Intersection of Knowledge and Information Systems,” *IFLA Journal* 28, no. 5-6 (2002): 218-21; Clifford and Marcus, *Writing Culture*, vii-307; Clifford, *Routes*, 1-411; Clifford, *Predicament of Culture*, 1-385;

However, this same reflexivity is absent within evolutionary explanations of cultural practice. This reflexivity is, instead, replaced by a sense that science remains the objective observer and transcends the need for reflexivity; that scientific principles and practices have no agenda aside from the pursuit to explain evidentially-based occurrences in the natural world and that the natural world is the sole milieu in which we exist. Yet, this is a paradigm developed by Westerners which takes for granted the cultural significance of alternative accounts of physical and metaphysical reality. Hence, the development of terms like “Eurocentric sciences,” used to describe how knowledge of the natural world was intentionally contoured to “Eurocentric worldviews, metaphysics, epistemologies, and value systems.”¹⁰⁰

Indeed, the reflexivity so apparent in the above literature is difficult to find within dialogues of evolutionary explanations of culture, a lack which draws attention to the need for models that foster multi-perspectival approaches to cultural practice. In light of the need for more symmetrical models, the study also draws on science and technology studies. Specifically, I explore Bruno Latour’s actor-network theory as a possible theoretical framework to hybridise with costly signalling theory in order to create a new model to explain cultural practice with greater explanatory power, including for indigenous groups.¹⁰¹

Horsley, *Religion and Empire*, 1-151; Joy, “God’s Eyeview,” 110-40; Joy, “Postcolonial Reflections,” 177-95; Nye, “Religion and Religioning,” 447-76; Mignolo, “Decolonizing Epistemology,” 19-43; Wayne L. Proudfoot, “Religious Belief and Naturalism,” in *Radical Interpretation in Religion*, ed. Nancy K. Frankenberry, (Cambridge: Cambridge University Press, 2002), 78-94.

¹⁰⁰ Glen S. Aikenhead and Masakata Ogawa, “Indigenous Knowledge and Science Revisited,” *Cultural Studies of Science Education* 2, no. 3 (2007): 539-620.

¹⁰¹ John Law, “The Materials of STS,” in *The Oxford Handbook of Material Culture Studies*, eds. Dan Hiscks and Mary Beaudry (Oxford: Oxford University Press, 2010), 173-88; Bruno Latour, *Reassembling the Social: An Introduction to Actor-network-Theory* (Oxford: Oxford University Press, 2005), 1-301; John Law, “Notes on the Theory of the Actor-network: Ordering, Strategy, and Heterogeneity,” *Systems Practice* 5, no. 4 (1992): 379-93.

Actor-network Theory

French sociologist Latour's actor-network theory is a reflexive, ontological, and metaphysical approach which hones in on process and associations with the aim to explain what "recording device" allows entities to be described in as much detail as possible.¹⁰² Actor-network theory uses four main components in its quest to understand what moves when tracing associations and the means through which this movement is recorded.¹⁰³ First, is "the attribution of human, unhuman, nonhuman, and inhuman characteristics."¹⁰⁴ Contrary to most social models, which explain society through the "social relations of individual human agents," Latour extends this agency to all agents, both human and non-human.¹⁰⁵ Anything from which action is derived is an agent.¹⁰⁶ Whether the agent in question is an individual, group, "amorphous," "zoomorphous," material, or any other configuration, "the same semiotic price" is paid. Thus, the "*work of attributing, imputing, distributing action, competences, performances and relations*" remain constant, though the means and outcomes differ.¹⁰⁷

As Latour acknowledges, the limitations of agency are not solely located within the material with which scholars of the social sciences and humanities work, but the scholars themselves are subject to the inhibitions of agency, which leads us to the second component: "the distribution of properties among these entities" and the "connections between them."¹⁰⁸ Rather than seeing the role of the social and scholars who study the social as one of ordering, Latour believes the social needs to be reassembled via "tracing associations," which affords social

¹⁰² Bruno Latour, "On Actor-network Theory: A Few Clarifications," *Soziale Welt* 47, Jahrg., H. 4 (1996): 369, 374; Latour, *Reassembling*, 65-6.

¹⁰³ Latour, "On Actor-network," 378.

¹⁰⁴ *Ibid.*, 373.

¹⁰⁵ *Ibid.*, 369.

¹⁰⁶ *Ibid.*, 373.

¹⁰⁷ Latour, *Reassembling*, 11; Latour, "On Actor-network," 374.

¹⁰⁸ Latour, "On Actor-network," 373.

informants (agents) the opportunity to develop their own social realities; afterall, “other agencies over which we have no control make us do things.”¹⁰⁹ A focus on process with regard to cultural practice, removes us from an agent-centric perspective toward determining what has led us to our current state.¹¹⁰ More specifically, by “tracing associations” agents are freed from being defined by what they do, with emphasis falling instead on what supplies agents with their actions which facilitates their innate fluidity, “as circulating objects undergoing trials.”¹¹¹ This brings us to the third and fourth components of actor-network theory: the “circulation entailed” by the attribution of characteristics, the “distribution of properties and the connections established between them” and “the transformation of those attributions, distributions and connections of the many elements that circulate, and of the few ways through which they are sent.”¹¹² Such an approach provides indigenous peoples and, particularly, indigenous scholars with a unique framework to transcend “the disconnections that are apparent between the demands of research, on one side, and the realities they encounter amongst their own and other indigenous communities, with whom they share lifelong relationships, on the other.”¹¹³

In the present case where we examine a case study wherein costly signalling is applied to tā moko, controversies swirl between costly signalling theory and Māori realities which are more holistic. By holistic reality, I am referring to the confluence of realities which affect indigenous peoples’ lives. Indigenous peoples must navigate a number of worlds. As Taiaiake Alfred and Jeff Corntassel maintain, “indigenusness is an identity constructed, shaped and lived in the politicized context of contemporary colonialism.”¹¹⁴ Indigenous peoples are indigenous to the

¹⁰⁹ Latour, *Reassembling*, 50.

¹¹⁰ Bruno Latour, “Recalling ANT,” *Sociological Review* 47, no. S1 (1999): 17.

¹¹¹ Latour, “On Actor-network,” 374.

¹¹² Latour, “Recalling ANT,” 18; Latour, “On Actor-network,” 373.

¹¹³ Tuhiwai Smith, *Decolonizing Methodologies*, 5.

¹¹⁴ Taiaiake Alfred and Jeff Corntassel, “Being Indigenous: Resurgences against Contemporary Colonialism,” *Government and Opposition* 40, no. 4 (2005): 597.

lands they inhabit and, for Māori, the land is the tangible, transtemporal placenta which links tangata whenua to their ancestors and future descendants. Tangata whenua also share traditions. Even today, these traditions are lived by Māori; they are not some past custom eradicated by colonisation. The “traditional” world, in the sense of a lived belief or practice passed down through the generations, is simply that which has been continually lived.

Simultaneously, modern Māori also live in a Western world with its own beliefs and practices which were forced upon their ancestors through colonisation. Tuhiwai Smith recounts that, “imperialism frames the indigenous experience. It is part of our story, our version of modernity.”¹¹⁵ Since the Māori urbanisation following World War Two, more and more Māori now live urban lives, working in bustling city centres, where they are seen as the minority. In 2006, 84% of Māori lived in urban areas.¹¹⁶ This shift diminished the influence of traditional social structures, particularly as increasing numbers of urban Māori sought Western-style education through Western universities and institutions.¹¹⁷ Māori now run television and radio studios, own successful businesses and tourism ventures, and are active in politics, gaining international recognition. Yet, this modern Westernised lifestyle, for many Māori, coexists with their more traditional, Māori belief system; they are not mutually exclusive ways of being in the world. Māori have adopted certain elements of Western culture but not at the expense of Māori ontology and epistemology.

I have coined the term *holistic reality* to reflect the integrative nature of lived Māori worlds. It is intended to honour the multiplicity of realities Māori and other indigenous peoples navigate, which are synthesised into modern, indigenous living. Holistic reality embodies that

¹¹⁵ Tuhiwai Smith, *Decolonizing Methodologies*, 19.

¹¹⁶ Te Ahukaramū (Charles Royal), “Māori: Urbanisation and Renaissance,” in *Te Ara: The Encyclopedia of New Zealand*, last modified February 3, 2015, accessed September 20, 2015, <http://www.teara.govt.nz/en/maori/page-1>.

¹¹⁷ Te Ahukaramū, “Urbanisation and Renaissance.”

which is transtemporal and transpatial; that which is shaped by the past and guides the future; yet, holistic reality recognises that the past is ever-present and refers to what is lived in its totality.

The tensions apparent between costly signalling theory and Māori realities are imbedded in the ontological differences between Western and indigenous modes of enquiry. The categories which costly signalling theory permits simply do not offer Māori control over their own realities, but, rather, force them into an artificial Western reality intentionally designed to have analytical power generated by extruding them through pre-fabricated categories in the form of the signal, the signaller, and the receiver. However, rather than allowing the data to determine the validity of the model, particularly when evolutionary explanations are translated into the social sciences and humanities as justifications for cultural practice, certain data is manipulated or ignored to generate explanatory utility within the model. This is precisely the dynamic Tuhiwai Smith addresses throughout the social sciences where researchers treat the positivistic research process as “value-free” and “objective.”¹¹⁸ Yet, these same research processes continue to misrepresent or exclude indigenous ontological and metaphysical realities, instead replacing Māori experts with the “authoritative” voice of the “methodological” expert.¹¹⁹ By forgoing agency and focussing on process articulated through what Latour calls infralanguage, actor-network theory provides a unique approach “to trace connections between the controversies themselves,” which creates methodological space wherein multiple voices can emerge simultaneously and realities cease to be clad in a singular guise.¹²⁰ In fact, it is precisely these controversies that enable social

¹¹⁸ Tuhiwai Smith, *Decolonizing Methodologies*, 164.

¹¹⁹ Ibid., 28; Russell Bishop, “Kaupapa Maori Research: An Indigenous Approach to Creating Knowledge,” in *Maori and Psychology: Research and Practice—The Proceedings of a Symposium Sponsered by the Maori and Psychology Research Unit*, ed. N. Robertson (Hamilton, N.Z.: Maori and Psychology Research Unit, 1999), 1.

¹²⁰ Latour, *Reassembling*, 23.

associations in the form of “a series of transformations” to be traced and it is in this tracing that agent network theory’s explanatory power is realised.¹²¹

This review reveals a rich body of literature within the social sciences and humanities dedicated to reflexive and decolonised enquiries into indigenous cultural practices. The research surveyed above illuminates longstanding ontological and epistemological tensions between Western and non-Western approaches to cultural practice. By elucidating these tensions, this review draws attention to a significant gap within evolutionary explanations of culture which do not pursue reflexive and decolonised approaches to cultural practice. Simultaneously, the gaps in the literature also reveal considerable room for heteroglossic interplay, whereby all voices, Western and non-Western, can be synthesised through approaches like actor-network theory to develop symmetrical and balanced accounts of cultural practice.

Methodology

This inductive and interpretivist study is situated within the humanities, and although grounded in religious studies, it is interdisciplinary in nature. Moreover, this thesis reflects a shift in my own views on the explanatory power of costly signalling theory. Utilising primary sources in the form of tā moko narratives, first-hand accounts documenting tā moko, and moko designs (which do not appear within the thesis itself), as well as other secondary literature, which I have gathered to constitute the research data, I critically analyse Cisco’s costly signalling theory approach to tā moko in a case study. In line with the inductive approach, my findings are a malleable product of the research process and are derived in a fluid investigative context which allows conflicting accounts to coexist. Chapter Four of this project is designed to facilitate

¹²¹ Latour, *Reassembling*, 29; Latour, “Recalling ANT,” 15; Latour, “On Actor-network,” 371.

heteroglossia with the aim of negotiating this conflictual space by providing a symmetrical model and dialogue which can accommodate this dialectic.

Although my expertise within religious studies is mythology, in this study, my choice to opt for the term *narrative* over myth was guided by the connotations myth carries within Māori culture. As Doniger observes, “colonial and missionary hatred (or loathing) of non-Western religions,” did considerable damage to indigenous groups’ mythologies and contributed to further mythologisation of the peoples’ themselves.¹²² Myth became a means to identify and objectify the other, as well as a measurement stick utilised by Westerners to determine indigenous authenticity, resulting in essentialising concepts like the “noble savage.”¹²³ Thus, the havoc that was wreaked on indigenous cultural identity through imperialist and colonising forces largely played out in the destruction of indigenous myths and creation of new myths framed by Western conceptions of indigenous peoples. The last two decades, however, have been punctuated by efforts to decolonise this “Western discourse about the Other.”¹²⁴ In keeping with these efforts, and since this is not a thesis about the politics of mythology, I have chosen to employ the term *narrative*, as opposed to myth.

Readers will also note my choice to employ the term *indigenous peoples*. Whilst I am aware of the controversies swirling around the use of the terms *indigenous* and *indigenous peoples* and the collectivist concerns that arise from such usages, in keeping with the decolonising aims of this study, my use of the term is one of relationality.¹²⁵ Like Tuhiwai Smith, I find the employment of the ‘s’ in *peoples* an acknowledgment of the differences

¹²² Doniger, *Other Peoples’ Myths*, 18; Tuhiwai Smith, *Decolonizing Methodologies*, 72-3.

¹²³ Doniger, *Other Peoples’ Myths*, 18-9; Clifford and Marcus, eds., *Writing Culture*, 115

¹²⁴ Tuhiwai Smith, *Decolonizing Methodologies*, 2; Edward W. Said, *Orientalism* (New York: Pantheon, 1978), 2.

¹²⁵ Tuhiwai Smith, *Decolonizing Methodologies*, 7.

between indigenous groups and of their self-determination.¹²⁶ The term *indigenous peoples* has permitted “the collective voices of colonized peoples to be expressed in an international arena” and has served as an “umbrella enabling communities and peoples to come together, transcending their own colonized contexts and experiences, in order to learn, share, plan, organize and struggle collectively for self-determination on the global and local stages.”¹²⁷ Thus, its use within this thesis underscores the autonomy and sovereignty of indigenous peoples whilst, simultaneously, accepting a shared collective experience shaped by the processes and effects of colonisation.

My approach to this thesis is multi-layered. Whilst it starts out as interdisciplinary, in Chapter Four, the approach shifts towards transdisciplinarity and transperspectivalism, two terms which also warrant clarification. Transdisciplinarity extends beyond interdisciplinarity, which is inherently limited by the very disciplines it seeks to incorporate, and is also transperspectival. My understanding of transdisciplinarity is borrowed from Basarab Nicolescu, who purports a multi-dimensional reality which transcends duality and integrates both “the universe and the human being,” acknowledging them as coevolutionary.¹²⁸ Transperspectival refers to the attempt to go beyond the bounds of defined perspective to instead engage with the dynamic interactions which inform perspective.

Mainly, the study draws from secondary sources in the fields of history and anthropology, but I also utilise actor-network theory from the wider field of science and technology studies and decolonising frameworks from indigenous studies. Actor-network theory

¹²⁶ Tuhiwai Smith, *Decolonizing Methodologies*, 7.

¹²⁷ Ibid.

¹²⁸ Basarab Nicolescu, “Transdisciplinarity and Complexity: Levels of Reality as Source of Indeterminacy,” *Bulletin Interactif du Centre International de Recherches et Etudes Transdisciplinaires (CIRET)* 15 (2000), last modified October 20, 2012, accessed May 9, 2015, <http://ciret-transdisciplinarity.org/bulletin/b15c4.php>.

is a relational theory which looks at the networks formed between causal agents which can be animate or inanimate objects.¹²⁹ For decolonising methodologies, I predominantly draw from Smith's *Decolonizing Methodologies* and Kaupapa Māori Theory.¹³⁰ Based upon orally transmitted Māori knowledge systems, Kaupapa Māori, as an analytical approach, provides a distinctively Māori framework which critiques non-Māori "constructions and definitions of Māori" by "affirming the importance of Māori self-definitions and self-valuations."¹³¹ As a non-Māori with only limited knowledge of te reo Māori, I employ Kaupapa Māori as a theoretical platform from which to launch discussions of the issues raised when applying costly signalling theory as an explanation of tā moko and, more broadly, as a means to help illuminate how evolutionary explanations of culture might better accommodate indigenous perspectives. However, I also draw from indigenous ontological perspectivism, which adds further dimension to the possibilities presented when incorporating indigenous holistic perspectives into transdisciplinary models of cultural practice. As de Castro explains, when competing ontologies finally come to a truce, rather than developing a single set of principles or beliefs, "a different world" is constructed.¹³² Specifically, the world shifts to accommodate the integration of a multiplicity of perspectives.

My usage of actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori is one of concentricity. As a relational approach, actor-network theory provides an

¹²⁹ John Law, "Materials of STS," 173-88; Latour, *Reassembling*, 1-301; Law, "Notes," 379-93; Michel Callon, "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay," *Power, Action, and Belief: A New Sociology of Knowledge* 32 (1986): 196-223.

¹³⁰ Tuhiwai Smith, *Decolonizing Methodologies*, 1-215.

¹³¹ <http://www.katoa.net.nz/kaupapa-maori>, accessed May 7, 2016; Barnes, "Kaupapa Maori," 13-6; Bishop, "Kaupapa Maori Research," 1-66; Henry and Pene, "Locating Indigenous Ontology," 234-42; Leonie Pihama et al., "A Literature Review on *Kaupapa Maori* and *Maori* Education Pedagogy," *Institutes of Technologies and Polytechnics (ITPNZ)* (Nov., 2004): 24-5; Sheilagh Walker, "Kia Tau te Rangimarie: Kaupapa Maori Theory as a Resistance against the Construction of Maori as the Other," (PhD diss., University of Auckland, 1996); <http://www.kaupapamaori.com/theory/6/>, accessed January 25, 2015.

¹³² De Castro, "Exchanging Perspectives," 463.

effective relational framework, based upon the attribution, distribution, circulation, and transformation of associations between entities, which allows us to create a symmetrical network founded upon process. Within the context of this study, actor-network theory serves as an overarching framework into which indigenous ontological perspectivism and Kaupapa Māori are situated.

Indigenous ontological perspectivism is a theory which emphasises the relationality between humans and the world in which they live. I utilise the theory to flesh out the network(s) identified by actor-network theory to include particular elements of the natural world. Specifically, indigenous ontological perspectivism allows us to extend our attribution of associations, and, specifically our attribution of social relations, to nature.¹³³ Thus, indigenous ontological perspectivism can be conceived of as isolating the beginning and end of network associations by providing the means to identify and discuss agents and outcomes of the interactions between them.

Kaupapa Māori which is based upon a set of philosophical beliefs and values specific to Māori forms the inner circle of my concentric approach. Because this study involves a Māori case study and aims to further a more symmetrical and decolonised approach to indigenous practices, it is essential to incorporate a specifically Māori ontology and epistemology. The employment of Kaupapa Māori highlights and mobilises a distinctively Māori voice which allows features of the revealed network(s) to be defined in Māori terms.

As a non-Māori, I may be vulnerable to the claim of recolonising my own study by attempting to speak for Māori and by not being a speaker of te reo Māori. To avoid this, I defer to prominent Māori scholars and sources to back my claims. Furthermore, my aim is not to speak

¹³³ De Castro, "Exchanging Perspectives," 465; Eduardo Viveiros de Castro, "Images of Nature and Society in Amazonian Ethnology," *Annual Review of Anthropology* 25 (1996): 191.

for any group but to provide an integrative context which facilitates heteroglossia so that every faction may speak *for itself*. In light of my lack of knowledge of te reo Māori, my treatment of Māori narrative relies on popular translations corroborated by secondary accounts.

Naturally, any academic study has limitations and has to acknowledge the ethical position of the researcher in relation to the study. Although I have taken many precautions against transgressing Māori views and sensitivities and cultivating a context of alterity, it is possible that I have breached unspoken boundaries which are sacred to Māori. In fact, as I write this, I find myself searching for instances where I may have unknowingly done so. I can only hope that my awareness of this possibility serves as a testament to my sincere effort to approach Māori material with the utmost respect.

Conclusion

As I touched upon above, along with actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori comprise a concentric approach I utilise to support this study. Actor-network theory has three main consequences when employed as a methodology for studying cultural practice. Firstly, by concentrating on movement and connectedness, the researcher is able to locate himself closer to the practice itself, rather than to the agents performing the practice, which is more commonly the starting place for analysis. As Latour observes, “there is no such thing as a proximity or a distance which would not be defined by connectibility.”¹³⁴ Tracing connectedness can rapidly alter our perception of associations between agents. Variables which may appear to be intimately linked when assessed through agent-based models, prove “infinitely remote” when their associations are traced.¹³⁵ Instead of

¹³⁴ Latour, “On Actor-network,” 371.

¹³⁵ Ibid.

getting lost in arguments over individual or group-level dominance, actor-network theory tracks associations to reveal “how a given element becomes strategic through the number of connections it commands, and how it loses its importance when losing its connections.”¹³⁶

Thus, the question of *whether* there *is* a connection proves to be the only relevant question to ask, and the actor-network is the only means through which emergent connections can be “traced and inscribed.”¹³⁷ Yet, the agent is not separate from the network, nor does he or she simply “lay down the net.” Rather, the agent’s definition of the world “outlines, traces, delineates, describes, files, lists, records, marks or tags a trajectory that is called a network.”¹³⁸ Tracing must be facilitated by agents within the network, as the network’s very existence is dependent upon these traced associations.¹³⁹ Additionally, tracing connections enables groups to maintain their own autonomy by determining their own self-definition by tracing the linkages that connect phenomena.¹⁴⁰

Secondly, within actor-network theory the actions of agents are provided by “actantiality,” which is not determined by what agents do but by what supplies agents “with their actions.”¹⁴¹ What determines the actions of agents allows the impetus behind cultural practices like moko to extend in any direction. For tā moko, this augmentation extends to atua, tikanga Māori, and other forces that affect agents within the network, adding a dimension to moko neglected by Cisco.

Lastly, as Latour emphasises, the agent in actor-network theory is not designed to substitute for traditional, social scientific concepts of agency. Neither is the network a

¹³⁶ Latour, “On Actor-network,” 372.

¹³⁷ Ibid.

¹³⁸ Ibid., 378.

¹³⁹ Ibid.

¹⁴⁰ Latour, *Reassembling*, 41.

¹⁴¹ Latour, “Recalling ANT,” 18.

replacement for society. Rather, Latour describes both the agent and the network as “two faces of the same phenomenon, like waves and particles.”¹⁴² The social is simply local circulation and the network the most accurate description of this process. Once causes or factors are added, the network is further extended; one need not work outside of the network itself to incorporate new elements into it. Thus, the network is insulated and encapsulated “by its own frame of reference, its own definition of growth, of referencing, of framing, of explaining.”¹⁴³ Agents permit us to see what they do, as well as why and how they do it, and it is through tracing these circulations that we are able to grasp more about cultural practice than through strict definitions of specific entities.¹⁴⁴ Latour aptly observes that “it is *us*, the social scientists, who lack knowledge of what they do, and not *they* who are missing the explanation of why they are unwittingly manipulated by forces exterior to themselves and known to the social scientist’s powerful gaze and methods.”¹⁴⁵ Thus, actor-network theory helps us to settle ontological tensions that emerge within agent-centred models and between the researcher and subject, which encourages and provides an effective space for reflexivity to emerge. Actor-network theory is unique in that it bypasses superficial conceptions of the social, instead allowing the connections to determine the number of possible dimensions.¹⁴⁶ Either an element is part of the network or it is not and fades into the descriptive background.¹⁴⁷

As Latour explains, the “problem” of reflexivity is transformed into an “opportunity” when “the epistemological myth of an outside observer providing an explanation in addition to “mere description” disappears.”¹⁴⁸ No “privilege” is granted to any entity or to the observer, nor

¹⁴² Latour, “Recalling ANT,” 19.

¹⁴³ Latour, “On Actor-network,” 376.

¹⁴⁴ Latour, “Recalling ANT,” 20.

¹⁴⁵ *Ibid.*, 19.

¹⁴⁶ Latour, “On Actor-network,” 370.

¹⁴⁷ *Ibid.*, 376.

¹⁴⁸ *Ibid.*, 377.

do “a priori limits on knowledge exist,” since the associations speak for themselves in an environment determined by their composition, distribution, circulation, and reconfiguration. Thus, for an entity to be ascribed the status of explaining, predicting, accounting for, or “dominating,” it must be circulated and distributed; it must “network.”¹⁴⁹ Furthermore, actor-network theory fosters heteroglossia, forgoing the need for agents to be censored, since the concern is tracing associations between them.

In seeking an *integrative* approach to cultural practice, relationality or tracing associations is beneficial for both Western and indigenous metaphysical and epistemological models, in that it allows us to set representations and agency aside and focus on the transformative and accumulated nature of action, responsible for the evolution of culture without sacrificing any of its complexity and without reducing “native peoples as helpless playthings in the grip of the all-powerful logic” of Western science, which leaves us “remote from human and social interest.”¹⁵⁰ Even before Latour, Ruth Benedict recognised the value of seeking out the integration within cultural groups, which results in “diverse patterns” which “do not lend themselves profitably to generalizations,” and which better facilitates an understanding of the relational positioning of individual to group.¹⁵¹

Additionally, tracing associations provides us with the analytical means to question the idea of indigenous peoples ending up in their current position by following a “natural evolutionary path, determined exclusively by [their] interaction among technology, demography, and environment, a trajectory then truncated by the irruption of History.”¹⁵² By forgoing the dichotomy and even the employment of the terms, *nature* and *society*, we find that the notion of

¹⁴⁹ Latour, “On Actor-network,” 370.

¹⁵⁰ De Castro, “Images of Nature,” 193; Latour, *Reassembling*, 95.

¹⁵¹ Ruth Benedict, *Patterns of Culture* (New York: First Mariner Books, 2005), xxiii.

¹⁵² De Castro, “Images of Nature,” 194.

complexity, as well as differing ontological perspectives, are endorsed through their connectivity, transforming history into a process of symmetrical construction and reclamation that surpasses mere perception and transforms into a validated, holistic reality.¹⁵³

Where actor-network theory traces association between agents, indigenous ontological perspectivism traces associations from the point of view to the agent, allowing the process by which agency is ascribed to be mapped. Indigenous ontological perspectivism forgoes the agentic tendency of Western scientific models to define themselves by the objects a subject produces, which helps the subject to foster an external recognition of itself—the only means by which a subject can “know itself objectively.”¹⁵⁴ Because “an object is an incompletely interpreted subject,” indigenous ontological perspectivism maintains that complete interpretation is only possible by determining an object’s relational position. In part, this is because IOP recognises that agents are not bound by the constraints of biology which means that they can only be understood with regards to how they are situated in a “network of social relations.”¹⁵⁵ If we accept de Castro’s stance that the world is perceived or represented in the exact same way for all entities and that what differs is the world that is seen, then social relationality is the only way to develop an accurate portrayal of another’s world since these traced associations also serve as channels for exchange. When opened up to exchange, not only is an agent traded for a social relation, but perspectives of the relationships themselves can be substituted.¹⁵⁶

In this way, the world that both actor-network theory and indigenous ontological perspectivism describe is entirely relational and open to transformation. Various ontological perspectives are also better able to be shared. By tracing connections, Westerners are able to

¹⁵³ Latour, *Reassembling*, 94; Tau, “Minding the Past,” 7, 10.

¹⁵⁴ De Castro, “Exchanging Perspectives,” 468.

¹⁵⁵ *Ibid.*, 472; Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Oxford University Press), 123.

¹⁵⁶ De Castro, “Exchanging Perspectives,” 473.

integrate a universalised perspective and to establish connections within the whole. Likewise, indigenous groups are able to disconnect elements and “particularize relationships,” in a way that runs contrary to the more typical, universalised nature of relationships within indigenous contexts.¹⁵⁷ Furthermore, a relational approach to culture and its practices carves out space to honour the transformative nature of culture, a view which both indigenous and evolutionary explanations uphold.

Kaupapa Māori methodology provides a unique opportunity to recognise the limitations and agenda of “Eurocentric sciences.” Not only that, but it provides a distinctly Māori framework which has the latitude to serve either as an independent methodological framework or to be integrated into a new framework through which to model cultural practices. In the endeavour to present a new model of cultural practice which integrates indigenous understandings, Kaupapa Māori is, therefore, invaluable.

The Chapter Map

To carry out this study, I will first establish the background for the research, including a discussion of the historical development and current state of evolutionary explanations of culture and, specifically, costly signalling theory. The introduction to evolutionary explanations of culture is followed, in Chapter Two, by an introduction to Māori tā moko. Chapter Two specifically highlights the various narratives that comprise tā moko, which I later utilise, in Chapter Three, to contextualise Cisco’s work as part of the confluence of tā moko narratives which both contribute to our understanding of the practice but which also perpetuate its mythologisation. Chapter Three offers a critique of Cisco’s application of costly signalling theory to tā moko. I am particularly concerned with the structural ambiguity that is presented

¹⁵⁷ De Castro, “Exchanging Perspectives,” 476.

when costly signalling is applied to a specific cultural practice, as revealed by the Cisco case study, and with the divergence between Māori and costly signalling theory explanations of tā moko. To be clear, this study employs Māori tā moko and Cisco's treatment of tā moko only as a means to critically analyse costly signalling theory's explanatory power and to draw attention to the tensions and challenges that arise when applying evolutionary explanations to indigenous practices. Building upon these findings, Chapter Four makes the case for an updated version of costly signalling theory, what I call transmissive assemblage, based upon actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori. To reiterate, my aim in updating signalling in this way is to illustrate how evolutionary explanations can be more integrative and symmetrical, which, in turn, provides indigenous peoples with a voice and a way to explain their cultural practice within a paradigm that can accommodate Western views and indigenous holistic realities.

Chapter One: The Science of Culture

Introduction and Background

In a compelling discussion of conceptual issues facing those who seek to employ evolutionary explanations for the domain of culture, Elliott Sober describes emergent dilemmas surrounding issues of clarity in terms of fogs and mirages.

...a science enveloped by fog has at least one consolation. A fog does not foster the illusion of clarity; the lack of visibility is patent. More insidious than the fog is the mirage. Fogs are seen for what they are. Mirages are trickier, engendering the mistaken conviction that things are as they seem...¹⁵⁸

Indeed, as Chapter Three illuminates, the image of Sober's mirage is evoked by Cisco's application of costly signalling theory to tā moko. Yet, to understand what is not there we must first have knowledge of what is, which requires that this study first be contextualised within the dialogues around evolutionary explanations of culture and especially within costly signalling theory.

Standard demarcations of evolutionary explanations of culture include three sub-fields: evolutionary psychology, cultural evolution, and human behavioural ecology.¹⁵⁹ Though researchers from these sub-fields maintain that the application of evolutionary theory to the study of human behaviour is useful, simultaneously they tend to diverge on certain key issues, such as "the extent to which genes, environments and socially transmitted information explain behavioural variation."¹⁶⁰ However, in recent years, the lines between these subfields is

¹⁵⁸ Elliott Sober, *The Nature of Selection: Evolutionary Theory in Philosophical Focus* (Chicago: University of Chicago Press, 1984), 1.

¹⁵⁹ Gilliam R. Brown et al., "Evolutionary Accounts of Human Behavioural Diversity," *Philosophical Transactions of the Royal Society B* 366 (2011): 313.

¹⁶⁰ Brown et al, "Evolutionary Accounts," 314.

becoming increasingly blurred and their distinctions are being challenged.¹⁶¹ My exploration into evolutionary explanations of culture focuses on two of the three subfields, namely cultural evolution and human behavioural ecology. Although this study mainly involves human behavioural ecology in the vein of costly signalling theory, I also borrow some examples from cultural evolution to highlight some of the broader challenges that the use of evolutionary explanations to account for cultural practices present.¹⁶²

Though evolutionary psychology represents one-third of evolutionary explanations of culture, I have chosen not to engage with this literature. My decision to omit evolutionary psychology from the following discussions is based upon the differentiation proponents of evolutionary explanations of culture, including cultural evolutionary theory, are careful to maintain between themselves and those, like many within evolutionary psychology, who purport that genetics is the primary processual mode of inheritance.¹⁶³ Whilst it is widely accepted that genetics has a hand in the development of cultural practice, this study is not concerned with identifying specific psychological adaptations or evolved cognitive mechanisms which evolutionary psychologists attribute to the development of certain social behaviours.¹⁶⁴ Thus, in keeping with the aims of cultural evolutionary theorists, within this study, discussions are limited to those which pertain to human behavioural ecology and cultural evolutionary theory.

With the aim of crafting sufficient scaffolding for subsequent chapters, here I first provide some background on the general development of evolutionary explanations of culture

¹⁶¹ Gillian R. Brown and Peter J. Richerson, "Applying Evolutionary Theory to Human Behaviour: Past Differences and Current Debates," *Journal of Bioeconomics* 16, no. 2 (Jul., 2014): 105.

¹⁶² "Cultural Evolution," Stanford Encyclopedia of Philosophy, last modified February 20, 2013, accessed March 12, 2015, <http://plato.stanford.edu/entries/evolution-cultural/>.

¹⁶³ Ibid.

¹⁶⁴ Leda Cosmides and John Tooby, "Cognitive Adaptations for Social Change," in *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, eds. J. Barkow, L. Cosmides, and J. Tooby (New York: Oxford University Press, 1992), 163-228.

and the basic tenets of Darwinian Theory. To flesh out this brief introduction, I follow with an analysis of some of the more popular usages of cultural evolutionary theory, including dual-inheritance theory, niche construction theory, and meme theory. My aim in exploring these popular cultural evolutionary theories is to draw attention to some of the difficulties and limitations posed when employing evolutionary explanations to account for cultural practice, even in their most prevalent applications. Trailing these discussions is a short introduction to human behavioural ecology with the intent of situating costly signalling theory within its theoretical tradition. The outline of human behavioural ecology is followed by an overview of costly signalling theory, intended to preface my later critique in Chapter Three of the Cisco case study in which the application of costly signalling theory is presented as a viable explanation of Māori tā moko.

Since the Enlightenment, scientific explanations of culture have been sought. The supremacy of individualised rationality, as introduced by minds such as John Locke and Jean-Jacques Rousseau, who was actually one of the first to employ the term *social*, has been extolled for paving the way for thinkers like Immanuel Kant to develop compelling channels for the cultivation of scientific approaches to the social (what is more often called the social sciences).¹⁶⁵ Kant's awareness that knowledge is both objective and subjective, since to know the

¹⁶⁵ Thomas Hylland Eriksen and Finn Sivert Nielsen, *A History of Anthropology* (London: Pluto Press, 2001), 12-6; Alexander Moseley, *John Locke* (London: Bloomsbury Academic, 2007), 170; William Bristow, "Enlightenment," *The Stanford Encyclopedia of Philosophy* (Summer 2011 Edition), ed. Edward N. Zalta, <http://plato.stanford.edu/archives/sum2011/entries/enlightenment/>; Geoffrey Hawthorne, *Enlightenment and Despair: A History of Social Theory* (Cambridge: Cambridge University Press, 1994), 28, 33-4. Although Rousseau, Locke, and Descartes emphasize the significance of rationality, in his own way, each remains critical of science. For Rousseau's original critiques, see Jean-Jacques Rousseau, *Discours sur les Sciences et les Arts* (New York: Modern Language Association, 1946). For an English translation, see Ian Johnston trans., *Discourse on the Arts and Sciences* (Adelaide, AUS: The University of Adelaide Library), last modified December 17, 2014, accessed August 15, 2015, https://ebooks.adelaide.edu.au/r/rousseau/jean_jacques/arts/. Commentary on this critique is available from Jeff J.S. Black, *Rousseau's Critique of Science: A Commentary on the Discourse on the Sciences and the Arts* (Lanham, MD: Lexington Books, 2009). See also John Locke, *An Essay Concerning Human Understanding* (London: T. Tegg and Son, 1836).

object requires that the subject must have an awareness of itself, generated a certain self-reflexivity within his work.¹⁶⁶ As Thomas Eriksen and Finn Nielsen clarify, Kant believed that “to study ‘the world out there’ is to study the encounter between the world and myself.”¹⁶⁷ Kant’s recognition that the external world shapes us, influenced later encounters with the social which sought to find more objective means to explain human phenomena in hopes of better understanding the relationship between the individual and the collective.¹⁶⁸

Building upon Kant and Enlightenment foundations, enquiries into the social have continued with scholars pursuing more and more precise ways to isolate cultural variants and measure human activity. One promising avenue in the quest to more accurately measure human phenomena revealed itself through the work of Darwin, who developed a framework which ultimately divorced creation processes from gods and supernatural agents. By introducing the processes of natural selection, Darwin was able to account for the diversity of biological organisms within the natural world and for the occurrence of complex adaptations without relying on a divine intermediary.¹⁶⁹

Darwin made three key observations which led to the development of the tenets of natural selection. Firstly, organisms vary and, secondly, fitness between organisms varies. This is known as differential fitness. For example, some individuals have more resources or food than others, which increases their odds of survival and reproduction. Thirdly, parental characteristics are

¹⁶⁶ For examples of Kant’s comprehensive, rich, and reflexive empirical theory on human nature which influenced many aspects of his work, see Immanuel Kant, *Lectures on Anthropology* (Cambridge: Cambridge University Press, 2012).

¹⁶⁷ Eriksen and Nielsen, *A History*, 17-8.

¹⁶⁸ *Ibid.*, 11, 17; Bent Flyvbjerg, *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again* (Cambridge: Cambridge University Press, 2001), 98; Kenneth Smith, *Émile Durkheim and the Collective Consciousness of Society: A Study in Criminology*, vol. 1 (London: Anthem Press, 2014), 140-5.

¹⁶⁹ Charles Darwin, *On the Origin of Species by Means of Natural Selection* (London: John Murray, 1859); Alex Mesoudi, *Cultural Evolution: How Darwinian Theory Can Explain Human Culture and Synthesize the Social Sciences* (Chicago: University of Chicago Press, 2011), vii.

inherited by children through reproduction, a process which is known as heritable variation.¹⁷⁰ Heritable variation allows for differential reproduction, meaning that traits which increase odds of survival in a given environment are more likely to be inherited, and those with these successful traits are more likely to have reproductive opportunities. Thus, as time passes, more individuals will exhibit these successful traits, since those without these characteristics will struggle to survive and reproduce.¹⁷¹ The result of these occurrences is evolution by natural selection.

Darwinian tenets of natural selection used to explain biological evolution appeal to those within the social sciences and humanities who insist that “the problem that Darwin set out to solve—the diversity and complexity of biological organisms—is echoed in the problem faced by those studying culture.”¹⁷² Indeed, human cultural groups vary tremendously and possess immense complexity. In light of these similarities and given the post-Enlightenment tradition of seeking increasingly objective means to study human phenomena, in the last thirty years, evolutionary explanations of culture based upon Darwinian Theory have become increasingly prevalent in conversations within the social sciences and humanities.¹⁷³ Examples of evolutionary explanations of culture include but are not limited to dual-inheritance theory, meme theory, niche-construction theory, group and multi-level selection, costly signalling theory, epidemiology of representations, and cultural phylogeny.¹⁷⁴

Broadly, evolutionary explanations of culture, which in this study include co-evolutionary theories, seek to build upon Darwinian Theory of natural selection to explain the

¹⁷⁰ Mesoudi, *Cultural Evolution*, viii; Darwin, *Origin of Species*, especially pages 21-35.

¹⁷¹ Williams, *Adaptation and Natural Selection*, 25; Darwin, *Origin of Species*, 17-502.

¹⁷² Mesoudi, *Cultural Evolution*, ix.

¹⁷³ For an anthology of examples, see Andrew Whiten et al. eds., *Culture Evolves* (Oxford: Oxford University Press, 2012).

¹⁷⁴ For a comprehensive list of cultural evolutionary theories, see Alex Mesoudi, Andrew Whiten, and Kevin N. Laland, “Towards a Unified Science of Cultural Evolution,” *Behavioral and Brain Sciences* 29, no. 4 (2006): 329.

persistence of certain traits and behaviours to better understand how groups change through time.¹⁷⁵ Early pioneers, like Luigi Cavalli-Sforza, Marcus Feldman, Robert Boyd, Peter Richerson, Charles Lumsden, and Wilson, turned to evolutionary explanation after experiencing frustration with the lack of models for explaining cultural change.¹⁷⁶ Evolutionary explanations of culture are lauded for their ability to provide “*ultimate* explanations of human behaviour that help elucidate the types of *proximate* mechanisms that have evolved.”¹⁷⁷ Yet, Kevin Laland et al. argue that caution regarding this dichotomy is warranted, as the distinction between the two is not always as clear as it is made out to be, particularly since stances on evolution of culture hinge on researchers’ “assumptions about causality.”¹⁷⁸

Generally, ultimate explanations account for why a particular trait or behaviour developed, whereas proximate explanations are concerned with how the said behaviour or trait functions.¹⁷⁹ For example, babies cry. An ultimate explanation might maintain that a baby’s cry prompts much needed care and attention from its mother. Proximate explanations focus more on what causes the crying, such as being too hot or too cold, feeling hungry or thirsty, or sensing separation from a loved one, as well as specific physiological responses that either cause crying or result in its cessation.¹⁸⁰ Yet, this dichotomy is misleading, because it “builds upon an

¹⁷⁵ For a divergent view based exclusively on genetics, see evolutionary psychologists Cosmides and Tooby, “Cognitive Adaptations,” 163-228.

¹⁷⁶ Luigi Luca Cavalli-Sforza and Marcus W. Feldman, *Cultural Transmission and Evolution: A Quantitative Approach* (Princeton, NJ: Princeton University Press, 1981), v; Robert Boyd and Peter J. Richerson, *Culture and the Evolutionary Process* (Chicago: University of Chicago Press, 1985); Charles Lumsden and E.O. Wilson, *Genes, Mind and Culture the Coevolutionary Process* (Cambridge, MA: Harvard University Press, 1981). See also Marcus W. Feldman and Luigi Luca Cavalli-Sforza, “Cultural and Biological Evolutionary Processes, Selection for a Trait under Complex Transmission,” *Theoretical Population Biology* 9, no. 2 (Apr., 1976): 238-59; Dawkins, *The Selfish Gene*, xii-224.

¹⁷⁷ Paciotti, Richerson, and Boyd “Cultural Evolutionary Theory,” 366. Within biology, ultimate explanations account for traits by virtue of evolutionary pressures exerted upon them; whereas proximate mechanisms are the result of environmental or physiological considerations.

¹⁷⁸ Kevin Laland et al., “Cause and Effect in Biology Revisited: Is Mayer’s Proximate-Ultimate Dichotomy Still Useful,” *Science* 334, no. 6062 (2011): 1515.

¹⁷⁹ Scott-Phillips, Dickins, and West, “Ultimate-Proximate Distinction,” 38.

¹⁸⁰ *Ibid.*

incorrect view of development that fails to address the origin of characters and ignores the fact that proximate mechanisms contribute to the dynamics of selection.”¹⁸¹ Despite their misgivings, Laland et al. uphold the dichotomy’s utility, citing that ultimate and proximate explanations fulfil separate functions and should not be viewed as “alternatives.”¹⁸²

Under the categories of ultimate and proximate explanations, Tinbergen identifies four major categories: mechanism, ontogeny, survival value, and phylogeny that lead to important questions regarding behaviour and which form the foundation for the study of animal behaviour that provides the backdrop to costly signalling theory.¹⁸³ Ultimate explanations generate questions related to mechanism and ontogeny. Mechanism, also known as causation, explains what a behaviour is and how that behaviour is constructed.¹⁸⁴ Ontogeny, or development, pertains to questions of development. Such questions are concerned with how a behaviour changes throughout the lifetime of an individual and the degree to which learning alters the behaviour.¹⁸⁵ Proximate-level explanations relate to questions of adaptive value and phylogeny. Survival or adaptive value, also called function, is concerned with the current form of a behaviour and its utility with regard to an organism’s reproductive fitness. Specifically, survival value is concerned with the probability that an organism will successfully reproduce and its offspring survive.¹⁸⁶ Evolution, also referred to as phylogeny, generates questions about the history of a behaviour. Such questions might include what pre-empted the development of a specific behaviour and what sort of selective pressures have resulted in its development,

¹⁸¹ Laland et al. “Cause and Effect,” 1515.

¹⁸² Ibid.

¹⁸³ N. Tinbergen, “On Aims and Methods of Ethology,” *Zeitschrift Für Tierpsychologie* 20, no. 4 (1963): 410-33.

¹⁸⁴ Ibid., 413-16.

¹⁸⁵ Ibid., 423-7.

¹⁸⁶ Ibid., 417-423.

perpetuation, and adaptation.¹⁸⁷ Tinbergen argues that only when these four areas are considered together can a comprehensive analysis of animal behaviour be conducted.

Ultimate explanations pertain to the evolution of a species, whereas proximate explanations focus on the individuals within a species. The causal relationships between ultimate and proximate explanations and the questions each generates shapes evolutionary explanations of culture which are frequently used to identify how individual-level processes of individual and social learning inform traits at the population-level, accounting for group cooperation and increasingly complex societies.¹⁸⁸ However, using data mainly collected from birds and mammals, Eytan Avital and Eva Jablonka have argued that the transmission of information through social learning may lead to the development of group characteristics that are “robust enough” to suggest group selection.¹⁸⁹ In fact, in recent years, group selection has become an increasingly popular explanation for cultural change and remains a fertile ground for exploration, particularly in accounting for cooperation between non-relatives, considered central to explaining the development of modern societies.¹⁹⁰ Much of its success can be attributed to the efforts of scholars like David Sloan Wilson who introduced multi-level selection, which had the effect of divorcing group-selection from older versions which maintained that “organisms will appear to be designed to maximize group fitness.”¹⁹¹ Yet, despite the increasing prevalence of

¹⁸⁷ Tinbergen, “Aims of Ethology,” 427-9.

¹⁸⁸ Paciotti, Richerson, and Boyd, “Cultural Evolutionary Theory,” 366, 368.

¹⁸⁹ Eytan Avital and Eva Jablonka, *Animal Traditions: Behavioral Inheritance in Evolution* (Cambridge: Cambridge University Press, 2000); Eva Jablonka and Marion J. Lamb, “The Evolution of Information in the Major Transitions,” *Journal of Theoretical Biology* 239, no. 2 (2006): 241.

¹⁹⁰ Robert Kurzban, Maxwell N. Burton-Chellew, and Stuart A. West, “The Evolution of Altruism in Humans,” *Annual Review of Psychology* 66 (2015): 575-99; David Sloan Wilson, “A Theory of Group Selection,” *Proceedings of the National Academy of Sciences* 72, no. 1 (1975): 143-6. For an example of “old” group selection, refer to V.C. Wynne-Edwards, *Evolution through Group Selection* (Oxford: Blackwell Science, 1986). For other current research on group selection, please see the available draft of a forthcoming article by Peter Richerson et al., “Cultural Group Selection Plays an Essential Role in Explaining Human Cooperation: A Sketch of the Evidence,” *Behavioral and Brain Sciences* (2015): 1-71.

¹⁹¹ Kurzban, Burton-Chellew, and West, “Evolution of Altruism,” 579.

group-selection hypotheses, it remains that much of cultural evolutionary theory and nearly all of human behavioural ecology focuses on individual-level selection.

Regardless of disagreements about which level(s) of selection guide cultural change, proponents of evolutionary explanations of culture do agree that cultural inheritance is of utmost significance in the endeavour to understand how humans have evolved through time. The various views on the mechanisms which drive cultural evolution contribute to a growing awareness reflected by an ever-expanding literature that humans are products of their biology and thus, all parts of human existence, including culture, cannot be separated from their underlying biological faculties. In acknowledging the biological orientation of the cultural landscape, important questions are fostered about its effects on human cognition to which naturalistic models provide compelling responses that inform current understandings of cultural evolution. Yet, in seeking to explain culture, cultural practices, and their effects on human evolution, a host of theories and approaches have emerged which vary drastically in their application and description of evolutionary forces.

Examples of Evolutionary Explanation

Cultural Evolutionary Theories

As previously stated, this thesis focuses on explanations from two of the three major subfield of evolutionary explanation: cultural evolutionary theory and human behavioural ecology.

Generally, cultural evolutionary theories seek to explain “characteristic adaptations” of a species, as well as intra-species diversity, by turning to cultural inheritance with specific focus on the capacity to learn from others.¹⁹² Cultural evolutionary theorists are inclined to understand culture as “information capable of affecting individuals’ behaviour that they acquire from other

¹⁹² “Cultural Evolution.”

members of their species through teaching, imitation, and other forms of social transmission.”¹⁹³

Information that is acquired culturally, is in contrast to information obtained through genetic acquisition, which, as Mesoudi points out, is more the individually-orientated domain of evolutionary and cognitive psychology.¹⁹⁴ Cultural evolutionists maintain that both culturally transmitted information and biological information are products of Darwinian processes, meaning that they evolve in similar ways. However, there is significant variation in the ways cultural evolutionary theorists utilise and interpret methods from biology to inform their studies of the development, perpetuation, and outcomes of cultural processes.¹⁹⁵

In this section, I briefly explore three different types of cultural evolutionary theories: dual-inheritance theory, niche construction theory, and meme theory. Each of these has been widely employed as an explanation of cultural evolution and cultural practice. All have featured prominently, at one point or another, in the literature on cultural evolution and have dealt with numerous case studies. Yet, each has its own narrative about culture and the mechanisms which drive change, often leaving the perceived superior objectivity of science a victim of subjective interpretation. By better understanding the underlying issues present within models of cultural evolutionary theory, we can begin to isolate the ways in which evolutionary explanations might need evolve to have greater symmetry.

¹⁹³ Robert Boyd and Peter J. Richerson, *The Origin and Evolution of Cultures* (Oxford: Oxford University Press, 2004), 6, 105.

¹⁹⁴ Alex Mesoudi, “How Cultural Evolutionary Theory Can Inform Social Psychology and Vice Versa,” *Psychological Review* 116, no. 4 (2009): 929-30.

¹⁹⁵ *Ibid.*, 930-1.

Dual-Inheritance Theory

Robert Boyd and Peter Richerson's dual-inheritance theory remains one of the most robust and widely accepted cultural evolutionary explanations. Dual-inheritance theory uses population-level transmission to argue for culture as human inheritance accumulated from genetics and selective, social learning. Cultural variants are believed to be transmitted from one person to another, but individual-level transmission is low-fidelity, meaning that individual variants are not replicated. However, at population-level the same variants are high fidelity. Simply put, individual decisions about what to copy ultimately affects what variants occur within a given population.

Consider this popular example.¹⁹⁶ Think of a hunter who has averaged the arrowhead lengths used by tribal elders. One elder uses an arrowhead of four centimetres, another seven centimetres, and another thirteen centimetres in length. The hunter averages these lengths together and produces an arrowhead measuring eight centimetres. Individually, none of the specific arrow lengths were copied, but the average of the arrowhead lengths is stored at the population level so as to be copied by future generations. These variations accumulate over time and are responsible for cultural adaptation.

According to dual-inheritance theory, our ability to have cumulative culture is what differentiates us from other species, which only have fairly narrow imitation capacities.¹⁹⁷ Cumulative culture allows us to cultivate and maintain complex social variants, which otherwise would not be invented, due to the unlikelihood that a lone individual could acquire enough knowledge in a single lifetime to create such variants. Humans' ability to develop cumulative

¹⁹⁶ Alex Mesoudi and Andrew Whiten, "The Multiple Roles of Cultural Transmission Experiments in Understanding Human Cultural Evolution," *Philosophical Transactions of the Royal Society B* 363 (2008): 3489-501.

¹⁹⁷ Richerson and Boyd, *Not by Genes*, 50.

culture helps to illuminate why humans are able to adapt to and inhabit such a wide variety of environments; mainly because cultural variant accumulation increases the transmission of domain-specific information about local environments.¹⁹⁸

Cultural group transmission is affected by three biases: content, frequency-dependent, and model-based. For biased transmission to work, individuals must have the capacity to imitate. With imitation, the average fitness of learners in a given population is increased. Imitators also have the ability to select which transmissive channel is more appropriate depending upon environmental circumstances. When learning is costly, information is inaccurate, and the environment is not too static or too dynamic one can and should opt for imitation, but when learning costs are low and accurate or an environment is rapidly changing, individual learning is the better option.¹⁹⁹ Our ability to imitate is what enables this choice to be made.

The main benefit of imitation is that individuals can build upon others' previously successful designs. This means that the imitator's energy and resources can be better spent on improving already existing designs that have worked, versus starting completely from scratch on projects that may or may not be successful. Improvements to designs can then be passed down to future generations resulting in increased cultural complexity.

Dual-inheritance theory cleverly and thoroughly affirms that cultural inheritance is inexorably bound to genetic evolution. Inevitably, what we call culture affects our environment, in turn altering the selection processes that determine which genes will be selected against. The acceptance that behavioural adaptations have resulted in human fecundity that require cultural mechanisms, in the form of selective, social learning which allows for effective transmission of

¹⁹⁸ Richerson and Boyd, *Not by Genes*, 128, 130.

¹⁹⁹ *Ibid.*, 113.

cultural data and facilitates the accumulation of such information, tightly bundles genetics and culture and carves out space for historical analysis of cultural change.²⁰⁰

Although dual-inheritance theory is lauded for the space it provides for historical analysis of cultural change, the space it provides is not without its own biased directionality. Indeed, the model tends to favour modern, Western literate traditions and to dismiss the transmissive value of materiality and other transmissive means aside from writing which puts non-literate traditions, such as the Māori oral tradition, in a subordinate position. The result is a portrayal of non-literate traditions as having fewer complexities than their literate counterparts.

Great Divide theories, which overtly favoured literate traditions through unsophisticated and inflated duality, were harshly critiqued by the beginning of the 1980s, so the vestiges of this same dichotomisation between literacy and orality that emerge within dual-inheritance frameworks is surprising and underscore the need for greater reflexivity within evolutionary explanations of culture.²⁰¹ Stephen Reder and Erica Davila, who explore the literacy/orality dynamic through the lens of actor-network theory observe that the power attributed to literacy may, in fact, be a mirage stemming from the conditions generated through the process of institutionalisation.

When stable states of networks become institutionalized, the static (irreversible) relations of power seem “natural” and the influence of the tools of the powerful (e.g. literacy) *seem* to be inherent in the tools themselves. In this way, the powerful influence of the people who control literacy is misassigned to literacy itself, thereby endowing literacy with an apparently “autonomous influence.”²⁰²

²⁰⁰ Joseph Henrich and Richard McElreath, “The Evolution of Cultural Evolution,” *Evolutionary Anthropology: Issues, News, and Reviews* 12, no. 3 (2003): 123.

²⁰¹ Stephen Reder and Erica Davila, “Context and Literacy Practices,” *Annual Review of Applied Linguistics* 25 (2005): 171.

²⁰² Reder and Davila, “Context and Literacy,” 182.

This is not to say writing is not a significant human innovation, as indeed it is. As Jack Goody observes, the introduction of writing is “not simply a matter of adding a new channel, since that addition alters the nature and especially the content of existing channels.”²⁰³ Yet, even within literate traditions, orality and literacy are not mutually exclusive; they “commingle” and occupy the same “communicative space.”²⁰⁴

Writing stores information which has semantic links to various concepts and meanings. What is stored in writing is a deep wealth of cultural information accessible because of the personal connections an individual has made to the recorded material. However, if a person does not speak the language in which the book or document is written, or they do not have the cultural or technical framework to understand what is inside the book, then the book does not contain any more information than any other material item. It is unclear how the conditionality presented by literacy differs from the way artefacts, material items, and other collective repositories of important cultural information function within oral traditions.

Others seem well aware of this discrepancy. As Ethan Cochrane notes, ultimately dual-inheritance theory is concerned with empirical records of human behaviour, so when the material record needs to be stressed, dual-inheritance theory is ill-equipped to handle the demand.²⁰⁵ Yet, as Robert Aunger, a memeticist, observes, artefacts are deeply significant in understanding cultural evolution and condemns the significant void within cultural evolutionary scholarship when it comes to artefacts, an absence that strikes him as strange since many modern day artefacts clearly have complex features that are inherited, which indicates that they, too,

²⁰³ Jack Goody, *The Power of the Written Tradition* (Washington D.C.: Smithsonian Institute Press, 2000), 23.

²⁰⁴ Reder and Davila, “Context and Literacy,” 177.

²⁰⁵ Ethan E. Cochrane, “Chapter Eight: Evolutionary Explanation and the Record of Interest: Using Evolutionary Archaeology and Dual Inheritance Theory to Explain the Archaeological Record,” in *Pattern and Process in Cultural Evolution*, ed. Stephen Shennan (Berkeley: University of California Press, 2009), 128.

evolve.²⁰⁶ Ilya Tëmkin and Miles Eldredge take this argument one step further, arguing that the study of material culture demonstrates that the application of biological processes of evolution to culture is insufficient. When considered in the context of its historicity, culture proves too complex for its infrastructure to be encapsulated by biological evolution which does not have the utility to sufficiently accommodate historical patterns.²⁰⁷ Tā moko proves especially unique within this debate, as it serves as both behaviour and artefact, highlighting the struggle of dual-inheritance theory to account for its materiality, particularly when involved in the formation of semantic linkages through Māori transmissive processes.

In the non-Māori world, the informative value of moko still largely goes unnoticed to those without the cultural group framework to understand that the marks express and retain certain information for those with the right skills and knowledge to decipher it. For those without such skills and contextual framework, moko can be dismissed as little different from other tattoos found round the world, a pretty design with little meaning. However, for Māori and those with the appropriate knowledge, moko held and continues to retain semantic links to Māori people which are integral to shaping Māori holistic reality, similar to those found in a book amongst longstanding written traditions.²⁰⁸

As becomes apparent in Chapter Two, moko retains information that has semantic links to certain information, like whakapapa (genealogy), that is central to the ontological world and meanings woven into the fabric of Māori group life. The inability of dual-inheritance theory to

²⁰⁶ Robert Aunger, *The Electric Meme: A New Theory of How We Think* (New York: Free Press, 2002), 276. Aunger's definition of artefact is broad enough to include moko. "Artifacts are...a heterogeneous group sharing only the quality of being produced from environmental materials through the activity of organisms." Moko easily fits within the scope of this broad definition, as it is a practice derived from human pursuit and the product of materials extracted from the environment.

²⁰⁷ Ilya Tëmkin and Niles Eldredge, "Phylogenetics and Material Cultural Evolution," *Current Anthropology* 48, no. 1 (Feb., 2007): 146-54.

²⁰⁸ Sarah K.J. Gallagher, "'A Curious Document': Ta Moko as Evidence of Pre-European Textual Culture in New Zealand," *BSANZ Bulletin* 27, no. 3 and 4 (2003): 41, 47.

acknowledge the informative value of a practice like tā moko comes solely from the fact that the information therein, for the most part, is inaccessible to group outsiders, rather than from any actual deficit of information retained within moko itself. To those with the appropriate knowledge and specifically developed semantic network, moko and tā moko continues to establish and uphold semantic links to relevant concepts and meanings for Māori.

Whilst Boyd and Richerson aptly acknowledge the role of both genes and social learning in the process of cultural evolution, an important part of social learning also has to do with what is stored in the environment which requires conservation and retrieval mechanisms, like moko, beyond individual cognition. In order for transmission to be effective and sustained, some sort of deeply embedded schema needs to be established in which transmissive contents are linked to information already anchored in the social and cultural environment.²⁰⁹ Practices like tā moko provide mechanisms, aside from writing, through which such linkages can be cultivated and maintained, a point for which dual-inheritance theory cannot adequately account. To dismiss these connections is to dismiss, not only the informative value and cultural significance of tā moko for Māori, but it is to diminish the complexity of Māori culture and to perpetuate a climate of alterity beneath the guise of objective science.

Niche Construction Theory

A different problem arises if we examine niche-construction theory, an offshoot of dual-inheritance theory. Niche construction theory maintains that when organisms alter their environments, selection pressures within their own and the surrounding environments are affected. John Odling-Smee, Kevin Laland, and Feldman contend that the introduction of ecological inheritance into the dual-inheritance model provides another, often overlooked, way

²⁰⁹ Daniel L. Schacter, *Searching the Memory: The Brain, the Mind and the Past* (New York: Basic Books, 1996), 45.

for culture to alter genetics. Attention is drawn to the idea that selection pressures, resulting from the construction of human niches, generationally cause certain genes to have greater frequency in a given population. This assertion is then used to argue that the evolution of culture cannot be understood until the genetic effects of human behaviours which alter selection processes are isolated.

Niche construction theory maintains that for culture to be inherited “non-genetic” means of transmitting information must exist so that information central to the group can be passed down. However, this information must be able to be broken down into smaller “chunks” of information to make transmission easier. Odling-Smee, Laland, and Feldman further their stance, arguing that artefacts and “other ecologically inherited resources” are by-products of niche construction which, aside from affecting biological selection pressures, also affect social learning and influence cultural traditions. However, challenges arise when the authors introduce their example of exactly how artefacts and other ecological by-products function.

Citing Jarrod Diamond, Odling-Smee, Laland, and Feldman build upon the example of how the development of larger human settlements (i.e. cities) results in the creation of new threats to health (i.e. more germs and disease).²¹⁰ Response to this threat happens in three ways: culturally, ontologically, and/or genetically. Genetically, selection pressures will likely favour those who are genotypically resistant to the threat. Ontologically, humans’ immunity to the threat will increase through the creation of antibodies; culturally, new human constructions, like hospitals and medicines, will emerge.

What is fundamental to niche construction theory is that it is the cultural development of larger human groups which causes environmental repercussions that affect humans on a cultural,

²¹⁰ For a Diamond’s complete argument see Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York: W.W. Norton and Co., 1997).

ontological, and genetic level. In turn, these effects feed back into the human group, forming a constant loop between humans and environment. The following example of the West African yam farmers demonstrates how niche construction works.

Yam cultivation in West Africa has led to an increase in frequency of the allele that triggers sickle-cell anaemia. After yam farmers clear rainforest areas for farming, more pools of standing water form. More standing water allows for more mosquito breeding habitats, which may also be carrying malaria. Because the sickle-cell anaemia allele lowers one's susceptibility to malaria, as the mosquito population increases, selection for the protective allele increases.²¹¹

However, if we consider a cultural practice like tā moko within the model, difficulties in its application begin to emerge. For example, niche construction theory demands a change in environment which, in turn, changes selection pressures. Although the historical and ethnographic evidence substantiates changes to selection pressures, particularly during colonisation, tā moko does not fit the environment-selection pressure change pattern.

Consider once pre-contact Māori groups settled Aotearoa (New Zealand) and developed a thriving culture of carving and art resulting in the development of tā moko. The case could be made that, as tā moko began to thrive, new spaces needed to be delineated as areas for the procedure; or, as the demand for tā moko increased, pressure was placed upon those natural resources required for the procedure, such as the albatross whose bones were used for uhi and the kauri tree sometimes used for ink.²¹² Yet, that is where the chain of causation ceases. It cannot be proved that there were ontological or genetic ramifications caused by the development of or changes to tā moko. Niche construction theory is not able to add to our understanding of tā

²¹¹ Odling-Smee, Laland, and Feldman, *Niche Construction*, 251; Kevin N. Laland, John Odling-Smee, and Marcus Feldman, "Cultural Niche Construction and Human Evolution," *Journal of Evolutionary Biology* 14, no. 1 (2001): 24-5.

²¹² Higgins, "Tā Moko."

moko, because there is no evidence that tā moko altered environmental selection pressures resulting in the feedback loop that epitomises niche construction. Not only does one have to establish that tā moko directly affected environmental selection pressures, but one also has to prove that the shift in selective processes, in turn, changed biological selection causing certain genes to appear more frequently amongst pre-contact Māori people. At this point, there simply is no supporting data. Although niche construction theory has proved an effective model for sickle-cell anaemia and lactose intolerance, its utility appears to falter when confronted by other cultural practices like tā moko.²¹³

Meme Theory

Meme theory is one of the first, robust cultural evolutionary theories. Meme theory contends that humans are the vehicles for their genes, which drive both humans and culture. A gene's goal is persistence via replication, a process that favours selfishness. Dawkins maintains that the gene's selfishness spills over into human behaviour, causing it to be mostly selfish and only limitedly altruistic in nature.²¹⁴

Since culture is fundamentally human, Dawkins believes there must be a cultural equivalent to the gene and seeks to determine what that cultural counterpart might be. His efforts led to the development of the meme, which operates as a cultural replicator in much the same way genes within humans do.²¹⁵ A meme is “a unit of information residing in a brain,” that takes on whatever structure the storage mechanism of the brain uses to hold information.²¹⁶ The success of a meme is dictated by how much it affects one's behaviour. Behavioural effect

²¹³ For detailed discussions of these examples within niche construction theory, see: Gerbault et al., “Lactase Persistence,” 863-77; O'Brien and Laland, “Culture and Agriculture,” 440-5; Scott-Phillips et al., “Niche Construction Perspective,” 1232-4; Odling-Smee, Laland, and Feldman, *Niche Construction*, 251; Laland, Odling-Smee, and Feldman, “Cultural Niche,” 24-5.

²¹⁴ Dawkins, *The Selfish Gene*, 2.

²¹⁵ *Ibid.*, 192.

²¹⁶ Richard Dawkins, *The Extended Phenotype: The Gene as the Unit of Selection* (Oxford: Freeman, 1982), 109.

depends upon the environmental circumstances of the meme and is affected by both the genetic composition of a population and the types of memes already present within the group.²¹⁷ Like genes that travel through human lineages via reproduction, memes are transmitted between brains via imitation.²¹⁸

Meme theory has proven to have tools that other cultural evolutionary theories do not, specifically in its ability to account for the role of artefacts within cultural evolution.²¹⁹ For instance, in attempting to explain why groups from similar natural environments develop different behaviours and beliefs, Aunger argues that derivations result from each group changing their surrounding environments in substantially different ways, hence culture. Although this view is similar to niche construction theory, a point that Aunger himself notes, the similarities stop with his assertion that the adoption of cultural traits via social learning happens through relationships and exchanges with artefacts passed down through the generations, rather than through interactions with people.²²⁰ Because artefacts do not themselves evolve, Aunger believes that “the making of artefacts” is an instrumental part of niche construction and an activity that deeply affects cultural selective processes.²²¹

One of Aunger’s key observations is that the development of “complex artefacts,” enables humans to have cumulative culture. To Aunger, artefacts are central to group selection

²¹⁷ Dawkins, *Extended Phenotype*, 111.

²¹⁸ Dawkins, *Selfish Gene*, 192.

²¹⁹ Undoubtedly, evolutionary archaeology provides a host of compelling models regarding the evolution of artefacts according to Darwinian Theory. However, although evolutionary archaeology has become more prevalent in the last decade, its use is still largely quarantined to the anthropological and, specifically, archaeological niche. Because of its fairly limited usage, I have chosen not to include evolutionary archaeology within the discussions of popular evolutionary explanations of culture. Yet, there is ample material to foster fruitful dialogues about how to integrate evolutionary explanation of the material record back into evolutionary explanation of culture. For one such endeavour, see Stephen Shennan, *Genes, Memes, and Human History: Darwinian Archaeology and Cultural Evolution* (London: Thames and Hudson, 2002).

²²⁰ Robert Aunger, “Conclusion,” in *Darwinizing Culture: The Status of Memetics As a Science*, ed. Robert Aunger (Oxford: Oxford University Press, 2000), 207.

²²¹ Aunger, *Electric Meme*, 279.

pressures because they often endure much longer than the organism itself, in this case the human, does.²²² In Auger's own words, "'big culture' is not necessarily a function of big brains per se but rather of the ability to produce complex artifacts."²²³ This realisation prompts Auger's proposal of a cultural niche which takes into account that human culture is "is also defined by material adaptations: our physically constructed environment as a storehouse of cultural information," with the artefact as the "mediator" of transmission, instead of social learning.²²⁴

The absence of artefacts in discussions of cultural evolution prompts Auger to ask questions of niche construction theory, like why there is no investigation into the feedback loop from artefacts into culture; why are genetic consequences only taken into account.²²⁵ From this realisation, Auger proposes a meme/artefact co-evolutionary theory to explain cultural change, which maintains that memes and artefacts are equally important in the way a cultural group evolves.

Although Auger extends meme theory to introduce a novel and key assertion that artefacts play a central role within cultural evolution and are instrumental in the evolution of cultural groups, a point which is echoed by actor-network theory, meme theory suffers from a lack of clarity on a number of points which challenges its explanatory power for certain cultural practices, like tā moko. One such criticism is that it proves difficult to isolate what unit of culture is comparable to the gene, which contributes to general scepticism about meme theory's utility.²²⁶ Maurice Bloch argues that culture does not "normally divide up into naturally

²²² Odling-Smee, Laland and Feldman disagree with Auger on this point. For their rebuttal, see Odling-Smee, Laland, and Feldman, *Niche Construction*, 358-9.

²²³ Auger, *Electric Meme*, 308.

²²⁴ *Ibid.*, 309.

²²⁵ *Ibid.*, 280.

²²⁶ Maurice Bloch, "'A Well-Disposed Anthropologists' Problem with Memes," in *Essays on Cultural Transmission*, ed. Maurice Bloch (Oxford, NY: Berg, 2005), 91.

discernible bits.”²²⁷ To this, Kate Distin counters that although memes are subject to mutation, this does not differ from the threat of mutation which exists in the process of genetic replication.²²⁸ Yet, this rebuttal does not really resolve issues of unit of selection in real, cultural examples.

Again, I turn to Māori tā moko to illustrate this concern. As the exploration of tā moko narratives in Chapter Two reveals, tā moko is comprised of many parts and processes that work together under the label of tā moko. The ink, implements, and designs differ from region to region, time period to time period, tohunga to tohunga, and mau moko to mau moko. Pākehā understandings of tā moko differed from Māori views. Yet tā moko, regardless of these numerous variations, is considered a single meme. Is a moko from the Gisborne area the same as one from Te Tai Tokerau (Northland)? Is a pre-contact moko the same as one acquired today? Certainly the designs and tohunga-tā-moko implementing the designs differed; so what meme is being replicated—facial tattoo? Facial tattoo as the meme is also problematic, because facial tattooing is practiced in other areas throughout the world; so how does the facial tattooing meme of Māori cultural groups differ from that found elsewhere? For memes to be a unit for measuring culture akin to the gene, the exact unit must be able to be discerned, and, though Distin argues that discrete units of information are discernible, the case of Māori tā moko leaves me sceptical.

According to many proponents of meme theory, the meme is the agent and humans are its hosts. Dan Dennett and Susan Blackmore go so far as to deny that the mind has “intentionality and consciousness.”²²⁹ The implication is that humans are niches memes create. However, the concept of the meme as its own agent is difficult to grasp and is not really explained by a

²²⁷ Bloch, “Problem with Memes,” 91-4.

²²⁸ Kate Distin, *The Selfish Meme: A Critical Reassessment* (Cambridge: Cambridge University Press, 2005), 159.

²²⁹ *Ibid.*, 173.

majority of memetics literature. How can an idea be its own agent? What, if not the human, drives the idea? Who, if not humans, “invents” the base phenotypes for memes? According to many memeticists, humans have no direct say in whether information will be passed on or not, rather memes and genetics determine our evolutionary course.²³⁰

Consider the following example provided by Aunger. Aunger encourages us to think of a wagon and imagine that we do not know what it is or what it does, and no one is there with us to explain it. According to Aunger, the wagon, even without explanation, conveys a great deal of information to the bystander. It signifies motion, something all humans are accustomed to because of our innate ability to move. If the wagon transports either people or things, it conveys to the onlooker information about how goods and/or people are moved from one place to another in that area. It signifies that it was built in order to carry things; suggesting that perhaps loads are too cumbersome to carry by hand. All of this information and more is stored in the wagon and is transmitted from wagon to onlooker. To explain this phenomenon, Aunger uses memetics, where “the very act of perceiving the wagon alone causes the meme to leap off the wagon and into the perceiving mind.”²³¹

Despite the need for further clarification, Aunger’s stalwart position of the integral role artefacts and storages play in the construction and evolution of culture directly conflicts with dual-inheritance theory’s view of cultural evolution which hinges upon selective, social learning taking place between individuals and within human groups. Simultaneously, meme theory builds upon niche construction theory by extending feedback loops to interactions between humans and artefacts. Specifically, Aunger provides a counter argument to Boyd and Richerson’s dismissal

²³⁰ Larry Bull, Owen Holland, and Susan Blackmore, “On Meme-Gene Coevolution,” *Artificial Life* 6, no. 3 (2000): 228.

²³¹ Aunger, *Electric Meme*, 282.

of the transmissive value of artefacts and other cultural means of transmission, aside from those within literate traditions which overlaps with the integration of inanimate and non-human agents in actor-network theory. There is no question that selective, social learning is an integral part of cultural groups, but learning does not lend itself to quantitative analysis, because it is not a readily “observable” phenomenon. Though meme theory has potential to address facets of cultural evolution, particularly within non-literate traditions, by taking into account the role of artefacts in the construction and dissemination of culture, to realise the full scope of its utility would require that the issues outlined above be addressed.

Lambros Malafouris, offers an alternative to Aunger’s memetic treatment of artefacts, one which prefaces later arguments made in Chapter Four. Specifically, Malafouris diverges in his view of causal agency. Instead of maintaining the dichotomy between agent and object, Malafouris, who has coined the term *material agency*, upholds that “if human agency is then material agency is, there is no way that human agency and material agency can be disentangled.”²³² To go deeper into the brain limits our understanding of “causal agency,” which, instead, exists in “the interface between brains, bodies, and things.” Thus, to Malafouris, the “ultimate cause of actions” transcends any agent, human or non, but, rather, “is the flow of activity itself.”²³³

Malafouris’ stance anticipates the introduction of transmissive assemblage in Chapter Four of this study, which employs actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori as a means to encourage us to forgo our preoccupation with causal agency so prevalent throughout evolutionary explanations of culture and, instead, focus our attentions on

²³² Lambros Malafouris, “Chapter Two: At the Potter’s Wheel: An Argument for Material Agency,” in *Material Agency: Towards a Non-Anthropocentric Approach*, eds. Carl Knappett and Lambros Malafouris (New York: Springer Science and Business Media, 2008), 22.

²³³ Malafouris, “Potter’s Wheel,” 34-5.

the networks formed between agents when associations are traced.²³⁴ Tracing associations allows us to honour the fluidity of agency without being bound by the parameters of the agents themselves. As Malafouris argues, “agency is in constant flux, an in-between state that constantly violates and transgresses the physical boundaries of the elements that constitute it.”²³⁵ Thus, it is in our best interests to seek out or develop alternative evolutionary explanations of culture which are not, themselves, bound to static conceptions of agency which ultimately undermine the inherent dynamicity of culture.

One might expect that enquiries into the biological facets of human culture might facilitate a more holistic portrayal of culture. Instead, more often, we are left with a view of what we call culture that is individualised and human-centric, rather than integrative and holistic. Indeed, what remains is a sense that evolutionary explanations of culture have the power to identify specific mechanisms and selection processes by which cultural practices are shaped, yet which remain unidentified within the group from which the practice derives—that it is only through science that we can understand the reality of culture, both its development and evolution.

However, as demonstrated above, when specific case studies are introduced, important questions about the explanatory power of evolutionary explanations of culture begin to arise, and frameworks praised for their simplicity actually seem to complicate matters. In part, the difficulties presented by the trail of remaining questions are a result of the ahistorical tendency of evolutionary explanations. Generally, evolutionary explanations tend to place greater emphasis on the plasticity of cultural variants because of their need to accommodate rapid environmental change in order to be successful; yet, evolutionary explanations frequently have atemporal or fixed orientations. When case studies involving a particular cultural practice are used, I often

²³⁴ Latour, *Reassembling*, 50; Latour, “Recalling ANT,” 17.

²³⁵ Malafouris, “Potter’s Wheel,” 35.

find myself confused about which time period is being referenced, as many cultural practices span centuries, and we are left unclear on which selective mechanisms resulted in the origination of a practice and whether those also shift through time.

To further elucidate questions and issues that emerge through the employment of evolutionary explanations to culture, this study is devoted to an investigation of tā moko through the lens of yet another evolutionary explanation: costly signalling theory. I chose this example because it clearly illustrates concerns, especially those of a politico-ethical nature, that arise when evolutionary explanation is confronted with a multi-faceted, indigenous cultural practice that spans centuries. Moreover, it illuminates the conflict between scientific and indigenous narratives of cultural practice, in this case Māori tā moko. However, it is first necessary to contextualise costly signalling theory within the framework of human behavioural ecology.

Human Behavioural Ecology

Costly signalling theory is rooted in the theoretical tradition of human behavioural ecology. Human behavioural ecology involves the application of the theory which underlies animal behavioural ecology to humans with the aim of determining the extent to which a behaviour is adapted to suit a given environment.²³⁶ As Smith explains, human behavioural ecology is based upon five primary assumptions, including ecological selectionism, the piecemeal approach, modelling, an emphasis on “decision rules or conditional strategies,” and the phenotypic gambit.²³⁷ Ecological selectionism is the analysis of a given behaviour by inquiring as to what “ecological forces” cause that behaviour to be selected for. The piecemeal approach maintains

²³⁶ Irons and Cronk, “New Paradigm,” 3; Lee Cronk, “Human Behavioral Ecology,” *Annual Review of Anthropology* 20 (1991): 25.

²³⁷ Eric Alden Smith, “Three Styles in the Evolutionary Analysis of Human Behavior,” in *Adaptation and Human Behavior: An Anthropological Perspective*, eds. Lee Cronk, Napoleon Chagnon, and William Irons (Hawthorne, NY: Aldine de Gruyter, 2000), 29.

that “socioecological phenomenon” are best understood utilizing a reductionist (or piece by piece) strategy, as opposed to a holistic approach.²³⁸ Within the piecemeal approach, complex issues are reduced into a specific “set of component decisions and constraints such as the female preferences for mate characteristics, male preferences, the distribution of these characteristics in the population, the ecological and historical determinants of this distribution, and so on.”²³⁹ Simple analytical models are then created to test the hypotheses generated by the piecemeal approach. These models tend to be designed around conditional strategies which focus on the covariation of socioecological environment and behaviour. As such, studies within human behavioural ecology typically seek to account for “behavior variation as adaptive responses to environmental variation.”²⁴⁰ Smith expounds that, by and large, human behavioural ecologists “assume that this adaptive variation (facultative behavior, phenotypic result) is governed by evolved mechanisms that instantiate the relevant conditional strategy or decision rule.”²⁴¹ This assumption comprises part of the phenotypic gambit, as coined by Grafen in 1984, which refers to the idea that models and their underlying hypotheses need not take into account “genetic, phylogenetic, and cognitive constraints on phenotypic adaptation,” since their effects are minimal.²⁴² To clarify using Grafen’s own words:

“the phenotypic gambit is to examine the evolutionary basis of a character as if the very simplest genetic system controlled it: as if there were a haploid locus at which each distinct strategy was represented by a distinct allele, as if the payoff rule gave the number of each offspring for each allele, and as if enough mutation occurred to allow each strategy the change to invade.”²⁴³

²³⁸ Smith, “Three Styles,” 29.

²³⁹ *Ibid.*, 29-30.

²⁴⁰ *Ibid.*, 30.

²⁴¹ *Ibid.*

²⁴² Alan Grafen, “Chapter Three: Natural Selection, Kin Selection, and Group Selection,” in *Behavioural Ecology: An Evolutionary Approach*, 2nd ed., eds. John R. Krebs and Nicholas B. Davies (Oxford: Blackwell Science Ltd., 1984), 63-4; Smith, “Three Styles,” 30.

²⁴³ Grafen, “Natural Selection,” 64.

The implication is that every strategy in a given population is equally successful.

Human behavioural ecology stems from a convergence of three major theoretical traditions. One of those traditions comes by way of population biology and ethology which, in the 1960s and 70s, developed an evolutionary biological approach applied to animals.²⁴⁴ Although Wilson's *Sociobiology* is often accredited with the commencement of this tradition, characterised by a burgeoning interest in exploring human behavioural diversity through a Darwinian framework, his work is more accurately understood as a systematization of prior research.²⁴⁵ At the heart of this early body of research from which Wilson draws, are W.D. Hamilton's theory 1963 article on inclusive fitness and kin selection and V.C. Wynne-Edwards's hypotheses regarding levels of selection.²⁴⁶ Other papers and studies produced during this time, such as Robert Trivers' work on reciprocal altruism, W.D. Hamilton's theory on inclusive fitness and kin selection, and George Williams' illumination of the levels of selection "at which adaptations are most likely to evolve," resulted in the development of a corpus of theories bound by "a coherent perspective" that the "forces of natural selection" are also exerted upon human behaviour.²⁴⁷ Irons and Napoleon Chagnon also entered the conversation and began applying

²⁴⁴ Cronk, "Behavioral Ecology," 26.

²⁴⁵ Ibid.

²⁴⁶ V.C. Wynne-Edwards, *Animal Dispersion: In Relation to Social Behavior* (New York: Hafner, 1962); "The Evolution of Altruistic Behavior," *The American Naturalist* 97, no. 897 (Sept.-Oct., 1963): 354-6. Although Hamilton introduces the concept of inclusive fitness in his 1963 article, he does not utilise the term *inclusive fitness* until 1964. For this initial usage, see: W.D. Hamilton, "The Genetical Evolution of Social Behaviour II," *Journal of Theoretical Biology* 7 (1964): 17-52.

²⁴⁷ Cronk, Chagnon, and Irons, eds., "Adaptation and Human Behavior," 4; Trivers, "Reciprocal Altruism," 35-57. For Trivers' current views on reciprocal altruism, see Robert L. Trivers, "Chapter Four: Reciprocal Altruism: 30 Years Later," in *Cooperation in Primates and Humans: Mechanisms and Evolution*, eds. Peter Kaeppeler and Carel P. van Schaik (Berlin; Heidelberg, Germany: Springer Verlag, 2006), 67-84. For Williams' early discussion of levels of selection see George C. Williams and Doris C. Williams, "Natural Selection of Harmful Social Adaptations among Sibs with Special Preference to Social Insects," *Evolution* 11, no. 1 (Mar., 1957): 32-9 and George C. Williams, "Natural Selection, the Costs of Reproduction, and a Refinement of Lack's Principle," *The American Naturalist* 100, no. 916 (Nov.-Dec., 1966): 687-90. For an anthology of significant work in these areas during the 1960s and 70s, refer to George C. Williams, ed., *Group Selection* (New Brunswick, NJ: Transaction Publishers, 1971).

evolutionary theory to cultural anthropology, integrating selectionist hypotheses into their extensive fieldwork involving the Yomut Turkman and Yanomami, respectively.²⁴⁸ Throughout the 1970s, others, such as Zahavi who delved into cheating to explore how honest correlations between observed signals and unobserved qualities could be stabilised, followed suit and evolutionary theory was applied to a myriad of field research, from social stratification to infanticide.²⁴⁹

The second tradition responsible for the development of human behavioural ecology is ecological anthropology. Within this tradition, researchers, such as Julian Steward, began to develop a connection between the environment and human groups.²⁵⁰ Once established, this linkage made for fertile grounds for scholarly exploration and resulted in the emergence of a group of neofunctionalist ecological anthropologists, including Roy Rappaport and Andrew Vayda, who were amongst the first to advocate the fruitfulness of using of concepts extracted from ecology and evolutionary biology to study humans.²⁵¹ Other scholars, influenced by the work of early anthropologists, like Lionel Tiger, Robin Fox, Robert Hinde, and Richard Alexander, eventually shifted away from the neofunctionalists' promotion of group selection and

²⁴⁸ William Irons, "Nomadism as Political Adaptation: The Case of the Yomut Turkmen," *American Ethnologist* 1, no. 4 (1974): 635-58; William Irons, *The Yomut Turkmen: A Study of Social Organization among a Central Asian Turkic-Speaking Population*, Museum Anthropology, University of Michigan, Anthropological Papers no. 58 (Ann Arbor, MI: University of Michigan, 1975); Napoleon Chagnon, "Yanomamo Social Organization and Warfare," in *War: The Anthropology of Armed Conflict and Aggression*, eds. Morton Fried, Marvin Harris, and Robert Murphy (Garden City, NY: Natural History Press, 1968), 109-59; Napoleon Chagnon, "Mate Competition, Favoring Close Kin, and Village Fissioning among the Yanomamo Indians," in *Evolutionary Biology and Human Social Behavior*, ed. Napoleon Chagnon and William Irons (North Scituate, MA: Duxbury Press, 1979), 86-131. See Robert Borovksy, *Yanomami: Fierce Controversy and What We Can Learn from It* (Berkeley, CA: University of California Press, 2005) for information regarding the controversy of Chagnon's work with the Yanomami.

²⁴⁹ Amotz Zahavi, "Mate Selection—A Selection for Handicap," *Journal of Theoretical Biology* 53, no. 1 (1975): 205-14; Irons and Cronk, "New Paradigm," 5.

²⁵⁰ Julian H. Steward, *Theory of Cultural Change: The Methodology of Multilinear Evolution* (Urbana, IL: University of Illinois Press, 1972).

²⁵¹ Roy A. Rappaport, "Ritual Regulation of Environmental Relations among a New Guinea People," *Ethnology* 6, no. 1 (Jan., 1967): 17-30; Andrew Peter Vayda, ed., *Environment and Cultural Behavior: Ecological Studies in Cultural Anthropology* (Austin, TX: University of Texas Press, 1969); Cronk, "Behavioral Ecology," 26.

population regulation, choosing, instead, to focus their attention to debates within evolutionary theory, such as “levels of selection, animal social behavior, and sexual selection.”²⁵²

The extensive development of game theory in the 1970s, combined with anthropology’s more prevalent use of “actor-based, methodologically individualist approaches” which overlapped with the increasing advancement of individual-level selection within animal behaviour and evolutionary biology, account for the third tradition.²⁵³ Although Richard C. Lewontin is responsible for the initial introduction of game theory to evolutionary biology in 1961, it was not until 1973 when John Maynard Smith and George R. Price published “The Logic of Animal Conflict” that the notion of an evolutionarily stable strategy (a strategy that is stable under the processes of natural selection) became widespread.²⁵⁴ A decade later, two pivotal pieces emerged: Maynard-Smith’s *Evolution and the Theory of Games* and *The Evolution of Cooperation* by Robert Axelrod.²⁵⁵ Such work was instrumental in guiding the trajectory of human behavioural ecology by modelling the adaptive behaviour that humans exhibit in response to a wide variety of environmental variables.

However, not everyone welcomed the application of evolutionary theory into other disciplines, particularly within anthropology. Whilst early labours paved the way for Wilson to collate findings from population biology and ethology to present a coherent narrative on sociobiology and to suggest the benefits, effects, and future of framing human social behaviour

²⁵² Irons and Cronk, “New Paradigm,” 4; Cronk, “Behavioral Ecology,” 26; Wynne-Edwards, *Animal Dispersion*, xi-653; Lionel Tiger and Robin Fox, “The Zoological Perspective in Social Science,” *Man, New Series* 1, no. 1 (Mar., 1966): 75-81; R.A. Hinde, *Animal Behavior: A Synthesis of Ethology and Comparative Psychology* (New York: McGraw-Hill, 1966); Richard D. Alexander, “The Evolution of Social Behavior,” *Annual Review of Ecology and Systematics* 5 (Nov., 1974): 325-83.

²⁵³ Cronk, “Behavioral Ecology,” 26.

²⁵⁴ Richard C. Lewontin, “Evolution and the Theory of Games,” *Journal of Theoretical Biology* 1, no. 3 (1961): 382-403; John Maynard Smith and George R. Price, “The Logic of Animal Conflict,” *Nature* 246 (Nov. 2, 1973): 15-8.

²⁵⁵ John Maynard Smith, *Evolution and the Theory of Games* (Cambridge: Cambridge University Press, 1982); Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984).

with evolutionary theory, Eliot Chapple condemned Wilson's *Sociobiology* as the worst book of the year.²⁵⁶ Though others, like Sahlins and Margaret Mead, were critical of sociobiology and generally opposed to its use, they voted against a motion presented at the 1976 meeting of the American Anthropological Association to "condemn sociobiology."²⁵⁷ Mead, specifically, was reluctant to pass a motion that might regard evolutionary theory as unbeneficial in any circumstances, whilst Sahlins, who maintained that sociobiology was "politically dangerous" and "logically and empirically indefensible," did not wish to turn sociobiologists into "martyrs."²⁵⁸ Furthermore, Sahlins objected on the grounds that the introduction of sociobiology is a projection of the "capitalist ethic of competition onto the natural world," insinuating that the naturalness of capitalism makes it "inevitable."²⁵⁹ Ironically, Sahlins' vehement and long-standing critique of sociobiology, which spawned much debate, furthered discussions and research into human behavioural ecology and evolutionary biology and resulted in the advance of costly signalling theory.²⁶⁰

Though Sahlins' critique spurred essential debate, Irons' objections to his critiques of evolutionary biology are warranted. Claims thrust upon evolutionary explanations whereby selectionist thinking is portrayed as "dangerous" and "scientifically unsound" are largely indefensible.²⁶¹ Early anti-biological determinist proponents who sided with Sahlins, claiming that evolutionary explanations maintain that "present human social arrangements are either unchangeable or, if altered, will demand continued conscious social control because these

²⁵⁶ Edward O. Wilson, *Sociobiology* (Cambridge, MA: Harvard University Press, 2000).

²⁵⁷ *Ibid.*

²⁵⁸ Irons and Cronk, "New Paradigm," 6.

²⁵⁹ *Ibid.*, 7; Sahlins, *Use of Biology*, 93-103.

²⁶⁰ Irons and Cronk, "New Paradigm," 10, 15.

²⁶¹ *Ibid.*, 11.

conditions will be “unnatural,” were in error.²⁶² Yet, despite the misguided nature of their understanding of the science behind evolutionary explanations of culture, as this study affirms, early objectors do make a crucial point in that often evolutionary explanations are asymmetrical and non-reflexive, a trend which still occurs today.

Costly Signalling Theory

Costly signalling theory is designed to account for the continuation of high cost behaviours within human groups. For example, Māori tā moko is a practice which, since its discovery by Europeans, has conjured deep and conflicting emotions for Westerners. Early European writers frequently described moko as “disfigurement” or “barbarous.”²⁶³ Laws, like the Tohunga Suppression Act of 1907 which banned traditional Māori practices, have been interpreted as the result of Pākehā repugnance toward tā moko; although, it should be pointed out that Māmari Stephens has argued that its colonialist aims may have been overstated.²⁶⁴

However, recent cases indicate that people are still intrigued and sometimes frightened by moko, and mau moko, those who wear moko, still face discrimination. In 2013, an Air New Zealand flight attendant candidate had her interview cut short when the interviewer realised that she had moko on her lower arm that could not be covered by the required uniform. When

²⁶² Sociobiology Study Group of Science for the People, “Dialogue: The Critique: Sociobiology: Another Biological Determinism,” *BioScience* 26, no. 3 (Mar., 1976): 182.

²⁶³ John White quoted in Frances Del Mar, *A Year among the Maoris: Study of Their Arts and Customs* (London: Ernest Benn, Ltd., 1924), 21; Samuel Marsden, *The Letters and Journals, 1765-1838, Senior Chaplain in the Colony of New South Wales and Superintendent of the Mission of the Church Missionary Society in New Zealand*, ed. John Rawson Elder (Dunedin, N.Z.: Coulls, Somerville Wilkie and A.H. Reed for Otago University Council, 1932), 167; George French Angas, *Savage Life and Scenes in Australia and New Zealand: Being an Artist's Impressions of Countries and People at the Antipodes*, vol. 1 (London: Smith, Elder and Co., 1847), 315; Joel Samuel Polack, *Manners and Customs of the New Zealanders; with Notes Corroborative of Their Habits, Usages, Etc., and Remarks to Intending Emigrants, with Numerous Cuts on Wood* (London: J. Madden and Co., Etc., 1840), 46.

²⁶⁴ See Malcolm Voyce, “Maori Healers in New Zealand,” *Oceania* 60, no. 2 (Dec., 1989): 99-123; John McCay, “Acts Affecting Native Lands, Etc. (in English and Maori) Passed by the General Assembly, Session 1907, no. 13, An Act to Suppress Tohungas,” *NZETC*, accessed May 11, 2014, <http://nzetc.victoria.ac.nz/tm/scholarly/tei-Gov1907Acts-t1-g1-t12.html>; Māmari Stephens, “A Return to the Tohunga Suppression Act 1907,” *Victoria University Law Review* 32, no. 2 (2001): 437-62.

questioned about the incident, an Air New Zealand spokesperson reportedly described tattoos as “frightening or intimidating,” despite the New Zealand Human Rights Commission’s declaration that, “a person of Māori descent may not be denied employment, entry to premises, or declined service because they wear moko visibly.”²⁶⁵ In 2009, Mark Kopua, a practising tohunga-tā-moko, was turned away from Christchurch’s Bourbon Bar after a bouncer identified his pukanohi (full male facial moko) as gang related rather than a cultural marker of identity; though the two are not necessarily mutually exclusive, since Māori gangs played a significant role in the perpetuation of moko.²⁶⁶ These two examples illustrate the polarising nature of moko. On one hand, people find it off-putting and offensive; on the other, tā moko is considered to be a deeply significant mark of belonging and identity, admired around the world.

However, Māori are not the only people with an intense ritualised practice like tā moko; groups around the world consistently engage in behaviours that appear highly costly. Many of these activities are deemed altruistic in nature, gauged by significant signaller costs in terms of lost time, money, resources, or other valued human commodities and by the valuable information relayed to the receiver upon which decisions are based.²⁶⁷ Though commonplace, the occurrence of costly behaviours within cultural groups is evolutionarily unpredictable, because the tenets of

²⁶⁵ Morgan Tait, “Maori Tattoo Doesn’t Cut It at Air NZ,” *The New Zealand Herald*, May 28, 2013, accessed on March 9, 2014, http://www.nzherald.co.nz/business/news/article.cfm?c_id=3and objectid=10886641; “Moko: Your Rights,” *Human Rights Commission: Te Kāhui Tika Tangata*, accessed March 17, 2014, <http://www.hrc.co.nz/enquiries-and-complaints-guide/faqs/moko-your-rights>.

²⁶⁶ Linda Waimarie Nikora, Mohi Rua, and Ngahuia Te Awekotuku, “Renewal and Resistance: Moko in Contemporary New Zealand,” *Journal of Community and Applied Social Psychology* 17 (2007): 485.

²⁶⁷ For more detailed discussions of the relationship between costly signals and altruism, please see: Herbert Gintis, Eric Alden Smith, and Samuel Bowles, “Costly Signaling and Cooperation,” *Journal of Theoretical Biology* 213, no. 1 (2001): 103-19; Eric Alden Smith and Rebecca L. Bliege Bird, “Turtle Hunting and Tombstone Opening: Public Generosity as Costly Signaling,” *Evolution and Human Behavior* 21, no. 4 (2000): 245-61; Eric Alden Smith and Rebecca L. Bliege Bird, “Costly Signaling and Cooperative Behavior,” in *Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life*, eds. Herbert Gintis et al. (Cambridge, MA: MIT Press, 2005), 115-48; Herbert Gintis, “The Hitchhiker’s Guide to Altruism: Gene-Culture Coevolution, and the Internalization of Norms,” *Journal of Theoretical Biology* 220, no. 4 (2003): 407-18; Joseph Bulbulia, “Religious Costs as Adaptations that Signal Altruistic Intention,” *Evolution and Cognition* 10, no. 1 (2004): 19-38.

natural selection mandate that high-cost behaviours that require varying degrees of sacrifice should disappear over time, since they pose a direct threat to individual survival and reproduction.

According to costly signalling theory, costly behaviours are biological adaptations that ensure within-group cooperation.²⁶⁸ Cooperative adaptations determine the success of groups, since groups without such strategies cannot function as effectively as those with.²⁶⁹ Costly acts are perpetuated within human groups because of the vital information they communicate about one's willingness to cooperate with others (commitment) and/or one's possession of a certain phenotypic trait.²⁷⁰ Since groups rely on cooperation, certain "within group" mechanisms are established in hopes of revealing not only co-operators and traits that favour cooperation or evolutionary success but also defectors, free-riders, and others who threaten group solidarity.²⁷¹ Engagement in altruistic or high-cost behaviours has also been shown to correlate to one's "within group" status.²⁷² Specifically, signallers of high quality have been shown to have greater success in attracting high quality mates and in forming alliances than other, lower quality signallers; a trend which also helps to explain the continuation of behaviours that seem evolutionarily disadvantageous.²⁷³

²⁶⁸ Bulbulia, "Religious Costs," 19; Joseph Bulbulia, "Psychology of Religion," 656; Herbert Gintis, Samuel Bowles, Robert Boyd, and Ernst Fehr, "Explaining Altruistic Behavior in Humans," *Evolution and Human Behavior* 24 (2003): 163; Gintis, Smith, and Bowles, "Signaling and Cooperation," 21.

²⁶⁹ Michael Tomasello, *Why We Cooperate* (Cambridge, MA: MIT Press, 2009), 73-4, 85; Ernst Fehr and Urs Fischbacher, "The Nature of Human Altruism," *Nature* 425, no. 6960 (2003): 788-90; Ernst Fehr and Urs Fischbacher, "Social Norms and Human Cooperation," *TRENDS in Cognitive Science* 8, no. 4 (Apr., 2004): 185. For detailed discussions of the evolution of cooperation, see also Joseph Henrich and Natalie Henrich, *Why Humans Cooperate: A Cultural and Evolutionary Explanation* (Oxford: Oxford University Press, 2007); Robert Boyd et al., "The Evolution of Altruistic Punishment," *Proceedings of the National Academy of Sciences of the United States of America* 100, no. 6 (Mar. 18, 2003): 3531-5.

²⁷⁰ Gintis et al., "Strong Reciprocity," 249; Sosis, Kress, and Boster, "Scars for War," 234-5; Joseph Henrich, "Costly Displays," 245, 258.

²⁷¹ Randolph M. Nesse, "Natural Selection," 18.

²⁷² Smith and Bliege Bird, "Cooperative Behavior," 117.

²⁷³ Rufus A. Johnstone, "The Evolution of Animal Signals," *Behavioural Ecology: An Evolutionary Approach* 4

A behaviour must meet four criteria to be labelled as costly.²⁷⁴ The first criterion mandates that a signal is observable, though what the signal refers to is an “unobservable” quality that varies within a given population.²⁷⁵ Secondly, signallers must incur a cost that is bound to the advertised attribute.²⁷⁶ Thirdly, the benefits and costs of a signal come from the signaller’s transmission of truthful data “about variation in the underlying quality being advertised.”²⁷⁷ Benefits and costs incurred by the signaller must also vary and must correspond to a specific phenotypic trait the signaller possesses.²⁷⁸ Fourthly, the payoff for signallers and receivers is generated by the accuracy of the information the signal provides—its efficacy. A receiver must utilise the broadcast signal as a heuristic to quickly determine whether a signaller is competition, mate, or ally, rather than relying on more costly processes of trying to assess a signaller’s “abilities, qualities, or motivations.”²⁷⁹ Broadcasted qualities can include any number of characteristics that indicate the signaller’s fitness, including health, athletic prowess, possession of certain genetic traits, wealth, and/or numerous others.

Zahavi, amongst others, has argued that the high costs associated with certain signals, either “behavioural or morphological,” is intended to ensure the successful transmission of high-

(1997): 156; Smith and Bliege Bird, “Turtle Hunting,” 246-7, 259; Alan Grafen, “Biological Signals as Handicaps,” *Journal of Theoretical Biology* 144, no. 4 (1990): 517-46; Thomas Getty, “Handicap Signalling: When Fecundity and Viability Do Not Add up,” *Animal Behavior* 56, no. 1 (1998): 127-30.

²⁷⁴ Smith and Bliege Bird, “Turtle Hunting,” 245.

²⁷⁵ Sosis, Kress, and Boster, “Scars for War,” 235.

²⁷⁶ Zahavi, “Mate Selection,” 208, 213; Grafen, “Biological Signals,” 518, 521; Smith and Bliege Bird, “Turtle Hunting,” 246.

²⁷⁷ Sosis, Kress, and Boster, “Scars for War,” 235; See also Zahavi, “Mate Selection,” 207-8; Grafen, “Biological Signals,” 518; Smith and Bliege Bird, “Turtle Hunting,” 246; Rebecca Bliege Bird, Eric Alden Smith, and Douglas W. Bird, “The Hunting Handicap: Costly Signaling in Human Foraging Strategies,” *Behavioral Ecology and Sociobiology* 50, no. 1 (2001): 9-10, 18; Kristen Hawkes and Rebecca Bliege Bird, “Showing off, Handicap Signaling, and the Evolution of Men's Work,” *Evolutionary Anthropology: Issues, News, and Reviews* 11, no. 2 (2002): 58.

²⁷⁸ Bliege Bird, Smith, and Bird, “Hunting Handicap,” 9-10, 18; Hawkes and Bliege Bird, “Showing off,” 58; Zahavi, “Mate Selection,” 208, 210.

²⁷⁹ The quotation appears in both: Smith and Bliege Bird, “Cooperative Behavior,” 117; Smith and Bliege Bird, “Turtle Hunting,” 246.

fidelity information beneficial to both the signaller and receiver.²⁸⁰ Advocates of this position maintain that for sustained cooperation within groups, it is imperative that honest signals evolve to deter defectors. High costs ensure that the information signalled is accurate and hard-to-fake. Since only high quality individuals, those who can afford the costs, can signal, the presumption is that others are prevented from faking or deceiving receivers.²⁸¹ However, this signaller-centric view, which focuses on the strategic costs or handicaps that signallers are perceived to incur, ignores the cost of deception; and, as James Higham asserts, honest signals lacking strategic costs are widely known.²⁸²

Potential costs are also a significant component of honest signalling. According to Higham, “punishment of cheaters” is a key potential cost within the costly signalling paradigm. Individuals who attempt to cheat the signal and end up giving an inaccurate signal will potentially face a significant cost for their attempt at deception.²⁸³ Higham maintains that the real measure for honest signalling is that “there must be a cost associated with cheating that outweighs its benefits.”²⁸⁴ Thus, costs incurred for cheating are perhaps the most salient feature of costly signalling, because without them little exists to deter free-riders or deceptive signallers who wish to advertise a quality they either do not possess to the degree their signal indicates or that they do not have at all, both of which undermine group solidarity.

²⁸⁰ Zahavi, “Mate Selection,” 208, 213; Smith and Bliege Bird, “Turtle Hunting,” 246; Johnstone, “Animal Signals,” 170.

²⁸¹ Bliege Bird, Smith, and Bird “Hunting Handicap,” 10, 18; Hawkes and Bliege Bird, “Showing off,” 58; Zahavi, “Mate Selection,” 208, 211; Bulbulia, “Religious Costs,” 26; Rufus A. Johnstone, “Honest Advertisement of Multiple Qualities Using Multiple Signals,” *Journal of Theoretical Biology* 177, no. 1 (1995): 87.

²⁸² James P. Higham, “How Does Honest Costly Signaling Work?,” *Human Behavioral Ecology* (2013): 3, accessed June 3, 2016, <http://beheco.oxfordjournals.org/content/early/2013/10/18/beheco.art097.full>.

²⁸³ Higham, “Honest Costly Signaling,” 2.

²⁸⁴ *Ibid.*, 3.

Conclusion

Utilising the specific criteria costly signalling proposes for signals, in conjunction with the interpretive evidence, the Cisco case study suggests that it is possible to determine what signal moko was intended to broadcast. By isolating signal contents and rationale, Cisco argues we are better placed to understand the reasons behind its perpetuation, since the information the signal is reportedly broadcasting can be tracked through time. Accordingly, any variations in informational content can be analysed to determine if and/or how the signal has been adapted to fit different environmental and social circumstances, which can be used to illuminate, through a process of reverse-engineering, what challenges Māori faced that made tā moko an effective solution.

Yet, the tā moko narrative the Cisco case study constructs is just one of many. As the following chapter demonstrates, tā moko has many narratives. Indeed, both Pākehā and Māori have their own understandings of tā moko which conflict with each other and with Cisco's interpretation. However, in this cacophony, the Western voice tends to drown out Māori views of themselves and their own practices. Whilst science is an invaluable tool, we must be aware of the specific politico-ethical challenges the employment of science as a methodology to understand indigenous practices poses to indigenous peoples. Laurelyn Whitt cautions that "rather than the theft and settling of indigenous lands, the colonisation at issue involves, in part, their transformation through the wholesale exportation of the microworlds of western science onto them."²⁸⁵ Indeed, a sentiment remains that indigenous peoples' explanations of their own practices are not scientific enough, and thus not accurate, since they come from a "cultural"

²⁸⁵ Laurelyn Whitt, *Science, Colonialism, and Indigenous Peoples: The Cultural Politics of Law and Knowledge*, (Cambridge: Cambridge University Press, 2009), 79.

background. This view, however, overlooks the fact that Western science has its own cultural roots which are often clouded by claims of its “universality” and “transcultural” reaches.²⁸⁶

Semali and Kincheloe further add that “in the process of ascribing worth to indigenous knowledge, such analysis implicitly relegates it to a lower order of knowledge production.”²⁸⁷

Yet, as this study intends to show, to provide more symmetrical and balanced evolutionary explanations of cultural practice requires that evolutionary explanations evolve into more integrative versions of themselves.

The first step in this process is to cultivate an awareness that there is never a single narrative of a cultural practice; rather, our conceptions of cultural practice are derived from heteroglossia. To locate heteroglossia in the context of tā moko, Chapter Two is devoted to an exploration of tā moko narratives from Pākehā and Māori perspectives. Within it, I seek to contextualise the narratives that have shaped tā moko, paying particular attention to the conflict between Western and Māori views of the practice. Furthermore, I draw attention to the impact of Western narratives of tā moko on the perception of Māori as other and on its effects for Māori identity and practice. By shifting away from the linearity which homoglossia supports, we are able to begin affirming the dynamic contexts which frame the historicity of tā moko and set the scene for pushing past the agentic limitations which isolated understandings of cultural practice encourage.

²⁸⁶ Ladislaus M. Semali and Joe L. Kincheloe, “Introduction: What is Indigenous Knowledge and Why Should We Study It,” in *What is Indigenous Knowledge?: Voices From the Academy*, eds. Ladislaus M. Semali and Joe L. Kincheloe (New York; London: Falmer Press, 1999), 21.

²⁸⁷ Ibid.

Chapter Two: The Tradition of Tā Moko

Introduction

To understand why evolutionary explanations of culture, themselves, need to evolve and how we might accomplish this, we must first discern the ways in which they are currently employed. In Chapter One, I have already briefly begun to examine evolutionary explanations in their human behavioural ecology and cultural evolutionary forms. However, since, in this thesis, I utilise Cisco's treatment of tā moko through the lens of costly signalling theory as a means to commence discussions on the evolution of evolutionary explanations of culture, understanding the narratives that inform tā moko is paramount. My approach to these narratives is predominantly chronological, tracing their progression from the narrative of Mataora to the present day. By no means are the narratives presented here an exhaustive list, but they have been selected either because they are sources which Cisco utilises to bracket her study of tā moko, or they are significant sources Cisco omitted from her treatise. My primary aim is to unpack the differences in the lenses Māori and Pākehā utilise to view tā moko but also to promote heteroglossia. Understanding these lenses will help us, in Chapter Three, to employ the Cisco case study to grasp the broader ramifications of the choices scholars make regarding how to fashion the material they elect to utilise to shape their case studies when applying evolutionary explanation to cultural practice.

Heteroglossia is a key component of decolonisation. To *not* incorporate Pākehā into the narrative of tā moko or, conversely, to *only* focus on Pākehā narratives, also perpetuates what Joy calls the “dualistic division,” between “unified subject,” whether that is the coloniser or

scholarly enquirer and “the object/other” upon whom these categories of difference are thrust.²⁸⁸ Moreover, to rely on a singular lens denounces the power of the narrative assemblage to help us avoid the mirage by discovering and recognising existing narratives, rather than constructing the narratives that we want to be there, that we expect should be, or that are more comfortable for us. To fully decolonise tā moko requires that both Māori and Pākehā narratives, in their many forms, be allowed to speak and bring to the table whatever it is that they bring, without censorship. Like the terms *indigenous* and *indigenous peoples*, the categories of Māori and Pākehā are to be understood relationally as umbrellas encapsulating shared experiences, rather than as essentialising conceptual dichotomies.

After a brief, general introduction to tā moko narratives, the discussion transitions to pre-colonisation tā moko narratives and, specifically, the Mataora narrative. Following this discussion, I explore early Pākehā narratives and their effects upon the perceptions of tā moko. I then turn to tā moko narratives within the 1950s-1990s time span. This was a critical time for Māori in redefining their identities in an early post-colonial context, yet Pākehā narratives on tā moko were still dominant. Tā moko narratives presented in this section reveal the dynamics between Māori efforts to shift from marginalisation and misrepresentation into a place of reclamation and renaissance and Pākehā roles in and reactions to that move. Lastly, the chapter ends with a discussion of the current state of tā moko narratives with particular emphasis on their linkage to Māori identity.

For Māori, tā moko has continually been a way of being in the world—a living, ontological narrative upon the face. Korere reflects on her moko kauae: “You get a lot of curiosity stares...I forget sometimes until they stare.”²⁸⁹ As Linda Waimarie Nikora observes,

²⁸⁸ Joy, “God’s Eyeview,” 111.

²⁸⁹ Linda Waimarie Nikora, Mohi Rua, and Ngahuaia Te Awekotuku, “In Your Face: Wearing Moko-Maori

Korere's forgetting of her moko kauae emphasises its lived quality. In part, the lived-ness of tā moko is due to its enduring nature. Tā moko shaped the experience of Māori long before the presence of Pākehā and continues to be integral to Māori narratives which define Māori holistic reality. Tā moko is part of the ritualised narrative of the Māori spiritual world, used to establish and preserve a continuous Māori tradition that helps to order the human experience by orienting the individual to his whakapapa which provides a holistic context that defines Māori existence and identity.

However, colonisation marked the end of a solely Māori narrative for tā moko. Māori practices became interpreted through European lenses, resulting in new narratives which both conflicted and blended with Māori perceptions of tā moko. Thus, whilst tā moko is a Māori practice and Māori have regained dominance in the discourse, Pākehā have also played a significant role in the shaping of tā moko narratives, largely through their ethnographic and historical recordings of the practice. Clifford and George Marcus remind us that ethnography plays a key role in the *construction* of, rather than merely some kind of neutral “representation of cultures.”²⁹⁰ Of ethnography, Clifford and Marcus suggest that it “codes and recodes, telling the grounds of collective order and diversity, inclusion and exclusion. It describes the processes of innovation and structuration, and is itself part of these processes.”²⁹¹ To deny the influence of these early ethnographers in the shaping of the tradition of moko is to deny a dynamic and essential component of the identity of tā moko. Such denial also disavows the power and adaptability of Māori to live a practice against considerable odds.

Facial Marking in Today's World,” paper presented at Tatau/Tattoo: Embodied Art and Cultural Exchange Conference, Victoria University, Wellington, August 21-23, 2003.

²⁹⁰ Clifford and Marcus, *Writing Culture*, 2.

²⁹¹ *Ibid.*

Tā moko is a powerful Māori narrative and has endured despite tremendous pressures to eradicate it and absorb it within the colonial machine. Māori were adaptable enough to withstand these pressures and were able to mould tā moko into the living testament of endurance, identity, and unrelenting will it is today.²⁹² Māori evolved, and, in turn, tā moko evolved. Yet, without granting Pākehā their voices, within this evolving tradition of tā moko through which “power and history work, in ways their authors cannot fully control,” we cannot come to understand the power and adaptability of Māori nor the tradition of tā moko.²⁹³

That said, without exception, every work is designed in some particular way.²⁹⁴ The same is true of the following discussion of tā moko. Within Māori groups, iwi, hapū, and whānau maintain their own narratives about tā moko and its meaning within their specific localities. Although there are a vast amount of Māori narratives regarding tā moko, many of these have not been written down and are difficult, particularly for non-Māori, to access.

Discussions of Māori tā moko narratives from the past, which appear in the next section, have been limited to the narrative of Mataora. There are four main reasons for this decision. Firstly, and most obviously, the Mataora narrative is the most detailed account available in English translation. Secondly, despite its tremendous variation, the narrative of Mataora underscores mātauranga and tikanga Māori which are key to understanding Māori holistic reality and in highlighting Māori voices in a context of heteroglossia. Thirdly, the Mataora narrative is one of the most common Māori narratives of tā moko in circulation, prior to Pākehā presence in New Zealand and, thus, gets us closer to understanding the origination point from which a lineage of tā moko narratives began to develop. Doing so provides a clearer picture of the

²⁹² Nikora, Rua, and Te Awekotuku, “Renewal and Resistance,” 481; Te Awekotuku et al., *Mau Moko: The World of Māori Tattoo* (Auckland: Penguin Viking, 2007), 8, 225.

²⁹³ Clifford and Marcus, *Writing Culture*, 7.

²⁹⁴ Doniger, “Minimyths and Maximyths,” 115.

conflicts that arose and imbedded themselves within tā moko narratives upon Pākehā arrival in Aotearoa and subsequent colonisation.

Lastly, the narrative of Mataora “sets up a series of interventions between two worlds, the material and the spiritual, and correspondingly between correct and incorrect knowledge, between permanent and impermanent designs, between old and young.”²⁹⁵ Such dichotomisation sheds light on the deep relationality for Māori between agents, human and otherwise, which transcends agentic limitations more common to Western perceptions of cultural practice. Moreover, this network of interventions helps us to begin identifying some features non-agent focussed, decolonised explanations of tā moko might possess.

Tā Moko Past

Mataora Narrative

The past of tā moko is a complex nexus of narratives interwoven with Māori and Pākehā elements; yet, this has not always been so. Māori had a rich repertoire of practice and belief prior to Pākehā presence in New Zealand (Aotearoa), many of which survive today. Prior to the introduction of writing by missionaries in the early 1800s, Māori utilised orality to create complex and urbane narratives about “the world and their place in it.”²⁹⁶ Māori myth and legend are part of a deep lineage, derived from Polynesian origins, which comprise the core of Māori knowledge carried through to the present from ancient times which shapes Māori holistic reality.²⁹⁷ As Reverend Māori Marsden and T.A. Henare eloquently reflect:

²⁹⁵ Robert Jahnke, “Ko Ruamoko e Ngunguru Nei: Reading between the Lines,” *Journal of the Polynesian Society* 119, no. 2 (Jun., 2010), 128.

²⁹⁶ Mere Roberts et al., “Whakapapa as a Maori Mental Construct: Some Implications for the Debate over Genetic Modification of Organisms,” *The Contemporary Pacific* 16, no. 1 (2004): 1; Ray Harlow, *Māori: A Linguistic Introduction* (Cambridge: Cambridge University Press, 2007), 6.

²⁹⁷ Rev. Maori Marsden and T.A. Henare, “Kaitiakitanga: A Definitive Introduction to the Holistic World View of the Maori,” Wellington: Ministry of the Environment, 1992.

Myth and legend in the Maori cultural context are neither fables embodying primitive faith in the supernatural, nor marvellous fireside stories of ancient times. They were deliberate constructs employed by the ancient seers and sages to encapsulate and condense into easily assimilable forms their view of the world, of ultimate reality, and the relationship between the Creator, the universe and man.²⁹⁸

It is imperative to acknowledge that the sentiment reflected in this quotation arises out of what can be understood as the indigenisation of Christianity within Maoridom. Since colonisation, tā moko has occurred within, alongside, and against this indigenisation of Christianity as it occurred within Maoridom and Maori religion which contributes to the continual evolution of tikanga Maori.

Fiona Doig and Janet Davidson corroborate Marsden and Henare's view, emphasising that Māori "traditions and myths are not just stories or fantastic events cast in the mists of time. They are meaningful and real in the sense that they validate our existence, order our chaos, and help guide our destiny."²⁹⁹ Today, "stories, values, practices, and ways of knowing...continue to inform indigenous pedagogy" and remain central to the living, Māori oral tradition still in place.³⁰⁰

Māori traditions and narratives are also flexible. T.P. Tawhai explains that the fluidity and flexibility of kōrero tawhito (ancient stories) is an essential component of their very nature, what Michael O'Connor and Angus MacFarlane refer to as "adaptive integrity."³⁰¹ The adaptive integrity of kōrero tawhito is reflected in their ability to be modified to shifting cultural climates, the circumstances of a specific event, and also how delivery and contents vary according to

²⁹⁸ Marsden and Henare, "Kaitiakitanga."

²⁹⁹ Fiona Doig and Janet Davidson, eds., *Taonga Maori: Treasures of the New Zealand Maori People: An Exhibition from the Collections of the National Museum of New Zealand, (Te Whare Taonga o Aotearoa)* (Sydney, N.S.W.: Australian Museum, 1989), 17.

³⁰⁰ Tuhiwai Smith, *Decolonizing Methodologies*, 14-5.

³⁰¹ O'Connor and MacFarlane, "Maori Stories," 223.

specific traits of the chosen narrator.³⁰² Such flexibility is a trait for which the written tradition does not accommodate, since it “tends to rigidify what has and should remain pliant.”³⁰³ Allowing kōrero tawhito to remain flexible empowers their content and delivery to adapt to whatever are the prevalent issues of the day and whatever is the most effective means of addressing these issues.³⁰⁴ Because of their adaptive integrity, kōrero tawhito have been preserved through time, maintain contemporary and historical relevance, and help to reinforce linkages between modern Māori and their ancestors.

The sustainability of Māori narratives is not an uncommon story for indigenous peoples, many of whom have been able to maintain their holistic realities reinforced through their distinctive knowledge systems. However, such sustainability is remarkable “given that retention prevailed in the face of major social upheavals taking place as a result of transformative forces beyond their control.”³⁰⁵ Yet, it is important to reiterate that sustainability does not, necessarily, translate into a romanticised version of a Māori past, as the “lived experiences” generated through colonial and imperialist processes are now integral to the Māori narrative.³⁰⁶

Like other Māori practices, tā moko has mythological origins which are integral to Māori tā moko narratives. According to Mitaki Ra, “the cut of the Gods” has appeared on faces since the dawn of time.³⁰⁷ Some maintain a connection between the word “moko” and Rūaumoko, the son of the primordial couple Ranginui and Papatūānuku, who is often connected to volcanic activity and earthquakes.³⁰⁸ Indeed, images conjured by the thoughts of an internal eruption

³⁰² Tawhai, “Māori Religion,” 99; Joan Metge, *Rautahi: The Maoris of New Zealand* (London; Boston, MA: Routledge and K. Paul, 1976), 266.

³⁰³ Tawhai, “Māori Religion,” 99.

³⁰⁴ Ibid.

³⁰⁵ O’Connor and MacFarlane, “Maori Stories,” 223.

³⁰⁶ Tuhiwai Smith, *Decolonizing Methodologies*, 19.

³⁰⁷ Ra, *The Right to Stand Tall*, 93.

³⁰⁸ Higgins, “Tā Moko.”

causing molten lava to cascade through ancient channels generates parallels to tā moko, where the contents of an individual, in the form of genealogy and ancestral linkages, are carved upon the face. As the ink flows through these crevasses, an indelible mark is left, new, but ultimately a relief against that which has always been—continually shaped and reshaped—enduring and known. References also link tā moko to the lizard which, in te reo Māori, also bears the name moko. Though explicit connections between tā moko and the moko or lizard are relatively uncommon, those few who support this connection parallel the lizard shedding its skin to tā moko, maintaining that both are symbolic of rebirth.³⁰⁹

More commonly, Māori tā moko narratives involve Mataora. Mataora was married to Niwareka of Rarohenga. One day, after Mataora beat her, Niwareka returned to Rarohenga. Once aware of her absence, Mataora reflected upon his behaviour and attempted to find Niwareka to seek her forgiveness. Adorned in his best clothes and sporting a coloured but impermanent design upon his face, Mataora journeyed to Rarohenga and found Niwareka with her father Uetonga. The sweat generated by the strain of the trip caused Mataora's temporary facial colouring to bleed. To the people of Rarohenga whose faces were adorned with beautiful, permanent designs, Mataora's scruffy appearance with pigment running out of his pores made him look foolish and caused them to laugh at and mock him. Despite Mataora's shame, he was able to acknowledge his poor conduct towards Niwareka, asked for forgiveness both from his wife and her family, and, according to Ngahaia Te Awekotuku, pleaded for "knowledge" from

³⁰⁹ Mani Dunlop, "Underneath the Scars: Healing with Tā Moko," *The Wireless*, November 27, 2014, accessed June 2, 2015, <http://thewireless.co.nz/articles/underneath-the-scars-healing-with-ta-moko>; Peter Gathercole, "Contexts of Maori Moko," in *Marks of Civilization: Artistic Transformations of the Human Body*, ed. Arnold Rubin (Los Angeles: Museum of Cultural History, University of California, Los Angeles, 1988), 175; Ridgely Dunn, "Challenging Appropriation: Modern Moko and Western Subculture," PhD diss., Kent State University, 2011.

Uetonga.³¹⁰ Uetonga conceded and gave Mataora the art of moko, which he later brought back with him to the human world.³¹¹

The above account, commonly retold in the North Island of New Zealand, is a version of the Mataora narrative which explains the origin of tā moko.³¹² Another version of the Mataora narrative features a slightly different ending. According to this account, once Mataora arrives in Rarohenga, Uetonga wipes away Mataora's temporary moko and explains to Mataora that in Rarohenga they actually puncture the skin with a chisel. Uetonga then orders patterns to be placed upon Mataora and gives Mataora a proper, chiselled moko. Once the procedure is finished, Mataora, now with moko, decides to return to the upperworld and to carry with him the noble ways and knowledge of moko he learned in Rarohenga.³¹³

Although the first account does acknowledge that Mataora acquired knowledge and was reprimanded for his treatment of Niwareka it is vaguer in stating, specifically, what that knowledge was. The second account places greater emphasis on Mataora's acquisition of tikanga Māori. Connecting tā moko to tikanga Māori is significant because the linkage facilitates the emergence of the holistic qualities of tā moko. Tā moko ceases to be limited by its practical form and must be considered as integral to and reflective of a code of living for Māori "which exemplifies proper or meritorious conduct according to ancestral law."³¹⁴

Other Māori narratives describe how Mataora disseminated tā moko upon returning from Rarohenga. After leaving Rarohenga, Mataora created "Po-ririta, a whare-tuahi" (house for

³¹⁰ Te Awekotuku et al., *Mau Moko*, 13.

³¹¹ Ibid.

³¹² Ibid.

³¹³ Michael King, *Moko: Maori Tattooing in the 20th Century* (Auckland: David Bateman, Ltd., 2008), 15; Te Rangi Hiroa (Sir Peter Buck), *The Coming of the Maori* (Wellington: Maori Purposes Fund Board, 1949), 296; Mark Kopua, "Māori Tā Moko," Presentation at Te Herenga Waka Marae, Wellington, New Zealand, September 23, 2011.

³¹⁴ Mead, *Tikanga Māori*, ix.

teaching arts), where he developed tā moko.³¹⁵ Mataora’s first moko was placed upon a man named Tū-tangata. However, Mataora’s initial attempt at tā moko was unsuccessful and, from then, Tū-tangata was called Tū-tangata-kino, meaning ugly Tū-tangata. Despite his rough start, Mataora continued tā moko; his skill grew and his fame spread far and wide.³¹⁶

These Mataora narratives centre on the transmission of tā moko via the Po-ririta, a whare-tuahi, which reiterates the use of tā moko as a means of teaching and transmitting right conduct. Uniquely, these accounts further connect tā moko to proper conduct and Māori ontology by revealing the imperfection of Mataora’s first attempt. Mataora initially failed and had to practice to acquire his renown skills. If we reconnect this to tikanga Māori, Mataora’s initial struggles to translate what he learned in Rarohenga to the human world serves as a useful reminder to humans that proper conduct must be consistently worked on.

I have specifically chosen to focus my research on the Mataora narrative, due to its emphasis on the lived aspects of tā moko. By stressing the linkage between tikanga Māori, mātauranga Māori, and tā moko, this narrative, in its many forms, is a key starting point to developing a coherent narrative assemblage which reflects Māori perspectives of tā moko and how Pākehā interpretations of the practice were integrated into tā moko narratives. For Māori, narratives express beliefs and values that shape social structures and inform identity.³¹⁷ Māori believe in holistic well-being where mind, body, and spirit are interconnected and framed by whānau and whakapapa, what Mason Durie calls the whare tapa whā model.³¹⁸ This conception of well-being is what James Irwin calls ‘wholeness,’ and narrative helps to communicate how

³¹⁵ Higgins, “Tā Moko.”

³¹⁶ Ibid.

³¹⁷ O’Connor and MacFarlane, “Maori Stories and Symbols,” 231.

³¹⁸ Ibid., 230; Irwin, *Māori Religion*, 6; Mason Durie, *Whaiora: Māori Health Development* (Auckland: Oxford University Press, 1998), 69-74.

this ‘wholeness’ can be achieved.³¹⁹ Thus, to analyse tā moko through the lens of the Mataora narrative, particular attention must be paid to the information it transmits about the pre-contact Māori, holistic reality.

Central to this information is the emphasis the narrative of Mataora places on the acquisition of tikanga Māori. The relationship between tikanga Māori and moko emphasises the innate sociality of tā moko, which Durie observes is necessary to facilitate the relationships necessary for holistic well-being.³²⁰ The nexus between tikanga Māori and the collectivity inherent to tā moko stresses that moko transmits a message of a particular way of being in the world which relates to social identity, indicated by Mataora’s shame at the reaction of others toward his impermanent face paint. This linkage is important not only because it implies that tā moko is innately social but that the functionality of tā moko must be understood in relationship to tikanga Māori which governed and regulated Māori society and informed social identity.

Knowledge of tā moko is not simply guidance on how to perform it, as that is reserved for tohunga-tā-moko; rather, the knowledge Mataora acquires is about noble conduct and community, tikanga Māori and tradition.³²¹ When Mataora returns from Rarohenga, he not only brings moko but an entire code of conduct embodied within the process of tā moko.³²² Only through the acquisition of moko was Mataora able to enter into this sacred lineage and learn how to suitably conduct himself as a member of this community. Mataora’s acquisition of moko took place inwardly, in the form of Māori tikanga, and outwardly through the expression and validation of his social identity.

³¹⁹ O’Connor and MacFarlane, “Maori Stories,” 231; Irwin, *Māori Religion*, 6.

³²⁰ Durie, *Whaiora*, 69-74.

³²¹ King, *Moko*, 15; Te Rangihīroa, *Coming of the Maori*, 296; Kopua, “Māori Tā Moko.”

³²² Kopua, “Māori Tā Moko.”

To borrow Irwin's language, Mataora's "wholeness" was dependent upon this process of integration into the legacy or tradition of moko which allowed him to re-integrate into Māori society as a "whole" person, meaning having a balance between taha wairua (the spiritual side), taha hinengaro (thoughts and feelings), taha tinana (the physical side), and taha whānau (family), a transformation made visible both by moko and through his right conduct.³²³ However, to be whole required the social affirmation provided by tikanga Māori. The year-long process of learning tikanga Māori demonstrated Mataora's commitment to the group, whilst moko outwardly conveyed his adoption of a set of norms that formed the basis for a Māori way of life.³²⁴ Moko is the means through which Mataora's transformative experience is externally expressed and preserved and commences a tradition, not only of tā moko, but of a distinctively Māori way of living. In the sense of Irwin's "wholeness," as humans acquired moko and learned Māori tikanga, they were integrated into the sacred Māori tradition of moko as part of the living legacy of the Mataora narrative.

Additionally, the narrative emphasises the relationship between change and continuity and indicates that continuity, in the form of permanence, is more desirable than impermanence. To utilise the language of costly signalling theory, permanence is selected for. The emergent tension between change and continuity is interesting, because it suggests that this tension shaped the functionality and meaning of moko and, furthermore, that tā moko may have helped arbitrate these processes. Initially, Mataora's facial marking was temporary, meaning it could easily disappear, be ruined or wiped away, and was the object of ridicule. After receiving moko, Mataora's facial marking was permanent and revered. Thus, there is an apparent tension between permanence and impermanence or continuity and change evident within tikanga Māori, and it is

³²³ Durie, *Whaiora*, 69.

³²⁴ *Ibid.*

through the mediation of change, as reflected by impermanence, that the narrative of Mataora accounts for the formation of Māori tradition.

Tā moko came with the acquisition of tikanga Māori. Permanent facial marking was new to humans and, thus, marked the commencement of the tā moko tradition as a lineage passed down from Uetonga to Mataora to the human world. Tikanga Māori is integral to the establishment of tā moko as a tradition, because it is through the adoption of tikanga Māori that Mataora's real change took place. Tikanga Māori is an ontology which guides social interactions.³²⁵ The fact that tā moko is bound to tikanga Māori means that tā moko is innately social; it is this sociality, expressed by the acquisition of tikanga Māori and entry into the tā moko lineage, that facilitates the establishment of tradition and underscores the cultural processes of continuity and change. Mataora's willingness to change his behaviour is what enabled him to enter into the sacred moko lineage of Rarohenga and to bring the custom back to the human world which continued the tā moko tradition. By bringing the custom to the human world, Mataora commences a tradition of tā moko for humans but, in this establishment of tradition, he continues a tradition already in existence within Rarohenga. Thus, the indication within the narrative is that change facilitates continuity.

Early Pākehā Narratives – late 1700s to 1950s

For Māori, tā moko is a lived practice, one which accompanies a strict code of conduct and serves to situate the individual within the collective. Though central to Māori tā moko narratives, these elements are absent from Pākehā conceptions of the practice. As Donald McKenzie notes, the 20 years prior to 1840 represent a time of transition within Aotearoa, where orality was

³²⁵ Mead, *Tikanga Māori*, 12.

confronted by the written tradition.³²⁶ Orality was not supplanted by the written tradition but, rather, existed and continues to exist alongside it. The centrality of orality for Māori is encapsulated by the phrase *kanohi kitea* (seen face), which stresses the importance of face-to-face exchange in affirming one's position and credibility and in situating oneself within the group.³²⁷

Written narratives of *tā moko* from the late 18th, 19th, and early to mid-20th centuries are largely drafted by the hands of Pākehā. The result is a Pākehā tradition of *tā moko* that significantly differs from Māori narratives. Instead of emphasising *tikanga* Māori and the transhistorical nature of *tā moko*, Pākehā narratives, particularly of the late 18th and 19th centuries, tend to revolve around the alterity of *tā moko* and the emotions that the practice evokes in Pākehā witnesses. Yet, this is not to over-simplify Pākehā narratives which are, undoubtedly, complex. Indeed, Pākehā found themselves in a variety of situations and roles, including serving as negotiators and mediators for Māori which, at times, resulted in the cultivation of Pākehā sympathies for Māori causes.³²⁸

Though personal, a number of early Pākehā narratives are patterned in the reactions to *moko* they document, reflecting disgust, shock, fear, confusion, curiosity, and a host of other conflicting and inflammatory emotions. Instead of *tā moko* being depicted as a collective practice that binds people together and reinforces identity, these early Pākehā narratives tend to describe *tā moko* as a signal of alterity, perceived as an affront or challenge to the Eurocentric perspectives that accompanied Pākehā as they began to settle and colonise New Zealand.

³²⁶ Donald Francis McKenzie, *Oral Culture, Literacy, and Print in Early New Zealand: The Treaty of Waitangi* (Wellington: Victoria University Press, 1985), 9.

³²⁷ Tuhiwai Smith, *Decolonizing Methodologies*, 14-5.

³²⁸ For examples of the mediating role of Pākehā and inherent complexities therein, see Christopher Hilliard, "Licensed Native Interpreter: The Land Purchaser as Ethnographer in Early-20th-Century New Zealand," *The Journal of Pacific History* 45, no. 2 (Sept., 2010): 229-45.

Tuhiwai Smith stresses the influence of Pākehā perspectives which governed their reception of Māori, remarking that Pākehā observations of Māori were fashioned according to “their own cultural views of gender and sexuality,” which, for instance, prohibited Pākehā men from conducting trade or signing treaties with indigenous women.³²⁹ Furthermore, Tuhiwai Smith also explains that “colonial outposts” were designed to embody and preserve a specific view of Western civility, notwithstanding the dissention amongst its own inhabitants who came from culturally diverse backgrounds and struggled with identity in this new, heterogeneous environment.³³⁰ By the 19th century, “European powers” had even drafted a prescribed set of specific rules and regulations outlining how “interactions with the indigenous peoples being colonised” should be conducted.³³¹

In keeping with the intentions of the narrative assemblage, when examining early Pākehā narratives, it is important to be aware of the influences motivating such stringent views on notions of civility, particularly since such positions directly impacted Pākehā reception of Māori tattooing practices. Indeed, the pressures of missionaries, as well as Enlightenment views, contributed to the ways in which tā moko was interpreted throughout the early literature. Many early missionary accounts of tā moko call for its abolition, based upon Levitical injunctions such as Leviticus 19:28 (KJV) which reads: “Ye shall not make any cuttings in your flesh for the dead, nor print any marks upon you: I am the LORD.”³³² For example, John Nicholas was shocked by moko and “hoped that this barbarous practice will be abolished in time amongst the New Zealanders; and that the missionaries will exert all the influence they are possessed of to

³²⁹ Tuhiwai Smith, *Decolonizing Methodologies*, 8.

³³⁰ *Ibid.*, 23.

³³¹ *Ibid.*, 26.

³³² Rod Edmond, *Representing the South Pacific: Colonial Discourse from Cook to Gauguin* (Cambridge: Cambridge University Press, 1997), 9; Bronwyn Elsmore, *Like Them that Dream: The Māori and the Old Testament* (Auckland: Libro International, 2011), 15.

dissuade them from it.”³³³ Samuel Marsden also openly rebuked tā moko, anticipating that his admonitions would inspire Māori to achieve some level of European civility.

Thursday, September 9th.--Last evening Tooi and his brother Teranghee (Te Rangi) paid us a visit. Tooi informed us that his brother Korro Korro wished him to be tattooed. We told him that it was a very foolish and ridiculous custom, and as he had seen so much of civil life he should now lay aside the barbarous customs of his country and adopt those of civilized nations.³³⁴

In describing the impact of colonisation in the mid-19th century, Arthur Thomson concluded that “tattooing is now going out of fashion, partly from the influence of the missionaries, who described it as the Devil's art, but chiefly from the example of the settlers and the numerous personal ornaments commerce has placed within the reach of all the industrious.”³³⁵

In addition to the sway of Christian missionaries, certain Pākehā narratives were also shaped by Enlightenment thinking. Throughout the mid to late 17th and 18th centuries, Enlightenment thinkers contrasted the idea of “primitive” with the perceived superiority of colonisers and imperialists, both racially and through the cultivation of advanced cultural practices and technologies, which were then used to justify their political regimes through notions of progress.³³⁶ Augustus Earle’s recounting of reactions from a group of European women to men with pukanohi (full facial moko) captures the struggle some had in reconciling tā moko with pre-conceived notions of a culturally acceptable practice. “They would be really very handsome men if their faces were not tattooed,” Earle wrote.³³⁷ As John White opined, “their

³³³ John Liddiard Nicholas, *Narrative of a Voyage to New Zealand, Performed in the Years 1814 and 1815 in Company with Rev. Samuel Marsden* (Auckland: Wilson and Horton, 1971), 361.

³³⁴ Marsden, *Letters and Journals*, 167.

³³⁵ Arthur S. Thomson, *The Story of New Zealand: Past and Present-Savage and Civilized*, vol. 1 (London: John Murray, 1859), 78.

³³⁶ Anne Salmond, *Two Worlds: First Meetings between Maori and Europeans, 1642-1772* (Auckland: Viking Press, 1993), 97.

³³⁷ Augustus Earle, *A Narrative of a Nine Months' Residence in New Zealand in 1827; Together with a Journal of Residence Tristan D'acunha* (London: Longman, Rees, Orme, Brown, Green and Longman, Paternoster-Row, 1832), 12.

whole countenance was much disfigured by the practice of tattooing.”³³⁸ Joseph Banks declared that moko makes its wearer enormously ugly and struggled to fit moko within his own existing cultural paradigm.³³⁹ Though, as Nikora observes, overall, Banks engaged with the aesthetic of moko, instead of classifying it as untoward or grotesque.³⁴⁰ To further accommodate European notions of civility, males with moko were pressured to avoid further engagement with tā moko and shamed into covering their moko with beards.³⁴¹ Those without moko were encouraged to completely abstain from it.³⁴²

In this light, the portrayal of tā moko as a signal of alterity within some early Pākehā narratives comes to the fore in the social negotiations between Māori culture and the colonial agenda.³⁴³ As Tim Thomas elucidates, colonisation revolves around power dynamics. One dimension of the power struggle is power over something.³⁴⁴ Pākehā recognised Māori as different and moko put that difference literally in their faces. In order to establish control in hopes of re-negotiating social and political boundaries according to their own agenda, visible challenges to the colonial ethos, like moko, had to be eliminated. Rosalyn Diprose specifies that it is the sharing of meanings between people that determines “belonging” or “difference.”³⁴⁵ Thus, to situate Māori within the new colonial context, social meaning and notions of right

³³⁸ John White quoted in Del Mar, *Among the Maoris*, 21.

³³⁹ Joseph Banks, *Journal of the Right Hon. Sir Joseph Banks, during Captain Cook's First Voyage in H.M.S. Endeavour in 1768-71 to Terra del Fuego, Otahite, New Zealand, Australia, the Dutch East Indies, Etc.*, ed. Sir Joseph D. Hooker (London: Macmillan, 1896), 124; H. Ling Roth, “Maori Tatu and Moko,” *Royal Anthropological Institute of Great Britain and Ireland* 31 (Jan.-Jun., 1901): 30.

³⁴⁰ Nikora, Rua, and Te Awekotuku, “In Your Face”; Banks, *Journal*, 124; Roth, “Maori Tatu,” 30.

³⁴¹ Karin Beeler, *Tattoos, Desire and Violence: Marks of Resistance in Literature, Film and Television*, (Jefferson, NC: McFarland, 2006), 160.

³⁴² Nikora, Rua, and Te Awekotuku, “In Your Face.”

³⁴³ *Ibid.*

³⁴⁴ Tim Thomas, “The Social Practice of Colonisation: Re-thinking Prehistoric Polynesian Migration,” *People and Culture in Oceania* 17 (2001): 29.

³⁴⁵ Rosalyn Diprose, “Community of Bodies: From Modification to Violence,” *Continuum: Journal of Media and Culture Studies* 19 (2005): 384.

conduct had to be re-configured and, to Pākehā colonisers, part of that process was to abolish tā moko.

However, certainly not all Pākehā found tā moko repugnant. Although Joel Polack disapprovingly declared that “several Europeans have disfigured themselves with these barbarous embellishments, and the contrast of the blue lines on a livid complexion in appearance has a disgusting effect,” he raises an important point: not all Pākehā were repelled by tā moko. In fact, some Pākehā chose to be involved and live as Māori during early settlement. These individuals are referred to as “Pakeha-Māori.”³⁴⁶ Not only did many of the Pākehā-Māori men undertake moko, they also married Māori women and had responsibilities within their respective Māori communities.³⁴⁷ Importantly, Polack draws attention to the polarity between Pākehā who sympathised and participated in moko, and other Pākehā who deemed such involvement deplorable.³⁴⁸

As time passed, Pākehā narratives began to reflect changes to the collective dynamics of the burgeoning New Zealand nation state. Though many still focussed on the alterity of tā moko, more began to do so with admiration rather than disgust. Consider Earle who, whilst recounting an early moko encounter, wrote that the faces of a group of men gathered around a fire were “rendered hideous by being tatoed [sic] all over.”³⁴⁹ However, later in his journal Earle’s trepidation is supplanted by admiration. He reflects that “[t]he art of tattooing has been brought to such perfection here, that whenever we have seen a New Zealander whose skin is thus

³⁴⁶ Trevor Bentley, *Pakeha Maori: The Extraordinary Story of the Europeans Who Lived as Maori in Early New Zealand* (Auckland: Penguin, 1999), 181; Te Awekotuku et al., *Mau Moko*, 56; Hilliard, “Native Interpreter,” 229; James Belich, *Making Peoples: A History of the New Zealanders: From Polynesian Settlement to the End of the Nineteenth Century* (North Shore, N.Z.: Penguin, 2007), 132.

³⁴⁷ Te Awekotuku et al., *Mau Moko*, 57.

³⁴⁸ For further information about the dynamics between Pākehā see: Trevor Bentley, *Pakeha Maori: The Extraordinary Story of the Europeans Who Lived as Maori in Early New Zealand* (Auckland: Penguin, 1999).

³⁴⁹ Earle, *Nine Months’ Residence*, 34.

ornamented, we have admired him.”³⁵⁰ Though Earle was not tattooed during his tenure in New Zealand, he was the first artist to reside in New Zealand and became friends with a tohunga-tā-moko; thus, his change of heart might be the result of his regular contact with the Māori, coupled with his deep appreciation of art and intimate exposure to moko through a Māori tohunga.³⁵¹ However, Ronald Scutt and Christopher Gotch attribute Earle’s shift to fluctuating levels of acceptance, since one’s levels of “tolerance or disapproval usually depend upon the degree of understanding of the subject relative to the amount of information assimilated or available.”³⁵²

Significantly, Earle’s journal captures the internal conflict tā moko could conjure within Pākehā colonisers and illustrates how Pākehā narratives around tā moko were affected by their own colonial efforts. As colonial efforts increasingly gained a foothold, simultaneously, many Pākehā became more entangled with Māori and more accustomed to their practices. Earle’s account reveals that tā moko reflected and mediated the collective dynamics within and between Māori groups, as well as between Māori and Pākehā trying to adapt to the effects of colonisation and reconcile their inherent differences, both in belief and praxis.

Pākehā narratives of tā moko begin to shift in the mid-19th century from attempts to reconcile the impetus behind the foreign practice of the other to romanticised portrayals of Māori as noble savages from a “a once stable, essential whole.”³⁵³ As Clifford and Marcus observe, shifts within narrative are significant, because narrative “affects the way cultural phenomena are

³⁵⁰ Earle, *Nine Months’ Residence*, 136.

³⁵¹ Jocelyn Hackforth-Jones, *Augustus Earle: Travel Artist: Paintings and Drawings in the Rex Nan Kivell Collection National Library of Australia* (London: Scholar Press, 1980), 8; Ngahua Te Awekotuku, “Mataora: Chiselling the Living Face-Dimensions of Maori Tattoo,” in *Sensible Objects, Colonialism and Material Culture*, eds. Elizabeth Edwards, Chris Gosden, and Ruth B. Phillips (New York: Berg, 2006), 130; Nikora, Rua, and Te Awekotuku, “In Your Face.”

³⁵² Ronald Scutt and Christopher Gotch, *Skin Deep: The Mystery of Tattooing* (London: Peter Davies, Ltd., 1974), 13.

³⁵³ Clifford and Marcus, eds., *Writing Culture*, 115.

registered.”³⁵⁴ As Pākehā narratives about tā moko and Māori change, so too do Pākehā and Māori perceptions of the practice. Forces behind this transition were guided by what Clifford called the “salvage” paradigm, where the perception of the Māori as a dying people whose traditions were rapidly disappearing served as an impetus for fervent recording.³⁵⁵ This sentiment caused a frenzied pressure to gather and record as much information as possible to preserve the last vestiges of Māori culture.

During this mid-19th century period, tā moko began to decline. In part, this decline was due to the efforts of missionaries that gained a foothold amongst Māori groups. However, modifications to Māori social structure that resulted in iwi taking on greater responsibility for the governance of the Māori social and political body, where previously hapū had assumed this role, also contributed to changes to Māori cultural practice.³⁵⁶ The decline of moko is followed by the last re-emergence of pukanohi during the New Zealand Wars of the 1860s, which was then followed by its disappearance.³⁵⁷ Nikora is aware of this pattern, maintaining that as colonial powers gain a stronger presence any practice that threatens that power faces significant censure.³⁵⁸

³⁵⁴ Clifford and Marcus, eds., *Writing Culture*, 4.

³⁵⁵ Clifford, *Predicament*, 12, 202, 228, 248; Albert Edward Davidson (Te Manuwiri), *Sketches of Early Colonisation in New Zealand and its Phases of Contact with the Maori Race* (Christchurch, N.Z.: Whitcombe and Tombs Ltd., 1907), 191-2; Conal McCarthy, ““Empirical Anthropologists Advocating Cultural Adjustments”: The Anthropological Governance of Āpirana Ngata and the Native Affairs Department,” *History and Anthropology* 25, no. 2 (2014): 285; Nikora, Rua, and Te Awekotuku, “Renewal and Resistance,” 479.

³⁵⁶ Ross Bowden, “Tapu and Mana: Ritual Authority and Political Power in Traditional Maori Society,” *The Journal of Pacific History* 14, no. 1 (1979): 51; Rāwiri Taonui, “Tribal Organisation: The History of Māori Social Organisation,” in *Te Ara: The Encyclopedia of New Zealand*, last modified September 22, 2012, accessed January 8, 2014, <http://www.teara.govt.nz/en/tribal-organisation/page-6>. For detailed discussions about the changes to Māori social structure resulting from colonisation see: Angela Ballara, *Iwi: The Dynamics of Māori Tribal Organisation from c.1769 to c.1945* (Wellington: Victoria University Press, 1998); Toon van Meijl, “Maori Socio-Political Organization in Pre- and Proto-History: On the Evolution of Post-Colonial Constructs,” *Oceania* 45, no. 4 (Jun., 1995): 304-22.

³⁵⁷ Nikora, Rua, and Te Awekotuku, “In Your Face”; Ngahuia Te Awekotuku, “Wearing Moko: Maori Facial Marking in Today’s World,” in *Tattoo: Bodies, Art and Exchange in the Pacific and the West*, eds. Nicholas Thomas, Anna Cole and Bronwen Douglas (London: Reaktion Books, 2005), 194.

³⁵⁸ Nikora, Rua, and Te Awekotuku, “In Your Face.”

Akin to accounts prior to the 1840s, moko is still largely described in terms of its alterity, and tensions that arose as Māori and Pākehā navigated new spaces of social meaning, generated through colonisation, made tā moko fertile ground for the expression of conflict between these two factions.³⁵⁹ When Māori and Pākehā were juxtaposed, Pākehā were frequently portrayed as the epitome of civility. Māori, on the other hand, were construed as the primitive other and “stamped with a romanticised identity based on pacified sensuality and harmony with nature; bound to tradition.”³⁶⁰

For example, Richard Taylor was sensitive to the impact the colonial agenda had on Māori groups and their practices. After denouncing colonial efforts, Taylor chastised the “civilized” man for his attitudes toward the colonised, arguing that if Māori were not so intelligent and did not have such an inclination towards war then they would suffer a similar fate as numerous other aboriginal groups. Taylor’s solution to staving off the impact of colonisation was to engage with Māori directly and attempt to gain an emic understanding of their lives and culture, including the practice of tā moko.³⁶¹

Like Taylor, James Cowan was critical of the colonial agenda and perceived moko as a visible symbol of the damage of colonialism on Māori groups. Not only did the colonial “intrusion” negatively impact the “noble” pre-contact Māori tradition, but it divided non-

³⁵⁹ Nikora, Rua, and Te Awēkotuku, “In Your Face.”

³⁶⁰ Ibid.; John Patrick Taylor, *Consuming Identity Modernity and Tourism in New Zealand* (University of Auckland: Department of Anthropology, 1998), 25.

³⁶¹ Richard Taylor, *Te Ika a Maui, or, New Zealand and Its Inhabitants Illustrating the Origin, Manners, Customs, Mythology, Religion, Rites, Songs, Proverbs, Fables, and Language of the Natives; Together with the Geology, Natural History, Productions, and Climate of the Country, Its State as Regards Christianity, Sketches of the Principal Chiefs, and Their Present Position* (London: Wertheim and Macintosh, 1855), 151-3. For Taylor’s detailed critiques of colonisation processes, see Richard Taylor, *The Past and Present of New Zealand with Its Prospectus for the Future* (London: William Macintosh, 1868). See also J.M.R. Owens, “Taylor, Richard,” in *The Dictionary of New Zealand Biography, Te Ara: The Encyclopedia of New Zealand*, last modified March 4, 2014, accessed May 4, 2015, <http://www.teara.govt.nz/en/biographies/1t22/taylor-richard>.

Māori.³⁶² Cowan romantically lamented the intrusion of Western powers which had the effect of removing pre-contact Māori group customs, like tā moko, from mainstream life, instead placing them on the periphery to be absorbed into an indistinct mass of outmoded knowledge attributed to a general and vague New Zealand past.³⁶³ Christopher Hilliard expounds upon Cowan's observations, asserting that many Pākehā existed as "cross-cultural intermediaries" who played key roles mediating negotiations between Pākehā and Māori.³⁶⁴ These liminal roles facilitated complex reactions to colonisation which manifest themselves in Pākehā narratives of Māori practices replete with "nuances and complications as well as blind spots."³⁶⁵

Consider Elsdon Best, whose views of Māori initially aligned with Taylor and Cowan. Both Taylor and Cowan were critical of colonisation and its impact upon Māori people and customs; yet, simultaneously, they colonised tā moko by construing it as the dying practice of a weakened people drowning in the murky mire of colonial impact.³⁶⁶ Early on, Best supported this view, upholding that any cultural shifts or "adaptations" within Māori cultural groups served only to corrupt what had been a fluid and unadulterated cultural tradition.³⁶⁷ As Edward Said reminds us, the view of tā moko as a static practice, which exhibits a strong Orientalist slant, is a fairly common bias of the late 19th and early 20th centuries when Best was writing.³⁶⁸ Yet, Best

³⁶² Michael King, *Nga Iwi o Te Motu: 1000 Years of Maori History* (Auckland: Reed Books, 1997), 85.

³⁶³ James Cowan, "Maori Tattooing Survivals: Some Notes on Moko," *Journal of the Polynesian Society* 30, no. 120 (1921): 241-5; James Cowan, *The Maori: Yesterday and To-day* (Christchurch, N.Z.: Whitcombe and Tombs Ltd., 1930), 138-42, 148; King, *Nga Iwi*, 85.

³⁶⁴ Hilliard, "Native Interpreter," 229-45.

³⁶⁵ *Ibid.*, 242.

³⁶⁶ McCarthy, "Empirical Anthropologists," 285.

³⁶⁷ Elsdon Best, *The Maori as He Was: A Brief Account of Maori Life as it Was in Pre-European Days* (Wellington: Dominion Museum, 1934), 219-23; Elsdon Best, "The Uhi-Maori, or Native Tattooing Instruments," *The Journal of the Polynesian Society* 13, no. 3 (1904): 166-72; King, *Nga Iwi*, 85.

³⁶⁸ Said, *Culture and Imperialism*, xxvi.

later recanted this view and his work was actually instrumental in fuelling the Māori Renaissance.³⁶⁹

Even Cowan's account proves more complex than at first glance. Despite his critique of what he saw as negative changes to Māori practice, he praised Māori adaptability. Cowan drew specific attention the shift in tā moko technologies when recording the tattooing of Waikato chief, Pātara Te Tuhi, with steel chisels in 1842.³⁷⁰ His report suggests that Māori malleability was responsible for the relatively easy integration of new technologies into existing practices; ultimately increasing the chances that tā moko would survive the pressures of new cultural inputs. Frances Del Mar's narrative, composed later than those by Taylor and Cowan, helps to substantiate this view, by recording the opinions of a tohunga-tā-moko who lauded the European tools of iron and steel, for both carving and moko, which gave the practitioner greater control and allowed for more elaborate designs.³⁷¹

H.G. Robley also contributed to a small, but significant, portion who recognised Māori adaptability.³⁷² Significantly, Robley attained a level of intimacy with the practice that is unachievable by later scholars who investigated and wrote when the practice of moko kauae was uncommon and pukanohi had subsided. Robley witnessed tā moko at a time of cultural tumult and confusion within the newly forming nation of New Zealand, resulting in the decline of the practice. Robley's commentary continues to inform the way the continuity of moko is perceived

³⁶⁹ McCarthy, "Empirical Anthropologists," 285; Jeffrey Sissons, "Best, Elsdon," in *The Dictionary of the New Zealand Biography, Te Ara: The Encyclopedia of New Zealand*, last modified October 30, 2012, accessed August 2, 2015, <http://www.teara.govt.nz/en/biographies/2b20/best-elsdon>.

³⁷⁰ King, *Moko*, 18.

³⁷¹ Frances Del Mar, *A Year among the Maoris: Study of Their Arts and Customs* (London: Ernest Benn, Ltd. 1924), 25; Roger Neich, *Painted Histories: Early Maori Figurative Painting* (Auckland: Auckland University Press, 1994), 17.

³⁷² H.G. Robley, *Moko; or Maori Tattooing* (Mineola, NY: Dover Publications, Inc., 2003) 22, 28. This 2003 edition is a reprint of the original, first published in 1869. For the original work see H.G. Robley, *Moko; or, Maori Tattooing* (London: Chapman and Hall, Ltd., 1896).

today, since it is his account that shapes many contemporary understandings of moko and its transitions during the social and political upheaval Māori groups experienced during early colonisation.

Like Best, Robley attempted to locate tā moko within the framework of the pre-colonial Māori social structure which colours discussions about the role moko played within pre-contact Māori society and how that role transformed as Māori groups adapted their practices to withstand colonial pressures.³⁷³ Unlike Best, Robley emphasised Māori adaptability, rather than viewing tā moko as part of a continuous, uninterrupted tradition. Additionally, although at times Robley's enthusiasm may have bordered on obsession, his intense treatment of moko helps us to begin thinking about moko as an agent.³⁷⁴ Indeed, it seems that moko, itself, inspired Robley to begin studying, acquiring, and "recreating" Māori art.³⁷⁵ Timothy Walker expounds upon this influence, observing that "in seeking to preserve, to perpetuate, to record the patterns and designs of the Maori he [Robley] became aware of a life within them which was (and is) essentially provocative of an infinite range of further forms and motifs."³⁷⁶

Adding further complexity to the Pākehā accounts of this period are debates over the meaning and function of tā moko, though such discussions are shaped by the narrators' own assumptions about moko. Edward Shortland denounced any connection between moko and social rank and argued that the only relationship between moko and rank was that social position was made apparent in the amount that an individual could pay a tohunga-tā-moko for the procedure, a contention echoed in the work of Taylor.³⁷⁷ Any differences in moko designs and motifs

³⁷³ Robley, *Moko*, 22, 28; Timothy Walker, *Robley: Te Ropere, 1840-1930, NZETC*, accessed March 3, 2014, <http://nzetc.victoria.ac.nz/tm/scholarly/tei-WalRobl.html>, 65-7.

³⁷⁴ Walker, *Robley*, 78.

³⁷⁵ *Ibid.*, 86.

³⁷⁶ *Ibid.*, 95.

³⁷⁷ Taylor, *Te Ika a Maui*, 153.

Shortland ascribed to the personal tastes and artistic license of the tohunga-tā-moko.³⁷⁸ In addition to his refutation of any connection between moko and social status, Shortland also rejected arguments that moko was integral to differentiating between different pre-contact Māori groups, a view which openly challenges the association between moko and belonging.³⁷⁹

Shortland's apprehension to make any claim of a relationship between moko and social position did not preclude him from speculating about the reasons behind tā moko. Like Cowan, Shortland maintained that moko was about making men more desirable to women and about affirming one's masculinity.³⁸⁰ However, Shortland is distinct in his isolation of a specific social motive behind tā moko, one that portrays moko as a culturally relevant aesthetic signal important in establishing social ties through sex and marriage, two inevitable social products of attractiveness and desire. This shift is particularly poignant, because it situates tā moko within the biological realm where signals are associated with mate selection and fecundity, a point which becomes key in the next chapter throughout discussions about tā moko and costly signalling theory.

Akin to Cowan and Shortland, Robley also rationalised the functionality of tā moko in terms of aesthetics. Specifically, Robley stated that full facial moko made men more attractive to women. However, Robley extended this functionality into the realm of warfare, purporting, in much the same way as Polack, that moko increased one's ferocity in war.³⁸¹ Yet, Robley offered nothing further in the way of support.

³⁷⁸ Edward Shortland, *Traditions and Superstitions of the New Zealanders: with Illustrations of Their Manners and Customs* (London: Longman, Brown, Green, Longmans and Roberts, 1856), 18

³⁷⁹ Shortland, *Traditions and Superstitions*, 16.

³⁸⁰ *Ibid.*, 17.

³⁸¹ Robley, *Moko*, 22, 28.

Likewise, most of John Macmillian Brown's account centred on linking the functionality of moko to warfare. Like Shortland, Cowan, and Robley, Brown appreciated moko as an aesthetic signal but only secondarily as a by-product of warfare. Brown claimed that tā moko was about privileged fame, and warriors added onto moko to reflect their achievements in war; yet he recognised the inconsistency in this statement by referencing that this did not mean that the greatest warriors had the most amount of moko.³⁸² Del Mar shared this opinion and, like Brown, conceived of moko as not just a mark of identity but “a token of distinction.”³⁸³ However, contrary to Del Mar, Brown stressed the use of moko as an aid for warriors to generate more fear in their opponents by looking more menacing and powerful.

Edward Tregear also presented tā moko as a within-group signal connected to warfare and which broadcast desired aesthetic traits. Specifically, Tregear acknowledged a relationship between warfare and tā moko, stating that moko provided the male with a “look of determination.”³⁸⁴ Characteristic of literature from this period, Tregear cited a connection between moko and attractiveness, alighting upon the consensus that a papatea or unmarked face was not desirable to women.³⁸⁵

The narratives of this period, consistently bind the functionality of tā moko to its operation as a signal of warrior prowess, attractiveness to women, social distinction, or to minimise signs of aging.³⁸⁶ The association between tā moko and these more biologically-

³⁸² John Macmillan Brown, *Maori and Polynesian: Their Origin, History and Culture* (London: Hutchinson and Co., 1907), 189.

³⁸³ Del Mar, *Among the Maoris*, 22.

³⁸⁴ Edward Tregear, *The Maori Race* (Wanganui, N.Z.: Archibald Dudingston Willis, 1904), 258.

³⁸⁵ *Ibid.*

³⁸⁶ Tregear, *Maori Race*, 258; Brown, *Maori and Polynesian*, 189; Del Mar, *Among the Maoris*, 22; Shortland, *Traditions and Superstitions*, 17; Cowan, *Maori Yesterday*, 158; Karl von Scherzer, *Reise der Oesterreichischen Fregatte Novara um die Erde. English Selections. Narrative of the Circumnavigation of the Globe by the Austrian Frigate Novara (Commodore B. von Wullerstorf-Urbair), Undertaken by Order of the Imperial Government, in the Years 1857, 1858, and 1859, under the Immediate Auspices of His I. and R. Highness the Archduke Ferdinand Maximilian, Commander-in-Chief of the Austrian Navy* (London: Saunders, Otley, and Co., 1863), 110; John

oriented traits proves helpful as a reference point in later discussions of tā moko as presented by Cisco but also emphasises the influence of Enlightenment thinking upon indigenous practice, whereby European researchers sought to separate themselves from all “corrupting influences,” aside from those that were rational and grounded in provable, scientific fact. Herman expounds, explaining that “only that which could be validated empirically or proven mathematically fell into the realm of science and reason.”³⁸⁷ The effect was that rationality fractured culture, science, and nature, leaving little room for Māori explanations of their own practices which were holistic manifestations of an integrated way of being and did not suffer from such a divide. Spirituality, nature, imagination, emotion and all other aspects of being have continually been a part of being Māori. Yet, with the introduction of new Pākehā perspectives, many of which were shaped by an overpowering scientific discourse, Māori were no longer as free to define themselves as they had been prior to Pākehā presence. Merata Mita laments: “We have a history of people putting Maori under a microscope in the same way a scientist looks at an insect. The ones doing the looking are giving themselves the power to define.”³⁸⁸

Tā Moko Narratives: 1950s-1990s

If we shift forward, yet again, to the period spanning the 1950s-1990s to further trace narratives on tā moko, Pākehā authors begin to further recognise the impact of their Western discourse in developing and perpetuating misperceptions about Māori; concurrently, Māori were working to

Webster, *Reminisces of an Old Settler in Australia and New Zealand* (Christchurch, N.Z.: Whitcombe and Tombs, 1908), 234; James Buller, *Forty Years in New Zealand: Including a Personal Narrative, an Account of Maoridom, and of the Christianization and Colonization of the Country* (London: Hodder and Stoughton, 1878), 171; Angas, *Savage Life*, 315; Robert Young, *The Southern World: Journal of a Deputation from the Wesleyan Conference to Australia and Polynesia* (London: Hamilton, Adams, and Co., 1854), 185; R.R.L. McLachlan, “The Art of Maori Tattooing,” *The New Zealand Railways Magazine* 15, no. 3 (Jun. 1, 1940), 21.

³⁸⁷ Doug Herman, “A New Way for Stewardship of Mother Earth: Indigeneity,” *Smithsonian.com*, September 30, 2014, accessed March 13, 2015, <http://www.smithsonianmag.com/smithsonian-institution/new-way-stewardship-mother-earth-indigeneity-180952855/?no-ist>.

³⁸⁸ Merata Mita as quoted in Tuhiwai Smith, *Decolonizing Methodologies*, 58.

re-develop their own narratives around tā moko and Māoridom in general. Doniger predicts the profound effects of colonisation on tā moko narratives during the period, explaining that as narratives are retold they are also reinterpreted, thus, narrative becomes a dynamic platform upon “which a number of meanings may be modelled.”³⁸⁹ In part this renegotiation of narrative is due to the status elevation of those of Māori descent to “full citizen,” which took place in the 1950s and 1960, resulting in the push for “one nation two cultures.”³⁹⁰ The transition from distinctly separate groups into a single citizenry commenced a time of nation building, where race was no longer thought of as synonymous with culture.

Taylor avers that, “culture becomes a non-biological set of social norms,” as presented in the Maori Affairs Act of 1953, which defined Māori as “a person belonging to the aboriginal race of New Zealand and included half-caste and a person intermediate between half caste and a person of pure descent from that race.”³⁹¹ However, this official change was not necessarily an entirely positive step for Māori, whose expression of cultural customs and traditions were limited and also even more mythologised as an effect of the absorption into the burgeoning New Zealand identity constructed upon a single, Pākehā dominated nation state.³⁹² Still, the transition from 18th century racial identity to one based upon ethnicity and the emphasis on personal identity, as opposed to biology, overturned out-dated notions of higher and lower racial categories based entirely upon biological consideration.³⁹³ Through the creation of a “pan-Māori identity,” individuals of Māori descent began to explore and develop a common cultural inheritance

³⁸⁹ Doniger, *Other Peoples' Myths*, 31.

³⁹⁰ Taylor, *Consuming Identity*, 26. For further development of this notion and the controversy therein, see Richard S. Hill, *Maori and the State: Crown-Maori Relations in Aotearoa/New Zealand, 1950-2000* (Wellington: Victoria University Press, 2009), especially pages xvii-xix.

³⁹¹ Taylor, *Consuming Identity*, 26; Mason Durie, *Ngā Tai Matatū: Tides of Māori Endurance* (Auckland: Oxford University Press, 2005), 32; Metge, *Rautahi*, 41.

³⁹² Frania Kanara Zygadlo et al., “Tourism and Maori Development in Westland,” *Tourism Recreation Research and Education Centre* (TRREC), Lincoln University, report no. 25 (Jul., 2001): 8.

³⁹³ Durie, *Ngā Tai Matatū*, 33.

grounded in cohesion both in experience and belief. This general Māori identity was specifically anchored in a more generic, traditional worldview that emphasised union with the land in a way that any individual with links to a Māori heritage could understand and appreciate, regardless of individual affiliation to any specific hapū or iwi, and was also accompanied by the re-emergence of traditional Māori art forms, including tā moko.

There is not an abundance of tā moko narratives from this period from either Pākehā or Māori. One Māori scholar, Te Rangihīroa (Sir Peter Buck), who wrote on tā moko, shared the tendency of some Pākehā during the mid-20th centuries to construe changes within Māori cultural groups as tainting what was once an uninterrupted flow of cultural group traditions.³⁹⁴ Te Rangihīroa punctuated his account of tā moko with methodical research into the practice. Not unlike Cowan, Te Rangihīroa fixated on the relationship between carving and moko, paying particular attention to the development of whakairo (wood carving) in the North Island.³⁹⁵ Whakairo and tā moko, in Te Rangihīroa's estimation, borrowed motifs from each other, though he posited it more likely that the spirals and other design techniques were first attempted on wood before being applied to the skin.³⁹⁶ Te Rangihīroa also suggested that tā moko implements were adapted to better mimic those used by carvers.

The narrative supplied by Te Rangihīroa mainly outlined the procedure and practice of tā moko. Although he did not argue for moko as a cultural signal of any sort, Te Rangihīroa did acknowledge that the practice allowed for the emergence of greater expertise amongst practicing tohunga-tā-moko, suggesting the emergence of a sort of elite class of tohunga signalled by the amount they were paid for their work. This view resonates with that of Tregear who observed

³⁹⁴ King, *Nga Iwi*, 87.

³⁹⁵ Te Rangihīroa, *Coming of the Maori*, 298.

³⁹⁶ *Ibid.*, 298; George Clarke, *Notes on Early Life in New Zealand* (Hobart, Tasmania: J. Walch, 1903), 11.

that moko could signal social position to the extent that it exhibited the amount one was able to pay for the practice. Mostly what Te Rangihīroa accomplished was to question a certain aspect of the Europeanisation of tā moko by challenging the position that moko works in similar fashion to the English heraldic system, a notion that Te Rangihīroa found ridiculous, yet which still appears on occasion in contemporary sources.³⁹⁷ Nonetheless, as McCarthy points out, it is misleading to think of Te Rangihīroa as a “post-colonial saint.”³⁹⁸ Rather, in light of McCarthy’s actor-network theory analysis, evidence seems to indicate that although Te Rangihīroa’s approach to cultural development was sometimes Māori-centred and, thus, arguably pre-empted the ontological turn in anthropological analyses, he was more inclined to utilise anthropology to further his own gains.³⁹⁹

Correspondingly during this period, Pākehā and Māori narratives and involvement with tā moko began to blur. Pākehā and Māori authors writing at this time were aware of Māori efforts to renegotiate cultural boundaries and redefine identities within the context of post-colonial New Zealand, and Māori ceased to be written about as a dying race. Instead, Māori tradition and its meaning in a more contemporary context underscores these discussions, and can largely be attributed to post-World War Two, Māori urbanisation and the attempted integration of Māori and Pākehā groups into a single nation.⁴⁰⁰ Specifically, proponents of tā moko were fighting a battle to divorce the practice from the gangs and criminals who had adopted the tradition as their

³⁹⁷ Te Rangihīroa, *Coming of the Maori*, 299; Scutt and Gotch, *Skin Deep*, 30; In 1997, Karl Gröning and Ferdinand Anton refer to moko as a “coat of arms,” see *Decorated Skin: A World Survey of Body Art* (London: Thames and Hudson, 1997), 96.

³⁹⁸ McCarthy, “Historicising,” 15.

³⁹⁹ *Ibid.*, 3-26; For more information about the ontological turn, refer to Henare, Holbraad, and Wastell, “Thinking through Things,” 7-16.

⁴⁰⁰ Richard S. Hill, “Maori Urban Migration and the Assertion of Indigeneity in Aotearoa/New Zealand, 1945-1975,” *Interventions: International Journal of Postcolonial Studies* 14, no. 2 (Jun. 1, 2012): 257, accessed March 20, 2014, doi: 10.1080/1369801X.2012.687903.

own.⁴⁰¹ Whilst it is clear that by the 1970s gangs were incorporating elements of moko into their “gang insignias,” it is unclear when, exactly, they began this practice.⁴⁰²

However, though a tā moko renaissance was sought, there was a lack of Māori tohunga-tā-moko. This dearth required that certain willing Pākehā tattooists, like Merv O’Connor and Roger Ingerton, step in and continue this long-standing Māori tradition.⁴⁰³ Te Awekotuku recalls that:

ta moko endured almost two decades of decline; the last kauae moko, by the needle technique, were done in the 1950s. Almost twenty years later thanks to the courage and commitment of individual women and the visionary talent of two professional tattoo artists, Merv O’Connor and Roger Ingerton, the kauae moko was seen, blue-black, crisp and beautiful, on the marae once again, just as the last of the Kuia mau moko were passing on.⁴⁰⁴

More commonly, revival efforts were, instead, aimed towards other areas of Māori culture. For instance, land rights became a focal issue for Māori. In the 1970s, Ngā Tamatoa, protested against Māori land and culture loss. Thousands of Māori were mobilised by Dame Whina Cooper in 1975 to walk the length of the entire North Island in protest of “ongoing land alienation.”⁴⁰⁵ Such awareness prompted scholars to begin asking different questions about Māori practices than were petitioned in prior decades, which revealed certain inconsistencies and inaccuracies in the material but also began to weave the first strands of the tā moko narrative assemblage.⁴⁰⁶

⁴⁰¹ Zygadlo et al., “Tourism,” 8; Durie, *Ngā Tai Matatū*, 11, 137; Nikora, Rua, and Te Awekotuku, “Renewal and Resistance,” 485; Rawinia Higgins, “Tā Moko.” Though tā moko recommenced during this time, it is not until recent years that moko actually has become more mainstream. Presumably, because of its innate visibility, it took moko longer to gain cultural acceptance within the New Zealand national identity because of its particular linkage to Māori group identity that could be construed as a direct challenge to a single national identity.

⁴⁰² Higgins, “Tā Moko.”

⁴⁰³ Ngahuia Te Awekotuku, “Tā Moko: Maori Tattoo,” in *Goldie*, ed. R. Blackley, 109-14 (Auckland: Auckland Art Gallery, 1997), 113.

⁴⁰⁴ Te Awekotuku, “Ta Moko,” 113.

⁴⁰⁵ Te Ahukaramū, “Māori-Urbanisation and Renaissance.”

⁴⁰⁶ Higgins, “Identity Politics”; Kriselle Baker, “The Truth of Lineage: Time and Ta Moko,” in *Fiona Pardington: The Pressure of Sunlight Falling*, eds. Kriselle Baker and Elizabeth Rankin (Dunedin, N.Z.: Otago University Press, 2011), 34.

At the beginning of the 1970s, Pākehā historians were pressured by Māori “radicals” to spend substantially more time addressing concerns relevant to Māori culture.⁴⁰⁷ Michael King responded to the call and began a mission to tackle some of the pressing social affairs affecting the Māori. Though King was Pākehā, he was instrumental in the effort to challenge many of the misnomers about Māori culture that had wedged their way the New Zealand historical discourse, such as invalidating the notion of the Great Fleet Migration that served as the theory explaining the early settlement of New Zealand by pre-Māori cultural groups.⁴⁰⁸ In attempting to better address Māori needs, King began to blend Māori and Pākehā narratives. Throughout his work, an effort was made to acknowledge the autonomy of pre-contact Māori groups prior to Pākehā presence and colonisation. King emphasised this point by stressing that there was no such thing as Māori prior to colonisation and by looking at the commercialisation of moko through photograph.⁴⁰⁹ King bolstered his argument through his research into the effects of colonisation on moko such as the waning of tā moko, shifts in moko technology, and the negative impact of mokamōkai trade.

Much of King’s research on tā moko is contained in his book, *Moko: Maori Tattooing in the 20th Century*, a historical account of tā moko that focuses on the reasons behind the practice’s decline. Primarily, the book attributes the decline of tā moko in the 1950s to a deficit of traditionally trained tohunga-tā-moko, followed by a complete lull in the practice in the 1970s, though women with moko kauae could still be found.⁴¹⁰ Evidence supporting a decline in tā moko, due to a lack of sufficiently knowledgeable practitioners, is ascertained by the emergence

⁴⁰⁷ Allan Hanson, “The Making of the Maori: Culture Invention and Its Logic,” *American Anthropologist* 91, no. 4 (1989): 895

⁴⁰⁸ King, *Nga Iwi*, 12.

⁴⁰⁹ Michael King, *Maori: A Photographic and Social History* (Auckland: Heinemann Publishers, 1983), 9, 37.

⁴¹⁰ King, *Moko*, 59.

of standardised moko patterns and motifs, which differed significantly from design diversity in the early 19th century.⁴¹¹

King also attempted to bridge Māori and Pākehā narratives by addressing both the individual and collective aspects of tā moko. On the individual level, King presented moko as a signal of identity, expressive of individual traits; whilst, on the group level, he construed moko as a signal of Māori within-group belonging. To King, these parallel systems established the internal infrastructure for the external expression of a deep linkage between moko and identity—moko being the external manifestation of one’s internal identity as constructed and validated through the Māori social context.⁴¹²

King’s contribution here is significant, because, rather than thinking of tā moko in terms of its alterity or as an indication of an individual attribute, like wealth, moko is made relevant on both the individual and group levels by articulating individual identity and also positioning the individual within the group collective. Thus, King acknowledged the adaptability of tā moko in its ability to be transformed to accommodate individuality, more characteristic of social orientations that develop out of colonisation, whilst simultaneously attempting to preserve the collective dimensions which define tā moko in a holistic, Māori context. King’s identification of the connection between identity and moko is significant and indicative of a shift away from the conceptualisation of tā moko through Pākehā lenses coloured by Christianity or positivism toward a more relational and associative framework shaped by narrative assemblage.

For King, the establishment of one’s identity anchored within a larger cultural group context is directly related to the *tohunga-tā-moko*, certain technological developments that affect tā moko, and significant cultural shifts brought on by colonisation. The adaptability of tā moko

⁴¹¹ King, *Moko*, 60.

⁴¹² *Ibid.*, 83.

which provided an individualised outlet, affirmed through a Māori cultural mandate, afforded it the opportunity to re-emerge as a potent symbol that embodied Māoridom behind which Māori could rally and generate momentum for the burgeoning Māori Renaissance. The social nature of tā moko expressed through Māori belonging, allowed tā moko to be used to help foster and rekindle group solidarity and cooperation at a time when such efforts were necessary to overcome the limitations Māori groups faced from the lingering effects of colonisation.

In addition to shifting Pākehā narratives to focus more on the endurance of Māoridom, and the adaptability of Māori and tā moko which enabled it to endure through the colonisation process and re-emerge during the Māori Renaissance, King also opened new avenues in the literature which helped to draw attention to the central role that *women* played in its preservation despite external pressures against it. Moko kauae was performed well into the 1950s. One of King's greatest contributions to the study of tā moko is the surveys he conducted with women who had moko kauae and who were still alive in the late 1960s. This research enabled him to isolate two periods of intensive tattoo amongst Māori women in the 20th century which helped to preserve tā moko.⁴¹³ One event that King unearthed consisted of 11 women who acquired moko between 1900 and 1914, whilst the other consisted of 14 women tattooed between 1930 and 1942. Other women underwent tā moko both before and after these dates, but these are the most significant of King's finds. The resurgence of tā moko which took place in the 1930s was done with darning needles and can be attributed mostly to the efforts of two artists: Tame Poata (Ngati Porou) and Ngakau (Waikato). Though the ritual surrounding tā moko had changed, as had the equipment, technique, and limitation on who could perform and receive moko, against all odds moko clung to life to rise again in the Māori Renaissance of the 1970s, and women were

⁴¹³ King, *Moko*, 16.

responsible for the historical continuity of the transmission and preservation of the tā moko tradition.⁴¹⁴

King's research is invaluable in both recognising that there was never a period when moko actually entirely disappeared and in giving Māori women a voice by identifying the instrumental role they played in the preservation of moko through the 20th century. King also used the continuity and adaptability moko possesses to challenge widespread beliefs about the devastating impact of colonisation on Māori groups. By focussing on the positives that the introduction of European technology brought to tā moko, King effectively challenged the notion that European presence negatively affected all aspect of Māoritanga which provides a platform to begin decolonising tā moko. In addition to moko kauae, King cited the adaptability of Māori groups and their ability to take advantage of cultural advances that might behave their cultural practices, which ultimately facilitated a continuous tā moko tradition. These elements, which King readily incorporated into his research, suggest that the relational network of tā moko is vast and that the agentic delineations of Māori, Pākehā, tā moko, etc. may not be as useful as tracing the connections between their interactions.

Until relatively recently, David Simmons, King's contemporary, was considered a preeminent scholar on Māori tā moko. His numerous books and articles are still regularly cited and contribute to the foundation of the Cisco case study.⁴¹⁵ Yet, it has come to light that Simmons' invented conceptions of traditional Māori society and its impact on moko kauae are

⁴¹⁴ King, *Moko*, 17.

⁴¹⁵ Higgins, "Identity Politics"; David Simmons, *The Carved Pare: A Mirror of the Maori Universe* (Wellington: Huia Publishers, 2001); Te Riria and David Roy Simmons, *Moko Rangatira: Maori Tattoo* (Auckland: Reed Books, 1999); David Simmons, *Ta Moko: The Art of Maori Tattoo* (Auckland: Reed Books, 1997); Te Riria and David Simmons, *Maori Tattoo* (Auckland: Bush Press, 1989); D.R. Simmons, *Iconography of New Zealand Maori Religion* (Leiden, The Netherlands: E. J. Brill, 1986); David Simmons, "Moko," in *Art and Artists of Oceania*, eds. S.M. Mead and B. Kernot (Palmerston North, N.Z.: Dunmore Press, 1983), 245-65; David Simmons, *The Great New Zealand Myth: A Study of the Discovery and Origin Traditions of the Maori* (AH & AW Reed, 1976).

misleading and resemble the unbalanced narratives of early Pākehā ethnographers and historians.⁴¹⁶ Of particular concern is his unsubstantiated attribution of moko kauae as indicative of status and personal whakapapa.⁴¹⁷ Moreover, the moko designs posited in his work are never ascribed to a source and “were not commensurate with the technology of the time.”⁴¹⁸ Rather than paving the road to decolonised explanations of tā moko, Simmons, once again, recolonised tā moko by ignoring significant aspects of tā moko central to Māori and the Māori Renaissance, such as “the cultural significance of *moko kauae* becoming the face of the *hapū* on the *marae* during the 19th century.”⁴¹⁹

Instead of linking moko to identity and belonging, Simmons tied moko specifically to status within Māori hapū or iwi. Relying on his informant, Te Riria (Te Ariki Taiopuru Ko Huiarau), Simmons described Māori cultural groups in the 1800s as divided into eight separate social levels based on ancestry, a social system that began in 1816 “when the impetus to fully unite the tribes was first promulgated.”⁴²⁰ Te Riria alleged that Māori groups were working together and were led by one leader, the taiopuru. Historical evidence quickly undermines this claim, as the primary unit of Māori social structure until the 18th century was the hapū, and it was only during the 1800s that the iwi took on a greater social position.⁴²¹ Te Riria also offered a framework which implied that an individual has a social rank reflected by moko that is determined by genealogy.⁴²²

Where King spoke more generally about tā moko as indicative of identity and provides evidence indicating that the practice functions as a signal on both individual and group levels,

⁴¹⁶ Higgins, “Identity Politics.”

⁴¹⁷ Ibid.

⁴¹⁸ Ibid.

⁴¹⁹ Ibid.

⁴²⁰ Simmons, *Ta Moko*, 129-30.

⁴²¹ Higgins, “Identity Politics.”

⁴²² Ibid.

Simmons predominantly implied that tā moko functioned as a signal on the individual level by indicating the rank of the individual upon whom certain patterns appear. Where King's work was more relational, Simmons' proved to have greater agentic reliance. The effect is that where King's narrative opened new avenues for research and discussion based upon a more integrative view of the historicity of tā moko, Simmons shut down channels by delimiting agents and possible associations.

In summation, the period between 1950 and 1990, surveyed above, represents a time when tā moko narratives shift and blend and their fluidity comes to light. Māori and Pākehā were now actively writing about the practice, and Māori and Pākehā were coming together in an effort to revive tā moko within the wider context of revitalising Māoridom. As narratives began to have more crossover, a path was paved for a renaissance where tā moko is once again practiced but also where Māori narratives once again come to the fore, delivering a more holistic view of Māori practice.

Tā Moko Today

The 1990s ushered in new tā moko narratives which began to employ narrative assemblage to seek out more balanced accounts of tā moko. Enquiries into tā moko are now largely led by female scholars of Māori descent which reflects a broader social phenomenon in which Māori are attempting to re-appropriate their own history and heritage from the Pākehā scholars who, until recently, had dominated discussions of Māori culture. Generally, scholars since the 1990s have worked to challenge, amend, and expound on the historical and ethnographic record. The presence of Māori scholars has resulted in an effort to re-educate both Māori and non-Māori on the practice. Efforts include rewriting the history of tā moko to rectify misunderstandings and oversights in the ethnographic and historical record, using these early and other primary sources

to support and compliment new arguments, and contributing to an expanding corpus of literature on tā moko by providing an emic perspective on the practice which has, until recently, been significantly underrepresented.

For example, Pita Graham emphasises a link between moko and identity via the sociality of moko as expressed and validated by tohunga-tā-moko. Specifically, Graham claims that tohunga-tā-moko likely possessed their own system of moko signals interpretable only by experts who transmitted them to each other by choosing specific patterns and symbols for the moko. Whether a moko was from the hand of a deft practitioner or someone significantly less talented was evident from the calibre of the design engraved upon the faces of the mau moko which were visible and able to be interpreted by individuals both inside and outside the group(s) to which a mau moko belonged.⁴²³

Much of the current tā moko narrative, present in the academic narrative, also focuses on its enduring linkages to Māori identity and belonging. Though a focus on the innate sociality of moko in the form of Māori belonging remains, increasingly moko is discussed as an individuated expression. In a study of the meaning of cultural tattoos, some respondents cited moko “as an extension of one’s personal self,” an opinion which does not factor in the group.⁴²⁴ Likewise, Puawai Cairns discovered that for many mau moko, moko was related to a personal life story which blurred the lines of its group associations.⁴²⁵ Additionally, efforts are still being made to divorce moko from its association with gangs, inmates, and other marginal groups, which may also account for its more recent individuation. However, despite these attempts, it is still

⁴²³ Pita Graham, *Maori Moko or Tattoo* (Auckland: Bush Press, 1994), 11.

⁴²⁴ Linda Waimarie Nikora and Ngahuia Te Awekotuku, “Cultural Tattoos: Meanings, Descriptors, and Attributions,” *The Proceedings of the National Māori Graduates of Psychology Symposium* (2002): 130.

⁴²⁵ Puawai Cairns, “He Taonga te Ta Moko ki Tauranga Moana: A Survey of Attitudes, Opinions, Whakāro Noa Iho, towards Ta Moko during the Tauranga Moana, Tauranga Tangata Festival,” *The Proceedings of the National Māori Graduates of Psychology Symposium* (2002): 139.

acknowledged that these marginal groups played an integral role in preserving moko by practising tā moko when it was not commonplace within Māori culture.⁴²⁶

The emic nature of this work reflects the integrative nature of tā moko for Māori, stressing its centrality to Māori identity and its ties to tradition and ancestry. Mead describes contemporary moko as, “a validating symbol for persons wanting to emphasise their identity as Māori.”⁴²⁷ Putaringa emphasises this point: “what they don’t realize (is) that this moko was here before them or before their forefathers.”⁴²⁸ To non-Māori, this extreme sense of continuity may be confusing, and may lead to the perception that there is no understanding moko; that, in many ways, moko is what it is and much of the “it” that tā moko is proves inaccessible. However, for Māori this could not be further from the truth.

Nikora elaborates, explaining that for Māori “our lives are lived through our bodies and those elements that adorn them. Our bodies, clothing, material possessions, roles and communities, all mediate the meanings we, and others, have of ourselves.”⁴²⁹ Yet, modernity and the endeavour to establish a post-colonial New Zealand have resulted in more individualised, outward articulations of moko, which stand out against its enduring collective threads. Tā moko is instrumental in “self-identity and expression.”⁴³⁰ Within Cairns’ research, a significant percentage of mau moko report the acquisition of moko as bound to a significant, personal life event, such as the death of a spouse or child, or as representing an individual life story.⁴³¹ Likewise, both Gordon Toi Hatfield and Hans Neleman et al. have attempted to capture the

⁴²⁶ Nikora, Rua, Te Awekotuku, “Renewal and Resistance,” 485; Mandy Treagus, “Representing Pacific Tattoos: Issues in Postcolonial Critical Practise,” *Journal of Postcolonial Writing* 44, no. 2 (Jun., 2008): 188; Te Awekotuku et al., *Mau Moko*, 114, 163-5.

⁴²⁷ Mead, *Tikanga Māori*, 355.

⁴²⁸ Nikora, Rua, and Te Awekotuku, “In Your Face.”

⁴²⁹ Nikora, Rua, and Te Awekotuku, “Renewal and Resistance,” 477.

⁴³⁰ *Ibid.*

⁴³¹ Cairns, “Taonga ta Moko,” 139.

connection between moko and personal identity by offering photographic anthologies dedicated to mau moko.⁴³²

Tuhiwai Smith explains that “imperialism frames the indigenous experience.”⁴³³ With colonisation, tā moko became increasingly pan-Māori and politicised, perceived as a staunch statement against colonisation, proclaiming: “I am Maori.”⁴³⁴ However, as “Skin Stories” explains, “while moko are no longer fully understood in their original capacities by the general population, they still hold much meaning for the individuals and contribute to the construction of identity and self-image.”⁴³⁵ Simultaneously, this “self-identity and expression” are intimately related to collective membership and belonging.⁴³⁶

Thus, despite an increase in its perceived individual orientation shaped by colonial influences, tā moko has managed to retain its collectivity and must be understood within the decolonised context of collective identity and Māori holistic reality reinforced by whakapapa. For instance, Te Mairiki Williams attributes the right side of his moko to whakapapa, just as Pera Rangitaawa-MacDonald attributes her moko kauae to her Ngāti Maniapoto ancestry.⁴³⁷ As Mary Douglas observes, the social or collective body regulates how “the physical body is perceived”; it “is a microcosm of society.”⁴³⁸

⁴³² Hans Neleman et al., *Moko-Maori Tattoo* (Zurich: Edition Stemmler, 1999); Gordon Toi Hatfield and Patricia Steur, *Dedicated by Blood* (The Hague, The Netherlands: Hunter Media, Liesbeth Verharen, 2003); Gordon Toi Hatfield and Patricia Steur, *Thin Blue Line: A Dedication to Culture* (Amsterdam: Patricia Steur, 2011).

⁴³³ Tuhiwai Smith, *Decolonizing Methodologies*, 19.

⁴³⁴ “Skin Stories: The Art and Culture of Polynesian Tattoo: Role of Tattoo-Maori Moko,” *Pacific Islanders in Communication*, accessed April 7, 2014, <http://www.pbs.org/skinstories/culture/role2.html>.

⁴³⁵ “Skin Stories.”

⁴³⁶ Nikora and Te Awēkotuku, “Cultural Tattoos,” 132.

⁴³⁷ “Tā Moko Rising,” *Te Karaka*, October 18, 2012, accessed April 11, 2014, http://ngaitahu.iwi.nz/our_stories/ta_moko-rising/; Michelle Duff, “Ta Moko: Mana in Ink,” *The Dominion Post*, February 7, 2014, accessed April 11, 2014, <http://www.stuff.co.nz/dominion-post/news/9694250/Ta-moko-mana-in-ink>.

⁴³⁸ Mary Douglas, *Natural Symbols: Explanation in Cosmology* (London: Routledge, 1996), 69.

Rangi McLean’s description of his tā moko journey further illustrates this point. At the age of 18, McLean went to his elders for permission to wear moko. His elders said no; he could not have moko until they had the opportunity to instil proper tikanga into him. Upon consideration, McLean understood their logic since he had been on both sides of the law. Only many years after he had learned proper tikanga and shown himself to be worthy of moko was he given permission to undergo the procedure.⁴³⁹

According to McLean, his moko reflects his bloodlines and is tied to being Māori. Not only is his whakapapa embodied within his moko but his transformation and acquired knowledge is as well. McLean reports that the right side of his moko indicates his Tūhoe ancestry, whilst the left reflects his Ngāti Porou and Waikato heritage. The top of his moko which covers his forehead is recognisably in the shape of a cross and indicates his baptism into the Presbyterian Church. As the design moves down and across his face, it is indicative of his re-baptism into the Māori faith. Part of the designs on his nose reveals the knowledge that was passed on to him, and part of his chin suggests his marae. McLean says that the chin design is associated with his marae and reflects his belonging to “a new generation coming forward,” which is a motto the marae has adopted to describe him and his other cohorts. It is each of these elements within the context of the whole that informs his belonging and identity.⁴⁴⁰

What Kopua shares of his moko further impresses the individual and collective duality that characterises the tā moko tradition. Kopua speaks of his own moko as progressive; meaning, that, in the tradition of pre-contact moko, his moko has many empty spaces that will only be filled once he has accomplished certain things. Although he is not very forthcoming about the

⁴³⁹ *Tā Moko*, a documentary produced by Claudette Hauiti and directed by Kim Webby, N.Z.: Front of the Box Productions, originally aired on TV One, October 7, 2006, screened on TVNZ, 2007, <http://www.nzonscreen.com/title/ta-moko-2007>.

⁴⁴⁰ Ibid.

specific details of his moko, he does admit that his designs began with his local history, specifically from where he comes and also includes his personal history. From there, he added designs that mirror how he is viewed within his community.⁴⁴¹ Of his moko Kopua affirms that, “it’s my heritage, where I’m from, who my ancestors were, it’s everything about me.”⁴⁴²

Likewise, Hohepa Hei echoes Kopua regarding the role moko assumes in reflecting the individual by situating him within the context of his whakapapa. Hei reports that his moko embodies his genealogy including the tribes of Whakatōhea and Te Whānau ā Apanui in Eastern Bay of Plenty, down to Ngāti Porou along the East Coast and south to Te Aitanga ā Māhaki near Gisborne. Throughout the process, Kopua, Hei’s tohunga-tā-moko, asks questions about his genealogy and family history. Kopua then incorporates the answers into the moko, bringing together Hei and the collective influences that shape and define him.⁴⁴³

George Nuku isolates two criteria for tā moko, both of which reinforce how, despite some increase in its reported individuation, belonging and collective identity still define the practice. Firstly, “it comes from your lineage. It defines who your parents and grandparents [were] from the beginning of time.” Secondly, Nuku refers to the significance of whanaungatanga which focuses on sustaining balance within relationships.⁴⁴⁴ “Moko is reinforced and validated by your commitment to the group. And the group owns you. You are the group and the group is you. If you don’t have those things, then it’s not a moko.”⁴⁴⁵

⁴⁴¹ “Carved in Skin,” *Te Papa Collection: Taonga Maori*, episode 84, accessed March 27, 2014, <http://talesresource.tepapa.govt.nz/resource/084.html>.

⁴⁴² “Tattooist with Moko Banned from Bar,” *TVNZ*, accessed May 18, 2013, <http://tvnz.co.nz/national-news/tattooist-moko-banned-bar-3003102>.

⁴⁴³ Aaron Smale, “Ta Moko,” *New Zealand Geographic* 91 (May-Jun., 2008), accessed March 12, 2014, <https://www.nzgeographic.co.nz/archives/issue-91/ta-moko>.

⁴⁴⁴ Mead, *Tikanga Māori*, 28.

⁴⁴⁵ Ryan Mitchell, “Maori Chief on Facial Tattoos and Tribal Pride,” *National Geographic News*, October 14, 2003, accessed April 3, 2014, http://news.nationalgeographic.com/news/2003/10/1014_031014_georgenuku.html.

Rawinia Higgins views the current state of tā moko in terms of identity or reclamation of identity through whakapapa.⁴⁴⁶ Though individuality is still contextualised by the groups to which one belongs, today it is often in a more general sense. Douglas reminds us that “the style appropriate to any message will co-ordinate all the channels along which it is given.”⁴⁴⁷ As Māori groups shifted to adapt to new cultural inputs, so too did cultural belief systems like whakapapa and practices like tā moko. Today, collective identity and individual identity exist side by side, with individual identity largely being utilised to provide an interpretable means of expression intelligible to non-Māori in an increasingly Westernised world; whereas, in pre-contact times, collective identity was individual identity. However, as Nikora remarks, in the small towns and rural areas of Aotearoa, mau moko are more commonly viewed as “people imbedded in family and friendship networks.”⁴⁴⁸

Nikora’s work with mau moko further impresses that “the decision to take the marking is about continuity, affirmation, identity, and commitment. It is also about wearing those ancestors, carrying them into the future; as their moko become a companion, a salient being with its own life force, its own integrity and power, beyond the face.”⁴⁴⁹ Aside from the nexus between moko and identity, Nikora stresses its continuity with the past, which makes moko part of an unbroken tradition. Whilst moko is still bound to identity, Nikora impresses that beyond its ties to identity, moko is important to the establishment of tradition within Māori cultural groups.

Nikora’s linkage between moko and tradition is further supported by Alfred Gell who, though non-Māori, also argues for tā moko as integral to the perpetuation of historical continuity for Māori groups. Specifically, Gell contends that tattooing was instrumental in developing and

⁴⁴⁶ Higgins, “Identity Politics.”

⁴⁴⁷ Douglas, *Natural Symbols*, 71.

⁴⁴⁸ Nikora, Rua, and Te Awekotuku, “In Your Face.”

⁴⁴⁹ Ibid.

enforcing a group mentality, meanwhile supporting a framework upon which individual identities could develop, and both of these functions were central to the “reproduction of specific types of social and political regimes.”⁴⁵⁰ To Gell, the sociality of tā moko frames the identities of individuals within Māori groups.⁴⁵¹ Gell’s proposal implies that the temporal continuity of Māori collective social structures is facilitated by social practices like tā moko which express important cultural information that encourages group solidarity by stabilising social structures.⁴⁵²

Juniper Ellis, another non-Māori, also recognises the relationship between tā moko and Māori society. She posits that genealogy is central to tā moko because of the linkages it reflects between the individual, the collective, the land, and the atua. It is through these connections that a Māori person is provided a place to stand and is integrated into the community,” meaning that the externalisation of belonging moko broadcasts ultimately positions the individual within a group.⁴⁵³ Following Ellis’ logic, it is only through securing the individual within the group that the individual’s identity is anchored and legitimised.

Higgins elaborates upon Māori sociality as a means to understand the current state of moko, citing the “correlation between Māori movements towards maintaining their group identity, and the survival of moko kauae into the 20th century.”⁴⁵⁴ Higgins’ study of women with moko kauae reveals that, as these women journey through life struggling to make sense of who and where they are, whakapapa takes a central role. By exploring and embracing their whakapapa, these women found they could “reclaim elements of their past as a means of

⁴⁵⁰ Alfred Gell, *Wrapping in Images: Tattooing in Polynesia* (Oxford: Clarendon Press, 1993), 8.

⁴⁵¹ I use the word “read” loosely here, mainly with the sense of interpretation. For discussions pertaining to moko as proto-text, see Gallagher, “Curious Document,” 39-47.

⁴⁵² Gell, *Wrapping*, 240-1.

⁴⁵³ Juniper Ellis, *Tattooing the World: Pacific Designs in Print and Skin* (Columbia, NY: Columbia University Press, 2008), 22, 53.

⁴⁵⁴ Higgins, “Identity Politics.”

understanding the source of their identity.”⁴⁵⁵ Tā moko is one means through which this process happens, affirming that moko retains information that can be used to bridge the gap between the past and the present and around which individual and social identity is authenticated and expressed. It is this meeting of past and present which tā moko provides internally for the mau moko and externally for whānau and group members that perpetuates tradition. In associating moko to the maintenance of Māori group identity, Higgins suggests that moko must somehow be linked not only to identity but to a historical continuity embedded within the tradition that is capable of stabilising group identity even in rapidly changing cultural circumstances. Significantly, by stressing these inherent connections, Higgins alludes to the need to examine the associations between agents involved in tā moko. To access what it is that may stabilise identity in shifting environmental contexts, requires that we first have a broader picture of the connections that feed into identity and tradition.

Higgins also offers criticism of Simmons’ work, challenging Te Riria’s claims that the eight levels of Māori society were solely grounded in ancestry rather than “achieved mana” which has historically been important in determining social position and leadership.⁴⁵⁶ Higgins draws attention to Simmons’ contradictory claims, including his position that by the 1900s moko designs were standardised, yet he overturned this by detailing specific moko kauae designs indicative of differences in rank.⁴⁵⁷ When looking at these patterns, the vagueness of Simmons’ assertions becomes particularly evident. At no point does he support these suggested motifs with historical data, and there is no mention from where his knowledge of these designs and patterns comes.⁴⁵⁸ Higgins rebuts Simmons’ stance that moko kauae reflects status and whakapapa, his

⁴⁵⁵ Higgins, “Identity Politics.”

⁴⁵⁶ Ibid.

⁴⁵⁷ Ibid.

⁴⁵⁸ Ibid.

oversight and/or inattention to the reality that moko kauae was “the face of the hapū on the marae during the 19th century,” his error in not considering the role that individual female facial structure played in determining moko pattern and design, his lack of addressing the existence of design standardisation, and most importantly the rigid conception of social structure Simmons presents based upon unsubstantiated claims of an eight tier ranking system within Māori cultural groups.⁴⁵⁹

In comparing the work of Simmons to King, Higgins argues that King gives a more accurate depiction of moko kauae which revolves around the skill of the tohunga-tā-moko and the changes in technology.⁴⁶⁰ However, Higgins diverges from King by making the argument that standardisation arose from the fact that patterns used for moko were dictated by tohunga, whereas King sees standardisation as responsible for the demise of the practice resulting from a lack of variety. Yet, following in the footsteps of King and her own contemporaries, Higgins likewise sees a deep connection between moko and identity. Disappointingly, despite Higgins’ substantial and compelling research, Simmons’ assertion, which staunchly defends a relationship between rank and tā moko, still appears in anthologies about tattooing.⁴⁶¹

Te Awekotuku recognises the central role that women played in the persistence and perpetuation of moko throughout the 19th century and staunchly argues for the recognition of the continuity of the moko kauae tradition.⁴⁶² As time passed and fewer traditional features of Māori cultural groups remained visible, moko kauae stood not only as a testament to the endurance of Māori identity despite the cultural suppression experienced at the hands of the colonising

⁴⁵⁹ Higgins, “Identity Politics.”

⁴⁶⁰ Ibid.

⁴⁶¹ Baker, “Truth of Lineage,” 34.

⁴⁶² Te Awekotuku et al., *Mau Moko*, 85.

majority.⁴⁶³ To Te Awekotuku, challenging the colonial agenda still present within New Zealand requires links to be forged between moko, memory, and identity. Te Awekotuku's primary focus is not a historical enquiry about tā moko, rather she is concerned with utilising the historical context into which tā moko is situated to validate its transhistorical nature and to situate the practice within living Māori culture.

Nikora, Higgins, and Te Awekotuku continue the linkage between moko and belonging and identity. Nikora and Te Awekotuku seek to locate tattooing, within a paradigm of meaning determined by the participant. Anchoring meaning to the participants' own perceptions allows group mediums, like moko, to act as expressions of personal identity often related to social or cultural group membership and belonging.⁴⁶⁴ Thus, though moko is increasingly individualised, it is still only within the Māori social context that that individuation is validated. However, to further our understanding of tā moko demands that we further expand our knowledge of the channels that feed into this social context and the ways in which these channels are interlinked.

Identifying these channels in a modern context proves particularly challenging, since more and more channels have opened as a result of colonisation and globalisation, each of which contributes to the expansion of the tā moko network. For instance, as tā moko becomes increasingly mainstream, more public measures, such as the development of kirituhi and educational outreach, are being taken to protect moko and its accompanying narratives.⁴⁶⁵ Kirituhi, meaning "skin art" or "skin writing," is a form of tattooing based upon Māori designs and motifs but which lacks the traditional Māori cultural elements, such as whakapapa, contained in moko. For many Māori, kirituhi is the only respectful way for an individual outside of Māori

⁴⁶³ Te Awekotuku et al., *Mau Moko*, 87.

⁴⁶⁴ Nikora and Te Awekotuku, "Cultural Tattoos," 132.

⁴⁶⁵ Nikora, Rua, and Te Awekotuku, "Renewal and Resistance," 485.

culture to honour the tattooing tradition within Māori culture since tā moko is bound to Māori sociality and affirms individuated belonging within that social context. According to the Te Whāriki website, “only .05% of moko is about tattooing,” the rest is about belonging and whakapapa.⁴⁶⁶ Thus, kirituhi protects signals important to those of Māori descent by affording cultural group outsiders a similar means of expression without it being laden with signals significant to members of Māori groups.

Articles like Hudson’s, on the widely read about.com site, are regularly featured and not only introduce the reader (presumably non-Māori) to moko and kirituhi, but stress the disrespect and insulting nature of copying moko designs.⁴⁶⁷ The emergence of a global education initiative about moko and kirituhi for non-Māori is indicative of the thriving nature of Māori culture and the universal reach of its influence. In fact, a large portion of current tā moko narratives can be understood through this idea of education. Like kirituhi, education on moko is intended to bring awareness to those outside of Māori groups of the intimate nature of tā moko and to deter them from giving misleading and disrespectful signals by acquiring an identity-based cultural mark from a group they cannot be a part of because they lack the appropriate whakapapa needed to claim such a right. Indeed, this small example demonstrates how complex the associations between Pākehā, kirituhi, and Māori identity are, and, yet, represent only the tiniest portion of all of the connections that comprise tā moko.

⁴⁶⁶ “What is Moko,” *Te Whariki Moko-Tokoroa*, accessed February 2, 2012, http://www.tewhariki_moko.com/index.php.

⁴⁶⁷ Karen L. Hudson, “Ta Moko Maori Tattoo: When Imitation is the Sincerest Form of Insult,” accessed March 14, 2014, <http://tattoo.about.com/cs/articles/a/maoritamoko.htm>.

Conclusion

Tā moko narratives are many and varied. Over the years, they have shifted from Māori specific codes of conduct and ways of being in the world, to staunch reactions against tā moko, to narratives crafted around the idea of Māori as an all but extinct people whose practices were in need of salvation. However, in one way or another, each shapes a part of Māori identity.

In addition to conveying in-group/out-group dynamics, moko maintains linkages to establishing proper tikanga and group solidarity. Although tā moko does not reinforce social structure to the extent it once did, it continues as an external reminder to group members of shared commonalities that help to maintain cultural stability by identifying recurrent patterns of existence that are bound to tradition and continuity. Thus, as Gell suggests in his emphasis on moko as a by-product of the Māori social landscape, the collective context of moko within the Māori collective landscape articulates and defines identity.⁴⁶⁸

As Māori work to reinstate their own narratives about tā moko, grounded in tikanga Māori and mātauranga Māori, all other narratives remain, creating a confluence. Whilst this confluence generates a host of valuable material about tā moko and stresses its continual significance for Māori identity, simultaneously, it opens the door for further mythologisation and romanticisation of tā moko. Instead of interacting with this myriad of narratives, which can prove daunting, some researchers choose to ignore certain narratives, opting instead for outdated information that is more easily packaged but which omits many of the associations which shape tā moko.

⁴⁶⁸ Gell, *Wrapping*, 1, 266; Eviatar Zerubavel, *Time Maps: Collective Memory and the Social Shape of the Past* (Chicago: University of Chicago Press, 2003), 5.

In the next chapter, I analyse a case study primarily shaped by 19th and 20th century Pākehā sources as a representation of a contemporary tā moko narrative shaped by evolutionary explanation. This thesis delves into the issues that emerge from Cisco's cultural evolutionary evaluation of tā moko which is incongruent with more recent narratives, reviewed above, which are enriched with Māori ontology and epistemology. In seeking to explain tā moko through a costly signalling framework, Cisco reinvents an inaccurate and romanticised version of Māori tā moko which refutes Māori narratives and, in fact, re-colonises them through the denial of narrative assemblage. I utilise the Cisco case study as a foil to highlight broader issues, especially those of a politico-ethical nature, when evolutionary explanation, and, in this case, costly signalling theory, is applied to culture.

The following chapter reveals how case studies, even when seemingly backed by credible research, can serve to reinforce the long-standing, negative impact positivism has had on indigenous practice, generally, and tā moko, specifically. My analysis of the following case study highlights the need for scholars to actively and continually strive to decolonise indigenous practices. As scientific explanations become more prevalent within the social sciences and humanities, it is imperative to draw attention to the dangers and misnomers generated from a reliance on non-integrative modes of cultural explanation and to counter them with integrative solutions.

Chapter Three: Costly Signalling Theory and Moko— A Critique

Introduction and Background

Chapter Two revealed the complexity and depth of tā moko narratives. The relational narrative complexes that both Māori and Pākehā have contributed to the development of a narrative web, interwoven with innumerable associations and linkages central to the development and perpetuation of tā moko. Yet, this web is also falls victim to Sober's mirages and fogs. At times, tā moko narratives were shown to be clouded; we simply could not see the full picture. It is doubtful we will ever be privy to the picture in its entirety. I am thinking, specifically, of the mystery that envelops pre-contact tā moko and the inaccessibility of many of the intentions and motivations which lie behind the fashioning of tā moko narratives. With deeper exploration, undoubtedly we would find that certain connections present within the narratives seem apparent but remain untraceable.

More concerning, however, and more relevant to the present study, are the many mirages, like those the case study I analyse in this chapter reveals, which engender inaccurate perceptions of tā moko but which have now imbedded themselves in the tā moko narrative web. I think of the gross reactions of early Pākehā to tā moko, the unattributed connections between tā moko and various aspects of Māori groups, such as the idea that it serves as an indicator of rank, and the colonial rhetoric which frames many tā moko narratives and has, only relatively recently, been challenged and overturned through the strenuous efforts of Māori scholars. One might expect that once the mirage is seen for what it is, or, rather, for what it is not, that others might not be

drawn to it. However, the danger of the mirage is that it appears to be real and continues to entice by virtue of its possibility.

This chapter is framed around the pursuit of a mirage. It commences with a critical analysis of one application of costly signalling theory to Māori tā moko intended to illuminate underlying issues when employing evolutionary explanations to explain cultural practice. Importantly, this chapter underscores the need for costly signalling theory to evolve into a decolonised, reflexive approach which incorporates emic perspectives of Māori and indigenous practice.

For this discussion, I rely on a thesis by Cisco. Whilst I recognise that utilising a master's thesis within a doctoral dissertation is unorthodox, I turn to her work solely as a foil to illustrate some of the challenges that occur when attempting to use evolutionary explanations to account for indigenous cultural practice and to specifically highlight ways that the deep politico-ethical concerns her research generates could be at least partially remedied by relying on a more inclusive and integrative approach which incorporates much of the research already presented in Chapter Two. This analysis provides sets the foundation for Chapter Four where I present an updated model for Māori tā moko which is both integrative and symmetrical.

I demonstrate that Cisco's warfare hypothesis is based on questionable and disputed evidence from early Pākehā accounts. These sources are subject to a "mythology of violence," prevalent throughout the 19th and early 20th centuries.⁴⁶⁹ Utilising narrative assemblage as an approach to analyse other sources, both early and contemporary, I aim to illustrate that Cisco's warfare hypothesis has been tailored to fit an erroneous historical view of Māori culture which raises broader questions about the utility of costly signalling theory when applied to culture.

⁴⁶⁹ Christina Thompson, "A Dangerous People Whose Only Occupation is War: Maori and Pakeha in the 19th-century New Zealand," *The Journal of Pacific History* 32, no. 1 (1997): 109.

The Cisco case study seeks to apply costly signalling theory to account for what she calls “traditional” Māori tā moko. She clarifies this “traditional” label as referring to Māori tattooing practice prior to the mid-20th century. Within the case study, the development of moko is attributed to three main components of the Māori world. One of these parts is the stratification of Māori society, which Cisco maintains is comprised of three tiers and three social classes. The second part is rampant warfare, which Cisco argues is affirmed by cannibalism and the existence of pā (Māori fortified village). Social rank accounts for the third component, which, according to Cisco, informed marriage practices and achievable status.⁴⁷⁰ After attempting to detail features of Māori society that generated the need for tā moko to develop, Cisco explores two ultimate-level explanations of moko derived from costly signalling theory.

In this chapter, I specifically focus on the first part of Cisco’s ultimate-level explanation of male moko, which she refers to as the warfare hypothesis. The warfare hypothesis is comprised of two sub-hypotheses: 1) the ally hypothesis and 2) the enemy hypothesis. Each of these sub-hypotheses is comprised of four predictions, which frames the case study evaluation of moko as a costly signal.

For the ally-hypothesis, Cisco firstly predicts moko to be permanent and to overtly identify one’s affiliation to a group. Secondly, Cisco posits that moko should foster cooperative behaviour between group members by demonstrating one’s cooperative intent, particularly during war. Thirdly, Cisco predicts that moko should serve as a painful expression of one’s “bravery and willingness to sacrifice for the group.”⁴⁷¹ Lastly, “to the extent that they were added prior to battle,” Cisco expects moko to advertise one’s commitment to his allies.⁴⁷²

⁴⁷⁰ Cisco, “Māori Moko.”

⁴⁷¹ Ibid.

⁴⁷² Ibid.

The enemy-hypothesis firstly predicts that moko provides intimidating information about the mau moko for the enemy. Secondly, Cisco forecasts moko to advertise the identity of mau moko, which she identifies as tribal or clan. By expressing one's affiliation, moko allows allies to be easily differentiated from enemies. Thirdly, "to the extent that they were added prior to battle, male moko should be intended to intimidate enemies in battle." Finally, for moko to be a costly signal of enemy quality, Cisco asserts that Māori should confirm that moko was used in warfare "to intimidate enemies."⁴⁷³

After utilising ethnographic and historical sources to "test" her hypotheses, Cisco concludes that "historical" moko served as a costly signal, indicating "the individual's quality as a potential ally and enemy." One's cooperative intent, willingness to sacrifice, and commitment to the group was signalled by the permanence of moko, the pain associated with the process, and its use as a quick heuristic for identification purposes. Furthermore, Cisco observes moko to broadcast individual enemy quality, by expressing certain traits such as "bravery and ferocity."⁴⁷⁴

The chapter commences with a discussion of tikanga Māori which sheds light on some of my initial politico-ethical concerns by engaging with Cisco's disengagement with tapu (sacred or set apart), mana (power, authority, prestige) and whakapapa.⁴⁷⁵ Secondly, I delve into the issues that arise as a result of Cisco's delimitation of "the tradition of moko" as chiselled moko and its effect on the linkage she attempts to forge between moko and tradition. I then analyse Cisco's treatment of Māori warfare and social structure which anchor her warfare hypothesis. Lastly, after critiquing her endemic view of Māori warfare based upon questionable assumptions about pre-contact Māori social structure, I highlight further implications from the application of costly

⁴⁷³ Cisco, "Māori Moko."

⁴⁷⁴ Ibid.

⁴⁷⁵ These are loose translations of these words. Please refer to pages 127-33 of this dissertation for more detailed explanations about their usage and conflicts surrounding their translation into English.

signalling theory to cultural practice as revealed through my analysis of the Cisco case study.

Most importantly, I call for the evolution of evolutionary explanation which will be the topic of Chapter Four.

Tikanga Māori

This section focuses on tikanga Māori, including tapu, mana, and whakapapa, in order to stress its significance when investigating any feature of Māori culture and to reveal certain shortcomings that arise as a result of its absence. Within the Cisco case study, the development of tā moko is attributed to three main components of Māori society, including social stratification, rampant warfare, and social rank, which she then utilises to support her argument for tā moko as a costly signal. However, Cisco does not include a discussion of tikanga Māori or mātauranga Māori which form the backdrop of Māori society. Thus, the Cisco case study demonstrates the deleterious effects when an enquiry lacks the necessary emic framework which must be incorporated into any investigation of Māori society and its practices if we hope to avoid the trap of the mirage. This dearth is especially apparent in her presentation of tapu, mana, and whakapapa, where she makes only limited references to these massively important components within tikanga Māori. By not engaging with the complexities of tikanga Māori, it becomes evident that Cisco's argument lacks the necessary Māori framework to support her interpretation of tā moko. Without acknowledging the deeper conceptual undercurrents of the social context in which tā moko exists and was developed, certain misunderstandings about the practice arise which diminish the accuracy and impact of any argument.

Any Māori cultural practice, including tā moko, cannot be understood without reference to tikanga Māori, which Cisco neglects to mention. Tikanga Māori is formed through the accumulation of generations of mātauranga Māori, and encompasses many aspects of life. In

addition to its other conceptions, tikanga Māori offers mechanisms for control over social relationships and notions of individuality, provides a sense of Māori ethics, and can be used as a normative system which provides Māori with guidance for correct behaviour, conduct, and reconciliation processes when those guidelines are breached.⁴⁷⁶ Mead, however, argues for a broader perspective of tikanga Māori which situates it within mātauranga Māori.⁴⁷⁷ In describing the active and outward nature of tikanga Māori, Mead further elaborates upon this systemic relationship: “Tikanga Māori might be described as Māori philosophy in practice and as the practical face of Māori knowledge.”⁴⁷⁸ In adhering to the reflexive aims of narrative assemblage, it is essential to note that, whilst Māori have a shared tikanga and mātauranga, regional variations do exist in the outward expression and understanding of related concepts.⁴⁷⁹ However, it is Mead’s generalised presentation of tikanga Māori as contextualised within mātauranga Māori that frames the following discussions of tapu, mana, and whakapapa.

Tapu

Though Cisco seems unaware of the full scope of tikanga Māori within Māori culture and its contemporary relevance, tapu, mana, and whakapapa do appear in her work. Cisco defines tapu as “sacred.” No discussion of how that definition translates within a Māori context is provided. Cisco’s specific focus is on the role tapu played in delineating social status and associated activities. For example, she states that the special status of tohunga allowed them to engage in tapu activities, such as cutting the hair of an ariki (chief) and dealing with the resultant bloodshed of tā moko. Citing Robley, Cisco also uses tapu to explain why tohunga and puhi (first

⁴⁷⁶ Mead, *Tikanga Māori*, 5-7.

⁴⁷⁷ *Ibid.*, 7.

⁴⁷⁸ *Ibid.*

⁴⁷⁹ *Ibid.*, 8.

born daughters of high-ranking chiefs) reportedly did not wear moko, since their “special status” did not permit them to.⁴⁸⁰

One reason why Cisco’s limited employment of tapu is ineffectual is because she does not understand its pervasiveness for Māori which simple examples and static applications do not convey. Metge and Irwin observe that tapu is difficult to translate into Western languages precisely because of its pervasive, lived quality, which translations like “holy,” “sacred,” “prohibited,” and “taboo” fail to capture.⁴⁸¹ These are the same definitions of tapu Cisco puts forth.

Although we struggle to translate tapu into English, its role within tikanga Māori can be better described and must be for any study pertaining to Māori practices. In part, tapu is the power and influence of the gods; since everything was created by the gods, including man, everything has tapu.⁴⁸² Father Catherin Servant maintained that no other concept was more frequently used by pre-contact Māori groups; tapu regulated religion, natural resources, animals, people, politics, and governed every facet of life.⁴⁸³ In reflecting upon the pervasiveness of tapu, Tiaki Mitira maintains that “tapu affected the lives and actions of all members of the tribe, according to their social scale, and it had a far-reaching effect on all social life and individual

⁴⁸⁰ This is Cisco’s definition of “puhi,” which she derived from Elsdon Best’s, *The Maori*, vol. 1 (Wellington: Board of Maori Ethnological Research for the Author on Behalf of the Polynesian Society, 1924). She provides no page numbers for references throughout the thesis. However, Moorfield’s *Māori Dictionary* makes no mention of the connection to first-born daughters, defining “puhi” only as virgin or woman of high-rank. See: “puhi,” *The Māori Dictionary*, accessed February 20, 2015, <http://www.maoridictionary.co.nz/search?idiom=andphrase=andproverb=andloan=andkeywords=puhiandsearch=>.

⁴⁸¹ Metge, *Rautahi*, 58-9; Irwin, *Māori Religion*, 24; Edward Shortland, *Traditions and Superstitions*, 101; Adrian M. Leske, “The Role of the Tohunga-Past and Present,” *Religious Studies and Theology* 26, no. 2 (2008): 137; Jean Smith, “Tapu Removal in Maori Religion,” *The Journal of the Polynesian Society* 83(1974): 39. Michael P. Shirres, “Tapu,” in *Customary Concepts of the Maori: A Source Book for Maori Studies Students*, ed. Sidney Moko Mead (Wellington: Department of Maori Studies, Victoria University of Wellington, 1984), 72.

⁴⁸² Cleve Barlow, *Tikanga Whakaaro: Key Concepts in Māori Culture* (South Melbourne, Victoria, AUS: Oxford University Press, 2005), 128.

⁴⁸³ Father Catherin Servant, *Customs and Habits of the New Zealanders, 1838-42*, trans. J. Glasgow (Wellington: A.H. and A.W. Reed, 1973), 34.

behaviour.”⁴⁸⁴ For pre-contact Māori, tapu pervaded every aspect of the social and environmental landscape and had numerous worldly and cosmic associations, many of which endure today.

Reflections by Michael Shirres and Te Awekotuku also reveal that the context dependency of the meaning of tapu allows it to have a wide range of interpretations, making it highly adaptable to contemporary circumstances.⁴⁸⁵

Where Cisco individuates tapu, Mead focuses on its social quality. Mead draws attention to the important role social identity plays for Māori as expressed through the social nature of tikanga Māori which is expressed by tapu. To appreciate tapu with regards to humans, Mead states that it must be understood as the expression of a personal attribute within the context of its social establishment, public recognition, and group affirmation.⁴⁸⁶ Mead elaborates, stating that “the idea of tapu works best when” it “is recognised, known and accepted by the community at large. To be somebody is to know one’s identity, be aware of one’s personal tapu, and be known to others within the group.”⁴⁸⁷ Thus, whilst Mead acknowledges an individualised aspect of tapu, it is only within the wider context of the group and tikanga which binds the group together that tapu is affirmed.

Cisco’s focus on an individualised conception of tapu highlights costly signalling theory’s individuated orientation.⁴⁸⁸ Yet, to divorce tapu from its tikanga Māori underpinnings

⁴⁸⁴ Tiaki Hikawera Mitira (J.H. Mitchell), *Takitimu, NZETC*, accessed May 11, 2014, <http://nzetc.victoria.ac.nz/tm/scholarly/tei-MitTaki.html>, 38.

⁴⁸⁵ Shirres, “Tapu,” 72; Ngahuia Te Awekotuku, “Maori Women and Research: Researching Ourselves,” in *Maori and Psychology: Research and Practice: The Proceedings of a Symposium Sponsored by the Maori and Psychology Research Unit*, ed. N. Robertson (Hamilton, N.Z.: University of Waikato, Maori and Psychology Research Unit, 1999), 60-2.

⁴⁸⁶ Mead, *Tikanga Māori*, 46.

⁴⁸⁷ Ibid.

⁴⁸⁸ Group and multi-level selection are an exception to this. Instead of natural selection exerting pressure on the individual, group and multi-level selection models maintain that selection takes place on the level of the group. For early work on group selection, see Wilson, “Group Selection,” 143-6; Vero C. Wynne-Edwards, *Evolution through Group Selection*, xi-386. Sources for contemporary group and multi-level selection arguments include Simon T. Powers and Richard A. Watson, “Evolution of Individual Group Size Preference Can Increase Group-Level Selection and Cooperation,” in *Advances in Artificial Life: Darwin Meets von Neumann*, eds. Dario Floreano, Jean-

and to ignore its social aspect reveals how cultural practices frequently require a flexibility that evolutionary explanations which hinge on individual-level selection struggle to accommodate. Instead of acknowledging the difficulties posed in trying to reconcile the individual and group connotations of tapu, Cisco chooses to mould her tā moko case study to better fit costly signalling theory. This raises a serious global concern in the juncture where costly signalling theory meets cultural practice. Indeed, if an explanation of tā moko is to have real explanatory power, it is essential that it has the appropriate mechanisms to function on multiple levels which, at minimum, appeal to both the individual and the group and which is relevant to its lived form.

Mana

This concern bleeds into Cisco's portrayal of Māori beliefs and practices as derived from a static, fixed, and individually-orientated theology continues with her investigation of mana which she also divorces from tikanga Māori. From the outset, this disconnect is problematic, because, as Metge asserts, tapu is so interdependent with other aspects of the Māori cosmos, especially mana and whakapapa, that we cannot even understand it as separate from the underlying spiritual system from which it comes.⁴⁸⁹ Irwin clarifies that everything within the Māori cosmos is bound together; thus to understand Māori spirituality, one must look at each variable not as independent, but as interdependent and part of a holistic worldview in which everything is related.⁴⁹⁰ Even the humans and the gods (atua) are linked through a spiritual contract which

Daniel Nicoud, and Francesco Mondado (Berlin; Heidelberg: Springer Verlag, 2011), 53-60; James A.R. Marshall, "Group Selection and Kin selection: Formally Equivalent Approaches," *Trends in Ecology and Evolution* 26, no. 7 (2011): 325-32; David Sloan Wilson, "Groups as Units of Functional Analysis, Individuals as Proximate Mechanisms," *The Behavioral and Brain Sciences* 37, no. 3 (2014): 279-8; David Sloan Wilson, "Human Cultures are Primarily Adaptive at the Group Level (with comment)," *Cliodynamics: The Journal of Theoretical and Mathematical History* 4, no. 1 (2013): 102-38.

⁴⁸⁹ Metge, *Rautahi*, 58.

⁴⁹⁰ Irwin, *Māori Religion*, 6.

binds the two together and which is expressed through the conceptual underpinnings of Māori spirituality.

Mana is first mentioned in Cisco's discussion of social stratification, where she maintains that it is "obtained through acts of generosity and bravery" and equates it to status. Though mana is periodically referenced throughout Cisco's work, and more so than tapu, it is almost exclusively mentioned as a means to argue for moko as an acquired expression of individual status. Once again, the deep social dimensions of mana reflected in tikanga Māori and their impact on individual expressions of mana are overlooked, though there is a literature to support and expound upon this relationship.

Cleve Barlow describes mana in the pre-contact Māori world as "the enduring, indestructible power of the Gods," emphasising that, like tapu, mana relates back to primordial origins. He suggests that mana's meaning shifted over time to still include the power of the gods but also to incorporate the "power of the ancestors," the "power of the land," and the "power of the individual."⁴⁹¹ Barlow identifies two key types of mana: mana tūpuna and mana tangata.

Mana tūpuna comes directly through whakapapa. It is power or authority inherited through one's family line. Thus, its manifestation depends entirely upon one's position within the group as determined by his or her whakapapa. This type of mana requires maintenance and certain rituals and obligations are required to sustain it.⁴⁹²

Mana tangata is individual power gained through one's willingness and ability to acquire skills and knowledge within particular areas. This is the type of mana that is referenced within the Cisco case study, likely because it better aligns with the individuated tendencies of costly

⁴⁹¹ Barlow, *Tikanga Whakaaro*, 61.

⁴⁹² *Ibid.*, 62.

signalling theory.⁴⁹³ For example, a Māori male might acquire mana tangata through superior weaponry or combat skills. A Māori woman might acquire hers through child-rearing skill, marae duties, and by attending to visitors.⁴⁹⁴ However, this is only a small part of the role of mana within Māori society.

Mead explains that mana is about the place of the individual within a social group, and both types of mana Barlow presents depend upon a deeply embedded sense of sociality which is missing from Cisco's portrayal of mana. For mana tūpuna it is the position of the individual within the group as determined by whakapapa. Mana comes from one's ancestors, which provides a power "socially founded upon kinship, parents, whānau, hapū, and iwi."⁴⁹⁵ Every person inherits a certain amount of mana which depends upon his ancestors' social position, parents' achievements, how the family has been regarded by others, and what contributions the family has brought to the group.⁴⁹⁶ In fact, a person's life potential greatly depends upon their parents and what sort of "legacy" was inherited.⁴⁹⁷ For mana tangata it is individually expressed traits that have wider group benefits. Mead provides a useful analogy in which she equates mana to a lake into which various streams flow. Though the streams themselves express individual traits, like excellence in warfare or particular artistic talent, these traits serve the wider group. For instance, having skilled warriors ensures safety for the group if and when an external threat arises.

Mead stresses that the personal mana of mana tangata is based upon contributions to the group that an individual makes over time. Thus, for a person to acquire his or her personal mana

⁴⁹³ Cronk, "Behavioral Ecology," 26.

⁴⁹⁴ Ibid.

⁴⁹⁵ Mead, *Tikanga Māori*, 29.

⁴⁹⁶ Ibid., 51.

⁴⁹⁷ Ibid., 42; Bowden, "Tapu and Mana," 58.

requires public recognition. In fact, mana is often increased through public events and performances, where one's achievements and skills are recognised by the outer community.⁴⁹⁸ Seemingly, those events which cause individual mana to increase only do so because the group affirms these traits and sets up a socially endorsed framework for the expression of mana. Any behaviour that increases mana on an individual level does so because of the merit it brings to the group. Individual acts that increase individual mana, simultaneously, benefit the group and increase group mana. Thus, in addition to its individual conceptions, mana is the manifestation of social identity.

Whakapapa

As Mead emphasises, mana and tapu cannot be understood aside from whakapapa; they are essential to Māori holistic reality. Thus, all of these concepts are imperative to any discussion of moko and particularly to the link Cisco mentions between moko and tradition. Whilst, Cisco barely mentions whakapapa, it serves as the foundation for Māori worldly and cosmic conceptions and articulates social structure by situating both the group and its members into the cosmos through ties to ancestors.⁴⁹⁹ Every living thing has a whakapapa passed down from the gods to the present.⁵⁰⁰ Thus, any discussion of Māori should also incorporate whakapapa.

Whakapapa literally means to “lay one thing upon another,” specifically one generation upon another.⁵⁰¹ Āpirana Ngata expounds: “Whakapapa is the process of laying one thing upon another. If you visualise the foundation ancestors as the first generation, the next and succeeding

⁴⁹⁸ Mead, *Tikanga Māori*, 30

⁴⁹⁹ Neich, *Painted Histories*, 125.

⁵⁰⁰ Barlow, *Tikanga Whakaaro*, 173.

⁵⁰¹ *Ibid.*; Bowden, “Tapu and Mana,” 60.

ancestors are placed on them in ordered layers.”⁵⁰² Te Awekotuku echoes this, referring to whakapapa as the “literal making of layers of descent.”⁵⁰³

Whakapapa is intended to be traced back to the beginning of time, in order to anchor the present individual in his Māori history and tradition. The layering effect of whakapapa, as generations through time, produces a multi-directional ancestral continuity that enables Māori to trace their genealogical ties backward to their ancestors and forward to their children.⁵⁰⁴ The effect is one of infinite, multi-directional transmission.

For Māori, whakapapa has continuously been one of the highest forms of knowledge and it is imperative to preserve it. Barlow stresses the significance of its conservation since it is through genealogy and kinship that economic alliances were formed and the social mechanism through which chiefs gained and legitimised their power, which today is used to authenticate identity and belonging within Māori groups.⁵⁰⁵ Due to its deep social resonance, Irwin refers to whakapapa as the “axel of strength” for Māori groups.⁵⁰⁶ To keep groups strong, even today, group members are expected to know their genealogy and to transmit their whakapapa to their children to ensure “that they, too, may develop pride and a sense of belonging through an understanding of roots of heritage.”⁵⁰⁷

Unquestionably, tikanga Māori is woven with complexity. Tapu, mana, and whakapapa, though integral to any enquiry into Māori culture, represent only a fraction of tikanga Māori.

⁵⁰² Āpirana Ngata, *Rauru-nui-ā-Toi Lectures and Ngati-Kahungunu Origin: Second 'Introductory Address'* (Wellington: Victoria University, 1972), 6, quoted in Joseph Selwyn Te Rito, “Whakapapa: A Framework for Understanding Identity,” *MAI Review* (2007):1; Te Awekotuku et al., *Mau Moko*, 46.

⁵⁰³ Ngahuia Te Awekotuku, “Maori: People and Culture,” in *Maori: Art and Culture*, ed. Dorota Starzecka (London: British Museum Press, 1996), 31.

⁵⁰⁴ Michael King, ed., *Te Ao Hurihuri: Aspects of Māoritanga* (Auckland: Reed Books, 1992), 13; Mere Roberts et al., “Maori Mental Construct,” 1; Ngata quoted in Te Rito, “Whakapapa,” 6.

⁵⁰⁵ Barlow, *Tikanga Whakaaro*, 174.

⁵⁰⁶ Irwin, *Māori Religion*, 7.

⁵⁰⁷ Barlow, *Tikanga Whakaaro*, 174.

Yet, by not engaging more fully with these terms and by relying on narrow and individuated conceptions that better coincide with the costly signalling framework, Cisco's argument reads more like the 19th and early 20th century ethnographic accounts upon which she relies that rudimentarily portray Māori as the other, rather than a contemporary, historical investigation of tā moko which at least attempts to incorporate a deeper understanding of Māori groups in their own right. Said states that "ideas, cultures, and histories cannot be understood or studied without their force, or more precisely their configurations of power, also being studied."⁵⁰⁸ By not understanding the power dynamics between coloniser and colonised that play out in the sources Cisco draws from in her discussions of tapu, mana, and whakapapa, she, presumably inadvertently, ignores Māori cultural mandates over Māori history, despite the fact that there are any number of sources which would have afforded her the opportunity to equally honour Māori authority on Māori topics.

“Tradition of Moko”: A Comparison with New Zealand Scholarship

Cisco's failure to incorporate tikanga Māori in her analysis of tā moko seriously impairs her account, not least in the link to tradition she attempts to forge. *Traditional facial moko* is the term Cisco uses to refer to Māori facial tattooing practices prior to the mid-20th century.

Although she admits prior incarnations of tattooing, Cisco's study includes only the chiselled moko as the "tradition" of moko.⁵⁰⁹ However, moko existed both before and after its chiselled form, so an entire lineage of moko exists which is not accounted for in Cisco's reference to the "tradition" of moko.⁵¹⁰ As Pacific curator Sean Mallon explains, often tradition is problematic because the terms of its employment insinuate "an evolutionary linear progression from the past

⁵⁰⁸ Said, *Orientalism*, 5.

⁵⁰⁹ Cisco, "Maori Moko."

⁵¹⁰ Please refer to chapter two for a discussion of these techniques and of moko in general.

to the present,” alongside a sense of “timelessness” which contributes to static portrayals of dynamic practices.⁵¹¹

By identifying chiselled moko as its only traditional form, Cisco paints a fractional picture of moko which undermines its whakapapa. Tā moko is the traditional Māori tattooing practice and chiselled moko part of that lineage. However, I find it specious to limit discussions of the entire moko lineage solely to chiselled moko, when there were other forms of moko prior to the chiselled moko, such as moko kurī, and different forms after the chisel technique faded away, like the needle method and contemporary tattoo machine.⁵¹² In fact, in the last couple of decades, chiselled moko has experienced a resurgence.⁵¹³ The words of Mallon capture the colonial overtones and etic context of Cisco’s delimitation.

For the uncritical writer, the arrival of Europeans in the Pacific disrupted the “traditional” societies of its peoples. Around this “moment of contact” with Europeans, everything before their arrival is “traditional” and all that follows is degeneration and deviation from a life more constant and coherent. As Pacific historians will tell you, in reality the “moment of contact” with Europeans extended over long periods of time.⁵¹⁴

Indeed, Cisco’s presentation of moko gives the impression that moko before and after the chiselling technique is not part of the tradition of moko (she even labels these as non-traditional), when, in fact, moko has its own whakapapa which would comprise what Cisco labels as the tradition of moko.

⁵¹¹ Sean Mallon, “Against Tradition,” *The Contemporary Pacific* 22, no. 2 (2010): 364.

⁵¹² Ngahuia Te Awekotuku, “The Rise of the Maori Tribal Tattoo,” *BBC News Magazine*, last modified September 21, 2012, accessed April 27, 2014, <http://www.bbc.com/news/magazine-19628418>; Higgins, “Tā Moko”; Ngahuia Te Awekotuku, “Memento Mori: Memento Maori-Moko and Memory,” Tangi Research Programme Working Paper. Hamilton, N.Z.: Maori and Psychology Research Unit, University of Waikato (Nov., 2009): 6.

⁵¹³ “Hēmi Te Peeti, Master Carver and Tattooist,” a documentary by *Waka Huia*, Series 2010/2011, episode 20, originally aired November 21, 2010, accessed March 24, 2014, <http://tvnz.co.nz/waka-huia/s2010-2011-e20-video-3903948>; *Tā Moko*, a documentary.

⁵¹⁴ Mallon, “Against Tradition,” 364.

Cisco goes on to state that “the traditional nature of moko also made it a reliable signal in ways usually not included in discussions of costly signaling theory.”⁵¹⁵ After citing some differential costs of moko based upon variations in “traditionally ascribed statuses,” which Cisco uses to determine that only persons of certain rank could have moko, she then proposes that the “traditional regulation” of moko is what enabled it to be “read,” thus ensuring its honesty.⁵¹⁶ The specifics of Cisco’s assertions and the wider implications they point to are dealt with in greater detail in following sections. Here, my focus is to stress that when trying to analyse this discussion, one is left bewildered about what Cisco means by tradition and, moreover, how it is applicable to Māori tā moko.

Undoubtedly, Cisco’s point about integrating discussions of tradition into costly signalling theory is novel and interesting. However, Cisco undermines her own suggestion through the delimitations she has imposed on the tā moko tradition. Had Cisco turned to more contemporary sources on Māori moko, she would have found support for her position but also realised that this connection is already explicitly developed within the current literature on moko, albeit without the costly signalling framework.

Nikora emphasises the link between moko and tradition for Māori by conceptualising Māori ancestors as embodied within the whakapapa moko encodes.

the decision to take the marking is about continuity, affirmation, identity, and commitment. It is also about wearing those ancestors, carrying them into the future; as their moko become a companion, a salient being with its own life force, its own integrity and power, beyond the face.⁵¹⁷

The power and life of those ancestors is perpetuated through the living tradition of tā moko. Like King who acknowledges a deep and continuous association between moko and Māori identity,

⁵¹⁵ Cisco, “Māori Moko.”

⁵¹⁶ Ibid.

⁵¹⁷ Nikora, Rua, and Te Awekotuku, “In Your Face.”

Nikora utilises the cross-chronological aspects of moko to emphasise the resonance of whakapapa both forward into the future and backward into time, which anchors the mau moko in a multi-directional lineage of belonging essential to an individual's self-definition within a Māori context. Nikora conceptualises moko as having continuity with the past, underscoring that moko is part of an unbroken tradition.⁵¹⁸

Whilst Nikora still attributes moko to individual identity anchored within the larger group vis-à-vis whakapapa, she simultaneously stresses that moko is important to the establishment of Māori tradition. Rather than solely operating as a within-group signal to affirm identity, Nikora suggests that by reinforcing historical continuity moko may serve an integral role in creating “tradition” and sustaining cultural information essential to cultural continuity, whilst, simultaneously, demarcating Māori from non-Māori. Ellis explains that moko reflects “the genealogies that link the individual to the extended family and the tribe, and to the land and the divine,” which “make the individual part of the community and give her or him a standing place in the world.”⁵¹⁹ Moko publicly validates the connection between the mau moko and his whakapapa by serving as a visible representation of the relationship of the individual wearer to his past and future by binding him to a specific group via his ancestors and descendants. Orbell reports that families even retain their own special moko designs which solely belong to and are transmitted from father to son.⁵²⁰

As previously noted in Chapter Two, Higgins suggests that moko is bound not only to identity but to a historical continuity embedded within the tradition that is capable of stabilising group identity even in rapidly changing cultural circumstances. Like Te Awekotuku, Higgins

⁵¹⁸ Nikora, Rua, and Te Awekotuku, “In Your Face”; King, *Moko*, 83.

⁵¹⁹ Ellis, *Tattooing the World*, 22, 53.

⁵²⁰ Margaret Orbell, “The Maori Art of Moko,” *Te Ao Hou: The New World*, no. 43 (Jun., 1963): 31.

makes an important correlation between maintaining Māori group identity and the survival of moko kauae in the 20th century.⁵²¹ Higgins stresses the current state of moko as identity or reclamation of identity through whakapapa.⁵²² The self-reflection provided by the women consulted in Higgins' fieldwork supports this view.⁵²³ All women from Higgins' doctoral research attached immense significance to the acquisition of moko as a reflection of their individual and social identities. Whakapapa anchored these women as they traversed life, attempting to gain an understanding of themselves and the world in which they live. Through exploring and embracing their whakapapa, these women found that, despite the vast tumult which typified their lives, they could rediscover their identities through the reappropriation of specifically Māori elements.⁵²⁴

Te Awekotuku stresses the linkage of moko to Māori tradition as a space for the decolonisation of Māori cultural practices. To Te Awekotuku, moko serves as an “enduring emblem of Māori femininity and strength, visible and uncompromising in an era of political conflict,” and signalled an “enhancement of Māori women’s beauty on Māori terms.”⁵²⁵ As time passed and many traditional elements were lost, moko kauae remained as an affirmation of Māori endurance and continued to serve as an anchor for Māori identity.⁵²⁶ Te Awekotuku lauds moko as a means to empower Māori by visibly opposing colonising powers that sought to obliterate Māori traditions which challenged their agenda. For Te Awekotuku, to challenge the colonial agenda still present within New Zealand, Māori must forge new associations between moko, memory, and identity.

⁵²¹ Higgins, “Identity Politics.”

⁵²² Ibid.

⁵²³ Ibid.

⁵²⁴ Ibid.

⁵²⁵ Te Awekotuku et al., *Mau Moko*, 85.

⁵²⁶ Ibid., 87.

This sample of current literature offers substantial backing to establish a connection between moko and tradition. Had Cisco engaged with current discussions about the relationship of moko to tradition vis-à-vis whakapapa, her link between moko and tradition could have been better defined and further explicated. However, Cisco diminishes the impact of her own work by delimiting her definition of “traditional facial moko,” since a singular focus on ethnographic presentations of chiselled moko of the late 19th century does not grant space for the inclusion of current discussions about the tradition of moko which are present in contemporary, Māori sources.

Warfare and Social Structure

Cisco’s decision to delimit the tradition of tā moko to its chiselled incarnation is not without benefit, as it allows her to more effectively establish the nexus between moko and warfare so central to her warfare hypothesis. Most of us cannot help but shudder when thinking of having a chisel driven into our faces. The perceived “violent” associations with such a practice easily and naturally blur into “violence” of war. Yet, this is an etic perspective of an emic practice which neglects its underlying, indigenous interpretations, opting instead for an essentialised, “violent” other.

Rampant warfare and Māori social structure comprise two of the three components of the tri-partite backdrop of Cisco’s warfare hypothesis. Since Cisco utilises Māori social structure as support for her understanding of Māori warfare, I will explore the two in tandem throughout this section. Cisco substantiates her claims of the prevalence of Māori warfare upon early explorer and ethnographic accounts and archaeological evidence, a number of which were presented in Chapter Two. Her presentation of social structure is based upon these same early accounts, as well as the work of Simmons. However, Cisco does not stop to question or critically engage with

these. It is the aim of this section to utilise the Cisco case study as a foil for further exploration and critique of the consequences that erroneous assertions about Māori warfare and social structure have on claims about moko as a costly signal.

Two main issues emerge from Cisco's focus on Māori warfare to construct her hypothesis of moko as a costly signal: 1) Māori warfare has likely been over-exaggerated and 2) warfare has been used to perpetuate the idea of Māori as noble savages. These issues point to a notable weakness in Cisco's attribution of moko to warfare, particularly since tā moko may have developed and certainly has been perpetuated during non-warfare periods. Cisco's understanding of Māori social structure also warrants further attention, as confusion arises regarding her presentation of pre-contact Māori social structure and its relationship to warfare and tā moko.

As evidenced by Cisco's research, it is not difficult to substantiate a connection between moko and warfare from the early sources. Recall from Chapter Two that the connection between moko and warfare is prevalent throughout literature from the mid-19th to the mid-20th century. Polack argues for a connection between moko and war, asserting that moko served as a preparatory tool to help Māori warriors cope with the pain of injuries they might sustain during war.⁵²⁷ Similarly, Robley off-handedly links moko to ferociousness in war but offers no substantiation for this claim.⁵²⁸ Brown ties moko to making a more powerful and intimidating impression on enemies.⁵²⁹ In questioning the civility of colonisation, Taylor lauds Māori inclinations toward war as the primary reason they were able to withstand colonial pressures.⁵³⁰ Here, Taylor depicts a Māori propensity toward warfare as a type of salvation for Māori groups,

⁵²⁷ Polack, *Travels and Adventures*, 388; Clifford and Marcus, eds., *Writing Culture*, 115

⁵²⁸ Robley, *Moko*, 22, 28.

⁵²⁹ Brown, *Maori and Polynesian*, 189.

⁵³⁰ Taylor, *Te Ika a Maui*, 151-3. For Taylor's detailed critiques of colonisation processes, see Richard Taylor, *Past and Present*, v-331.

which is indicative of the tendency of colonial writers to perpetuate romanticised notions of Māori.

Mythologised and romantic views of Māori were propagated throughout the 19th and 20th by the perception of Māori as a dying people whose traditions were rapidly disappearing and, thus, needed to be recorded as quickly as possible.⁵³¹ As Peter Bellwood cautions, we must remember that during this time “writers like Smith and Best were taking Polynesian traditions at their face value, without taking into account the fact that many of these traditions were collected a century after initial European contact.”⁵³² Bellwood’s warning necessitates an awareness that some of the information collected and collated by early ethnographers and historians is suspect and may have led to erroneous ideas and claims about pre-contact Māori groups.⁵³³ Yet, Cisco seems unaware of this, aside from a single reference toward the end of her thesis in which she exhibits a sentience of these biases. For instance, citing Tregear, Cisco generates further support for her hypotheses, quoting that “war was the only pastime that in his heart of hearts the Māori truly loved.”⁵³⁴ This unfortunate result of this Red Savage view, as labelled by Belich, is an essentialising of Māori akin to the rhetoric of “dominant colonial ideology” in which the Māori other is portrayed as “native and primitive.”⁵³⁵

More recently, scholars have worked to overturn some of these colonial assumptions about Māori violence as related to warfare, and the incorporation of these counter-positions

⁵³¹ Davidson, *Sketches*, 191-2; Judith A. Simon and Linda Tuhiwai Smith, eds., *A Civilising Mission?: Perceptions and Representations of the New Zealand Native Schools System* (Auckland: Auckland University Press, 2001), 224-5; Belich, *Making Peoples*, 21; Fiona Cameron and Conal McCarthy, “Two Anthropological Assemblages: Maori ‘Culture Areas’ and ‘Adaptation’ in New Zealand Museum and Government Policy,” *Museum and Society* 13, no. 1 (2015): 97. I use the phrase “the Māori” here to emphasize the early anthropological view of Māori as a singular other.

⁵³² Bellwood, *Man’s Conquest*, 301-2.

⁵³³ *Ibid.*, 382.

⁵³⁴ Tregear, *Maori Race*, 325.

⁵³⁵ Mahuika, “Our Gift,” 26; Belich, *Making Peoples*, 21.

would have infused the case study with greater symmetry and allowed for decolonisation. Current research indicates that the prevalence and significance of pre-contact Māori warfare has been exaggerated into what Thompson calls a “mythology of violence.”⁵³⁶ Sheilagh Walker writes that “colonisation is also a discourse of war.”⁵³⁷ Walker goes on to compellingly describe the viciousness of the colonising process, explaining how all too often Māori have been lauded for their physical prowess viewed as a by-product of their constant pre-contact warring, yet, simultaneously, denounced for their ineptitude. Nevertheless, aside from one single passing reference to a source from William Ahrens which challenges the view of Māori as cannibals, Cisco seems unaware of the controversies surrounding the portrayal of Māori as blood-thirsty war mongers whose only pastime is war.⁵³⁸

The narrative assemblage offers further insight into the etic, selective processes which define Cisco’s research. According to Doniger, when recounting a narrative, we select certain elements as real. Those elements we select are generally based upon patterns that we deem significant because they align with what we have been taught or what “we invent for ourselves.”⁵³⁹ In terms of the selective mechanisms of the narrative assemblage, Cisco’s lack of familiarity with tikanga Māori and mātauranga Māori means that she will select more familiar material. Based upon Doniger’s assertions, as a Western non-Māori whose research lacks certain concepts fundamental to Māori ontology, we might predict Cisco to gravitate more toward Western narratives, which she, in fact, does.

⁵³⁶ Rāwiri Taonui and Greg Newhold, “Staunch: Māori Gangs in Urban New Zealand,” in *Urban Social Capital: Civil Society and City Life*, eds. Joseph D. Lewandowski and Gregory W. Streich (Surrey, England: Ashgate Publishing Limited, 2012), 167; Belich, *Making Peoples*, 483; Lieut.-Col. Gudgeon, “The Whence of Māori,” *The Journal of the Polynesian Society* 11, no. 3 (1903): 173-5; Ballara, *Iwi*, 182, 193; Michael King, *The Penguin History of New Zealand* (Auckland: Penguin Books, 2003), 83.

⁵³⁷ Walker, “Kia Tau te Rangimarie.”

⁵³⁸ Thompson, “Dangerous People,” 109.

⁵³⁹ Doniger, *Other Peoples’ Myths*, 159.

Unfortunately, these Western narratives of tā moko, upon which Cisco's research scaffolds, are largely shaped by a colonial ethos which tended to "pathologise, criminalise, or marginalise tattoo wearers."⁵⁴⁰ Such marginalisation caused moko to be viewed as a negative signal both within and without Māori cultural groups in New Zealand. To Nikora, viewing moko in this way caused misidentification of what moko actually conveys within an indigenous group like the Māori where tattooing is instrumental in "self-identity and expression."⁵⁴¹ Douglas supports Nikora, suggesting that the conception of moko as intimidation, is likely a European interpretation of tā moko, based upon preconceived notions of tattooing outside of the relevant Pacific context.⁵⁴²

The support to which Cisco turns for her linkage between tā moko and warfare is not limited to anthropological and historical accounts. According to Thompson, the idea of a "normal warrior-type" evolved from 18th and 19th century European literature about New Zealand. The negative stereotype of Māori as violent and aggressive is an attempt by colonial powers to exploit damaging imaging to help displace the Māori who represented a much larger and more powerful presence within New Zealand.⁵⁴³ This same negative stereotyping is now being supported by scientific research.

In 2006, a "warrior-gene" was discovered and used to justify the assumption that Māori are more prone to violence than other groups. Hook cautions that turning to science to explicate romanticised, Māori characteristics is indicative of a nascent eugenics movement, serving only to

⁵⁴⁰ Linda Waimarie Nikora, "Maori and Psychology: Indigenous Psychology in New Zealand," in *Psychology in Aotearoa/New Zealand*, ed. A. Weatherall (Auckland: Pearson, 2007), 84.

⁵⁴¹ Nikora, "Maori and Psychology," 84.

⁵⁴² Bronwen Douglas, "'Cureous Figures': European Voyagers and Tatau/Tattoo in Polynesia, 1595-1800," in *Tattoo: Bodies, Art and Exchange in the Pacific and the West*, eds. Nicholas Thomas, Anna Cole, and Bronwen Douglas (London: Reaktion Books, 2005), 42.

⁵⁴³ Thompson, "Dangerous People," 109.

reinforce existing mythologies of violence.⁵⁴⁴ Not only does Cisco rely upon sources that develop negative stereotypes about Māori, but, by integrating these mythologised and romanticised accounts into her own arguments, she perpetuates their dissemination.

There are also influences within the costly signalling literature, particularly as it relates to religion, which further explain Cisco's dependency upon the attribution of tā moko to warfare and which underscore the scientific directive behind such linkages. For instance, Irons isolates warfare as one of two major social problems demanding a solution that resulted in the development of costly religious behaviours.⁵⁴⁵ War tempts individuals to defect from cooperating in order to save their own lives. Costly rituals amongst men enforce the cooperation necessary to ensure that group members remain dedicated to the group during times of war even when the desire to defect is high.⁵⁴⁶ Each time an individual defects, it puts remaining group members at greater risk. Pressure to not defect is beneficial to all group members, because it instils confidence in them that even in the most intense conflicts fellow group members will not desert, leaving the rest to face the enemy alone. These findings prompt Irons to predict that regular warfare results in a need for enforced solidarity which demands an increase in "reliable signals of intra-group commitment."⁵⁴⁷

In addition to utilising Irons to shape the connection she develops between Māori moko and warfare, Cisco turns to Sosis to further augment her position. Sosis maintains that the degree

⁵⁴⁴ Gary Raumati Hook, "'Warrior Genes' and the Disease of Being Māori," *Mai Review* 2 (2009): 1-11. See also S.L. Ferguson, "Once Were Warriors, or Warriors Still," *MAI Review* 2, no. 3 (2009): 1-3. For the original argument, see A. Gibbons, "Tracking the Evolutionary History of a 'Warrior Gene,'" *American Association of Physical Anthropologists Meeting: Science* 304 (2004): 818-9, accessed February 13, 2015, <http://www.sciencemag.org/cgi/content/summary/304/5672/818a>. Not all Māori are opposed to the introduction of the "warrior-gene." For a discussion of the benefit of isolation of the warrior-gene in curbing domestic violence amongst Māori, see Fiona Cram, "Māori and Violence: What's the Problem," *MAI Review* 2 (2009): 1-3.

⁵⁴⁵ William Irons, "Morality, Religion, and Human Evolution," (Oct. 31, 1996): 19-20, 25, accessed June 12, 2014, <http://www.williamirons.net/wp-content/uploads/2011/06/Morality-Religion-and-Human-Evolution.pdf>.

⁵⁴⁶ Sosis, Kress, and Boster, "Scars for War," 245.

⁵⁴⁷ *Ibid.*, 236.

of visibility of a marker of belonging is dependent upon what type of warfare pervades a given group. Thus, we see a new connection between social structure and warfare, one which is reflected within the Cisco case study.

If a group engages in internal warfare, “fought within a cultural grouping,” it is likely also characterised by kin orientations, meaning regular “intermarriage” and the recurrent shifting of related individuals from group to group. This type of social structure makes the adoption of a permanent mark of belonging unrealistic, because one’s group identity is subject to shift at any time.⁵⁴⁸ However, the case is different for external warfare.

When a group is comprised of non-related males, ritualised acts are employed in order to foster cooperation that would not exist without some cost ensuring it. Without a persuasive within-group mechanism to encourage members to uphold their commitments to the group, when an externally warring group experiences internal strife, there is nothing to prevent members from leaving one group and potentially joining another. Permanent marks with high visibility are an effective way to diminish the chances of this occurrence.⁵⁴⁹

Victoria Ebin offers a counter argument to Sosis, which is not referenced by Sosis nor within the Cisco case study. Specifically, Ebin’s work better aligns with what is known about Māori social structure. Ebin challenges Sosis’ internal/external delineations. Though Ebin acknowledges that two groups exist, one kin-specific and another, larger group that incorporates these smaller kin groups, her predictions diverge from Sosis’. Ebin maintains that larger groups of people are often comprised of smaller groups delineated by kinship or locality ties. These smaller groups play a key role in social organisation.

⁵⁴⁸ Sosis, Kress, and Boster, “Scars for War,” 236.

⁵⁴⁹ Ibid.

Often, these smaller factions delineate themselves by developing a specific type of body adornment practice, like moko, which makes their affiliation and identity quickly discernible.⁵⁵⁰ Ebin predicts permanent markers to be found in groups with kinship ties, instead of non-kin based groups as Sosis claims. The larger group, then, is comprised of these smaller kin groups, each with its own permanent marker. Ebin's predictions better align with pre-contact Māori social structure which had more to do with whānau and hapū than larger iwi affiliation, which only became more prominent as an effect of Māori urbanisation following World War Two.⁵⁵¹

The reliance on 19th and early 20th century sources throughout the Cisco case study, in conjunction with her usage of costly signalling theory, results in the study being founded upon misleading information which over-emphasises the role of the iwi in pre-contact Māori society and ultimately undermines any argument for a link between moko and warfare. For a moment, let us set aside the issues surrounding the mythologisation of Māori warfare and accept the attribution of moko to warfare. Even with gratuitous acceptance of this connection, difficulty still presents itself in trying to discern the exact social structure of pre-contact Māori groups which translates into problems utilising Sosis' specific criteria for costly signals and the differences between internally and externally warfaring groups.⁵⁵² This is mainly because there is little consensus on how the social structure of pre-contact Māori groups functioned, aside from hapū and whānau.⁵⁵³ Yet, Cisco's argument does not hinge on hapū and whānau delineations but upon a view of Māori society influenced by Simmons.

⁵⁵⁰ Victoria Ebin, *The Body Decorated* (London: Thames and Hudson, 1979), 35.

⁵⁵¹ For further information about post-WWII Māori urban migration, see Paul Meredith, "Urban Māori-Urbanisation," *Te Ara Encyclopedia: The Encyclopedia of New Zealand*, last modified October 8, 2013, accessed February 13, 2015, <http://www.teara.govt.nz/en/urban-maori/page-1>. See Taonui, "Tribal Organisation," <http://www.teara.govt.nz/en/tribal-organisation/page-6> for information about the increase in iwi political power that took place post-WWII.

⁵⁵² Ballara, "Role of Warfare," 487.

⁵⁵³ For varying opinions on the matter see: Frédéric Sautet, "Once Were Iwi?: A Brief Institutional Analysis of Maori Tribal Organisations through Time," *New Zealand Business Roundtable* (2008): 13-4; Ballara, *Iwi*, 93;

Cisco abides by the depiction of Māori social structure as comprised of the whānau, hapū, iwi, and waka, with iwi representing the highest level of social organisation. Yet, numerous, contemporary sources overturn this conception, arguing that the shift to iwi as the major political body did not occur until the mid to later 18th century.⁵⁵⁴ Angela Ballara disassembles the fixed notions of Māori social structure upon which Cisco's argument depends. According to Ballara, "this image of tribal structure derives from a long history of superficial observations of Māori by Europeans. More immediately, it derives from the rigid and static structural models created by the ethnologists of the late 19th and early 20th century."⁵⁵⁵

In light of Ballara's conclusions and the contributions from recent scholars regarding Māori warfare and social structure, it becomes apparent that we must exercise caution regarding pre-contact Māori warfare and its relationship to pre-contact Māori social structure; Cisco exercises no such caution. Rather than acknowledging the controversy surrounding the issue of pre-contact, Māori social structure which undoubtedly informed wartime configurations, Cisco reports a confident and fluid account of Māori social structure to frame her hypotheses. Yet, Cisco's fluid narrative is based upon accounts that are heavily colonised and skewed by the fact they are largely derived from Europeans reporting 100 years or more since Cook's first voyage, not to mention that they have been meticulously scrutinised and overturned by contemporary researchers.

Bronwen Douglas, "Rank, Power, Authority: A Reassessment of Traditional Leadership in South Pacific Societies," *The Journal of Pacific History* 14, no. 1 (1979): 2-27; Graham M. Vaughan, "Social Change and Intergroup Preferences in New Zealand," *European Journal of Social Psychology* 8, no. 3 (1978): 300.

⁵⁵⁴ Higgins, "Identity Politics"; Ballara, *Iwi*, 19; See also Joan Metge, *New Growth from the Old: The Whanau in the Modern World* (Wellington: Victoria University Press, 1995); Steven Chrisp, "The Māori and Occupation of Wairarapa: Orthodox and Non-Orthodox Versions," *Journal of the Polynesian Society* 102 (Mar., 1993): 39-70; Joan Metge, *A New Māori Migration: Rural and Urban Relations in Northern New Zealand* (London: University of London, Athlone Press, 1964).

⁵⁵⁵ Ballara, *Iwi*, 19.

Similar issues arise in Cisco's treatment of Māori status/rank which features in her sexual selection arguments but which also present themselves as undertones in her warfare hypothesis. Though we can be confident that some sort of relationship existed between moko and status, we cannot assert exactly what that relationship entailed and certainly not to the degree that the Cisco case study implies. Despite the fact that moko has consistently been linked to the establishment and enforcement of political and social hierarchy amongst Māori groups throughout the historical and ethnographic record, such views are conflicting and controversial. In 1807, John Savage made mention of moko as indicative of social class within Māori tribal communities.⁵⁵⁶ Shortland, however, contended that the amount one can pay for moko was the only way in which the custom suggested rank.⁵⁵⁷ Thomson, in 1859, reported that every tribe had six social classes.⁵⁵⁸ Best argues against Thomson's view, saying that the idea of six social classes is preposterous.⁵⁵⁹ Simmons clarified Thomson's argument in the late 1980s, alleging that it was evident Thomson was referring to rank, not class, a distinction central to Māori social structure. In that case, Thomson's assertion, for the most part, aligns with accounts provided by Te Riria upon which Simmons relied.⁵⁶⁰ Later, Simmons extended his view that Māori society was incredibly hierarchical, citing at least eight different societal strata reflected through moko patterns and designs, which frames the Cisco case study.⁵⁶¹ Again, Cisco seems unaware, not

⁵⁵⁶ John Savage, *Some Account of New Zealand; Particularly the Bay of Islands, and Surrounding Country; With a Description of the Religion and Government, Language, Arts, Manufactures, Manners, and Customs of the Natives andc., andc.* (Auckland: University of Auckland, 2004), 20; Te Riria and Simmons, *Maori Tattoo*, 50.

⁵⁵⁷ Edward Shortland, *The Southern Districts of New Zealand; A Journal, with Passing Notices of the Customs of the Aborigines*, (London: Longman, Brown, Green and Longmans, 1851), 16-7.

⁵⁵⁸ Thomson, *Savage and Civilized*, 94; Te Riria and Simmons, *Maori Tattoo*, 18.

⁵⁵⁹ Best, *The Maori*, 351; Te Riria and Simmons, *Maori Tattoo*, 18.

⁵⁶⁰ Te Riria and Simmons, *Maori Tattoo*, 17-8.

⁵⁶¹ Te Riria and Simmons, *Moko Rangatira*, 129-30; Mohi Rua, "Contemporary Attitudes to Traditional Facial Ta Moko: A Working Paper," in *Maori and Psychology: Research and Practice-The Proceedings of a Symposium sponsored by the Maori and Psychology Research Unit*, ed. N. Robertson (Hamilton, N.Z.: Department of Psychology, University of Waikato, Maori and Psychology Research Unit, 1997), 2. For a comprehensive critique of Simmons' work see Higgins, "Identity Politics."

only of the conflicting nature of the 19th century sources on Māori social structure as it informed status, but also of Higgins' work which has illuminated a number of fundamental problems in Simmons' research.

Understandably, Simmons' work is desirable because it provides specifics about moko and pre-contact Māori social structure that other sources do not. However, Higgins has used linguistics to challenge and discredit Simmons' assertions about Māori social structure, as well as many of his contributions concerning moko.⁵⁶² Higgins argues that the "traditional Māori society" Simmons describes never existed.⁵⁶³ Utilising linguistic and historical documentation, Higgins discovers that, aside from the last three male rank titles Simmons lists and only two female titles, there is no evidence to indicate "that any of these titles existed in the form Simmons describes."⁵⁶⁴ Higgins also shares scepticism with other Māori scholars, pertaining to Simmons' supposed informant Te Riria who perhaps did not even exist.⁵⁶⁵ Further questions also emerge with Simmons' treatment of moko.

When compared with moko in photographs or paintings, the designs Simmons presents, "which allegedly highlight the differences between individuals of rank, as well as depicting tribal variations of moko kauae," seem out of place.⁵⁶⁶ Furthermore, as Higgins notes, King maintains that by the 20th century moko designs were standardised, characterised by limited variation; yet, Simmons provides a host of designs for moko kauae with a wide array of patterning. Simmons never explicitly delineates when these designs were in circulation or from where these designs come. Moreover, he diminishes the significance of the tohunga-tā-moko in the moko kauae

⁵⁶² Higgins, "Identity Politics."

⁵⁶³ Ibid.

⁵⁶⁴ Rawinia Higgins, "Kei ngā Ngutu o ōku Kuia: It is Tattooed on the Lips of My Kuia," *Te Pouhere Kōrero, Māori History, Māori People* 4 (2010): 64; Higgins, "Identity Politics."

⁵⁶⁵ Higgins, "Tattooed on the Lips," 63; Higgins, "Identity Politics."

⁵⁶⁶ Ibid., 68; Ibid.

process, ignoring their role in both execution and style.⁵⁶⁷ Thus, Higgins concludes that more information about an individual's social class can be gleaned by observing their dress and jewellery in the artistic renderings, by artists like Goldie and Lindauer, than by the moko upon their faces, and expresses doubt that much information about rank or social status is conveyed by moko, especially after 1840 when the designs were more standardised.⁵⁶⁸

Further Issues with Costly Signalling Theory: Agentic Limitations

In the above sections, I utilised the Cisco case study to illuminate problems, especially those of a politico-ethical nature, that arise when attempting to tailor a case study to fit a theory. Indeed, Cisco's argumentation reads more like an attempt to make her moko case study fit costly signalling, than a critical enquiry into moko as a costly signal. Yet, aside from the recurrent politico-ethical issues the Cisco case study exhibits with regard to her analysis of moko and Māori culture, the above critique also reveals deeper global issues that are of concern when applying costly signalling theory as a framework to analyse cultural practices. These include difficulties identifying what, exactly, is the signal, as well as who is the signaller and who is the receiver. Concurrently, questions about the effectiveness of analysing tā moko independently of the oral narratives which shape its meaning for Māori are raised.

Such difficulties are, in part, due to Cisco's reliance upon agents, as opposed to interactions. As the next chapter reveals, agent-centred approaches place strict parameters on who can do the acting which results in severe restrictions on which interactions are included in a study. The effect is one of re-colonisation, since the existing heteroglossia is narrowed to reflect an environment designed by the researcher which accommodates only the voice(s) he or she

⁵⁶⁷ Higgins, "Tattooed on the Lips," 68-9; Higgins, "Identity Politics."

⁵⁶⁸ Higgins, "Identity Politics."

deems worthy of inclusion. This approach is in direct opposition to narrative assemblage, which depends on self-reflexive and self-conscious interpretations of the narratives which frame cultural practice. To effectively decolonise evolutionary explanations of culture, and, specifically costly signalling theory, requires the lens of narrative assemblage which “allows a tradition to make innovations without cutting down its roots.”⁵⁶⁹ Moreover, it demands a framework which encourages heteroglossia and mobilises emic perspectives through an integrative approach. However, to better understand what a decolonised, integrative approach might look like, we must first have a clearer picture of the limitations of agentic orientation. Again, I turn to the Cisco case study.

Signallers and Receivers

Animal Signalling

Within animal signalling, costly signalling’s forebearer, the roles of signallers and receivers are perceived to be relatively straightforward. For instance, a common go to example within costly signal is the stotting behaviour of Thomson’s gazelles. When faced with a predator, instead of selecting the biologically rational option of fleeing, Thomson’s gazelles, stott; meaning, they repeatedly jump into the air, taking all four legs off the ground. Stotting signals to the predator that it is not worth the predator’s time and energy to chase a gazelle that has an excess of energy to spend on such a costly behaviour in lieu of running away. Rather than chasing the gazelle who stotts, the predator will seek other prey that automatically run away or hide. In this example, it seems relatively straightforward that the gazelle signals and the predator receives.

Yet, even within animal signalling, the interpretation of the signal and the intended signaller/receiver are not as clear-cut as they are often presented to be. For instance, the common

⁵⁶⁹ Doniger, *Other Peoples’ Myths*, 113.

costly signalling interpretation of the stotting behaviour as an honest signal to the predator that the gazelle has an excess of energy and that the predator's time/energy would be wasted on a chase has a number of alternate explanations that have been suggested but are never really mentioned in the costly signalling theory literature. However, these alternatives change the contents of the signal and challenge signaller/receiver dynamics.

John Alcock offers a number of alternative explanations for stotting that challenge the prevailing costly signalling theory account. One of his suggestions explains the stotting of gazelles as a strategy to avoid ambush. By jumping high into the air, Alcock maintains that gazelles are better able to see predators which might be lying in wait. Alcock's proposal challenges gazelles' stotting as a signal at all, since there is no receiver to receive a gazelle's signal and no signal (i.e. no informational content) being broadcast by the gazelle. Stotting, according to Alcock's explanation, is simply an effective anti-ambush strategy.⁵⁷⁰

Another of Alcock's suggestions is that stotting serves as an alarm to the rest of the herd when a predator is nearby. Alerting the group to predation increases the survival rates of its members and, thus, increases group-level fitness. In this scenario, the gazelle's stotting is the signal but the receiver(s) are fellow group members.⁵⁷¹ A related suggestion, also of the group selection persuasion, is that gazelles' stotting is a coordination strategy intended to confuse a predator. Coordinated stotting may make it incredibly challenging for a lone predator to single out a group member as prey.⁵⁷² Once again, the gazelle is the signaller, but there are two receivers: the rest of the gazelle herd and the predator who is dazed by the coordinated stotting. Although researchers have, for the most part, come to a consensus that stotting serves as a signal

⁵⁷⁰ John Alcock, *Animal Behavior* (Sunderland, MA: Sinauer Associates, Inc., 1993), 366-9.

⁵⁷¹ *Ibid.*

⁵⁷² *Ibid.*

to a gazelle's predator not to waste time giving chase to prey with an excess of energy, these alternative explanations begin to suggest that the signaller/receiver relationship and signal interpretation may not be as basic within behavioural ecology and animal signalling as they are often construed within discussions of the application of costly signalling theory to human behaviour.

The idea that the signaller/receiver relationship for animals may be more complex than is often presented is not surprising. In fact since the push for decolonisation, animals have, in some ways been thrust into the role of the modern primitive, falling into many of the same dichotomisations that occurred between Westerners and indigenous groups. For instance, as Aaron Gross points out, the man/animal binary has a particular bias toward certain forms of Protestant Christianity which causes religion to be limited to man, and, moreover, construes religion as “a nonanimal part of the human.”⁵⁷³ Though the dichotomy between animals and humans is prevalent within the ontologies of many groups, it certainly is not reflective of the beliefs of all groups. As Chapter Four illustrates, the symmetry proposed by actor-network theory and indigenous ontological perspectivism offers a unique ontological context which is equipped to encapsulate man and animals by suggesting that though we differ in form, we may not be so different after all.

Moko—Signal or Signaller?

A similar lack of clarity arises when costly signalling theory is applied to human examples. Throughout Cisco's work, moko as a noun is presented as the costly signal. Cisco presents moko as observable and correlated to an “unobservable” trait, such as status, rank, bravery, and wealth, which varies throughout pre-contact Māori society. Mau moko incur a cost, in terms of pain,

⁵⁷³ Aaron S. Gross, *The Question of the Animal and Religion: Theoretical Stakes, Practical Implications* (New York: Columbia University Press, 2015), 13.

money to employ a tohunga-tā-moko, as well as donning a facial tattoo which is highly visible. Thus, Cisco deduces that the benefits and costs of moko honestly indicate one's commitment to the group. Moko benefits the signaller and receiver by reliably broadcasting information about the legitimacy of one's commitment, wealth, status, bravery, athletic prowess, health, or any number of characteristics related to the fitness of a mau moko.

A significant issue with focusing on moko (the noun) as the signal is that in a pre-colonial context it cannot be separated from the person on whose face it is carved. I emphasise this inability to separate moko from the mau moko when used as a signal prior to Pākehā presence in New Zealand, because there are instances after colonisation where moko may have been able to be considered apart from its wearer. Specifically, the use of moko as a signature implies that it could stand apart from the individual upon whose face it was. We know of its use as a signature from Marsden's accounts recorded in the early 1800s which cite that rangatira (chiefs) signed documents by drawing out their moko.⁵⁷⁴ The use of moko as a signature is also present on land deeds, like that of the Ngāi Tahu chief of Otago whose moko appears on an 1840 land grant and other significant documents, including the Treaty of Waitangi also signed in 1840.⁵⁷⁵ However, as Sarah Gallagher notes, the application of moko outside of "its original context (the wearer's

⁵⁷⁴ Simmons, *Tā Moko*, 50; Reverend Samuel Marsden, *Marsden's Account of his First Voyage to New Zealand, 20 June 1815*, Marsden Online Archive, last modified October 3, 2014, accessed September 27, 2015, http://www.marsdenarchive.otago.ac.nz/MS_0055_004; Reverend Samuel Marsden, *Journal: Reverend Samuel Marsden's First Visit to New Zealand in December 1814*, Marsden Online Archive, last modified October 3, 2014, accessed September 27, 2015, http://www.marsdenarchive.otago.ac.nz/MS_0176_001.

⁵⁷⁵ Graham, *Maori Moko*, 9; Christian Palmer and Mervyn L. Tano, "Mokomokai: Commercialization and Desacralization," *International Institute for Indigenous Resource Management* (Aug., 2004): 2. See also Steve Gilbert, *Tattoo History: A Source Book: An Anthology of Historical Records of Tattooing throughout the World* (New York: Juno Books, 2000), 67; Robely, *Moko*, 11; Clinton R. Sanders, *Customizing the Body: The Art and Culture of Tattooing* (Philadelphia, PA: Temple University Press, 2008), 10; Adrienne Kaeppler, *The Pacific Arts of Polynesia and Micronesia* (Oxford: Oxford University Press, 2008), 115; Polack, *Manners*, 47-8; Edward Jerningham Wakefield, *Adventure in New Zealand, from 1839 to 1844: with Some Account of the Beginning of the British Colonization of the Islands*, vol. 2 (London: J. Murray, 1845), 439.

face)” is only a product of colonisation, where Māori moko were drawn on legal documents where Europeans’ signatures appeared.⁵⁷⁶

Because moko is worn by a person, we simply cannot eliminate other signals that a human physically communicates, particularly about commitment. For instance, someone keyed up about an impending battle may present an active package of signals indicating their fitness and warrior prowess aside from moko, such as an overtly aggressive whakatū waewae (war dance).⁵⁷⁷ Within Māori culture whakatū waewae was a selective mechanism utilised by Māori elders to select which warriors would go into battle. Should a warrior not appear to be battle-ready, they would not be selected whether a mau moko or not. Arguably, the whakatū waewae would have provided an opportunity for someone to defect or to confirm their commitment to the group, aside from any perceived commitment moko broadcast. Hyisung Hwang and David Matsumoto suggest that, like animals, humans have a physical, dominant threat display even after victory over an opponent which may involve elongating the body and puffing out the chest. Such a display may be equally as informative about another’s prowess in battle as the information moko provides and, if performed after battle, may be retained for future use.⁵⁷⁸ Another consideration is the way that war parties configure themselves before engaging in battle. Pre-European Māori were typically led into battle by a chief, and the physical positioning of the chief/warriors would give good indication of one’s status.⁵⁷⁹ Also, as already mentioned, Higgins says a great deal is able to be gleaned about a Māori person’s rank/status from the jewellery or

⁵⁷⁶ Gallagher, “Curious Document,” 41.

⁵⁷⁷ Whakatū waewae is also known as tūtū ngārahu, tūtū ngārehu and tūtū waewae. For references, see <http://www.maoridictionary.co.nz/>, “whakatū waewae,” accessed February 19, 2015. See also Steven J. Jackson, “Sport, Tribes, and Technology: The New Zealand All Blacks Haka and the Politics of Identity,” *Journal of Sport and Social Issues* 26, no. 2 (2002): 125-39.

⁵⁷⁸ Hyisung C. Hwang and David Matsumoto, “Dominance Threat Display for Victory and Achievement in Competition Context,” *Motivation and Emotion* 38, no. 2 (2014): 206-14.

⁵⁷⁹ E.G. Schwimmer, “Warfare of the Maori,” *Te Ao Hou*, no. 36 (Sept., 1961): 51-3.

dress they wore.⁵⁸⁰ These discrepancies do not present themselves as readily in the gazelle example, where the stotting (verb) is the signal.

The recognition of multiple signals and multiple modes for signal expression is present within signalling theory literature, though it is typically quarantined to animal examples.⁵⁸¹ Rowe maintains that the advantage to multicomponent signals is that the information receivers glean from the signal likely is more reliable and signallers will adjust signals to make them easier for receivers to receive.⁵⁸² Indeed, the incorporation of multicomponent or multimodal signals may have the potential to enhance applications of costly signalling theory to cultural practices by integrating additional elements into the signalling paradigm, such as tattoo (moko) and dance (whakatū waewae). Yet, the addition of more signal components or more modes does not resolve many of the tensions in signal reception that occur within the example of Māori moko where, as a result of colonisation, Pākehā receive signals differently than Māori, making contextual considerations paramount.

This is not to imply that certain limitations do not exist with regards to interpretation of moko. Certainly not every signal a human conveys relates to moko, nor can signals be interpreted as such. Inevitably, some interpretations of what a signal conveys are what Eco refers to as “blatantly unacceptable.”⁵⁸³ The implication is that moko, regardless of its perceived form,

⁵⁸⁰ Higgins, “Identity Politics.”

⁵⁸¹ James P. Higham and Eileen A. Hebets, “An Introduction to Multimodal Communication,” *Behavioral Ecology and Sociobiology* 67, no. 9 (2013): 1381-8; Jakob Bro-Jørgensen, “Dynamics of Multiple Signalling Systems: Animal Communication in a World in Flux,” *TRENDS in Ecology and Evolution* 25, no. 5 (May, 2010): 292-300; Sarah Partan and Peter Marler, “Issues in the Classification of Multimodal Communication Signals,” *The American Naturalist* 166, no. 2 (2005): 231-45; Sarah Partan and Peter Marler, “Communication Goes Multimodal,” *Science* 283 (Feb. 26, 1999): 1272-3; Rufus A. Johnstone, “Multiple Displays in Animal Communication: ‘Backup Signals’ and ‘Multiple Messages’,” *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 351, no. 1337 (1996): 329-38.

⁵⁸² Candy Rowe, “Receiver Psychology and the Evolution of Multicomponent Signals,” *Animal Behaviour* 58 (1999): 921.

⁵⁸³ Umberto Eco, *The Limits of Interpretation* (Bloomington, IN: Indiana University Press, 1994), 6.

does constrain the amount of possible interpretations that it can have.⁵⁸⁴ Yet, the interpretation gleaned from the Cisco case study, precisely because of the delimitations that are imposed on moko, many of which are arbitrary, becomes too narrow and indiscriminant to have any real explanatory power.

Ivan Mladenov offers beneficial elaboration by way of semiotics. In choosing to focus on the objective form of moko, as opposed to the associations to which it is linked, Cisco conceives of moko as a sign. Mladenov explains that whilst a “sign relates to a particular object,” in this case moko, its objective form “can never exhaust its meaning because...a sign is endlessly interpretable.”⁵⁸⁵ This endless interpretation assumes the form of an “internalized dialogue,” where the interpreter shoulders the role of “the other.”⁵⁸⁶ Yet, though this cycle of self-reflexivity is construed as just one of many possible translations within unlimited semiotics, when interpreted within the Cisco case study, it is what contributes to many of the limitations which undergird her argument.

By assuming the role of the other, Cisco’s case study is colonised by her own interpretation of moko which prohibits any voice, other than her own, from contributing to the dialogue on moko. Furthermore, in refusing the narrative assemblage, Cisco denies the visage of Western culture made visible through the mirror of her own narrative. However, as Chapter Four reveals, more reflexive models are able to utilise and extend this dialogue to transcend the limitations of the sign itself and any singular interpretation by focusing on the relationship between agents. In the words of Mladenov, “the question about the identity of a sign arises again

⁵⁸⁴ Eco, *Limits of Interpretation*, 6.

⁵⁸⁵ Ivan Mladenov, “Unlimited Semiosis and Heteroglossia (CS Peirce and MM Bakhtin),” *Σημειωτική-Sign Systems Studies* 2 (2001): 447.

⁵⁸⁶ *Ibid.*

but as already mentioned, it is to be sought neither in the interpreted sign, nor in its object, nor in its interpretant, but in the circulation field between them.”⁵⁸⁷

Who is the Signaller?

The necessity of looking at the holistic signalling environment in the form of a “circulation field” becomes even more apparent when examining Cisco’s treatment of signallers and receivers. Specifically, the Cisco case study sheds light on the difficulty of discerning the signaller within cultural employments of costly signalling theory. Whilst it is true that the mau moko wears the moko, the tohunga-tā-moko is actually responsible for applying the moko and encoding information into the design. With tā moko, the tohunga-tā-moko is the originator of the signal, since it is ultimately he who determines what information is encoded in the moko. King was one of few to recognise that the cultural framework needed to fully understand moko was not absent but inaccessible.⁵⁸⁸ Thus, moko cannot be understood aside from the social context in which it exists.

King and his predecessor, Theodore Schoon, discovered that male moko patterns operated on two different levels: standard design and free adaptation. Standard design is believed to have developed out of a moko rules system that dictated which motifs an individual might wear. For instance, Schoon identified specific areas on the forehead and in front of ear as unique to each individual. The rules system indicates that it was not an individual decision as to what moko would be worn, but rather a pre-determined socially constructed set of guidelines.⁵⁸⁹ These designs, though standardised, are what allowed an individual to be recognised via the moko he or she wore but only within the Māori cultural context which reinforced its meaning. Free

⁵⁸⁷ Mladenov, “Unlimited Semiosis,” 448.

⁵⁸⁸ King, *Moko*, 63.

⁵⁸⁹ Ibid.

adaptation was, presumably, regulated by the *tohunga-tā-moko*, who had the knowledge to develop a parallel system of symbols that extended the meaning and interpretation of the design but represents information which the lay person has no ability to access without the assistance of a trained specialist.⁵⁹⁰ Similarly, Graham suggests that the nature and number of curves in a *moko* pattern have a special meaning available only to those knowledgeable in Māori symbolism (i.e. *tohunga-tā-moko*).⁵⁹¹

Furthermore, since it is ultimately left to the discretion of the *tohunga-tā-moko* to determine what is being signalled, he must be included as a signaller, as it is only through his handiwork that the *moko* signals at all. The *mau moko* is both the recipient and conduit of that signal. Yet, once the *moko* is applied, it is the face of the *mau moko* which signals the information encoded by the *tohunga-tā-moko*. The non-conventional signalling structure that *moko* presents requires us to consider that signalling may be occurring on a number of levels within cultural groups and cannot be as simply understood as the gazelle-predator example, nor as the Cisco case study implies.

Additionally, whilst developments within signalling theory are allowing for signals with multiple features, signalling models do not exhibit the same latitude when it comes to multiple signallers. Predominantly, signalling models are based upon “one-to-one or transaction-specific communication” which requires that models be simplified to a single dyad in which one signaller and one receiver communicate one signal.⁵⁹² Such simplifications cannot accommodate the multi-level signaller dilemma that Māori *tā moko* presents.

⁵⁹⁰ King, *Moko*, 63.

⁵⁹¹ Graham, *Maori Moko*, 3.

⁵⁹² Brian L. Connelly et al., Signaling Theory: A Review and Assessment,” *Journal of Management* 37 (2011): 44.

Although Cisco desires the communicative model to involve a single signaller, it is not that simple. In fact, the case study of moko indicates that the limited nature of the signaller/signal relationship is an artificial construct delineated from within costly signalling theory. There are numerous signallers involved in tā moko with different signals attached to each. Furthermore, innumerable interpretations of the signaller/signal relationship and meaning therein exist. Perhaps the language of semiotics, once again, describes it best: “the signifying channel is deconstructed, and instead of a channel there is a flood: every signifier may also be signified, and every signified is itself the signifier of yet another signified.”⁵⁹³ To honour tā moko, requires that we begin to embrace the reflexivity promulgated by the narrative assemblage by deconstructing these artificial boundaries which actually inhibit our ability to understand an emic practice in its symmetrical and reflexive form and by constructing new models that better accommodate multiple signallers.

Who is the Receiver?

A similar lack of clarity emerges when we examine the receiver within cultural examples. Again, Cisco presents this relationship as relatively straightforward: receivers of the moko signal are allies or enemies. Cisco claims she is referring to pre-contact Māori society, and discussions of pre-contact social structure, her focus on the chiselled technique, and the perceived relationship between moko and social status confirm this. Though we cannot say much about pre-contact Māori society, Cisco’s conclusion that the receivers of moko would either be allies or enemies, even when divorced from a context of warfare, is acceptable. Other groups did not dwell in Aotearoa in pre-contact times, so signal receivers would either be in-group or out-group Māori. Incorporating other human groups, based upon the evidence we have today, would be, to return

⁵⁹³ George Aichele, “Poststructural Criticism,” in *Searching for Meaning: An Introduction to Interpreting the New Testament*, ed. Paula Gooder (Louisville, KY: Westminster John Knox Press, 2009), 98.

to Eco, blatantly unacceptable. However, the clarity of this distinction disappears when we shift to examining moko in a colonial context, which is also the period from which much of our knowledge of moko is derived and which (somewhat) overlaps with the time period Cisco identifies as pertaining to traditional moko.

What happens to a signal when a group unfamiliar with local customs begins to inhabit the same areas? This is precisely the question we are faced with when exploring moko. For argument's sake, let's agree with Cisco that in a pre-contact Māori setting moko was a costly signal that broadcast wealth, status, and overall physical health. When selecting a mate or ally or sizing-up an opponent, this information is critical and made available through moko. In this scenario, the receiver, whether friend or foe is able to receive moko as a signal and make an informed decision about whether to cooperate, mate, fight, etc. A problematic assumption when applying costly signalling theory to culture is that we assume that all receivers are privy to the same information. However, we know that all receivers could not access the same information in a pre-contact setting, particularly since the sources discussed above seem to indicate that tohunga-tā-moko had access to more of the informational content moko possesses than lay people or even mau moko. This problem is compounded with colonisation.

Throughout the colonising process, mau moko are still signalling, but who is the recipient of that signal and what are they receiving? Although Māori still had in-group and out-group dynamics, Pākehā were present who did not have the cultural framework to interpret moko as a signal in the same way. They would not be able to utilise moko as a heuristic to assess one's willingness to cooperate or viability as a mate. However, this does not mean that they were not signal receivers; in fact, the early literature chronicles visceral reactions to moko.

White likened moko to disfigurement.⁵⁹⁴ Nicholas “hoped that this barbarous practise will be abolished in time amongst the New Zealanders; and that the missionaries will exert all the influence they are possessed of to dissuade them from it.”⁵⁹⁵ Where the literature indicates that moko served as an aesthetic signal or one of wealth or even self-identity, simultaneously, it confirms that for many Pākehā the signal was one of intimidation and fear. Clearly Pākehā were receiving a signal, but because they did not have a shared cultural framework to interpret the signal, the message they received was drastically different from what Māori received. There simply is no consistency in the information that could be retrieved from the signal moko broadcast. That moko broadcast some information is not in question, what that information was is unclear and depends upon the group in question. Thus, the signal becomes part of a signalling network through which receivers interpret meaning.⁵⁹⁶ Whilst multicomponent and multimodal signalling may address multiple signal components, they still cannot overcome the tumultuous signalling and receiving environment that is presented when tā moko meets colonising influences, making the delineation of signaller and receiver an inordinately complex, if not impossible, task.

There is an additional layer to this signaller/receiver dilemma unique to the Māori case which increases the complexity a model would need to possess to accurately identify signallers and receivers within the tā moko system. Within Māori culture time is cyclical, creating a holistic view of the universe characterised by continuity with ancestors, history, and the future.⁵⁹⁷ Andrea Morrison supports this position, stating that “whakapapa also means that a person’s

⁵⁹⁴ John White quoted in Del Mar, *Among the Maoris*, 21.

⁵⁹⁵ Nicholas, *Voyage*, 361.

⁵⁹⁶ Aichele, “Poststructural Criticism,” 97.

⁵⁹⁷ Mason Durie, “A Maori Perspective of Health,” *Social Science and Medicine* 20, no. 5 (1985): 483.

ancestors populate space through historical time and present time.”⁵⁹⁸ Deceased ancestors are referred to in the present tense and are credited with transmitting knowledge and ways of being to those who are living.⁵⁹⁹ Thus, it stands that within Māori culture, since ancestors are still present, they can still signal and receive and must be considered as viable signallers and receivers within a Māori context.

Additionally, the Māori ontological context allows us to raise questions about the origination of signals in an unprecedented way. The enquiry into the origination of signals is an interesting question that has not been pursued within signalling or costly signalling literature and deserves further investigation. Whilst consensus maintains that signals exist and evolved for a particular reason, their initial origination within evolutionary explanations is murky. Why did the first gazelle begin to stott? Why did moko develop in the first place? Though costly signalling claims to account for why a particular trait or behaviour developed, often this is conflated with how the said behaviour or trait functions. For example, the gazelle stotts to signal to predators not to waste their energy chasing after them, since it can afford to expend excess energy on the signal itself. This is the function of the gazelle stotting but also the reason why it stotts.

Such confusion, however, is not present within Māori explanations of tā moko. Clear reasons exist for why tā moko developed, as illustrated by the narrative of Mataora presented in Chapter Two. The reason for the origination of tā moko, at least in part, is the same as its perpetuation: tā moko reinforces Māori ontology by affirming identity and belonging. This leads us to one final issue that emerges from Cisco’s argument of moko as a costly signal which is

⁵⁹⁸ Andrea Morrison, “Space for Maori in Tertiary Institutions: Exploring Two Sites at the University of Auckland,” M.A. Thesis, University of Auckland, 1999, 46.

⁵⁹⁹ Pihama et al., “*Kaupapa Maori and Maori Education*,” 24-5.

better posed as a question. What do we gain by considering moko independently from the narratives that accompany its practice within Māori culture?

Moko and Māori Narrative

Proponents of evolutionary explanations are likely to tout the scientifically-based selective mechanisms their theoretical positions identify which they maintain are missing from cultural explanations. Indeed, Cisco concludes her argument convinced that she has extended the literature on moko and has provided an explanation for the development of its practice that was previously absent. However, after looking at Māori narratives, I am left unconvinced that costly signalling theory, in the form presented by the Cisco case study, has the capacity to augment Māori explanations of moko.

When surveying the narrative of Mataora, it becomes apparent that though Cisco mentions oral narrative once, in passing, she does not grasp its explanatory power. Costly signalling theory is concerned with what information signals convey, how that information is conveyed, and how it affects a receiver's behaviour. Questions about the informational content moko possesses and the meaning of the practice within Māori culture invariably lead to the narrative of Mataora, which, aside from archaeological evidence, is the earliest source on moko. As the earliest source, one expects this narrative to illuminate features of the content and meaning of moko that can be used to analyse its pre-contact role within early Māori society.

Recall from Chapter Two that the narrative of Mataora accounts for the human origins of tā moko, but it also highlights the learning of tikanga Māori which supports the argument that selective mechanisms for cultural practice are already outlined within Māori sources. Linkages between moko, sociality, and identity, as well as connections to whakapapa prove to be of particular importance, since ultimately these elements frame the mythological discourse within

pre-contact Māori society which shaped tā moko. Furthermore, Mataora perpetuates a tradition of tā moko by bringing the practice to the human world which draws attention to a unique mechanism within Māori narrative whereby change facilitates continuity.

This interface between continuity and change begs the question as to whether aetiologies require tension, since it is through conflict that solutions are generated. Tensions require that humans intimately interact with information from and about the past through both preserved material items and experiences. This interaction and selection process enables humans to restructure and guide the way such interactions are made relevant and manifest in the present, a process by which human groups develop solutions that influence culture and cultural identity.

In the next few paragraphs, I intentionally employ the language of natural selection and costly signalling theory to impress that these same mechanisms are present within the narrative of Mataora. Mataora was a young warrior, without moko, who was in love with Niwareka, a tūrehu (supernatural being). Niwareka's initial commitment to Mataora was unaffected by his lack of moko. Niwareka is a high quality mate, as she has status, based upon her father Uetonga's position as a rangatira which signals wealth and status. Indeed, more resources equal higher reproductive fitness. Seemingly as a result of jealousy, which, perhaps, was due to Niwareka being sexually selected for and courted by other males because of her high status, Mataora beats Niwareka. Mataora's decision to attack Niwareka is a behavioural cue that goes against tikanga Māori. Niwareka flees to the safety of Rarohenga where beating is not common practice, because they follow the way of tikanga. This action indicates that tikanga Māori is culturally selected for since Niwareka returns to a place where potential mates uphold this tradition. Niwareka's decision to leave Mataora is influenced by his lack of knowledge of

tikanga which illustrates that this is a primary signal for Māori when it comes to influencing mate selection.

Mataora decides he wants Niwareka back, so he puts on a temporary moko to try to cheat the signal of a commitment to the way of tikanga Māori in order to win back his mate.

Inhabitants of Rarohenga had already selected for permanent, chiselled moko, opting against more impermanent designs. Thus, when entering Rarohenga, with a smeared, temporary moko, Mataora signalled to the inhabitants that he did not belong. His imitation moko was not an honest signal. Mataora's moko was easily faked; he simply painted it on. Thus, there were no costs involved, such as the pain inhabitants of Rarohenga would have endured during the chiselled application. Neither was Mataora's temporary moko correlated to the traits bound to tikanga Māori and mātauranga Māori which tā moko in Rarohenga expressed.

Upon entering Rarohenga, Mataora's temporary moko is smudged, its impermanence indicating his lack of commitment to tikanga Māori. He is punished with taunts and laughter for this transgression. The lack of acceptance Mataora is greeted with clearly demonstrates that Mataora's attempt to fake the moko signal was unsuccessful. His contrition, willingness to stay in Rarohenga to learn tikanga Māori, and acquisition of a real moko demonstrate Mataora's true commitment to the group and that he is willing to pass down the art of tā moko to future generations and offspring, thus solidifying the way of tikanga. It is of note that within the narrative Uetonga does not just moko Mataora and send him on his way. Mataora must prove to Uetonga, Niwareka, and all of the inhabitants of Rarohenga that he is providing an honest signal of commitment to change and willingness to cooperate with what was expected of him according to the path of tikanga Māori.

The Mataora narrative is quite clear in emphasising what is selected for in Māori culture—behaviour that aligns with tikanga Māori and mātauranga Māori. Tikanga Māori is a code of proper conduct which accompanies Māori. Yet, it is flexible and adaptable to new situations, keeping Māori safe by providing a distinctively Māori solution regardless of the situation.⁶⁰⁰ Not following tikanga Māori leaves the group at risk by opening the group up to the repercussions caused by breeches of tapu.

Mataora did not uphold tikanga Māori when he beat Niwareka. This was the first indication that he did not cooperate with the rest of the group in Rarohenga. Mataora's lack of solidarity is further confirmed by his attempt to deceive residents of Rarohenga with a painted moko. It is only once Mataora engages in the costly behaviours of dedicating a year of his life to adopting the ways of tikanga Māori and acquiring chiselled moko that he is able to assume an identity which binds him to the rest of the inhabitants of Rarohenga and indicates a commitment to group solidarity.

This section presents a clearer alternative to discuss moko as a costly signal than was available in the Cisco case study. Whilst the case study did show that commitment to the group was selected for, as was bravery, wealth, etc., Cisco was not nearly as conclusive about these conclusions as adhering to the structure of the Mataora narrative allows us to be and did not address the profound influence of tikanga Māori. Additionally, my deconstruction of Cisco's argument revealed considerable problems and misunderstandings in her research that were so significant as to invalidate the claim of moko as a costly signal. Yet, the Mataora narrative provides robust evidence in support of that claim. Ultimately, the narrative of Mataora makes a

⁶⁰⁰ Mead, *Tikanga Maori*, 323, 336.

more compelling case for tā moko as a costly signal than does the Cisco case study which further highlights the need to consider Māori narratives when investigating anything Māori.

Conclusion

The Cisco case study illuminates a number of key concerns when attempting to analyse an indigenous cultural practice with a scientific lens. Cisco's dependence upon questionable sources from the 19th and 20th centuries, her overt dependence on Simmons to substantiate her claims, as well as her tendency to avoid critical engagement with the sources upon which she relies, damages her argument about moko as a costly signal. The very elements of Māori culture the hypotheses of the case study are based upon were shown either not to exist, or to have been skewed in their presentation. Moreover, the lack of engagement with tikanga Māori resulted in the misuse of tapu, mana, and whakapapa. I have also utilised the Cisco case study to illuminate how definitional delimitations can diminish the impact of an argument when not sufficiently considered. In this case, the connection Cisco tries to establish between moko and tradition, which would otherwise present a new perspective within costly signalling theory, was undermined by the decision to delimit the tradition of moko to only chiselled moko. Cisco's reliance on Māori warfare has also been overturned, because it is a view founded upon the mythologisation of violence so prevalent in 19th and 20th century studies on indigenous groups. This, combined with Cisco's presentation of Māori social structure and the relationship of moko to rank/status, underscores the pitfalls of superficial and decontextualised research. Thus, Cisco's argument for moko as a costly signal and, specifically, her warfare hypothesis, as it is, simply cannot stand.

Although it becomes evident through my analysis of the case study that the argument Cisco attempts to make for moko as a costly signal and, specifically, her warfare hypothesis

cannot stand in their current form, I do not think that evolutionary explanations are fruitless (and it is not my intention to paint them as such). What I do believe is that the case study reveals some fundamental issues, particularly relating to politico-ethical sensitivities, which can easily occur when evolutionary explanations are employed as explanations for culture practice and, specifically, indigenous cultural practice. Frequently, Cisco's argument cannot even be critiqued, because the information underlying it is so inaccurate. Moreover, she does not acknowledge controversies within the sources. Whilst I do not seek to claim that this is always the case within research, too often researchers engage in superficial case studies, taking sources at face value, when, in fact, there is a rich literature steeped in controversy and debate over the very sources they accept as truth. Indeed, the Cisco case study illustrates how a coherent argument for moko as a costly signal can be presented; yet, when recontextualised in light of tikanga Māori, a false, endemic view of Māori warfare, controversies over pre-contact social structure, and neglect of the explanatory power of Māori narratives, the same argument falters.

Evolutionary explanation is often presented as though it can provide some insight into a group that the group itself does not have. However, the Cisco case study demonstrates what happens when a study lacks reflexivity, leaving me unconvinced of the ability of costly signalling theory to enhance Māori understandings of their own practices. Significantly, the Cisco case study highlights the dangers posed when a researcher stands outside of the group itself and applies a costly signalling framework onto indigenous practices without grasping the internal selection mechanisms and influences that shape them. Indigenous groups often have their own accounts of selective processes which may employ different language than that of evolutionary explanations but are no less powerful. My analysis of Cisco's work also reveals the need for narrative assemblage. Throughout the case study, Cisco neglected to utilise tā moko

narratives, including her own, to reflect on her position within the narrative confluence and the ways in which her interpretation of tā moko might affect wider understandings of the practice. It seems a more fruitful approach would be to construct evolutionary models that take into account emic perspectives of cultural practices, since without an emic understanding of a practice, researchers struggle to make round pegs fit square holes. Afterall, what is the benefit of an elucidation of cultural practice that has no relevance to the group whose practice it is supposed to explain and which provides no reflexive narrative assemblage? Indeed, this question suggests that there is room for evolutionary explanations of cultural practice to evolve.

In the next chapter, I explore one potential avenue for the evolution of evolutionary explanations of culture. I present my own alternative explanation to, and modification of, costly signalling theory, namely what I have called transmissive assemblage, which incorporates actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori. Each of these approaches delivers a unique lens which, when put together, results in a symmetrical and reflexive understanding of tā moko which promotes heteroglossia. By stressing the need to examine associations over agents, I demonstrate how many of the same components revealed within the paradigm of costly signalling theory can be utilised within this more symmetrical framework to foster greater explanatory vigour for evolutionary explanations of culture.

Chapter Four: Toward a New Model: Transmissive Assemblage

Introduction

Following the presentation and critique of the Cisco case study in Chapter Three, we find ourselves in a situation where the proposed analytical method seems to provide a compelling explanation for a cultural practice. However, as the analysis within the previous chapter revealed, this exegetical utility of costly signalling theory is limited and, in some ways, completely diminished by the choices made within the case study about which information to include, by the agents permitted to have a voice in the application of costly signalling theory to tā moko, and by the linearity of costly signalling theory itself. Cisco's lack of reflexivity about her own role in the presentation of moko as a costly signal also draws attention to the mirages formed by asymmetrical analyses.

Utilising a transdisciplinary and transperspectival methodology, this chapter aims to develop a more integrative and symmetrical approach to tā moko, intended to show how evolutionary explanations of culture can, themselves, further evolve. The chapter commences by revisiting some of the shortcomings of costly signalling theory revealed in Chapter Three, by way of an analysis and discussion of the findings, and through further evaluation of the challenges and politico-ethical considerations posed when explanations shaped by Western science are applied to culture and cultural practices. Questions and further suggestions about the explanatory value of the term *culture* are also outlined.

This brief review is followed by an exploration of the benefits generated through the integration of actor-network theory, indigenous ontological perspectivism, Kaupapa Māori, and

costly signalling theory. Throughout the assessment of actor-network theory, specific attention is paid to the effect of actor-network theory on selective processes and the features it possesses which afford it greater utility in adapting to new inputs, like colonisation. The discussion of indigenous ontological perspectivism further shifts our lens by introducing multi-naturalist ontologies which challenge the anthropocentricity of Western scientific models. Indigenous ontological perspectivism proves unique in its ability to highlight the non-human aspects of costly signalling theory by transcending the dichotomisation between human and other so prevalent in Western explanations of culture. Significantly, indigenous ontological perspectivism creates space for the exchange of perspectives through the exploration of social relationality, which extends beyond the human realm. Discussions of indigenous ontological perspectivism are followed by an enquiry into Kaupapa Māori, which introduces specifically Māori tools useful to further decolonise costly signalling theory's treatment of tā moko. These mechanisms are also shown to generate greater symmetry in the application of evolutionary explanations of culture to indigenous cultural practice by cultivating the indigenous platform within a context of heteroglossia. Indeed, as I have argued in this thesis, the introduction of these more reflexive and symmetrical lenses framed by narrative assemblage suggests the need for an evolution within evolutionary explanation of culture.

A significant part of this evolution requires greater reflexivity through decolonisation. Integrating actor-network theory, indigenous ontological perspectivism, Kaupapa Māori, and costly signalling theory in this chapter I present an updated model, called *transmissive assemblage*, which serves as an example of an evolved explanation of tā moko. This model incorporates elements of each approach to shift our focus away from an agentic preoccupation, toward an emphasis on the dynamics that form and demarcate the networks through which agents

are distributed. The chapter concludes with visual representations of the innerworkings of transmissive assemblage, intended to further clarify its explanatory utility. Understanding the dynamic interplay of the associations between agents allows us to more effectively mediate the social relationships that emerge in historical contexts and reconceptualise the effect of those relationships on the evolution of groups and their practices in a more balanced way.

Additionally, as researchers, an awareness of these dynamics, particularly when contextualised by and situated within narrative assemblage, encourages us to rethink our own position in the formation and renegotiation of social networks.

Review

Chapter Three drew attention to the lack of openness within costly signalling theory, regarding who or what can act. Agents within a given situation are not allowed to assert their own agency or contribute to discussions about society and the variables therein, notwithstanding that it is they, themselves, and their social contexts and practices being evaluated.⁶⁰¹ The issues illuminated in Chapter Three through the Cisco case study, regarding costly signalling theory's inability to accommodate heteroglossia were further illuminated in the contrast between Māori understandings of tā moko and the non-reflexive interpretation of it which proved problematic throughout the Cisco case study. However, the tensions that arise between emic and etic views of cultural practice are commonplace when applying Western scientific criteria to non-Western culture.

For some scientists, once cultural variants have been analysed, they either fit the proposed criteria or they do not. The researcher stands aside, assuming little to no responsibility for the outcome, since the data speaks for itself; all the while, readily assuming credit for

⁶⁰¹ Callon, "Some Elements," 1.

discovering some innovative way to better describe a longstanding cultural practice or group behaviour, often in relation to individual cognition. Scientific researchers, it seems, claim to be more “objective,” than those from the humanities and social sciences because the scientific method prohibits researchers from “selecting, shaping, and distorting information.”⁶⁰²

The claim of objectivity implies that the data speaks for itself without the intervention of the scientist. Yet, what the investigation into the Cisco case study revealed is that the data is not speaking for itself. Rather, it is the analyst who establishes criteria (norms) into which data must fit in order for a model or theory to have explanatory efficacy. However, as Michel Callon asserts, society or culture often runs amok, undermining the very norms that were developed to explain culture. To this Marc Bloch adds that, “human actions are essentially very delicate phenomena, many aspects of which elude scientific measurement.”⁶⁰³

To mitigate this tendency toward chaos, scholars who champion scientific explanations of culture tend toward censorship of who and what can have a voice, such as we saw with Cisco’s strict development of an ally and enemy hypothesis based upon mau moko as sole signallers.⁶⁰⁴ However, reducing culture and its variants into a symbolic set that is able to exist on the periphery of language proves undesirable to those who accuse neo-Darwinian scholars of reductionism and of offering up a “skewed view of culture as a disembodied phenomenon.”⁶⁰⁵ Accordingly, scientific explanation of culture is sometimes portrayed as a method of analysis that devalues culture, because, in the process of isolating certain variants, it equalises or standardises them, causing them to appear to be homogenous.

⁶⁰² Eric Hobsbawm, *On History* (London: Weidenfeld and Nicolson, 1997), 186.

⁶⁰³ Marc Bloch, *The Historian’s Craft* (Manchester, U.K.: Manchester University Press, 1992), 22.

⁶⁰⁴ Callon, “Some Elements,” 2.

⁶⁰⁵ Bloch, *Historian’s Craft*, 134; Olivier P. Gosselain, “Mother Bella Was Not a Bella: Inherited and Transformed Traditions in Southwest Niger,” in *Cultural Transmission and Material Culture: Breaking down Barriers*, eds. Miriam T. Stark, Brenda J. Bowser, and Lee Horne (Tucson, AZ: University of Arizona Press, 2008), 174.

Though the term *culture* is widely deployed, it is regarded by many as an “essentially contested concept.”⁶⁰⁶ As W.B. Gallie points out, when we analyse the employment and argumentation surrounding specific terminology, like culture, it becomes apparent that there is no standard, definable usage.⁶⁰⁷ Indeed, as was revealed in previous discussions, scholars who propose evolutionary explanations are hugely divided in their definitions of and approaches to culture. Some see culture as comprised mainly of information retained within the human brain, which is then transmitted from person to person via selective, social learning processes.⁶⁰⁸ Others see the meme, which is subject to the processes of selection and replication and serves as the driver of culture, as the cultural equivalent to the gene.⁶⁰⁹ Still others argue for culture as a bundle of representations, including “contagious ideas” and human “productions,” which facilitate the spread of these ideas within the “shared environment of a human group.”⁶¹⁰ When not in opposition regarding approach, critiques are largely relegated to issues regarding features of the theories themselves, as opposed to how they are applied to cultural practice and the politico-ethical that arise from such application.⁶¹¹ Although such critiques are necessary and beneficial to the expansion of explanatory power and continual evolution of evolutionary explanations, theorists frequently take for granted that their model has universal applicability generated from the singular perspectival lens science provides. In other words, a multiplicity of scientific lenses is confused for heteroglossia.

⁶⁰⁶ W.B. Gallie, “Essentially Contested Concepts,” *Proceedings of the Aristotelian Society, New Series* 56 (1955-1956): 167-98.

⁶⁰⁷ *Ibid.*, 168.

⁶⁰⁸ Richerson and Boyd, *Not by Genes*, 59.

⁶⁰⁹ Dawkins, *Selfish Gene*, 2, 192; Bull, Holland, and Blackmore, “Meme-Genes Coevolution,” 2.

⁶¹⁰ Dan Sperber, *Explaining Culture: A Naturalistic Approach* (Oxford: Blackwell Publishers Limited, 1996), 1.

⁶¹¹ Jeffrey P. Schloss and Michael J. Murray, “Evolutionary Accounts of Belief in Supernatural Punishment: A Critical Review,” *Religion, Brain and Behavior* 1, no. 1 (2011): 46-99; Joseph Bulbulia and Richard Sosis, “Signalling Theory and the Evolution of Religious Cooperation,” *Religion* 41, no. 3 (2011): 363-88.

Unquestionably, the advancement of evolutionary explanations of culture within the social sciences and humanities is hugely debateable, as is the concept of culture or “the social” as scholars who employ actor-network theory prefer.⁶¹² Is culture or the social the result of cognitive structures which direct the behaviour of group and individuals, or is it an emergent phenomenon external to individuals and groups unable to be predicted by underlying cognitive structures? Is culture the “highest form of human evolution,” as Becker suggested in 1971?⁶¹³ Is it as Matthew Arnold suggested in 1869:

a pursuit of our total perfection by means of getting to know, on all the matters which most concern us, the best which has been thought and said in the world, and, through this knowledge, turning a stream of fresh and free thought upon our stock notions and habits, which we now follow staunchly but mechanically, vainly imagining that there is a virtue in following them staunchly which makes up for the mischief of following them mechanically.⁶¹⁴

Is culture what Tylor described in 1871 as a “complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society?”⁶¹⁵ Can culture be understood systematically; is there any underlying pattern or structure? Does culture even exist? Is culture a necessary condition for the development of human society?⁶¹⁶ Once it is realised that culture is no more apparent or certain than nature, all explanations of culture find themselves on shaky ground, including costly signalling theory.⁶¹⁷

⁶¹² Geertz, *Interpretation of Culture*, 89; Latour, *Reassembling*, 1.

⁶¹³ Ernest Becker, *The Birth and Death of Meaning: An Interdisciplinary Perspective on the Problem of Man*, 2nd ed. (New York: Free Press, 1971); Michael Salzman, “The Dynamics of Cultural Trauma: Implications for the Pacific Nations,” in *Social Change and Psychosocial Adaptation in the Pacific Islands*, eds. Anthony J. Marsella, Ayda Aukahi, and Bruce Grant (New York: Springer, 2005), 29.

⁶¹⁴ Matthew Arnold, *Culture and Anarchy: An Essay in Political and Social Criticism* (Oxford: Project Gutenberg, 1869), vii.

⁶¹⁵ Tylor, *Primitive Culture*, 1.

⁶¹⁶ Lumsden and Wilson, *Genes, Mind, and Culture*, 331.

⁶¹⁷ *Ibid.*

At its core, costly signalling theory has a number of benefits. It allows us to isolate interactions and provides an innovative way to think about cultural practices. However, we are left in a lurch by costly signalling's commitment to the signaller and receiver, who are represented as repetitive, static entities locked in an unchanging world. As with any theory, there is also a need for costly signalling to have greater reflexivity regarding its own limitations when applied to cultural practice and to facilitate perspectival augmentation.

Actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori specifically provide us with an opportunity to address these concerns by giving us tools to study Māori tā moko with respect to the tumultuous nature of the dynamic historical contexts in which it was developed and perpetuated. These theories, particularly in conjunction, have the capacity to evolve evolutionary explanation precisely because they are based upon associations between agents that comprise social dynamics. Where actor-network theory endows us with the explanatory mechanisms to transcend agency in order to track phenomena between agents which facilitates transtemporal analysis, indigenous ontological perspectivism supplements actor-network theory by providing specific multi-naturalist ontologies which deliver effective language and imagery to describe interactions between humans and other animate and inanimate subjects without deferring to an agent-focused or anthropocentric rhetoric. This ability affords a unique opportunity to expand our understanding of the world through the facilitation of heteroglossia expressed through an anthropomorphic lens.

Kaupapa Māori, as employed within this study, further buttresses these lenses. Once associations are traced and heteroglossia emerges, Kaupapa Māori affords us the opportunity to highlight Māori perspectives, the significance of which was highlighted throughout the Cisco case study. The emergence of Māori voices is a necessary step in the effort to promote the

decolonisation of evolutionary explanations of culture. Although it is the aim of decolonisation to provide symmetrical models which allow all voices to be heard, those who have been silenced especially deserve the opportunity to speak and be heard. Thus, to achieve full decolonisation in the context of evolutionary explanations of culture, in part, requires that indigenous peoples, whose voices have been suppressed but whose practices have been exploited, be supported in creating an effective and familiar platform to articulate emic views of their own practices which affirm their holistic realities. Kaupapa Māori supplies an opportunity for Māori perspectives of tā moko to emerge within the transmissive assemblage model.

Prior to delving into the transmissive assemblage model, it is necessary to further flesh out actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori, particularly in the context of costly signalling theory and what the examination of the Cisco case study revealed regarding the advancement of costly signalling theory as an explanation of tā moko. I first address actor-network theory, prior to delving into indigenous ontological perspectivism and Kaupapa Māori. The introduction of the transmissive assemblage model, which I have developed through this research, trails these discussions.

Actor-Network Theory

Recall from the Introduction that my usage of actor-network theory, indigenous ontological perspectivism, and Kaupapa Māori is one of concentricity. Within the context of this study, actor-network theory serves as an overarching framework into which indigenous ontological perspectivism and Kaupapa Māori are situated. As a relational approach, actor-network theory establishes an effectual relational framework, constructed upon the attribution, distribution, circulation, and transformation of associations between entities, which allows for the formation

of a symmetrical network founded upon process. Specifically, actor-network theory provides a means to transcend limitations illuminated by my analysis of the Cisco case study.

Costly signalling theory focuses on process, in the form of a transmitted signal. Yet, costly signalling does not have the internal mechanisms to expound upon these processes by extending beyond signaller/receiver dynamic. A signaller signals and a receiver receives. Paradoxically, when costly signalling is implemented to account for the contents of a signal (i.e. information about wealth, health, fecundity, etc.) it struggles to accommodate integral processes that would allow groups and their practices to be better understood. For instance, the warfare hypothesis Cisco develops for moko causes her to ignore other processes related to war, such as the whakatū waewae or the recitation of karakia. Simultaneously, aside from questionable treatments of pre-contact Māori marriage practices and social stratification, she completely ignores processes that influence tā moko outside of the context of war. Cisco's undermining of the processes feeding into tā moko is also reflected by her consistent choice to refer to moko as moko, rather than tā moko, which inherently pays respect to its integrative, dynamic, and collective nature. Furthermore, it highlights the agentic facets of moko and presents them as superior to its interactive form, encapsulated by its conceptualisation as praxis, rather than solely as object.

Part of costly signalling theory's struggle revolves around its reliance on agents. As the analysis of the Cisco case study reveals, the construction of agency in the form of signaller and receiver automatically restricts what processes can be included in discussions of costly signalling. Not only are limitations placed upon what is signalled and how it is signalled, but it inhibits who can signal and who can receive. Yet, as we discovered in Chapter Three and, as discussions of indigenous ontological perspectivism and Kaupapa Māori illustrate, holistic

realities are not framed by such dichotomies. Thus, for a model to acknowledge and integrate holistic realities, it cannot be inhibited by agentic limitations in the way that costly signalling theory is.

Whether the agent in question is an individual, group, “amorphous,” “zoomorphous,” material, or any other configuration, “the same semiotic price” is paid; meaning, the “*work* of attributing, imputing, distributing action, competences, performances and relations” remain constant, though the means and outcomes differ.⁶¹⁸ Doniger draws a similar conclusion from myth which she recognises is not simply a transmissive mode but an object “to be known,” one that describes, mediates, and alters the experience of anyone who comes in contact with it.⁶¹⁹ Myth has the capacity to transform the head and heart, opening universal, interpretive pathways that transcend agents and culture.⁶²⁰ Vestiges of this position also resonate throughout Ricoeur’s work, as he consistently reminds us of the intimate relationship between myth and ritual, where myth narrates and ritual performs.⁶²¹ Indeed, though myths themselves differ around the world, consistently “the function of the myth is to fix the paradigms of the ritual that sacralize action.”⁶²²

Yet, limitations placed on agents are not quarantined to the material academics engage with; rather, scholars, themselves, are also subject to the restrictions of agency, which leads us the second component of actor-network theory: “the distribution of properties among these entities” and the “connections between them.”⁶²³ Doniger is fully aware of the effects of agency upon mythologists, admitting that through engaging in processes like narrative assemblage “we

⁶¹⁸ Latour, *Reassembling*, 11; Latour, “On Actor-network,” 374.

⁶¹⁹ Doniger, *Other Peoples’ Myths*, 1.

⁶²⁰ *Ibid.*, 16.

⁶²¹ Ricoeur, *Figuring the Sacred*, 53.

⁶²² *Ibid.*, 51.

⁶²³ Latour, “On Actor-network,” 373.

also learn things about ourselves by studying these stories. For as we progress, we may find that we are among the others in other peoples' myths."⁶²⁴

As discussed in Chapter One, instead of construing the role of the social and scholars who study the social as one of ordering, Latour calls for the reassemblage of the social via "tracing associations," which endows social informants (agents) with the ability to develop their own social realities.⁶²⁵ Here, by stressing the need for social reassemblage, Latour develops the narrative assemblage and affirms what Said seems to have been intimating when discussing "affiliation," which Latour defines as "that implicit network of peculiarly cultural associations between forms, statements, and other aesthetic elaborations on the one hand and, on the other, institutions, agencies, classes, and amorphous social forces."⁶²⁶ A focus on process with regard to cultural practice, removes us from an agent-centric perspective toward determining what has led us to our current state.⁶²⁷

Though Geertz finds a benefit in the culture concept absent from Latour's analysis, he derives a similar conclusion. Geertz maintains that "culture is an ensemble of texts," which are "themselves ensembles," he cautions that "behavior must be attended to, and with some exactness, because it is through the flow of behavior—or, more precisely, social action—that cultural forms find articulation."⁶²⁸ Despite the recurrent recognition that process, in the form of social practice and the linkages therein, is essential to unlocking the dynamics of the social, as Bourdieu laments, there are very few mechanisms currently in circulation that allow such fluidity

⁶²⁴ Doniger, *Other Peoples' Myths*, 2.

⁶²⁵ Latour, *Reassembling*, 50

⁶²⁶ Edward W. Said, *The World, the Text, and the Critic* (Cambridge, MA: Harvard University Press, 1983), 174.

⁶²⁷ Latour, "Recalling ANT," 17.

⁶²⁸ Geertz, *Interpretation of Cultures*, 452, 17.

which breaks with “the substantialist mode of thought” that tends to “foreground the individual, or the visible interactions between individuals.”⁶²⁹ However, Latour provides fluid mechanisms.

By “tracing associations,” agents are no longer imprisoned by what they do. Instead, by honing in on the impetus behind agents’ actions, they can be recognised in terms of their fluidity.⁶³⁰ Thus, we return, once again, to the third and fourth components of actor-network theory: the circulation generated by the attribution of characteristics, property distribution and the linkages established between them; and the transformation of the entities associated to these circulating attributions, distributions, and connections, as well as the means through which they are transmitted.⁶³¹

The fluidity generated through a framework which focuses on circulation and distribution has further reaches into the inherent dynamicity of the human condition, specifically by highlighting transformation. Chambers builds upon the pervasive effect of the dynamic contexts that shape us, pointing out that: “Our sense of being, of identity and language, is experienced and extrapolated from movement: the ‘I’ does not pre-exist this movement and then go out into the world, the ‘I’ is constantly being formed and reformed in such movement in the world.”⁶³² Simultaneously, actor-network theory provides a new, more symmetrical lens that can benefit current conceptions of costly signalling.

One of costly signalling theory’s strengths is its attempt to focus on single, small acts between a signaller and receiver (transaction-specific communication).⁶³³ However, as was demonstrated in Chapter Three, in the context of a practice like *tā moko*, the theory begins to

⁶²⁹ Pierre Bourdieu, *The Field of Cultural Production* (New York: Columbia University Press, 1993), 29.

⁶³⁰ Latour, “On Actor-network,” 374.

⁶³¹ Latour, “Recalling ANT,” 18; Latour, “On Actor-network,” 373.

⁶³² Iain Chambers, *Migrancy, Culture, Identity* (London: Routledge, 1994), 24.

⁶³³ Connelly et al., “Signaling Theory,” 44.

lose momentum when these small acts are then reincorporated back into the collective as an explanation of cultural practice. Actor-network theory approaches cultural practice in the reverse, instead amassing “minute elementary acts to explain the whole.”⁶³⁴ Through this process of reverse-engineering culture, actor-network theory has the tools to adapt to the intricate dynamics of a cultural practice like tā moko, which as the Cisco case study showed, possesses greater complexity than linear applications of costly signalling theory could accommodate. As Latour candidly observes of the Western tendency to interpret data through cause and effect relationships, “as soon as things accelerate, innovations proliferate, and entities are multiplied, one then has an absolutist framework generating data that becomes hopelessly messed up.”⁶³⁵ Latour’s observation sums up what the Cisco case study revealed all too well. Indeed, as soon as tikanga Māori, innovations upon tā moko, and colonisation were included in the data, all of which affected signaller/receiver dynamics, the accuracy of Cisco’s claims diminished, as did the clarity of the agency which underpinned her argument.

In addition to the four main components of actor-network theory mentioned above, recall that also undergirding it are a number of uncertainties, though in the natural sciences these are more often taken for granted as unquestionably certain. These same five uncertainties appear as certainties within Cisco’s research. First, is the “nature of groups.” Groups and/or agents within groups can be identified in any number of “contradictory ways.” Moreover, agent is an ambiguous term which leaves us unclear as to specifically who or what is acting.⁶³⁶

The number of entities concurrently “at work in any given individual” remains a mystery. Conversely, no one knows how much individuality there can be in a “cloud of statistical data

⁶³⁴ Latour, *Reassembling*, 50.

⁶³⁵ *Ibid.*, 51.

⁶³⁶ *Ibid.*, 46.

points.”⁶³⁷ Second, is “the nature of actions,” wherein inevitably “a great variety of agents seem to barge in and displace the original goals.” Latour’s third uncertainty, “the nature of objects,” reveals that any number of agents can and do participate in any given interaction. A fourth uncertainty regards the “nature of facts,” of which Latour observes that the relationship between the social and the hard sciences appear to be one “of continuous disputes.” Lastly, an uncertainty exists regarding the empirical nature of the social sciences.⁶³⁸

Each of these uncertainties readily presents itself within the Cisco case study. Indeed, in her investigation of tā moko, groups and agents present themselves contradictorily. For instance, only a single agent within the group, the mau moko, was permitted to be the signaller. To define moko as a costly signal required that Cisco limit her agents in ways that mimic the protocol of the natural sciences but which are counterintuitive to Māori who do not individuate group or agents. Latour clarifies that agents “are *made to fit* in a group.”⁶³⁹ In fact, within actor-network theory, agency (agents) and structure are not even components of the social, which is, instead, conceived of as a “circulating entity.”⁶⁴⁰ Likewise, Cisco’s own delimitations demanded that the receiver be either enemy or ally, which proved hugely problematic once colonisation entered the mix. The issues raised by the effects of colonisation on tā moko, as evidenced within the Cisco case study, “displace the original goals” of costly signalling theory and draw attention to the vast number of agents who play a role in interactions.⁶⁴¹ Recall that costly signalling theory’s objective is to explain why certain behaviours (i.e. tā moko) are perpetuated when natural selection should weed them out. Yet, the execution of this objective typically depends upon

⁶³⁷ Latour, *Reassembling*, 54.

⁶³⁸ *Ibid.*, 22.

⁶³⁹ *Ibid.*, 28.

⁶⁴⁰ Latour, “Recalling ANT,” 17.

⁶⁴¹ Latour, *Reassembling*, 22.

strictly interpreted signaller/receiver dynamics that cannot accommodate the new cultural inputs derived from colonisation. Actor network theory's selective processes transcend the quest to determine whether there is a discrepancy between "account and reality," and, instead, focus on whether an entity "travels from one network to another."⁶⁴²

Either an account leads you to all the other accounts – and it is good –, or it constantly interrupts the movement, letting frames of reference distant and foreign – and it is bad. Either it multiplies the mediating points between any two elements – and it is good –, or it deletes and conflates mediators – and it is bad. Either it is reductionist – and that's bad news –, or irreductionist – and that's the highest ethical standard for ANT.⁶⁴³

Such latitude increases a model's ability to adapt and evolve with new inputs.

The controversies between costly signalling theory and Māori holistic realities that swirled throughout the examination of the Cisco case study endorse Latour's observation of the rampant controversies that exist between the natural sciences and "the rest of society."⁶⁴⁴ These tensions are imbedded in the ontological differences between Western and indigenous modes of enquiry. The categories costly signalling permits simply do not afford Māori control over their own realities, but rather force them into an artificial, Western reality intentionally designed to have illustrative force generated by extruding them through pre-fabricated categories in the form of the signal, the signaller, and the receiver. Regrettably, as Joe Kincheloe and Shirley Steinberg observe, this power dynamic is commonplace when Western scientific models, which employ "a self-validating frame of reference" that upholds their authority above all others, are applied to indigenous practice.⁶⁴⁵

⁶⁴² Latour, "On Actor-network," 377.

⁶⁴³ Ibid.

⁶⁴⁴ Latour, *Reassembling*, 22.

⁶⁴⁵ Joe Kincheloe and Shirley Steinberg, "Indigenous Knowledges in Education: Complexities, Dangers, and Profound Benefits," in *Handbook of Critical and Indigenous Methodologies*, eds. Norman K. Denzin, Yvonna S. Lincoln, and Linda Tuhiwai Smith (Thousand Oaks, CA: Sage Publications, Inc., 2008), 152.

Heteroglossia allows us to question the perceived authority of Western science, by introducing space for Māori voices. Integrating the indigenous voice, amongst others, draws attention to the tumultuous territory of colonisation but does not permit the Western voice to dominate, either in terms of positivistic superiority or in assuming total responsibility for the state of Māori people today, whether positive or negative. For example, tā moko does not exist because Westerners permitted it to, nor, as came to light in Chapter Three, are our explanations sufficient to accommodate its complexities. Tā moko exists because Māori endured and put into place their own, effective cultural mechanisms which selected for the practice. These mechanisms deserve to be recognised and discussed on Māori terms, and actor-network theory provides an appropriate platform which mobilises symmetry by illuminating the multi-directional nature of power dynamics. Infralanguage within the network neutralises any power dynamic, allowing all voices to be equally weighted. Most significantly, colonisation and Western science (although significant forces) cease to be the dominant rhetoric which erodes Māori autonomy. Rather, Māori autonomy exists concurrently with and without colonisation and with and without Western science.

Of equal significance is that focussing on tracing associations demands that scholars be reflexive. In a network model, biases of scholars are overt, since they will obviously skew the data by leaving partial or overly emphasised associations visible. Biases simply cannot be hidden, as they remain traceable components of a network. Moreover, the traceability of researcher bias, helps us to recognise the distance such partialities cause between the researcher and topic.

Consider Cisco as an example. Cisco might be intimately connected to tā moko by virtue of her perceived expertise on the topic. However, though she presents information pertaining to

tā moko, when we begin examining her research, we find that she is quite far from Māori conceptions of the practice. Her contributions diminish in light of the obvious connections she does not include in her analysis of tā moko, such as the significance of tikanga Māori and mātauranga Māori, pushing her further and further away from other connections to the practice which the network reinforces. Indeed, the more remote her connections become, the less impact her argument has on understandings of Māori tā moko.

Recall that within actor-network theory, the only relevant question is *whether* a connection exists, the answer to which is derived by tracing and inscribing emergent linkages.⁶⁴⁶ The agent is inherent to the network, and it is his definition of the world that determines its parameters.⁶⁴⁷ Any tracing of connections that takes place within, and ultimately defines, the network must be conducted by the agents within the network.⁶⁴⁸ Significantly, tracing the associations between phenomena also facilitates group autonomy by serving as the means through which self-definition is promulgated.⁶⁴⁹

Again, this point is reinforced by the analysis of the Cisco case study. The tā moko network boasts a host of agents, ranging from mau moko to tohunga-tā-moko, to Pākehā who received and gave moko, to those who appreciate moko as an art form, to the myriad of scholars who study tā moko. These are only representative of a tiny portion of the connections that comprise the tā moko network, innumerable others exist. Within actor-network theory, each of these factions has the opportunity to trace their own associations between phenomena. Cisco is no different. If we think of her analysis in terms of linkages, the choices she made about which connections to bring to the fore had the effect of shifting her away from Māori tā moko and the

⁶⁴⁶ Latour, "On Actor-network," 377.

⁶⁴⁷ Ibid., 378.

⁶⁴⁸ Ibid.

⁶⁴⁹ Latour, *Reassembling*, 41.

agents therein, toward Western interpretations of it. Thus, Cisco's autonomy is facilitated through the definition of herself she imposes by participating in the interface between herself and Western views of indigenous and, in this case, Māori practices. Yet, Cisco's interpretation of tā moko and ultimately her autonomy, legitimised through the Western gaze, is not indicative of or at the expense of any other view or another's autonomy. Māori retain their autonomy, expressed through the associations they trace, just like Pākehā maintain their autonomy, legitimised through the connectivity they locate.

The influence that Western science and Western interpretations of tā moko exert on Cisco raises the second key consequence of actor-network theory. As we learned in the Introduction, actor-network theory upholds that the actions of agents are provided by "actantiality," which is not determined by the actions of an agent but by the impetus behind their actions.⁶⁵⁰ That which determines the actions of agents allows the forces behind cultural practices like moko to extend multi-directionally. For tā moko, this multi-directionality encompasses atua, tikanga Māori, and other forces that influence agents within the network, adding a dimension and depth to tā moko neglected within the Cisco case study.

Finally, Latour stresses that actor-network theory does not replace the traditional, social scientific understandings of agency and society with the agent and network, respectively. Instead, the social is construed as that which circulates locally, whilst the network is the most precise account of this circulation. The insertion of causes or factors encourages the extension of the network; nothing outside of the network needs to occur to generate new components within it. Thus, a network serves as its own "frame of reference" and any changes within it are determined by the parameters of its own self-definition.⁶⁵¹ Tracing associations makes the

⁶⁵⁰ Latour, "Recalling ANT," 18.

⁶⁵¹ Latour, "On Actor-network," 376.

actions of agents and the mechanisms and motivations behind these actions visible. It is through the tracing of these circulations that we transcend the constraints of agency which, in turn, facilitates far greater understanding of cultural practice.⁶⁵²

As I mentioned in the Introduction, Latour declares that “it is *us*, the social scientists, who lack knowledge of what they do, and not *they* who are missing the explanation of why they are unwittingly manipulated by forces exterior to themselves and known to the social scientist’s powerful gaze and methods.”⁶⁵³ Therefore, actor-network theory helps us to settle ontological tensions that emerge within agent-centered models and between the researcher and subject, which encourages and provides an effective space for reflexivity to emerge. Actor-network theory is unique in that it bypasses superficial conceptions of the social, instead permitting the connections to determine the number of possible dimensions.⁶⁵⁴ Either an element is part of the network, or it is not and fades into the descriptive background.⁶⁵⁵

Latour continues, averring that the “problem” of reflexivity transforms into an “opportunity” when “the epistemological myth of an outside observer providing an explanation in addition to ‘mere description’ disappears.”⁶⁵⁶ No entity or observer is granted “privilege,” nor do “a priori limits on knowledge exist,” since the environment in which the associations are traced is defined by the unique features of the associations themselves. Furthermore, actor-network theory allows for the emergence of multiplicity of voices, so agents need not be censored, since the concern is tracing associations between them. Thus, signallers and receivers who emerged within the costly signalling theory framework but who were not included, due to

⁶⁵² Latour, “Recalling ANT,” 20.

⁶⁵³ *Ibid.*, 19.

⁶⁵⁴ Latour, “On Actor-network,” 370.

⁶⁵⁵ *Ibid.*, 376.

⁶⁵⁶ *Ibid.*, 377.

limitations imposed by costly signalling, can have a place within a more symmetrical framework that balances out both the natural and social worlds and the many perspectives about these worlds.

To effectively present this model, I adhere to two “methodological principles” outlined by Callon but with one exception. Firstly, agents within the network shall not be censored. To attain an accurate understanding of network dynamics, all agents must be able to be present their interpretations of the world and to express their analysis of the environment without judgement.⁶⁵⁷ Like Latour, Callon asserts that no viewpoint is privileged; however, this is where my study diverges from more traditional uses of actor-network theory. When analysing tā moko through this new lens, I do not intend to privilege a single point of view; nonetheless, at the end of the analysis, I do intend to highlight distinctly Māori voices. Although I do acknowledge the need for a more symmetrical model than was presented by Cisco’s application of costly signalling theory, simultaneously, I maintain that it is necessary, at the end of the study, to reiterate the divergences between Māori ontologies and those gleaned from the Cisco case study as they relate to tā moko by re-situating the lens to once again focus on Māori perspectives. Whilst I am aware that some may view this as counter to the entire point of developing and applying an integrative model, I disagree. Rather, I think it necessary to advance a symmetrical model to remobilise Māori ontologies within a field that struggles to accommodate the holistic realities of indigenous peoples. Although Cisco’s model employs Māori material, Māori perspectives, as well as any other than her own, are shut down. The reappropriation of Māori autonomy within costly signalling theory and evolutionary explanation of culture by emphasising Māori ontologies demands acoustics that deliver a clarity to Māori voices within a public sphere,

⁶⁵⁷ Callon, “Some Elements,” 1-2, 4, 17; Latour, “On Actor Network,” 377.

wherein Māori are not in a position of alterity “but rather hold a position of being the norm in” their “own constructions.”⁶⁵⁸

Furthermore, an integrative model which affords Māori their own autonomy represents an evolution of evolutionary explanations of culture. Through transmissive assemblage, as anchored by actor-network theory, Western scientific discourse becomes only one of many voices. The egalitarian platform transmissive assemblage supports allows evolutionary processes to be described, determined, and isolated in a myriad of ways. In turn, this host of approaches reflects a perpetual pliancy which enables evolutionary explanations of culture to continually evolve, alongside the practices and people whom define the networks therein. The fluidity and heteroglossia, which a network orientated model permits, demands that as networks and the agents and interactions within them evolve, the valuations of these networks also evolve, since it is the agents, themselves, and not those studying the networks who determine their own ontological expression.

The ability of agents to articulate their own ontological frameworks is essential to Callon’s second assertion regarding the necessity of “free association,” which demands that “the observer abandon all a priori distinctions between natural and social events.”⁶⁵⁹ No distinction between the natural and social which inhibits agents’ ability to articulate their own ontological frameworks shall be made. Both the human and nonhuman are “relational effects.”⁶⁶⁰ As Callon observes, distinctions between the two are a product of analysis, as opposed to a “point of departure.”⁶⁶¹ Agents construct their worlds and, for that matter, understandings of themselves

⁶⁵⁸ Pihama, Cram, and Walker, “Methodological Space,” 36.

⁶⁵⁹ Callon, “Some Elements,” 4.

⁶⁶⁰ John Law, “Chapter Seven: Actor Network Theory and Material Semiotics,” in *The New Blackwell Companion to Social Theory*, ed. Bryan S. Turner (Chichester, West Sussex, U.K.: Blackwell Publishing Ltd., 2009), 147.

⁶⁶¹ Callon, “Some Elements,” 4.

through both natural and social means. Researchers, themselves, are mobilised as relational effects, which acknowledges their own autonomy, yet, simultaneously, forces them onto an equal playing field with everyone and everything else involved in the network.

Thus, the job of the researcher advancing a model which incorporates actor-network theory is not to impose a Kantian categorical imperative but to allow the agents to illuminate the pathways they utilise to navigate their realities which traverse both the natural and the social.⁶⁶² In order to transcend the political-ethical concerns circulating within evolutionary explanations of culture, which involve the treatment of researchers as proxies though they carry no cultural mandate or authorisation to serve in such a capacity, the dependency upon the researcher to serve as the mouthpiece for groups, including their practices, and relationships to the natural world, must be overcome. By insisting that researchers are nothing more but nothing less than relational effects, actor-network theory liberates researchers from the confines of their own methodologies, and, instead, affords them a unique and overdue opportunity to fully integrate into that which they study, to evolve as network constituents evolve.

Indigenous Ontological Perspectivism

As I explained in the Introduction, indigenous ontological perspectivism is a theoretical approach I use to amplify the network(s) brought to light by actor-network theory through the inclusion of natural world components. Indigenous ontological perspectivism allows for the expansion of the attribution of associations, and, specifically the attribution of social relations, to nature.⁶⁶³ Thus, indigenous ontological perspectivism can be conceived of as isolating the origination and

⁶⁶² Callon, "Some Elements," 4; Latour, "On Recalling ANT," 20.

⁶⁶³ Latour, "On Recalling ANT," 465; Eduardo Viveiros de Castro, "Images of Nature and Society in Amazonian Ethnology," *Annual Review of Anthropology* 25 (1996): 191.

termination of network associations by providing the means to identify and discuss agents and products of the interactions that occur between them.

Despite the drawbacks of costly signalling theory, illuminated through the analysis of Cisco's research and reiterated above, its theoretical foundation in animal signalling affords costly signalling an explanatory latitude that other explanations of culture practice do not have, specifically when it comes to the incorporation of non-human entities. This is because costly signalling theory developed in a non-human context. However, what we witnessed with its employment as an explanation for tā moko was a certain ineffectiveness, due to stark contrasts between the clarity of signaller/receiver relationships in the animal world and those same relationships in a human context. However, indigenous ontological perspectivism challenges this view, offering up the alternative suggestion, that perhaps animal relationships are not so clear cut; that perhaps, it is the Western tendency to dichotomise between us and them where humans and animals are concerned, when, in fact, it is just us. Thus, the clarity of the signaller/receiver relationship presented so neatly within costly signalling theory may not be so tidy afterall. Additionally, indigenous ontological perspectivism adds further dimension to the possibilities for the evolution of cultural evolution presented when incorporating indigenous perspectives into an integrative and transdisciplinary model of cultural practice.

Simultaneously, indigenous ontological perspectivism allows us to apply a new lens to costly signalling theory, one which has hereto remained unacknowledged. Notwithstanding its anthropocentric tendencies, costly signalling theory is one of the only evolutionary explanations of cultural practice which has the mechanisms to incorporate an indigenous, multi-naturalist perspective. Studying human behaviour through a model intended to explain animal behaviour presents the opportunity to acknowledge that we may not be so separate from animals and other

non-human entities, and that the same justifications for animal behaviour may translate to humans.

This perspective ties in well with actor-network theory, in that process becomes the focal point of interaction and that to derive explanation requires associations to be traced. Where Latour traces association between agents, indigenous ontological perspectivism traces associations from point of view to agent, allowing the process by which agency is ascribed to be mapped. In combination, we are presented with elements of a model with immense reflexivity. Not only are associations between entities traceable via actor-network theory, but the associations between agent and outcome (in the form of perspective or point of view) can be mapped utilising indigenous ontological perspectivism.

Indigenous ontological perspectivism forgoes the tendency of Western scientific models to define themselves by the objects a subject produces, which helps the subject to foster an external recognition of itself—the only means by which a subject can “know itself objectively.”⁶⁶⁴ Because “an object is an incompletely interpreted subject,” indigenous ontological perspectivism maintains that complete interpretation is only possible by determining an object’s relational position. In part, this is because indigenous ontological perspectivism recognises that agents are not bound by biological constraints which means that they can only be understood with regards to how they are situated in a “network of social relations.”⁶⁶⁵ If we accept de Castro’s stance that the world is perceived or represented in the exact same way for all entities and that what differs is the world that is seen, then I would argue that social relationality is the only way to develop an accurate portrayal of another’s world since these traced associations also serve as channels for exchange. When opened up to exchange, not only is an

⁶⁶⁴ De Castro, “Exchanging Perspectives,” 468.

⁶⁶⁵ *Ibid.*, 472; Gell, *Art and Agency*, 123.

agent exchanged for a social relation, but perspectives of the relationships themselves can be exchanged.⁶⁶⁶

To better illustrate the applicability of indigenous ontological perspectivism to our present case, I borrow a helpful framework from Benjamin Alberti and Yvonne Marshall who apply the theory to Argentinian body-pots.⁶⁶⁷ Moko is multi-faceted. On one hand, moko is an object, in the sense of being indelible marks inscribed upon the face, in the past preserved through mokamōkai (preservation of the head). On the other, these inscriptions can also be considered conceptual in nature, in that they are considered representative of whakapapa. However, one would not, necessarily, expect facial markings to carry such deep meaning with an intensely ritualised aspect; nor would one, necessarily, predict tā moko to be the selected means to convey genealogical connections. Neither moko as a thing, nor moko in its conceptual form as an embodiment of genealogy fully encapsulates its scope. Thus, moko transcends the thing/concept dichotomy.⁶⁶⁸ As Alberti and Marshall recognise, once liberated from the thing/concept duality, then innumerable “ontological possibilities” emerge.

One possibility for moko is that its permanent nature is intended to buttress whakapapa by prohibiting it from transforming into an alternate form.⁶⁶⁹ Building upon Alberti and Marshall’s argument, it is plausible that the plethora of moko forms may, in fact, “not so much ‘represent’ anything as ‘participate in’ an everyday concern with the stability” of whakapapa.⁶⁷⁰ Consider that moko lies over or on the face; indeed is incorporated into the face. Yet, it is also comprised of materials, in the form of ink, flesh, blood, and all other materials that go into

⁶⁶⁶ De Castro, “Exchanging Perspectives,” 473.

⁶⁶⁷ Benjamin Alberti and Yvonne Marshall, “Animating Archaeology: Local Theories and Conceptually Open-Ended Methodologies,” *Cambridge Archaeological Journal* 19, no. 3 (2009): 344-56.

⁶⁶⁸ Alberti and Marshall, “Animating Archaeology,” 352.

⁶⁶⁹ *Ibid.*, 353.

⁶⁷⁰ *Ibid.*

producing the design. Moko and, presumably, the genealogy therein can stand aside from the individual whose face it graces in a material form. Thus, we have moko upon the face as well as the material concept of moko comprising the fluidity of its forms.

The more fixed material form of moko actually inserts permanence (i.e. conceptions of genealogy) into a backdrop of impermanence (i.e. genealogy as manifest in an individual form that will die). In this way, moko is not the sum of ink, blood, and skin “added on successively to a fixed background of matter.”⁶⁷¹ Indeed, as Alberti and Marshall explain, instead of moko, the face, and “matter being thought of in an additive sense, their forms could be seen as a consequence of making” genealogy permanent “from a generalized background” of impermanence, characteristic of the human condition.⁶⁷² In this case, whakapapa, embodied by moko, “materializes” as the permanence that is integrated to establish an association. Although humans are in a constant state of flux, moko introduces a bit of stability. Moko helps to prohibit change by externally stabilising the inherent transformation of individuals, whether through acquisition of status, death, natural occurrence, or any other phenomena.⁶⁷³ Accordingly, tā moko “embodies the antimony of stability and instability, the instability of matter and the stabilising effects of practice, whether human-authored or not. Consequently, the question of agency is reversed: the question is no longer how things get movement (i.e. agency) but rather how they stabilise.”⁶⁷⁴

The above example illustrates how the world both Latour and de Castro describe is entirely relational and open to transformation. Various ontological perspectives are also able to be shared. By tracing connections, including between objects and concepts, we are able to

⁶⁷¹ Alberti and Marshall, “Animating Archaeology,” 354.

⁶⁷² Ibid.

⁶⁷³ Ibid.

⁶⁷⁴ Ibid.

integrate a universalised perspective and establish connections within the whole. Likewise, indigenous groups are able to disconnect elements and “particularize relationships,” in a way that runs contrary to the more typical universalised nature of relationships within indigenous contexts.⁶⁷⁵ Furthermore, a relational approach to culture and its practices carves out space to honour the transformative and acculturated nature of culture, a view which indigenous and evolutionary explanations share.

In seeking an integrative approach to the study of cultural practice, relationality or tracing associations is beneficial for both Western and indigenous metaphysical and epistemological models. The main benefit of relationality is that it allows us to set representations and agency aside and focus on the transformative and accumulated nature of action, responsible for the evolution of culture, without sacrificing any of its complexity and without presenting “native peoples as helpless playthings in the grip of the all-powerful logic” of Western science, which leaves us “remote from human and social interest.”⁶⁷⁶ Additionally, as pointed out in the Introduction, tracing associations encourages us to question the idea of indigenous peoples assuming their current position by following a “natural evolutionary path, determined exclusively by [their] interaction among technology, demography, and environment, a trajectory then truncated by the irruption of History.”⁶⁷⁷ All paths are natural, interrelated, and, yet, self-ascribed, as opposed a historical course determined by disconnected sources exerting influence onto an inert subject. By forgoing the dichotomy between nature and society, cultural complexities, as well as differing ontological perspectives, are endorsed through their connectivity. Indeed, as the examination of the Cisco case study illuminated, the full scope of the

⁶⁷⁵ De Castro, “Exchanging Perspectives,” 476.

⁶⁷⁶ De Castro, “Images of Nature,” 193; Latour, *Reassembling*, 95.

⁶⁷⁷ De Castro, “Images of Nature,” 194.

complexity of any group or agent can never be realised when analysed through foreign epistemological frameworks which are ill-equipped to discern, let alone incorporate alternative ontologies.

Relationality supports de Castro's "phenomenological unity." The recognition that, at its core, reality is the same for everyone—a series of traced associations—equalises all agents, whether human, animal, inanimate object, spirit, etc regardless of the form the expression of this unity takes.⁶⁷⁸ For all agents, this allows history in its many forms to become a process of symmetrical construction and reclamation that surpasses mere perception and transforms into a validated, holistic reality.⁶⁷⁹

Kaupapa Māori

Kaupapa Māori which is based upon a set of philosophical beliefs and values specific to Māori forms the inner circle of my concentric approach. Since this study pertains to a Māori case study and advances a more symmetrical and decolonised approach to indigenous practices, it is essential to incorporate Māori ontology and epistemology. My usage of Kaupapa Māori demands for and emphasises a distinctively Māori voice which allows features of the revealed network(s) to be defined in Māori terms.

Relationality also creates an opportunity to discuss the paths certain associations take, such as Māori associations to *tā moko*. Also, the symmetrical nature of non-agentically based, relationally orientated models helps to mitigate bias in conversations about groups and their practices by facilitating space for narrative assemblages and heteroglossia to emerge. When highlighting specific networks, particularly those involving indigeneity, emic voices help to

⁶⁷⁸ De Castro, "Cosmological Deixis," 474.

⁶⁷⁹ Latour, *Reassembling*, 93; Tau, "Minding the Past," 7, 10.

develop aspects of the network that have hereto been overlooked, ignored, or subsumed into the dominant rhetoric of Western science. Although this practice may be seen as reverting back to agentic orientation, to fully decolonise evolutionary explanations of tā moko first requires that, in addition to understanding the involvement of Western science in the colonial process, we have the opportunity to discuss tā moko from non-Western and, specifically, Māori perspectives. Kaupapa Māori provides the necessary tools to begin decolonising costly signalling theory to show how, more broadly, indigenous meanings need to be treated in order to be reintegrated into evolutionary explanations of cultural practice.

Chapter Three revealed a host of discrepancies between Cisco's tā moko narrative and those of Māori. To underscore these inconsistencies, the narrative of Mataora was presented. After relaying two different accounts of the narrative, I slightly altered its language to better reflect the language of costly signalling theory and natural selection. What became apparent is that with a minor altering of language, the narrative of Mataora offered up a more concise and detailed account of tā moko that integrated tikanga Māori, than was available within the Cisco case study. The associations revealed through my investigation into the Cisco case study are distinctly Western with an emphasis on the critical role Western agency plays in interpreting the reason for the development and perpetuation of tā moko. However, Māori narratives focus on the associations between praxis and identity, both internally and externally, with a particular emphasis on the collectivity of Māori holistic reality.

In keeping with the individuated tradition of costly signalling theory, the treatment of tā moko throughout the Cisco case study was individually orientated, which suffocated the collective expression so central to Māori ontologies. Though signallers may be signalling cooperative intent, costly signalling theory still revolves around a single signaller's ability to

signal and a receiver's ability to interpret that signal. Ultimately, costly signalling theory is concerned with breaking down a social interaction into its constituent parts to understand why "costly" behaviours are perpetuated. Yet, as Durie stresses, this approach to knowledge and cultural practice is vastly different from holistic, Māori thinking which is integrative, not analytical.⁶⁸⁰

For Māori, "the individual has no validity of his own."⁶⁸¹ Mead further contextualises collectivity within Māori tradition as embodied by tā moko:

We treat our artworks as people because many of them represent our ancestors who for us are real persons... They are anchor points in our genealogies and in our history. Without them we have no position in society and we have no social reality. We form with them the social universe of Maoridom.⁶⁸²

Thus, any attempt to dissect an innately collective practice like tā moko into individual action and ascribe an individualised meaning to it misrepresents the holistic reality of Māori in a way that leaves tā moko solipsistic and unfamiliar.

The aim of remobilising Māori perspectives of their own practices through frameworks which articulate Māori ontologies demands decolonised modes of enquiry. Decolonisation is a multi-level approach which challenges colonisation and imperialism. In the words of Tuhiwai Smith, "decolonization is about centering our concerns and world views and then coming to know and understand theory and research from our own perspectives and for our own purposes."⁶⁸³ Central to this endeavour is critiquing "underlying assumptions, motivations, and values which inform research practices."⁶⁸⁴ Whilst more could be done regarding these issues within costly signalling theory and, certainly, critiques from Māori scholars are warranted, a

⁶⁸⁰ Durie, "Maori Perspective," 484.

⁶⁸¹ Ibid., 485.

⁶⁸² Mead as quoted in Kaeppler, *Pacific Arts*, 57.

⁶⁸³ Tuhiwai Smith, *Decolonizing Methodologies*, 39.

⁶⁸⁴ Ibid., 20.

great deal of this critique is found throughout the analysis of the Cisco case study in Chapter Three of this thesis. Graham emphasises the significance of critiquing Western science and its explanation of cultural phenomenon, remarking that it is not about arguing against science, but, rather, arguing “for the development of a critical perspective on science in order to expose its colonising potential.”⁶⁸⁵ Thus, components of Kaupapa Māori have already been integrated into this study; still, room exists for its further incorporation.

In an effort to “recover and reclaim knowledge and voices made silent by the Eurocentric monopoly and related privileges,” transformative methodologies which facilitate meaningful dialogue and exchange need to be developed.⁶⁸⁶ A number of decolonising options emerge from the integration of Kaupapa Māori into a pre-existing research framework. Firstly, there is always the matter of having the right tools for the job, and one might logically and convincingly argue that costly signalling theory is not the right tool for studying moko as a Māori cultural practice. As Tinbergen’s four complementary questions reveal, the same behaviour may have a plurality of explanations and costly signalling theory may not be the right explanation for tā moko.⁶⁸⁷ Kaupapa Māori raises the question of whether costly signalling theory is a valid framework for studying moko.

Indeed, within the context of indigenous studies, it is imperative to ask what is acceptable to study and to assume accountability and responsibility for engaging in indigenous work. The reflexivity required to assume such accountability was absent within the Cisco case study and was shown to generate a host of concerns when approaching an indigenous cultural practice like

⁶⁸⁵ Graham Hingaroa Smith, “Protecting and Respecting Indigenous Knowledge,” in *Reclaiming Indigenous Voice and Vision*, ed. Marie Battiste (Vancouver, B.C.: UBC Press, 2000), 212.

⁶⁸⁶ Marie Battiste, “Foreword: Cognitive Imperialism and Decolonizing Research: Modes of Transformation,” in *Surveying Borders, Boundaries, and Contested Spaces in Curriculum and Pedagogy*, eds. Cole Reilly, Victoria Russell, and Laurel K. Chehayl (Charlotte, NC: Information Age Publishing, Inc., 2011), xx.

⁶⁸⁷ Tinbergen, “Aims of Ethnology,” 410-33.

tā moko. Kaupapa Māori provides the opportunity for Māori to deny the employment of methodologies that do not honour Māori holistic realities encapsulated by whakawhānaungatanga, the process through which relationships are established.⁶⁸⁸

Secondly, Kaupapa Māori can be applied as a mode of critical analysis. In the third chapter of this study, arguments were made which challenged Cisco's presentation and interpretation of tā moko by juxtaposing her claims with Māori understandings. Building upon this juxtaposition, there is room to further utilise Kaupapa Māori as a means for critical analysis. Indeed, any relationality that emerges within an associative model can be revisited through a distinctively Māori lens. This is the way that Kaupapa Māori will be integrated into the transmissive assemblage model below. Once the model is presented with the aim of solely tracing associations inherent within networks related to tā moko, Kaupapa Māori will re-emerge to highlight the Māori voice regarding found linkages. Thus, whilst it is not a framework for transmissive assemblage in the relational sense that actor-network theory and indigenous ontological perspectivism are, Kaupapa Māori is essential to serving as an active voice to expound upon the traced associations actor-network theory and indigenous ontological perspectivism reveal and to reframe tā moko in a distinctively Māori way.

Transmissive Assemblage and Tā Moko: Toward a New Model

Within the Cisco case study, moko is portrayed as a costly signal intended to broadcast ally, enemy, or mate quality. Yet, as Chapter Three revealed, this understanding of moko, though perhaps accurate in the limited context the case study presents, lacks wider applicability, since it does not take into account other signallers, receivers, and meanings of moko which have endured from a pre-contact context and which are newly developed, as tā moko is still being practiced

⁶⁸⁸ Barnes, "Kaupapa Maori," 2; Walker, Eketone, and Gibbs, "An Exploration," 334.

and continues to evolve today. My goal for the rest of this chapter is to review the assertion of moko as a signal and to trace the network that forms from the connections between signallers and receivers, both social and natural, overlooked by Cisco's application of costly signalling theory. From the outset, I recognise that in no way could every relational aspect be presented here; therefore, I focus on those that specifically pertain to conclusions presented in Chapter Three and trace associations from there.

If we think of the research from Chapter Three in terms of a network, a number of agents emerge. Broadly, there are three: Māori, Pākehā, and tā moko/moko—all of which come to the fore as significant players within the network. Each of these entities has its own reality, along with realities within realities, which differs from the others, resulting in controversies over the meaning of moko today, the future of moko, and how/why it developed through time. Because the case study in Chapter Three focused mainly on the development of moko, I will be discussing these different realities in terms of the question: how/why did tā moko develop? My aim here is to utilise actor-network theory and indigenous ontological perspectivism, in their descriptive capacities, to elaborate upon the new insights that emerge from thinking of tā moko in terms of a relational paradigm and how we might be able to utilise this information construct a new model.

Differing Realities **Māori Perspectives**

I have impressed throughout this study that Māori have an inherent understanding of tā moko, which is lived. The narrative of Mataora asserts a deep connection between tikanga Māori and tā moko which illuminates that tā moko is bound to a way of living, an identity through action and

being, rather than a static, ascribed identity.⁶⁸⁹ This does not mean that moko stands aside from genetics, as its links to whakapapa were previously outlined in earlier chapters.⁶⁹⁰ Neither does it mean that moko is impermanent, as I have suggested its material form helps stabilise the impermanence of the human body and mediate the dynamics of transformation.

Today, Māori do not necessarily make explicit associations between moko and specific, static expression of identity, opting for more general and fluid references to its relationship to identity. Aside from its tie to identity, Nikora conceptualises tā moko as having continuity with the past so that it is seen as part of an unbroken tradition. To accept Nikora's view, which is supported by the narrative of Mataora, in which Uetonga was *already* practicing tā moko when Mataora arrived, means that when tracing associations through a Māori optic, tā moko has no point of origination; it has always *been*. So, asking questions about how tā moko developed becomes counter-productive and leads us away from the inherent nature of tā moko within Māori, holistic reality.

To shift the question slightly, to ask *why* moko developed, leads us to the same conclusion. Tradition says that tā moko did not develop, it has always been. Through tā moko, Māori are linked to a holistic reality embodied by a continuous tradition of tikanga and mātauranga which is historical, transhistorical, transhuman, and current. Pursuing questions like why/how moko, within a Māori network, collapses into a tautology: tā moko exists because it has always been; tā moko has always been, hence the reason for its existence.

Pākehā Perspectives

Connections to Pākehā also emerged in the tā moko narratives discussed in Chapter Two. In the early colonial period, the literature from which backed most of the Cisco case study research,

⁶⁸⁹ Te Awekotuku et al., *Mau Moko*, 13; King, *Moko*, 15; Te Rangihīroa, *Coming of the Māori*, 296.

⁶⁹⁰ Nikora, Rua, and Te Awekotuku, "In Your Face," 13; King, *Moko*, 83.

Pākehā were predominantly the ones recording information about Māori practices. Yet, most Pākehā writing at the time had not had moko or been tattooed and some had not even seen moko. This early literature was not only written by Pākehā but also records reactions from Pākehā who viewed the practice as barbaric and saw no reason to continue it.⁶⁹¹ In response to the question as to why moko was developed and was perpetuated, a number of Pākehā authors attribute its existence to a foreign, savage nature, subversive to colonial efforts. This tension is articulated by George Angas who recorded that:

many of the sons even of influential chiefs—having either adopted the manners of the Europeans or joined the missionary converts—have dispensed with this peculiar and barbarous disfigurement; which certainly does not add to their appearance, at least in the eyes of a civilized community.⁶⁹²

Despite Angas' own determination that tā moko is strange and unnecessary, he acknowledged that the practice may have a place within Māori society. Recall that Pākehā missionaries also denounced tā moko, contrasting its practice with scriptural admonitions like that of Leviticus 19:28 (KJV).⁶⁹³ Thus, the question of why moko becomes one framed through the perceived contrast of Western and Māori practice. I say perceived, because, as we learned in Chapter Two, it becomes apparent that when associations are further traced not all Pākehā take stands against tā moko.

In addition to Pākehā-Māori, introduced in Chapter Two, Scherzer represents yet another Pākehā perspective that emerges from the literature following the signing of the Treaty of Waitangi in 1840. Contrasting Pākehā and Māori, Scherzer wrote that “‘moko’ is one of those most characteristic [differences] of this remarkable people, and is worth being described in

⁶⁹¹ Nikora, Rua, and Te Awekotuku, “Renewal and Resistance,” 479.

⁶⁹² Angas, *Savage Life*, 315.

⁶⁹³ For the actual Levitical verse, see page 100 of this thesis. Edmond, *Representing the Pacific*, 9; Elsmore, *Them that Dream*, 15.

detail, inasmuch as it has been almost entirely discontinued since the diffusion of Christianity.”⁶⁹⁴ During this period tā moko was viewed as an antiquated practice from a dying culture on the brink of extinction.⁶⁹⁵ Instead of documenting reactions to tā moko, authors scrambled to collect, report, and preserve as much information about moko and Māori culture as possible. An acknowledgment of pressures and disruptions from colonisation resulted in the push to preserve what, romantically, was considered a noble and continuous tradition at the very point in time when it might disappear. Thus, we see the polarising nature of tā moko for early Pākehā who were not included in Cisco’s research in any capacity.

Cisco, herself, is non-Māori and interprets Māori tā moko as a signal of ally or enemy quality. To her understanding, Māori utilised moko to facilitate easy identification on the battlefield. Allies and enemies interpret moko in the same way, as a signal of commitment to one’s group. Cisco relies heavily on Pākehā literature and incorporates few Māori sources into her work. She expresses little awareness of the controversies within the literature regarding moko and does not include Pākehā in her signaller/receiver dynamic. When posing the question—why moko?—she draws from costly signalling theory and concludes that moko developed and was perpetuated, at least in pre and early colonial times, because it served as a costly signal, but only for Māori.

Moko

Whilst narratives of tā moko were presented in Chapter Two, in order to better grasp moko in its agentic form, I would like to briefly revisit those details which stress its connections to the natural world. Since its inception, tā moko has evolved into a number of different forms from smooth tattoo (moko kurī), to chiselled moko, to modern tattoo machine. In its earliest

⁶⁹⁴ Scherzer, *Circumnavigation*, 110.

⁶⁹⁵ Davidson, *Sketches*, 191-2.

incarnations, moko involved natural elements. Often albatross or petrel bones were used for uhi. At various times and in various locations many different substances were harvested to create the perfect pigment for ink, including sap, berry juice, and, reportedly, even the dead larvae of a certain caterpillar.⁶⁹⁶ Toward the end of the 1800s, tohunga-tā-moko had come to rely on producing their dyes mostly from the ashes of burnt āwheto, kauri (particularly lauded for the intensity of its dark pigmentation), and kāpia trees. For a time even gunpowder was used, though by the end of the 19th century this practice was discontinued.⁶⁹⁷ The utilisation of these natural substances indicates a strong connection between moko and the natural world. Indeed, natural substances are incorporated into the living human face which not only alters the countenance of the mau moko, but establishes a living link with the land and alters the natural landscape by using its gifts to help convey identity.

However, in addition to these benefits, the introduction of metal in the 1840s caused a change in the technique, and the uhi, once made of bone, were instead crafted out of metal. Around 1910, chisels began to be replaced with a group of darning needles. The needle eliminated the awkwardness of using a chisel and was generally a more forgiving implement to work with. Not only was the needle method more precise, but it also increased expediency whilst decreasing the amount of blood shed and pain moko recipients had to endure, as well as decreasing healing time. Furthermore, the needle brought with it a significant decrease in potential disastrous health consequences as opposed to those, such as blood infection or death, sometimes presented by the use of the chisel.⁶⁹⁸

⁶⁹⁶ Cynthia Levinson, "Moko!" *DIG: Tattoos: Marks with Meaning* 11, no. 6 (Jul.-Aug., 2009): 28.

⁶⁹⁷ Te Awekotuku et al., *Mau Moko*, 32.

⁶⁹⁸ King, *Moko*, 54.

However, this shift in practice also further eroded Māori linkages to their land. The tools and ink used no longer bound mau moko directly to the land. Rather, new technologies drew Pākehā and Māori closer together by forging more intimate associations between the two: Māori practice and Pākehā derived technologies. Today, tā moko is normally carried out with a modern tattoo machine, though recently the chisel technique has begun to re-emerge.

Thus, it becomes apparent that moko is a dynamic agent which, like Māori and Pākehā, has its own voice. Indeed, tā moko has wide reaching ramifications on an assemblage of technology, people, nature, and the inanimate. The pressures moko exerts on these agents, has profound effects on how and why they evolve through time. In fact, as becomes apparent, the associations generated between these agents is ultimately what paved the way for the re-emergence of tā moko in the late 20th century. Tracing associations to moko allows us to see the dynamics of interaction without reliance on an agentic conveyer, in turn, tā moko can be decolonised since every lens and voice is equally as viable as any other.

Discussion: Decolonisation through Transmissive Assemblage

Background: Why Transmissive Assemblage?

To review, the Cisco case study, reviewed in Chapter Three, asserts that the purpose of moko was to serve as a costly signal indicating one's cooperative intent and group commitment for the warring Māori. Similarly, many early Pākehā authors relay that moko was about looking ferocious, although some Pākehā chose to engage with the practice and integrated into Māori communities. Māori tend to associate tā moko with Māori identity and the realisation and embodiment of mātauranga and tikanga Māori. Tā moko, as an agent, has connections to Māori, the environment, and even Pākehā.

Change is also channelled through linkages to tā moko. External change is manifest for mau moko and those observing him/her by the actual moko applied to the face, as well as the impact the usage of natural components has on the environment. Dynamics between people, Māori to Māori, Māori to Pākehā, Pākehā to Pākehā, Māori to other Polynesian groups, researcher to Māori and Pākehā, and innumerable others are also affected by their associations to tā moko. Internal change, in the form of how mau moko evolve as a result of their acquisition of moko, also occurs and fosters new associations for mau moko and those people and things with which they interact.

These associations reveal that the question at the hub of the Cisco case study about why moko developed and subsequent conclusion that it is because moko served as a costly signal is not as straightforward as it first may seem. Rather than being a simple question about the use of moko as a signal, it involves other, significant natural and social elements all of which are interrelated to greater or lesser degrees. Neither the question about moko as a costly signal, nor the more general question of why moko developed and was perpetuated, can be answered with a simple yes or no. This is because asking if moko functions as a costly signal or delving into its development and perpetuation, evolves into “a whole series of agents by establishing their identities and the links between them.”⁶⁹⁹ Indeed, these associations represent any number of perspectives and voices. This multi-perspectival heteroglossia is further confirmed by the variance that occurs between the Cisco case study research, the secondary source record, and Māori narrative.

Rather than acknowledging the dynamic interplay between these networks, the Cisco case study reveals an attempt to control the agents who threaten to destabilise her argument. To do so,

⁶⁹⁹ Callon, “Some Elements,” 224.

the dynamic nature of tā moko is undermined. By delimiting its tradition only to the chiselled form, moko is only construed as an effective signal for warfare which contributes to a narrow, linear view of Māori as warring people. Moreover, by opting to rely mainly on Pākehā accounts of Māori practice which view moko through the lens of alterity, Māori are denied the possibility to speak for themselves. By disassociating moko from other influences, the definition of moko is contained and, thus, the scope of its network limited. Simply put, the style of analysis within the Cisco case study allows the constituents involved in a network to be cherry-picked. In turn, the possible associations within the network are constrained. Such criticism is not unfamiliar to proponents of evolutionary explanations. Quentin Atkinson and Harvey Whitehouse, in an article building upon Whitehouse's imagistic/doctrinal modes of religiosity, admit that the theories framing evolutionary explanations largely draw from case studies that "tend to be derived from ethnographic, archaeological or historical case studies and field work, and are therefore vulnerable to the charge of cherry-picking."⁷⁰⁰

When Cisco presents her research to the public, including Māori, they assume that she has factored in all of the information related to her classification of moko as a costly signal. The problem is that her decision to shape the material by agent and not by association does not eliminate the existence of these other influences that equally affect the dynamics of tā moko and which could enhance costly signalling theory's explanatory power. Neither Pākehā, Māori, nor tā moko are fully represented within Cisco's research. Rather, Cisco becomes the representative and spokesperson for them, based upon their relationship to the criteria she has constructed.

In essence, the cultural practice Cisco portrays does not exist. Rather, what Cisco describes are power relationships generated by focussing on agency. Earlier, I explained that

⁷⁰⁰ Quentin D. Atkinson and Harvey Whitehouse, "The Cultural Morphospace of Ritual Form: Examining Modes of Religiosity Cross-Culturally," *Evolution and Human Behavior* 32 (2011): 50.

culture is framed agentially. The power relationships which comprise the notion of culture are the well from which Cisco draws from to shape her study of Māori tā moko; and, in doing so, she, herself, assumes a power position, serving as the mouthpiece for both Western science (specifically costly signalling theory) and Māori tā moko. The actual interactions of Māori, Pākehā, and other entities and forces with tā moko take a sideline to Cisco's interpretation of them as static entities who simply utilise tā moko as a form of engagement with the world. The effect of Cisco's study is one of recolonisation which legitimises cultural hegemony through a doctrine of agency and rhetoric of science.

An Example of Transmissive Assemblage

Callon articulates the logic behind transmissive assemblage quite well. As he explains, if A seeks to entice B, then A will do everything possible to eliminate any linkages that remain to other entities, say C, D, and E. When B engages with A, its identity and qualities change; B becomes a product or "result" of its connection to A.⁷⁰¹ Now, if C, D, and E attempt to influence B, it will become much more difficult. They, themselves, will have to shift and adapt to B's new identity, resulting in a shift in their own identities and qualities. Of course, there is no guarantee that B will buy into what A has to offer. Indeed, for A to engage B requires a willingness on B's part to "anchor" onto A.⁷⁰² Anytime A engages B, the product is the social.⁷⁰³

The same process occurred between Pākehā and Māori with regards to tā moko. Say that A is early Pākehā colonisers and B represents Māori populations. As some early Pākehā colonisers engaged with Māori, they made a concerted effort to erode links to traditional Māori culture and practices, including moko. For instance, Henry Williams wanted to impose strict

⁷⁰¹ Callon, "Some Elements," 9.

⁷⁰² Ibid., 10.

⁷⁰³ Latour, *Reassembling*, 101.

protocols for Māori based upon Western and Christian ideals.⁷⁰⁴ During colonisation, Māori men were frequently encouraged to abstain from moko entirely and to grow beards to cover any moko that was already applied. Consider Robley who encountered an older generation of men and women with complete moko and moko kauae; simultaneously Robley saw members of the following generation forgo moko or display incomplete tattoos.⁷⁰⁵ So, even though tā moko was still practiced in some areas, for the most part, it was discouraged, and men with moko were less likely to get jobs.⁷⁰⁶ However, not all Pākehā supported Williams and the strictures other Christian missionaries sometimes tried to impose. For example, whilst the Church Missionary Society supported British authority over Māori, they opposed suppression of Māori practices and beliefs.⁷⁰⁷ Recall also that some Pākehā participated in tā moko. However, both groups' engagement with Māori had profound effects on Māori practice and on the cultural and geographical landscape of Aotearoa (New Zealand).

Māori involvement with Pākehā made it more difficult for Māori to engage fully with other entities (Cs, Ds, and Es) they had been associated with the past. For instance, let us consider C as the land of Aotearoa. Māori consider themselves as tangata whenua, indigenous people of the placenta and of the land.⁷⁰⁸ Māori are the land, a point which Mead reminds us is reinforced by the Māori practice of interring the whenua (placenta) within the whenua (also land).⁷⁰⁹ Even today, Māori commonly cite a particular feature of the land, such as a maunga

⁷⁰⁴ Huia Tomlins-Jahnke and Malcolm Mulholland, *Mana Tangata: Politics of Empowerment* (Wellington: Huia Publishers, 2011), 23.

⁷⁰⁵ Walker, *Robley*, 65-7.

⁷⁰⁶ Beeler, *Desire and Violence*, 160; Ellis, *Tattooing the World*, 173.

⁷⁰⁷ Tomlins-Jahnke and Mulholland, *Mana Tangata*, 23.

⁷⁰⁸ Moorfield, *Māori to English Dictionary*, "tangata whenua," accessed April 16, 2015; Mead, *Tikanga Māori*, 19.

⁷⁰⁹ Mead, *Tikanga Māori*, 288-9.

(mountain) or awa (river) as sacred to their ancestry and, subsequently, their identity.⁷¹⁰

However, as Pākehā began to colonise New Zealand, competition for land and resources increased significantly.⁷¹¹ Many Māori were displaced from their ancestral lands. Engagement with the land that had been so integral to their sense of well-being and identity was not possible in the way it was prior to colonisation. Thus, Māori involvement with Pākehā not only shifted associations within the network but it made certain channels less accessible.

However, it is imperative to remember that at any point, B can choose to disengage with A. This is one area where transmissive assemblage differs significantly from costly signalling theory. Within costly signalling theory, agents are locked into their signals. Being hard-to-fake often demands acts that cannot be reversed, like facial tattooing or scarification. Accordingly, if moko is a costly signal, it cannot be taken back; one is perpetually signalling. Additionally, if signals are truly costly signals, receivers do not want to disengage, since they, too, can receive valuable information from the exchange.

Regardless of the information being conveyed and/or how that information is received, within a costly signalling framework one can never disengage. For instance, Cisco's linkage between moko and war leads her to conclude that one reason for the disappearance of tā moko was that colonisation brought an end to internal warfare amongst and between Māori groups. Yet, as we learned in previous chapters, moko never actually disappeared. Notwithstanding lulls in tā moko, there has never been a time when moko was unseen upon a Māori face.

The association Cisco attempts to build between moko and war is a weak one. We know that Māori warfare has been mythologised and romanticised. Furthermore, tā moko has

⁷¹⁰ Taima Materangatira Moeke-Pickering, "Maori Identity within Whanau: A Review of Literature," Hamilton, N.Z.: University of Waikato, 1996. Accessed September 28, 2015. <http://researchcommons.waikato.ac.nz/handle/10289/464>.

⁷¹¹ Moeke-Pickering, "Maori Identity," 4.

continually been practiced, indicating that it must have other, more substantial associations which endured and/or were formed during and after colonisation. Moko has never stopped operating as a signal and, as was demonstrated in Chapter Three, costly signalling theory cannot effectively account for its perpetuation.

A transmissive assemblage model encourages us to consider tā moko as a signal, conveying significant information to receivers, but it is not limited by the constraints of signaller/receiver dynamics. Rather, the signalling environment and associations between agents become key; whereas, in traditional conceptions of costly signalling, the signalling environment looms in the background. Because signallers can be identified by the content of the signals they convey, through association, they are not limited by the form of its external manifestation; its agentic form. The fluidity of interaction, permitted by actor-network theory and indigenous ontological perspectivism, allows signallers and receivers to readily disengage by allowing interactions with whomever, whatever, and whichever ways they choose. Thus, room exists to consider linkages between mau moko and others that do not even pertain to moko but which shape the signalling environment. In turn, the holistic reality of Māori is affirmed, since no one aspect is automatically viewed as any more or less significant than any other, regardless of how visible it might be, and because, whether something is animate or inanimate, it assumes the role of agent within the network.

One element of Māori disengagement with Pākehā pertains to moko kauae. During the time of European settlement and colonisation, Māori women were more isolated than their male counterparts, making them less likely to engage with Pākehā. In fact, women “in general,” including Pākehā settler women, were often secluded both physically and also from the discourse

which, at the time of colonisation, was largely coloured by the lens of Pākehā male authors.⁷¹²

The seclusion of moko kauae weakened Māori links to Pākehā colonisers. Higgins sees a definite correlation between Māori movements towards maintaining their group identity, and the survival of moko kauae into the 20th century.⁷¹³ Thus, the disengagement of moko kauae from increasing associations to Pākehā later had a significant impact on the re-emergence of Māori identity and practices which took root during the Māori cultural renaissance of the 1960s and 70s.

In the 1960s and 70s, a single Māori identity began to emerge that included all individuals who could claim Māori ancestry. Establishing a broader Māori identity was seen as a much needed response to the disintegration of the traditional Māori group system which appeared as a repercussion of the Māori urban migration that commenced in the 1950s following World War Two.⁷¹⁴ The movement gained considerable momentum from the 1980s onward and contributed to new, stronger sense of Māori identity.⁷¹⁵

Recall from Chapter Two that at this time a “pan-Māori identity” was created, prompting individuals of Māori descent to seek out and cultivate a shared cultural inheritance founded in a sense of communal experience and belief. Underscoring this movement toward a general Māori identity was a more generic, traditional worldview that transcended specific hapū or iwi affiliation by emphasising union with the land in a way that any individual with links to a Māori heritage could relate. Accompanying this movement was a return to traditional Māori art forms, like moko.⁷¹⁶

⁷¹² Ellis, *Tattooing the World*, 173.

⁷¹³ Higgins, “Identity Politics.”

⁷¹⁴ Durie, *Ngā Tai Matatū*, 21.

⁷¹⁵ Zygadlo et al., “Tourism,” 8.

⁷¹⁶ *Ibid.*; Durie, *Ngā Tai Matatū*, 11, 137.

Thus, transmissive assemblage helps us to see that part of the decolonisation process is to affirm that Māori were assertive in the preservation of Māori identity and practice. By tracing associations, the negative impact of 19th and 20th century is revealed as a real but non-limiting factor for Māori. Despite the undeniable negative impact of colonisation, Māori were able to endure and maintain associations to their past. These remaining connections, to some extent, gave Māori the means to disentangle themselves from the network of associations they had established with Pākehā colonisers to form new associations that helped them to mobilise and seek out their own voices and representations. In other words, Māori were able to remobilise when the signalling environment shifted enough to allow for the assertion of new associations to pre-existing ones.

This aligns well with Latour's observation that agents are constantly reforming and destroying groups, and represents one way that integrating actor-network theory is beneficial.⁷¹⁷ In many ways, costly signalling theory presents the roles as reversed. A (signaller) signals and B (receiver) makes the decision about what course of action to take. What costly signalling theory does not take into account is that although B's decision is altered by A's signal, ultimately B's decision also affects the course of action A takes and has significant ramifications for C, D, and E who were involved in the interaction. The linearity of costly signalling theory, even in its multicomponent and multimodal forms, does not permit us to explore outside of the standard course of action: signaller → signal → receiver. Yet, when discussing culture or the social, these offshoots of a phenomenon have serious repercussions for the group and its members, such as the profound impact alienation from their ancestral lands had on Māori as a result of their interaction with Pākehā.

⁷¹⁷ Latour, *Reassembling*, 46.

The integration of actor-network theory into an evolutionary explanation, allows us to see and describe how a network is assembled, thus, we are no longer quarantined to outcomes based on questions about “why something happens.”⁷¹⁸ Rather, the significant component is the recognition *that* something happens—a great many somethings—which need to be taken into account to understand groups and their evolution. How much greater would costly signalling theory’s explanatory power be if the associations derived from the signal were integrated into the model?

Tracing just a few of the associations to tā moko further supports that negotiating with moko is not as straightforward as Cisco would have it. To engage with moko is to engage with all dynamic elements that can be reassembled to comprise what we might call tā moko. Likewise, it is also to engage with the reassemblage of Māori and Pākehā elements that feed into and out of tā moko. This includes anything from spiritual and religious beliefs to variations that occurred within pre-contact moko due to the availability of specific resources within regions of Aotearoa; any attempt to list individual elements could go on ad infinitum. Moreover, it is to be reflexive in the process of how these assemblages are portrayed and discussed. Undoubtedly, tracing associations liberates us from the encumberment and limitations more standard theories rely upon.

Visualising Transmissive Assemblage

Although significantly more work needs to be done with actor-network theory in relation to cultural practice, and specifically with tā moko, at the juncture of this thesis, based on the above discussions in this chapter, I would argue that our understanding of tā moko can be reshaped through actor-network theory along with the ontological influences of Kaupapa Māori and

⁷¹⁸ Law, “Material Semiotics,” 141.

indigenous ontological perspectivism. Moreover, it has been established that the integration of actor-network theory into the realm of evolutionary explanations of culture provides us with the means to be reflexive and to decolonise evolutionary explanations by shifting away from agency and toward interaction. In order to further crystallise these arguments and to establish a clearer picture of transmissive assemblage, I present a new model in the following section.

Standard Signalling

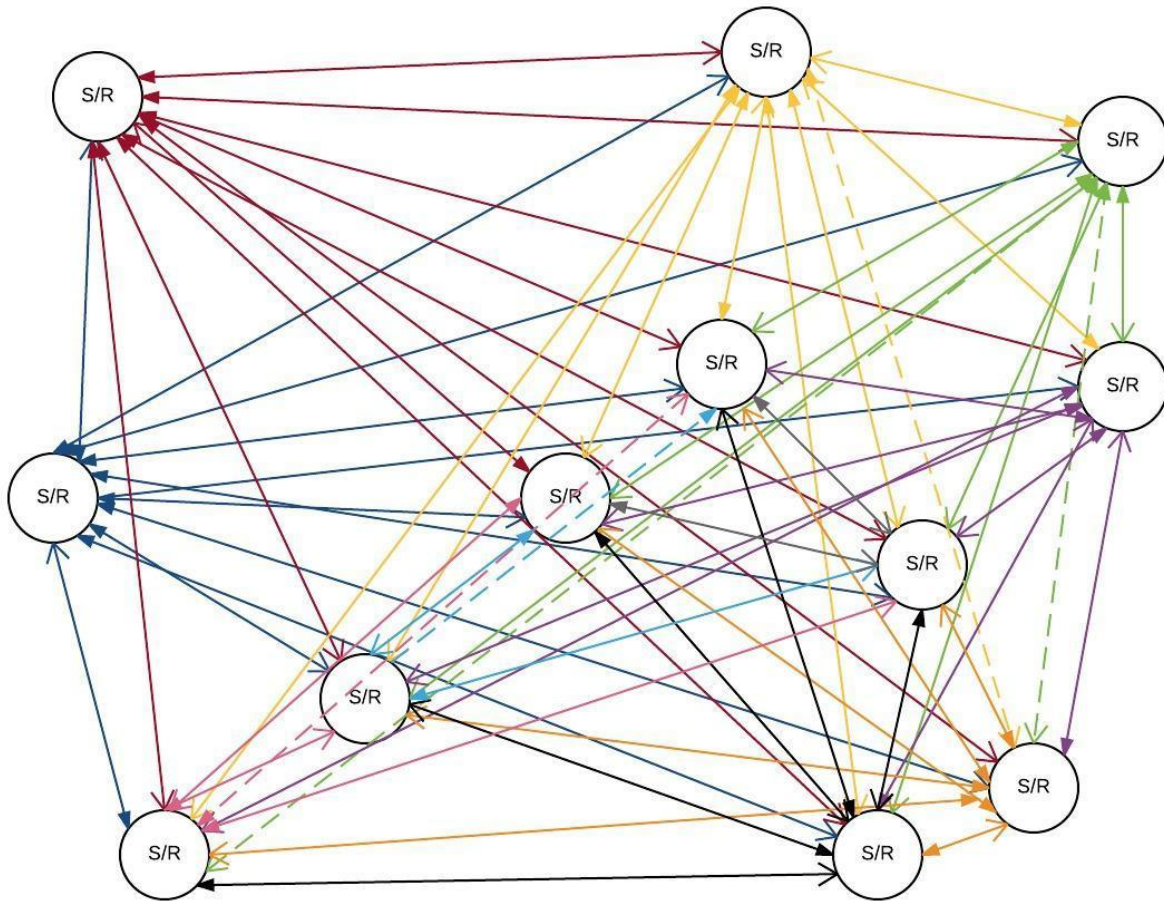
Signaller→Signal→Receiver

In the standard signalling model a signaller signals to a receiver who makes a decision based upon the information provided by the signaller. Whilst a receiver can become a signaller, the linearity of the transaction-specific communication that epitomises the signaller/receiver relationship is maintained. A signaller signals, a receiver receives, and this pattern continues ad infinitum.

Transmissive Assemblage

For the time being, I think it is sufficient to continue with the labels signaller, signal, and receiver but let us cast aside the both the individuality and the linearity with which they are presented in costly signalling theory. I interpret signal to mean the communication or transmission of information. What we are now presented with are signallers, which are broadcasting signals, to receivers which can be any in number.

Figure 1: Transmissive Assemblage Network

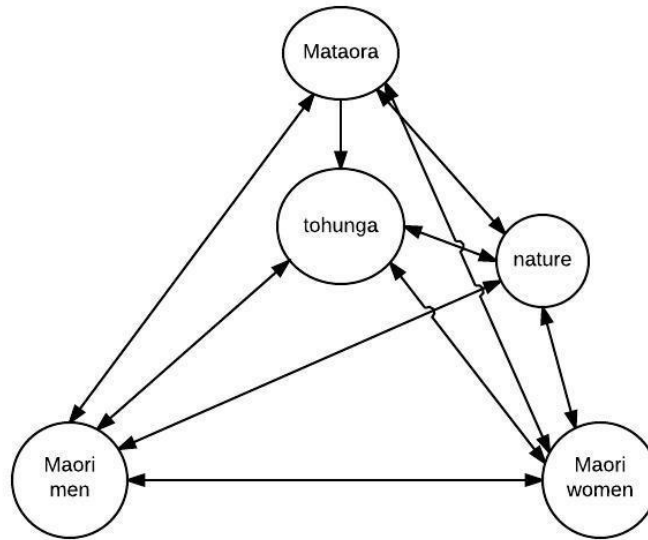


The fluidity of the signaller/receiver dynamic immediately becomes apparent. Signallers can send and receive and receivers can receive and send. However, they do not have to do both. Some agents may simply transmit information without receiving a signal and vice versa. Yet, the latitude exists for an agent to step into whatever role the associations generated from a signal entail. Thus, the labels of signaller and receiver become completely arbitrary delineations to demarcate the circulation of signals. They are significant, in that, they provide anchor points useful to locating the origination of a signal or potential places which affect the circulation of the signal or where changes to signal contents may occur. However, they are insignificant in that their definition is completely contingent upon the circulation of the information contained within

the signal and the associations created between signaller and receiver via the signal itself. We also see that neither the signaller nor the receiver is limited in the number of signals he can send or receive in a single instance, which further stresses the non-linearity of the transmissive assemblage model. Moreover, this lack of limitation means that not only is there heteroglossia within the network but signallers and receivers may also be polyvocal, depending upon which role(s) they assume to transmit and receive the signal.

The next step is to attribute characteristics to the signaller/receivers. In accordance with Kaupapa Māori, indigenous ontological perspectivism, and actor-network theory, these characteristics can be human, non-human, or inhuman. As the graphic below indicates examples of human characteristic are mau moko or tohunga-tā-moko, where as non-human are agents like uhi and atua. Once appropriate characteristics are attributed to identified agents, the next step is to distribute properties among the agents which serve to establish connections between them. Since we are considering moko as a signal, the attributions, distributions, and connections are what result in its circulation. As elements circulate, then attributions, distributions, and connection transform, as do the few ways they are transmitted. This graphic illustrates the fluidity of network components of pre-contact Māori tā moko when modelled through transmissive assemblage.

Figure 2: Transmissive Assemblage Model of Māori Tā Moko



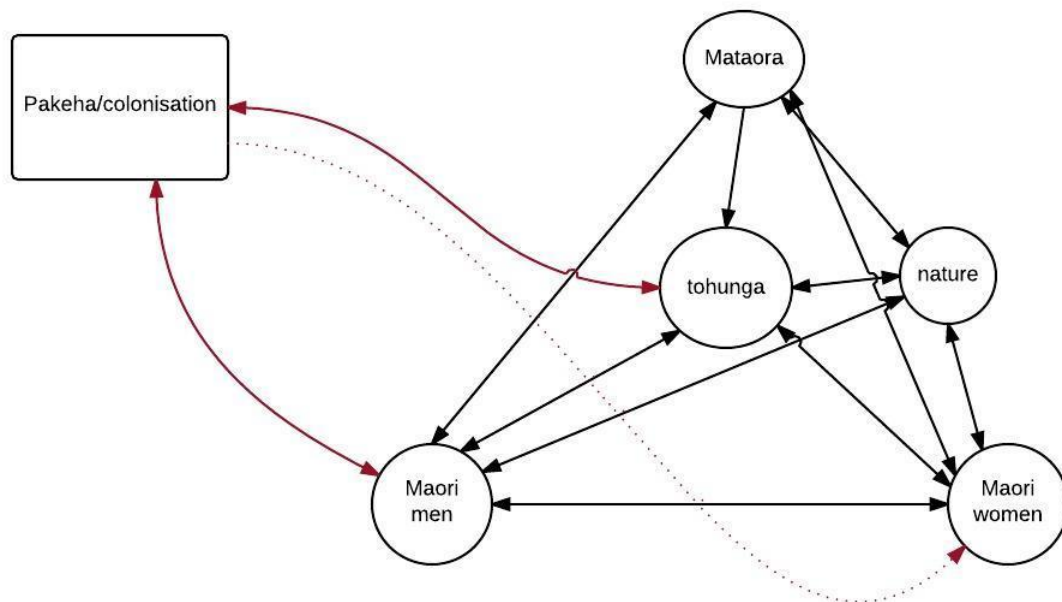
This example illustrates that tā moko circulates between entities. Nature, the narrative of Mataora, and tohunga-tā-moko are all equally significant entities in its distribution. Again, these are components that were completely absent from the account of tā moko we find within the Cisco case study. However, it is not just a matter of adding new entities, it is examining the way tā moko (as a signal) is distributed and circulates between them.

The graphic shows that certain associations are key to the distribution of tā moko, such as the connection between tohunga-tā-moko and nature. To understand what tā moko communicates requires understanding the linkages between agents. Indeed, natural elements found within Aotearoa differed significantly from what was found in Polynesia. Thus, the relationship between tohunga-tā-moko and the natural environment influenced the evolution of tā moko, since tohunga-tā-moko could only construct implements and ink based upon what was available to them. The circulation of tā moko between these two entities indicates an area where signal analysis may be particularly fruitful.

Another significant connection is the circulation of tā moko between the narrative of Mataora and other entities. Indeed, as the landscape of Aotearoa influenced the ways in which the tā moko signal was distributed, such evolutions would be evident in the narratives of Mataora as bound to tikanga Māori. Different inputs, in the form of new environmental pressures, inevitably call for behavioural changes. Since the narrative of Mataora is integral to the dissemination of tikanga Māori, environmental shifts which affect the distribution and circulation of tā moko would be reflected in the narrative.

Most importantly, the graphic illustrates that elements that may not intuitively be connected actually are. The associations tā moko creates serve to shift our perceptions of the dynamics that shape tā moko and which inform its circulation. Indeed, it is evident that tā moko involves an entire network of linkages. When shifts occur, each association in some way is going to be affected. To underscore the benefits of the integrative model, let us look at how this same integrated signalling network is affected by colonisation and Pākehā presence in Aotearoa.

Figure 3: Impact of Pākehā/Colonisation on Tā Moko Circulations



I have kept the existing network in black and the network elements introduced by colonisation appear in red. The underlying pre-contact Māori network remains intact. However, we see new tā moko circulations between Māori men and tohunga-tā-moko. The dotted line between Māori women and colonisation indicates that there is a circulation but that the signal is not as strong as it is between Māori men and colonisation and tohunga-tā-moko and colonisation.

Perhaps the most significant revelation from the graphic is that Pākehā connections to anything pertaining to tā moko must first circulate through a Māori agent. Pākehā have no direct connection to tā moko, except through the underlying Māori network. Thus, to exert influence on tā moko in any capacity requires a Māori intermediary. Thus, any change that occurs to tā moko, even if the source of the pressure to change comes from Pākehā, must be initiated by Māori. The result is the confirmation that to decolonise tā moko, the Māori voice must be highlighted and Kaupapa Māori provides the perfect vehicle.

Kaupapa Māori has the infrastructure to articulate the internal Māori network. Those of us outside of the network can observe and discuss the changes we see happening to the network, but only in terms of effects. We do not have the access to the internal components of the network to provide a sense of how the pressure upon Māori men and tohunga-tā-moko affected the innerworkings of tā moko. The graphic illustrates that the pressure of colonisation was less upon Māori women, which likely left more connections to the underlying Māori network. In turn, the linkages between Māori women and the Māori network would have allowed tā moko to continually circulate despite the pressure exerted upon other aspects of the network. To understand the enactment of this requires Māori voices, since it is they who can commentate on the associations between tā moko and agents throughout the network.

Furthermore, because any systemic changes to the network had to first go through a Māori intermediary, the transmissive assemblage model suggests that we need to rethink colonisation. It is not that colonisation was not detrimental or negative for Māori, as it unquestionably was. However, the pressures brought about by colonisation came through Māori agents and, thus, Māori made choices about how best to cope with these new inputs. Colonisation was not a force stronger than Māori. Rather, Māori had the strength and endurance to withstand the pressures of colonisation by preserving associations they had to Māori practices like tā moko by insulating their own network.⁷¹⁹ According to transmissive assemblage, Māori tā moko endures because Māori made choices that allowed a distinctively Māori network to remain despite colonising pressures for mutation. This Māori network endures today and Kaupapa Māori is its voice.

As the reinsertion of the Māori voice through Kaupapa Māori demonstrates, the transmissive assemblage model possesses the latitude to highlight a particular voice or connection which provides added benefit to indigenous peoples whose voices have been marginalised by colonisation. Furthermore, this chapter has shown that transmissive assemblage facilitates heteroglossia which effectively decolonises signalling theory by providing an effective and innovative means to trace the circulation of information as it flows between agents. In doing so, transmissive assemblage provides one viable example of how evolutionary explanations of culture can evolve into symmetrical, decolonised versions of themselves which encourage and support emic accounts of cultural practices, thereby increasing their explanatory power.

⁷¹⁹ Nikora, Rua, and Te Awekotuku, “Renewal and Resistance,” 488; Te Awekotuku et al., *Mau Moko*, 85, 123, 152, 212-6; 225. See also Durie, *Ngā Tai Matatū*, ix-278.

Conclusion

At the beginning of this study, I posed the question: how and why can a critical evaluation and decolonised recension of costly signalling theory enhance our understanding of cultural practices? This thesis utilised the contemporary tā moko narrative crafted by Cisco which drew upon 19th and 20th century Pākehā sources to argue for moko as a costly signal as a case study to illuminate politico-ethical considerations that arise when Māori ontology and epistemology are disregarded. My analysis of the Cisco case study revealed that by discounting the ontological and epistemological underpinnings of tā moko, which anchor Māori holistic reality, we are left with a recolonised iteration of erroneous and mythologised versions of Māori tā moko that repudiate Māori narratives.

Utilising an inductive and interpretivist approach, Chapters One and Two were devoted to cultivating an understanding of evolutionary explanations of culture, costly signalling theory specifically, and relational tā moko narratives, both Māori and Pākehā. In Chapter Three, I then utilised insights from this material to critically analyse the Cisco case study application of costly signalling theory to tā moko. This investigation revealed that Cisco's employment of costly signalling led to serious misinterpretations and narrow conceptions of tā moko, its link to warfare, and Māori social structure based on asymmetrical and colonised conceptions of Māori extracted mainly from early Pākehā sources. Furthermore, the analysis of the Cisco case study illuminated further limitations of costly signalling theory with regards to the effectiveness of its theoretical framework for indigenous cultural practice, such as difficulties identifying the signaller, the signal, and the receiver. In an effort to advance a revised model, I devoted Chapter Four to developing an argument for updating costly signalling theory by attending to the deficits

revealed through my analysis. Specifically, in a new model, I showed how elements of costly signalling theory could be evolved into a more symmetrical and decolonised version which, in turn, exponentially increases its explanatory utility for the academic analysis of cultural practices.

Recently, I came across a Māori whakataukī: Nāu te rourou, nāku te rourou ka ora ai te iwi, which translates into something like “with your basket and my basket, the people will live.”⁷²⁰ This proverb underscores that cooperation and solidarity provide a benefit to all and encapsulates findings from this study which stress the need for greater symmetry in the employment of evolutionary explanations. Although indigenous voices are still largely overshadowed by scientific rhetoric, this study has also shown that we are in a prime position to shift that dynamic towards one with greater integration and symmetry.

As Chapter Four demonstrated, integrative modes of enquiry, which leave space for indigenous and Western voices, have considerable and untapped explanatory potential. Not only did the example of transmissive assemblage, which incorporated indigenous frameworks and Western means of analysis, provide concrete examples of features that an integrative model might have, but it further demonstrated the need to move away from why questions toward tracing associations between entities. In doing so, the inherent presumptiveness of why questions, which promulgates alterity (by placing oneself on the outside peering in), is replaced by free association which does not limit who or what acts as a causal agent, instead allowing the interactions to speak for themselves. The effect is one of greater symmetry which eliminates restrictions on whom or what can have a voice in any given interaction. Such latitude transcends the conflicts that arise when Western science meets the holistic realities of indigenous peoples

⁷²⁰ <http://www.maori.cl/Proverbs.htm>, accessed July 17, 2015.

and affords an opportunity to truly decolonise studies of indigenous practice and their evolution by not privileging any one voice. The neutrality of the space created through the integrative model enables us to witness cultural phenomena as they behave naturally, fluctuating and evolving according to shifts that occur within given environments and amongst various peoples.

Moreover, such neutrality does not favour either individuals or groups. Room is left for either the individual or the group, or the individual *and* the group, to influence individual and group adaption. Simultaneously, by focusing on the networks formed between these causal agents, whomever or whatever they might be, selective processes are highlighted, leaving analytical space for other explanatory modes to conjecture and expound upon the innerworkings of those processes, their inter and intra relations within a network, and their role in shaping a given network. Debates over group, individual, and multi-level selection centre on the issue of adaptations or that which is advantageous in a particular environment.⁷²¹ Actor-network theory allows the channels that influence a practice, behaviour, or trait to be traversed, which opens avenues where selective mechanisms can be more clearly identified and analysed in their own right, as processes rather than products.

Some champions of evolutionary explanation may continue to argue for its position as a superior mode of illuminating culture due to its focus on process through the modelling of biological and psychological mechanisms that “permit and shape human culture.” Yet, I have argued that it is precisely this Western scientific gaze which has and continues to alienate the indigenous communities from which many of the practices being researched are derived.⁷²²

⁷²¹ George C. Williams, *Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought: A Critique of Some Current Evolutionary Thought*, (Princeton, NJ: Princeton University Press, 2008), 463.

⁷²² Boyd and Richerson, *Origin and Evolution*, 8.

As has been reiterated in this thesis, throughout the 17th, 18th, and 19th centuries, scientists viewed indigenous practices, knowledge systems, and people as objects; and, as objects, or dehumanized “its,” construed as lacking the appropriate intellectual faculties to understand their own beliefs and practices, they were not entitled to a voice. Objectified and silent, indigenous groups and their beliefs and practices “were commodified as property belonging to the cultural archive of the West.”⁷²³ Furthermore, early forms of social Darwinism generated a common mythos around the lack of fitness of indigenous peoples which would lead to their ultimate demise.⁷²⁴ Indeed, the relationship between indigenous groups and Western science has been, at best, rocky.

As Tuhiwai Smith surmises, much of this tumult can be attributed to the “globalization of knowledge and Western knowledge [which] constantly reaffirms the West’s view of itself as the centre of legitimate knowledge, [and] the arbiter of what counts as knowledge and the source of ‘civilized’ knowledge.”⁷²⁵ Although we are now well into the 21st century these limiting patterns are recurring, particularly as new modes of cultural explanation emerge. It will take a conscious and active effort on behalf of researchers to be ever-mindful of these patterns and to overcome them through the cultivation of more symmetrical dialogue, particularly as new areas of interest come to the fore.

As this research has demonstrated, the current non-symmetrical nature of evolutionary explanations can lead to the misrepresentation of cultural practices through both the dissemination of inaccurate information and through the generation of accounts that do not have relevance to the groups from which they come. When Cisco did not take into account Māori

⁷²³ Tuhiwai Smith, *Decolonizing Methodologies*, 60.

⁷²⁴ *Ibid.*, 62.

⁷²⁵ *Ibid.*, 63.

holistic understandings of tā moko, the result was a Westernised scientific narrative of an indigenous practice, in part, based upon non-factual information which has little relevance to Māori epistemology and ontology. Although many of the specific claims Cisco posits about Māori tā moko seemed sufficiently substantiated, such as its link to warfare, upon further review, they are frequently based upon controversial and outdated evidence.

One might argue that evolutionary explanations of culture are concerned with the processes of evolution which guide cultural change and, thus, due to their objectivity, supersede other explanations of culture and cultural practice, including a group's own explanation of cultural practice and change. However, in the case of Māori tā moko, the account Cisco delivered utilising costly signalling theory did not effectively illuminate any new aspects of tā moko that were not already accounted for by Māori narratives. Not only was this highlighted throughout the critique of costly signalling theory in Chapter Three, which revealed fundamental problems such as identifying the signaller, the receiver, and the signal itself, it was especially emphasised by the exercise of changing the language of the Mataora narrative to more closely reflect that of costly signalling theory. New language, terms, and framing were used, yet little new insight was gained. The insight that *was* gained affirmed that the Mataora narrative *already* offered an evolutionary explanation of tā moko through an indigenous, independent framework of tikanga Māori, though without the employment of Western biological terms.

Understanding that evolutionary explanation and selective mechanisms for Māori exist and are available through Māori narratives affords non-Māori a unique opportunity to realise the informative value of indigenous narrative. To non-Māori, moko is perceived as having a “double skin” which “juxtaposes interiority and exteriority,” creating a disconnect between the meaning a

permanent mark has for the individual and the way it is perceived on the outside.⁷²⁶ In part, this perception is the result of Western relationships to tattoo, where tattoo has always been “other,” resulting in a fixation on the external product, rather than its internal meaning. However, this disconnect is also due to the lived quality of Māori narrative, embodied by tā moko, which cannot be expressed, because it is inherent. For Māori, narratives underscore the “interconnectedness” of everything within the cosmos; yet all cannot be witnessed in daily existence. As Marsden stresses, contrary to Western conceptions of the natural world, Māori “do not live in a closed system where what we see is all there is,” and pūrākau (mythological traditions) are central to integrating and articulating Māori holistic reality as framed within the “nature of the world” and in the process of perpetual recreation.⁷²⁷

This study underscores the significance of narrative and narrative assemblage. The narrative of Mataora is a complex account, which not only explains tā moko, but also serves as a template for right conduct for Māori and highlights the transtemporal and transspatial quality of Māori holistic reality. By underscoring the parallels and differences between the narrative of Mataora and the explanation of the practice through a costly signalling theory framework, I affirm the innate complexity and informative value of Māori narratives which, in their capacity to accommodate the complexities of tā moko as a signal, surpass that of costly signalling theory.

To discount the reality and exegetical imperative of Māori narrative is to denounce the inherent complexities of indigenous peoples and to reduce them into a fractionalised portrayal of themselves, framed and judged by a system other than their own. The narrative assemblage

⁷²⁶ Charles Talliaferro and Mark Odden, “Chapter One: Tattoos and the Tattooing Arts Perspective,” in *Tattoos-Philosophy for Everyone: I Ink, Therefore I Am*, ed. Robert Arp (Chichester, West Sussex, U.K.: John Wiley and Sons, Inc., 2012), 11.

⁷²⁷ Marsden, *Kaitiakitanga*, 3-4. For more information about the view of mythology and ritual as the perpetual recreation of the cosmos, see Mircea Eliade, *The Myth of the Eternal Return* (Princeton, NJ: Princeton University Press, 2005).

encourages us to question this.⁷²⁸ What do we learn about Māori through Western stories? When broaching another's narratives, what filters are we consciously or unconsciously imposing to generate the patterns we discover? How do we discover the narratives of others, rather than construct them?

In this study, narrative supplied by the Cisco case study portrayed Māori as one dimensional. Not only were Māori construed as being preoccupied by war, but Cisco also delimited the tā moko tradition to only chiselled moko, ultimately ignoring the long-standing tattooing tradition Māori inherited from their Polynesian ancestors and the atua. The one-dimensionality of the Cisco case study continued in the lack of engagement with the context in which tā moko developed and was perpetuated, raising significant politico-ethical considerations. Tikanga Māori and mātauranga Māori are critical to discussions about tā moko and, interestingly, afford many parallels to the Western interpretation of tā moko. In fact, this study demonstrated that Māori conceptions of the Mataora narrative make a more effective case for tā moko as a costly signal than did the employment of costly signalling theory. Because the narrative of Mataora is often referred to as a myth, which, in the Western world, is generally accompanied by trepidation over definitions and a host of negative and naive implications with regards to belief systems, its explanatory utility, particularly through a Western scientific lens, is held to be virtually non-existent. Yet, as Doniger insists:

myth is cross-culturally translatable, which is to say comparable, commensurable. The simultaneous engagement of the two ends of the continuum, the same and different, the general and the particular, requires a particular kind of double vision, and myth, among all genres, is uniquely able to maintain that vision. Myth is the most interdisciplinary narrative.⁷²⁹

⁷²⁸ Doniger, *Other Peoples' Myths*, 1.

⁷²⁹ Doniger, *Implied Spider*, 6.

Indeed, findings from this study reinforce Doniger's point and suggest that it is time to utilise narrative assemblage to rethink our position on the explanatory value of indigenous narrative or myth and its relationship to Western scientific models of culture and to address politico-ethical considerations that arise when investigating indigenous cultural practice. Undoubtedly, this is a rich area for future research for both indigenous peoples and Westerners. A good starting point from the evolutionary explanation side would be to conduct investigations through the lenses provided by indigenous peoples, to see what mechanisms are already in place within group practices and evolution. Collaborative efforts between indigenous peoples and Western researchers could then take place to further the use of narrative assemblage and indigenous modes of knowledge by identifying what contributions Western evolutionary explanations might offer in the way of additional support or new insights into existing explanations. Of course, this would require an open dialogue from all parties involved and represents another avenue for the employment of transmissive assemblage. By examining processes, rather than agencies, a more neutral space can be created, one which transcends the bounds of identity and narrative.

However, to achieve this neutrality requires that the rift between science and indigenous realities be acknowledged and addressed. As has become apparent throughout this research, on the one hand we have scientific realities, which are grounded in the search for facts and objectively substantiated truths; and, on the other hand are indigenous realities, which are holistically shaped and defined by enduring patterns of existence and which stress transtemporal and transpatial interconnectedness. Though indigenous peoples perceive holistic realities buttressed by transtemporality and transpatiality as undeniable, substantiated truths, such conceptions may not fit the Western model of objectivity. Given the findings of this study, the reluctance of indigenous peoples to engage with Western modes of scientific inquiry is not

surprising, particularly since it has been the objective stance of Western science that influenced colonial efforts which has largely contributed to the objectification of indigenous peoples.⁷³⁰ Yet, as I have endeavoured to affirm, there is fertile ground for further dialogues to emerge in an effort to develop synthesised and decolonised explanations of cultural practice.

Significantly, my research provides a space for indigenous groups and, in this case particularly Māori groups, to assert their own agency within the area of cultural evolution. Moving in this direction is paramount and long overdue, since indigenous researchers are often reluctant to utilise methodologies grounded in Western science due to the devastating impact of colonialism and imperialism upon indigenous peoples who were turned into subjects for study.⁷³¹ Furthermore, by encouraging heteroglossia, through the introduction in Chapter Four of a more integrative and symmetrical signalling model, we can continue to develop integrative space to foster more symmetrical dialogues which aim to decolonise the study of indigenous cultural practices through the lens of Western science. Because such models also do not limit agency to humans, a myriad of future avenues for research emerge, including integrative models and investigations into how the dynamics between humans, animals, and inanimate objects shape the networks which guide our evolution.

Although I have critiqued Cisco's employment of costly signalling theory and identified some of the key issues which emerge when applying evolutionary explanations of culture to indigenous groups, I have only grazed the surface. There are numerous evolutionary explanations of culture, each with its own models and predictions of how cultures evolve and the adaptive mechanisms responsible for this evolution. Yet, little work has been done in terms of the

⁷³⁰ Laudislaus M. Semali and Tataleni I. Asino, "Decolonizing Cultural Heritage of Indigenous People's Knowledge from Images in Global Films," *Decolonization: Indigeneity, Education and Society* 2, no. 2 (2013): 31-3; Said, *Orientalism*, 97, 115-6.

⁷³¹ Tuhiwai Smith, *Decolonizing Methodologies*, 11.

relationship of these models to, handling of, and accounting for indigenous groups' practices. With the increased prevalence of evolutionary explanations within the social sciences and humanities, if we are to engage in fruitful dialogue between Western scientists and indigenous scholars, then research also needs to be conducted into indigenous explanations of cultural and biological evolution. We simply cannot rule out the possibility that indigenous groups have their own understandings of these processes which may both benefit and be benefitted by Western science, particularly with regards to stances toward selection criteria and selective processes that influence cultural change.

One of the most interesting facets of such discussions might be the role that temporal conceptions play in the way different groups approach the evolution of their own practices. For example, some evolutionary explanations imply that the past, as it once was, is no longer accessible, and that what we are left with is the accumulation of information which has had fidelity on the population level. Think of the simple but effective arrowhead example from Boyd and Richerson, where tribal elders used different lengths of arrowheads but on the population level what is stored is an average of these different lengths. Those specific arrowhead lengths are no more. What remains is an average of them. The same is true of cultural groups and our ancestors. According to Western modes of thinking, we have evolved and our cultures are no longer what they once were. Our ancestors have passed, leaving us their legacies, but they are no longer present in the here and now, aside from the DNA we might share with them.

This is strikingly different from Māori conceptions of the effect of time on cultural inheritance and causal agents who influence the present state of Māori people and the information which circulates amidst them. For Māori, the atua and the ancestors are ever-present. There is no past state to which one must return to access them or the world in which they lived

in, as that world and the ancestors are present; in other words, the past is the present. Thus, any Māori concept of evolution or *ōrokohanganga* is presently bound to the beginning and the future, and, thus, must not be subject to the implied linear notions of progress often present in Western evolutionary explanations of culture.⁷³²

Additionally, whilst I have presented some of the challenges faced when employing evolutionary explanations to indigenous practices, I have not really delved into the prevalent issues within indigenous studies. Questions such as what constitutes indigeneity and about how different groups, such as Māori *iwi*, *hapū*, and *whānau*, negotiate their own autonomy within what is now also upheld as a singular indigenous tradition are fertile grounds for future discussions; as is the issue of how those negotiations are reflected within group practice. Indeed, “the recognition of who is Indigenous is fraught with tensions related to ethnicity, race, colonisation, and culture.”⁷³³ Related questions, such as who retains the cultural mandate to study indigenous groups and their practices also remain ripe for discussion, particularly as scientific modes of inquiry become increasing prevalent within the social sciences and humanities.

Moreover, I would argue that there is considerable room to craft more models like the one presented in Chapter Four. Such models could be built from any number of evolutionary explanations of culture, like dual-inheritance theory or meme theory. Where evolutionary explanations of culture help us to identify key variables, symmetrical approaches like actor-network theory, indigenous ontological perspectivism, and *Kaupapa Māori* all help us to trace

⁷³² “*ōrokohanganga*,” *The Māori Dictionary*, accessed October 4, 2015, <http://www.maoridictionary.co.nz/search?idiom=&phrase=&proverb=&loan=&keywords=evolution&search>.

⁷³³ Donna M. Mertens, Fiona Cram, and Bagele Chilisa, “Chapter One: The Journey Begins,” in *Indigenous Pathways into Social Research: Voices of a New Generation*, eds. Mertens, Donna M., Fiona Cram, and Bagele Chilisa (Walnut Creek, CA: Left Coast Press, 2013), 13.

associations between these entities which may not be readily apparent. There is no end to the number of models that could be created or possible approaches which could be integrated.

As more effort is put into assembling more integrative models, the potential exists to incorporate even more perspectives. Indigenous ontological perspectivism raises an interesting possibility that at some point in the future we may be able to model cultural practice from the point of view of the animals with whom de Castro maintains we share ontologies. This also has profound consequences for costly signalling theory, since it is derived from animal signalling. Imagine if we could map culture and communication from the perspective of animals, not just our interpretation of their perspectives. Perhaps their understanding of culture and cultural practice would lead to revolutionary changes in the perception of our own world.

In light of these realisations, we are reminded of the imperative for self-reflexivity. In the words of Maceda:

If our colonial legacy remains unexamined, our ability to fully understand and appreciate indigenous knowledge will evoke us to the extent that our minds, if not our hearts, will remain colonized. It is only through the decolonization of our minds, if not our hearts, that we can begin to develop the necessary political clarity to reject the enslavement of a colonial discourse that creates a false dichotomy between Western and indigenous knowledge.⁷³⁴

It behoves us, not only to question our own motives as researchers, but, moreover, to question the purpose of our investigations and their ramifications on others. Are we perpetuating this dichotomy or working to decolonise our approaches? In our research, what are our biases and how is our employment of Western scientific discourse affecting or further dichotomising our intentions and results? Why are models outside of the Western scientific paradigm still deemed less credible as explanations of cultural practice? What benefit does a study have for a particular

⁷³⁴ Donaldo Macedo, "Preface: Decolonizing Indigenous Knowledge," in *What is Indigenous Knowledge?: Voices from the Academy*, eds. Ladislaus M. Semali and Joe L. Kincheloe (New York; London: Falmer Press, 1999), xv.

practice when its explanation is deemed irrelevant amongst members of the group whose practice it is? Do evolutionary explanations enhance our understanding of cultural practices? I am not sure that we have easy answers to any of these questions, despite our immediate inclination to dismiss them as trivial or outdated. For indigenous peoples and marginalised groups, these questions are profoundly significant; perhaps, we should be asking them of ourselves.

Bibliography

- Abbott, H. Porter. *The Cambridge Introduction to Narrative*, 2nd ed. Cambridge: Cambridge University Press, 2008.
- Agrawal, Arun. "Indigenous and Scientific Knowledge: Some Critical Comments." *Development and Change* 26, no. 3 (1995): 413-39.
- Aichele, George. "Poststructural Criticism." In *Searching for Meaning: An Introduction to Interpreting the New Testament*, edited by Paula Gooder, 96-106. Louisville, KY: Westminster John Knox Press, 2009.
- Aikenhead, Glen S., and Masakata Ogawa. "Indigenous Knowledge and Science Revisited." *Cultural Studies of Science Education* 2, no. 3 (2007): 539-620.
- Alberti, Benjamin, and Yvonne Marshall. "Animating Archaeology: Local Theories and Conceptually Open-Ended Methodologies." *Cambridge Archaeological Journal* 19, no. 3 (2009): 344-56.
- Alcock, John. *Animal Behavior*. Sunderland, MA: Sinauer Associates, Inc., 1993.
- Alexander, Richard D. "The Evolution of Social Behavior." *Annual Review of Ecology and Systematics* 5 (Nov., 1974): 325-83
- Alfred, Taiaiake, and Jeff Corntassel. "Being Indigenous: Resurgences against Contemporary Colonialism." *Government and Opposition* 40, no. 4 (2005): 597-614.
- Almond, Phillip. *The British Discovery of Buddhism*. Cambridge: Cambridge University Press, 1988.
- Amadiume, Ifi. *Re-inventing Africa: Matriarchy, Religion and Culture*. London: Zed Books, 1997.
- Angas, George French. *Savage Life and Scenes in Australia and New Zealand: Being an Artist's Impressions of Countries and People at the Antipodes*, vol. 1. London: Smith, Elder and Co., 1847.
- Arnold, Matthew. *Culture and Anarchy: An Essay in Political and Social Criticism*. Oxford: Project Gutenberg, 1869.
- Atkinson, Quentin, and Harvey Whitehouse. "The Cultural Morphospace of Ritual Form: Examining Modes of Religiosity Cross-Culturally." *Evolution and Human Behavior* 32 (2011): 50-62.

- Aunger, Robert. "Conclusion." In *Darwinizing Culture: The Status of Memetics as a Science*, edited by Robert Aunger, 204-32. Oxford: Oxford University Press, 2000.
- Aunger, Robert. *The Electric Meme: A New Theory of How We Think*. New York: Free Press, 2002.
- Avital, Eytan, and Eva Jablonka. *Animal Traditions: Behavioral Inheritance in Evolution*. Cambridge: Cambridge University Press, 2000.
- Axelrod, Robert. *The Evolution of Cooperation*. New York: Basic Books, 1984.
- Bailey, Benjamin. "Heteroglossia." In *The Routledge Handbook of Multilingualism*, edited by Marilyn Martin-Jones, Adrian Blackledge, and Angela Cresse, 499-507. New York: Routledge, 2012.
- Baker, Kriselle. "The Truth of Lineage: Time and Ta Moko." In *Fiona Pardington: The Pressure of Sunlight Falling*, edited by Kriselle Baker and Elizabeth Rankin, 26-34. Dunedin, N.Z.: Otago University Press, 2011.
- Bakhtin, M.M. *The Dialogic Imagination: Four Essays*. Austin, TX: University of Texas Press, 1981.
- Ballara, Angela. *Iwi: The Dynamics of Māori Tribal Organisation from c.1769 to c.1945*. Wellington: Victoria University Press, 1998.
- Banks, Joseph. *Journal of the Right Hon. Sir Joseph Banks, during Captain Cook's First Voyage in H.M.S. Endeavour in 1768-71 to Terra del Fuego, Otahite, New Zealand, Australia, the Dutch East Indies, Etc.*, edited by Sir Joseph D. Hooker. London: Macmillan, 1896.
- Barlow, Cleve. *Tikanga Whakaaro: Key Concepts in Māori Culture*. South Melbourne, Victoria, AUS: Oxford University Press, 2005.
- Barnes, Helen Moewaka. "Kaupapa Maori: Explaining the Ordinary." *Pacific Health Dialog* 7, no. 1 (2000): 13-6.
- Battiste, Marie. "Foreword: Cognitive Imperialism and Decolonizing Research: Modes of Transformation." In *Surveying Borders, Boundaries, and Contested Spaces in Curriculum and Pedagogy*, edited by Cole Reilly, Victoria Russell, and Laurel K. Chehayl, xv-xviii. Charlotte, NC: Information Age Publishing, Inc., 2011.
- Becker, Ernest. *The Birth and Death of Meaning: An Interdisciplinary Perspective on the Problem of Man*, 2nd ed. New York: Free Press, 1971.
- Beeler, Karin. *Tattoos, Desire and Violence: Marks of Resistance in Literature, Film and Television*. Jefferson, NC: McFarland, 2006.

- Belich, James. *Making Peoples: A History of the New Zealanders: From Polynesian Settlement to the End of the Nineteenth Century*. North Shore, N.Z.: Penguin, 2007.
- Bellwood, Peter. *Man's Conquest of the Pacific: The Prehistory of Southeast Asia and Oceania*. Auckland: William Collins Publishers Ltd., 1978.
- Benedict, Ruth. *Patterns of Culture*. New York: First Mariner Books, 2005.
- Bentley, Trevor. *Pakeha Maori: The Extraordinary Story of the Europeans Who Lived as Maori in Early New Zealand*. Auckland: Penguin, 1999.
- Best, Elsdon. *The Maori*, vol. 1. Wellington: Board of Maori Ethnological Research for the Author on Behalf of the Polynesian Society, 1924.
- Best, Elsdon. *The Maori as He Was: A Brief Account of Maori Life as It Was in Pre-European Days*. Wellington: Dominion Museum, 1934.
- Best, Elsdon. "The Uhi-Maori, or Native Tattooing Instruments." *The Journal of the Polynesian Society* 13, no. 3 (1904): 166-72.
- Beyer, Peter. *Religion and Globalization*. London: Sage Publications, Ltd., 1994.
- Beyer, Peter. *Religions in Global Society*. London: Routledge, 2006.
- Beyer, Peter, ed. *Religion in the Process of Globalization*. Würzburg: Ergon Verlag, 2001.
- Beyer, Peter, and Lori Beaman, eds. *Globalization, Religion, and Culture*. Leiden, The Netherlands: Brill, 2007.
- Bishop, Russell. "Kaupapa Maori Research: An Indigenous Approach to Creating Knowledge." In *Maori and Psychology: Research and Practice—The Proceedings of a Symposium Sponsored by the Maori and Psychology Research Unit*, edited by N. Robertson, 1-66. Hamilton, N.Z.: Maori and Psychology Research Unit, 1999.
- Black, Jeff J.S. *Rousseau's Critique of Science: A Commentary on the Discourse on the Sciences and the Arts*. Lanham, MD: Lexington Books, 2009.
- Bleige Bird, Rebecca, Eric Alden Smith, and Douglas W. Bird. "The Hunting Handicap: Costly Signaling in Human Foraging Strategies." *Behavioral Ecology and Sociobiology* 50, no. 1 (2001): 9-19.
- Bloch, Marc. *The Historian's Craft*. Manchester, U.K.: Manchester University Press, 1992.
- Bloch, Maurice. "A Well-Disposed Anthropologists' Problem with Memes." In *Essays on Cultural Transmission*, edited by Maurice Bloch, 87-101. Oxford, NY: Berg, 2005.

- Boas, Franz. "Museums of Ethnology and Their Classification." In *Museum Studies: An Anthology of Contexts*, 2nd ed., edited by Bettina Messias Carbonell, 126-8. Malden, MA: Blackwell Publishing, Ltd., 2012.
- Boesch, Christopher. "Is Culture a Golden Barrier between Human and Chimpanzee?" *Evolutionary Anthropology: Issues, News, and Reviews* 12, no. 2 (2003): 82-91.
- Borovsky, Robert. *Yanomami: Fierce Controversy and What We Can Learn from It*. Berkeley, CA: University of California Press, 2005.
- Bourdieu, Pierre. *The Field of Cultural Production*. New York: Columbia University Press, 1993.
- Bourdieu, Pierre. *Homo Academicus*. Stanford, CA: Stanford University Press, 1984.
- Bourdieu, Pierre, and Jean-Claude Passeron. *The Inheritors: French Students and Their Relation to Culture*. Chicago: The University of Chicago Press, 1979.
- Bowden, Ross. "Tapu and Mana: Ritual Authority and Political Power in Traditional Maori Society." *The Journal of Pacific History* 14, no. 1 (1979): 50-61.
- Boyd, Robert, and Peter J. Richerson. *Culture and the Evolutionary Process*. Chicago: University of Chicago Press, 1985.
- Boyd, Robert, Herbert Gintis, Samuel Bowles, and Peter J. Richerson. "The Evolution of Altruistic Punishment." *Proceedings of the National Academy of Sciences of the United States of America* 100, no. 6 (Mar. 18, 2003): 3531-5.
- Boyd, Robert, and Peter J. Richerson. *The Origin and Evolution of Cultures*. Oxford: Oxford University Press, 2004.
- Boyd Robert, and Peter J. Richerson. "Solving the Puzzle of Human Cooperation." *Evolution and Culture* (2005): 105-32.
- Brett, Mark. *Decolonizing God: The Bible in the Tides of Empire*. Sheffield, England: Sheffield Phoenix Press, 2008.
- Bristow, William. "Enlightenment." *The Stanford Encyclopedia of Philosophy* (Summer 2011 Edition), edited by Edward N. Zalta. Accessed July 8, 2015. <http://plato.stanford.edu/archives/sum2011/entries/enlightenment/>.
- Bro-Jørgensen, Jakob. "Dynamics of Multiple Signalling Systems: Animal Communication in a World in Flux." *TRENDS in Ecology and Evolution* 25, no. 5 (May, 2010): 292-300.
- Brown, John Macmillan. *Maori and Polynesian: Their Origin, History and Culture*. London: Hutchinson and Co., 1907.

- Brown, Joseph Epes. *The Sacred Pipe: Black Elk's Account of the Seven Rites of the Ogala Sioux*. Norman, OK: The University of Oklahoma Press, 1989.
- Bulbulia, Joseph. "The Cognitive and Evolutionary Psychology of Religion." *Biology and Philosophy* 19 (2004): 655-86.
- Bulbulia, Joseph. "Religious Costs as Adaptations that Signal Altruistic Intention." *Evolution and Cognition* 10, no. 1 (2004): 19-38.
- Bulbulia, Joseph, Quentin Atkinson, Russell Gray, and Simon Greenhill. "Chapter 12: Why Do Religious Cultures Evolve Slowly? The Cultural Evolution of Cooperative Calling and the Historical Study of Religions." In *Mind, Morality, and Magic: Cognitive Science Approaches in Biblical Studies*, edited by Istvan Czachesz and Risto Uro, 197-212. West Nyack, New York: Acumen Publishing, 2013.
- Bulbulia, Joseph, and Richard Sosis. "Signalling Theory and the Evolution of Religious Cooperation." *Religion* 41, no. 3 (2011): 363-88.
- Bull, Larry, Owen Holland, and Susan Blackmore. "On Meme-Gene Coevolution." *Artificial Life* 6, no. 3 (2000): 227-35.
- Buller, James. *Forty Years in New Zealand: Including a Personal Narrative, an Account of Maoridom, and of the Christianization and Colonization of the Country*. London: Hodder and Stoughton, 1878.
- Cairns, Puawai. "He Taonga te Ta Moko ki Tauranga Moana: A Survey of Attitudes, Opinions, Whakāro Noa Iho, towards Ta Moko during the Tauranga Moana, Tauranga Tangata Festival." *The Proceedings of the National Māori Graduates of Psychology Symposium* (2002): 133-40.
- Callon, Michel. "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay." *Power, Action, and Belief: A New Sociology of Knowledge* 32 (1986): 196-223.
- Cameron, Fiona, and Conal McCarthy. "Two Anthropological Assemblages: Maori 'Culture Areas' and 'Adaptation' in New Zealand Museum and Government Policy." *Museum and Society* 13, no. 1 (2015): 88-103.
- Carrette Jerry, and Richard King. *Selling Spirituality: The Silent Takeover of Religion*. New York: Routledge, 2005.
- "Carved in Skin." *Te Papa Collection: Taonga Maori*, episode 84. Accessed March 27, 2014. <http://talesresource.tepapa.govt.nz/resource/084.html>.

- Cavalli-Sforza, Luigi Luca, and Marcus W. Feldman. *Cultural Transmission and Evolution: A Quantitative Approach*. Princeton, NJ: Princeton University Press, 1981.
- Chagnon, Napoleon. "Mate Competition, Favoring Close Kin, and Village Fissioning among the Yanomamo Indians." In *Evolutionary Biology and Human Social Behavior*, edited by Napoleon Chagnon and William Irons, 86-131. North Scituate, MA: Duxbury Press, 1979.
- Chagnon, Napoleon. "Yanomamo Social Organization and Warfare." In *War: The Anthropology of Armed Conflict and Aggression*, edited by Morton Fried, Marvin Harris, and Robert Murphy, 109-59. Garden City, NY: Natural History Press, 1968.
- Chambers, Iain. *Migrancy, Culture, Identity*. London: Routledge, 1994.
- Chao, Yuan-Ling. "Poetry and Footbinding: Teaching Women and Gender Relations in Traditional China." *World History Connected* 6, no. 2 (2009). Accessed September 13, 2015. <http://worldhistoryconnected.press.illinois.edu/cgi-bin/cite.cgi>.
- Chidester, David. *Empire of Religion: Imperialism and Comparative Religion*. Chicago: The University of Chicago Press, 2014.
- Chidester, David. *Savage Systems: Colonialism and Comparative Religion in Southern Africa*. Charlottesville, VA: The University Press of Virginia, 1996.
- Chrisp, Steven. "The Māori and Occupation of Wairarapa: Orthodox and Non-Orthodox Versions." *Journal of the Polynesian Society* 102 (Mar., 1993): 39-70.
- Cisco, Jayme. "Maori Moko: A Costly Signal?" M.A. Thesis, University of Missouri-Columbia, 2010.
- Clarke, George. *Notes on Early Life in New Zealand*. Hobart, Tasmania: J. Walch, 1903.
- Clifford, James. *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art*. Cambridge, MA: Harvard University Press, 1988.
- Clifford, James. *Routes: Travel and Translation in the Late Twentieth Century*. Cambridge, MA: Harvard University Press, 1997.
- Clifford, James, and George E. Marcus, eds. *Writing Culture: The Poetics and Politics of Ethnography: A School of American Research Advanced Seminar*. Berkeley: University of California Press, 1986.
- Cochrane, Ethan E. "Chapter Eight: Evolutionary Explanation and the Record of Interest: Using Evolutionary Archaeology and Dual Inheritance Theory to Explain the Archaeological Record." In *Pattern and Process in Cultural Evolution*, edited by Stephen Shennan, 113-32. Berkeley: University of California Press, 2009.

- Connelly, Brian L., S. Trevis Certo, R. Duane Ireland, and Christopher R. Reutzeland. "Signaling Theory: A Review and Assessment." *Journal of Management* 37 (2011): 39-67.
- Cosmides, Leda, and John Tooby. "Cognitive Adaptations for Social Change." In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by J. Barkow, L. Cosmides, and J. Tooby, 163-228. New York: Oxford University Press, 1992.
- Cowan, James. "Maori Tattooing Survivals: Some Notes on Moko." *Journal of the Polynesian Society* 30, no. 120 (1921): 241-5.
- Cowan, James. *The Maori: Yesterday and To-day*. Christchurch, N.Z.: Whitcombe and Tombs Ltd., 1930.
- Cram, Fiona. "Māori and Violence: What's the Problem." *MAI Review* 2 (2009): 1-3.
- Cronk, Lee. "The Application of Animal Signaling Theory to Human Phenomena: Some Thoughts and Clarifications." *Social Science Information* 44, no. 4 (2005): 603-20.
- Cronk, Lee. "Human Behavioral Ecology." *Annual Review of Anthropology* 20 (1991): 25-53.
- "Cultural Evolution." *Stanford Encyclopedia of Philosophy*. Last modified February 20, 2013. Accessed March 12, 2015. <http://plato.stanford.edu/entries/evolution-cultural/>.
- D'Aquili, Eugene G. "Human Ceremonial Ritual and the Modulation of Aggression." *Zygon* 20, no. 1 (1985): 21-30.
- Darwin, Charles. *On the Origin of Species by Means of Natural Selection*. London: John Murray, 1859.
- Dawkins, Richard. *The Extended Phenotype: The Gene as the Unit of Selection*. Oxford: Freeman, 1982.
- Dawkins, Richard. *The God Delusion*. Boston: Houghton Mifflin, 2008.
- Dawkins, Richard. *The Selfish Gene*. Oxford, NY: Oxford University Press, 1989.
- Davidson, Albert Edward (Te Manuwiri). *Sketches of Early Colonisation in New Zealand and its Phases of Contact with the Maori Race*. Christchurch, N.Z.: Whitcombe and Tombs, Ltd., 1907.
- De Castro, Eduardo Viveiros. "Cosmological Deixis and Amerindian Perspectivism." *The Journal of the Royal Anthropological Institute* 4, no. 3 (Sept., 1998): 469-88.

- De Castro, Eduardo Viveiros. "Exchanging Perspectives: The Transformation of Objects into Subjects in Amerindian Ontologies." *Common Knowledge* 10, no. 3 (2004): 463-84.
- De Castro, Eduardo Viveiros. "Images of Nature and Society in Amazonian Ethnology." *Annual Review of Anthropology* 25 (1996): 179-200.
- Del Mar, Frances. *A Year among the Maoris: Study of Their Arts and Customs*. London: Ernest Benn, Ltd., 1924.
- Diamond, Jared. *Guns, Germs, and Steel: The Fates of Human Societies*. New York: W.W. Norton and Co., 1997.
- Diprose, Rosalyn. "Community of Bodies: From Modification to Violence." *Continuum: Journal of Media and Culture Studies* 19 (2005): 381-92.
- Distin, Kate. *The Selfish Meme: A Critical Reassessment*. Cambridge: Cambridge University Press, 2005.
- Doig, Fiona, and Janet Davidson, eds. *Taonga Maori: Treasures of the New Zealand Maori People: An Exhibition from the Collections of the National Museum of New Zealand (Te Whare Taonga o Aotearoa)*. Sydney, N.S.W.: Australian Museum, 1989.
- Doniger, Wendy. *The Implied Spider: Politics and Theology in Myth*. New York: Columbia University Press, 2011.
- Doniger, Wendy. "Minimyths and Maximyths and Political Points of View." In *Myth and Method*, edited by Laurie L. Patton and Wendy Doniger, 109-127. Charlottesville, VA: University Press of Virginia, 1996.
- Doniger, Wendy. *Other Peoples' Myths: The Cave of Echoes*. Chicago: The University of Chicago Press, 1988.
- Douglas, Bronwen. "'Cureous Figures': European Voyagers and Tatau/Tattoo in Polynesia, 1595-1800." In *Tattoo: Bodies, Art and Exchange in the Pacific and the West*, edited by Nicholas Thomas, Anna Cole, and Bronwen Douglas, 33-52. London: Reaktion Books, 2005.
- Douglas, Bronwen. "Rank, Power, Authority: A Reassessment of Traditional Leadership in South Pacific Societies." *The Journal of Pacific History* 14, no. 1 (1979): 2-27.
- Douglas, Mary. *Natural Symbols: Explanation in Cosmology*. London: Routledge, 1996.
- Duff, Michelle. "Ta Moko: Mana in Ink." *The Dominion Post*, February 7, 2014. Accessed April 11, 2014. <http://www.stuff.co.nz/dominion-post/news/9694250/Ta-moko-mana-in-ink>.

- Dunlop, Mani. "Underneath the Scars: Healing with Tā Moko." *The Wireless*, November 27, 2014. Accessed June 2, 2015. <http://thewireless.co.nz/articles/underneath-the-scars-healing-with-ta-moko>.
- Dunn, Ridgely. "Challenging Appropriation: Modern Moko and Western Subculture." PhD dissertation, Kent State University, 2011.
- Durie, Mason. "A Maori Perspective of Health." *Social Science and Medicine* 20, no. 5 (1985): 483-86.
- Durie, Mason. *Ngā Tai Matatū: Tides of Māori Endurance*. Auckland: Oxford University Press, 2005.
- Durie, Mason. *Whaiora: Māori Health Development*. Auckland: Oxford University Press, 1998.
- Durkheim, Émile. *The Elementary Forms of Religious Life*, translated by Karen E. Fields. New York: Free Press, 1995.
- Earle, Augustus. *A Narrative of a Nine Months' Residence in New Zealand in 1827; Together with a Journal of Residence Tristan D'acunha*. London: Longman, Rees, Orme, Brown, Green and Longman, Paternoster-Row, 1832.
- Ebin, Victoria. *The Body Decorated*. London: Thames and Hudson, 1979.
- Eco, Umberto. *The Limits of Interpretation*. Bloomington, IN: Indiana University Press, 1994.
- Edmond, Rod. *Representing the South Pacific: Colonial Discourse from Cook to Gauguin*. Cambridge: Cambridge University Press, 1997.
- Eliade, Mircea. *The Myth of the Eternal Return*. Princeton, NJ: Princeton University Press, 2005.
- Ellis, Juniper. *Tattooing the World: Pacific Designs in Print and Skin*. Columbia, NY: Columbia University Press, 2008.
- Elsmore, Bronwyn. *Like Them that Dream: The Māori and the Old Testament*. Auckland: Libro International, 2011.
- Elst, Koenraad. *Decolonizing the Hindu Mind: Ideological Development of Hindu Revivalism*. New Dehli, India: Rupa and Co, 2001.
- Eriksen, Thomas Hylland, and Finn Sivert Nielsen. *A History of Anthropology*. London: Pluto Press, 2001.
- Erskine, Noel Leo. *Decolonizing Theology: A Carribean Perspective*. Maryknoll, NY: Orbis Books, 1981.

- Evans-Pritchard, E.E. *Theories of Primitive Religion*. Oxford: Clarendon Press, 1965.
- Farris, James. "The Logical Basis of Phylogenetic Analysis." In *Conceptual Issues in Evolutionary Biology*, 2nd ed., edited by Elliott Sober, 333-62. Cambridge, MA: The MIT Press, 1994.
- Fehr, Ernst, and Urs Fischbacher. "The Nature of Human Altruism." *Nature* 425, no. 6960 (2003): 785-91.
- Fehr, Ernst, and Urs Fischbacher. "Social Norms and Human Cooperation." *TRENDS in Cognitive Science* 8, no. 4 (Apr., 2004): 185-90.
- Feldman, Marcus W., and Luigi Luca Cavalli-Sforza. "Cultural and Biological Evolutionary Processes, Selection for a Trait under Complex Transmission." *Theoretical Population Biology* 9, no. 2 (Apr., 1976): 238-59.
- Ferguson, S.L. "Once Were Warriors, or Warriors Still." *MAI Review* 2, no. 3 (2009): 1-3.
- Flyvbjerg, Bent. *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again*. Cambridge: Cambridge University Press, 2001.
- Frank, Robert, ed. *The Explanatory Power of Models: Bridging the Gap between Empirical and Theoretical Research in the Social Sciences*. New York: Springer Science+Business Media, 2002.
- "Fundamentalism Religion and Science." *Talk of the Nation*. NPR, October 6, 2006. <http://www.npr.org/templates/story/story.php?storyId=6210151>.
- Gallagher, Sarah K.J. "'A Curious Document': Ta Moko as Evidence of Pre-European Textual Culture in New Zealand." *BSANZ Bulletin* 27, no. 3 and 4 (2003): 39-47.
- Gallie, W.B. "Essentially Contested Concepts." *Proceedings of the Aristotelian Society, New Series* 56 (1955-1956): 167-98.
- Gallus, Alexander. "A Biofunctional Theory of Religion." *Current Anthropology* 13, no. 5 (1972): 543-68.
- Gathercole, Peter. "Contexts of Maori Moko." In *Marks of Civilization: Artistic Transformations of the Human Body*, edited by Arnold Rubin, 171-8. Los Angeles: Museum of Cultural History, University of California, Los Angeles, 1988.
- Geertz, Clifford. *The Interpretation of Cultures: Selected Essays*. London: Fontana, 2003.
- Gell, Alfred. *Art and Agency: An Anthropological Theory*. Oxford: Oxford University Press, 1998.

- Gell, Alfred. *Wrapping in Images: Tattooing in Polynesia*. Oxford: Clarendon Press, 1993.
- George, June M. "Chapter Three: Indigenous Knowledge as a Component of the School Curriculum." In *What is Indigenous Knowledge?: Voices from the Past*, edited by Ladislaus M. Semali and Joe L. Kincheloe, 79-94. New York; London: Falmer Press, 1999.
- Gerbault, Pascale, Anke Liebert, Yuval Itan, Adam Powell, Mathias Currat, Joachim Burger, Dallas M. Swallow, and Mark G. Thomas. "Evolution of Lactase Persistence: An Example of Human Niche Construction." *Philosophical Transactions of the Royal Society B: Biological Sciences* 366, no. 1566 (2011): 863-7.
- Getty, Thomas. "Handicap Signalling: When Fecundity and Viability Do Not Add up." *Animal Behavior* 56, no. 1 (1998): 127-30.
- Gibbons, A. "Tracking the Evolutionary History of a "Warrior Gene." *American Association of Physical Anthropologists Meeting: Science* 304 (2004): 818-9, accessed February 13, 2015, <http://www.sciencemag.org/cgi/content/summary/304/5672/818a>.
- Gilbert, Steve. *Tattoo History: A Source Book: An Anthology of Historical Records of Tattooing throughout the World*. New York: Juno Books, 2000.
- Gill, Sam D. *Storytracking: Texts, Stories, and Histories in Central Australia*. Oxford: Oxford University Press, 1998.
- Gintis, Herbert. "The Hitchhiker's Guide to Altruism: Gene-Culture Coevolution, and the Internalization of Norms." *Journal of Theoretical Biology* 220, no. 4 (2003): 407-18.
- Gintis, Herbert, Eric Alden Smith, and Samuel Bowles. "Costly Signaling and Cooperation." *Journal of Theoretical Biology* 213, no. 1 (2001): 103-19.
- Gintis, Herbert, Joseph Henrich, Samuel Bowles, Robert Boyd, and Ernst Fehr. "Strong Reciprocity and the Roots of Human Morality." *Social Justice Research* 21, no. 2 (2008): 241-53.
- Gintis, Herbert, Samuel Bowles, Robert Boyd, and Ernst Fehr. "Explaining Altruistic Behavior in Humans." *Evolution and Human Behavior* 24 (2003): 153-72.
- Goodenough, Oliver. "Law and the Biology of Commitment." In *Evolution and the Capacity for Commitment: A Volume in the Russell Sage Foundation Series on Trust*, edited by Randolph M. Nesse, 262-91. New York: Russell Sage Foundation, 2001.
- Goody, Jack. *The Power of the Written Tradition*. Washington D.C.: Smithsonian Institute Press, 2000.

- Gosden, Chris. *Knowing Things: Exploring the Collections at the Pitt Rivers Museum 1884-1945*. Oxford: Oxford University Press, 2007.
- Gosselain, Olivier P. "Mother Bella Was Not a Bella: Inherited and Transformed Traditions in Southwest Niger." In *Cultural Transmission and Material Culture: Breaking down Barriers*, edited by Miriam T. Stark, Brenda J. Bowser, and Lee Horne, 150-77. Tuscon, AZ: University of Arizona Press, 2008.
- Grafen, Alan. "Biological Signals as Handicaps." *Journal of Theoretical Biology* 144, no. 4 (1990): 517-46.
- Grafen, Alan. "Chapter Three: Natural Selection, Kin Selection, and Group Selection." In *Behavioural Ecology: An Evolutionary Approach*, 2nd ed., edited by John R. Krebs and Nicholas B. Davies, 62-84. Oxford: Blackwell Science Ltd., 1984.
- Graham, Pita. *Maori Moko or Tattoo*. Auckland: Bush Press, 1994.
- Grenfell Michael, and David James. *Bourdieu and Education: Acts of Practical Theory*. London: Psychology Press, 1998.
- Gröning, Karl, and Ferdinand Anton. *Decorated Skin: A World Survey of Body Art*. London: Thames and Hudson, 1997.
- Gross, Aaron S. *The Question of the Animal and Religion: Theoretical Stakes, Practical Implications*. New York: Columbia University Press, 2015.
- Gudgeon, Lieut.-Col. "The Whence of Māori." *The Journal of the Polynesian Society* 11, no. 3 (1903): 179-90.
- Hackforth-Jones, Jocelyn. *Augustus Earle: Travel Artist: Paintings and Drawings in the Rex Nan Kivell Collection National Library of Australia*. London: Scolar Press, 1980.
- Hamilton, W.D. "Evolution of Altruistic Behavior." *The American Naturalist* 97, no. 897 (Sept.-Oct., 1963): 354-6.
- Hamilton, W.D. "The Genetical Evolution of Social Behaviour II." *Journal of Theoretical Biology* 7 (1964): 17-52.
- Hanson, Allan. "The Making of the Maori: Culture Invention and Its Logic." *American Anthropologist* 91, no. 4 (1989): 890-902.
- Harlow, Ray. *Māori: A Linguistic Introduction*. Cambridge: Cambridge University Press, 2007.
- Hatfield, Gordon Toi, and Patricia Steur. *Dedicated by Blood*. The Hague, The Netherlands: Hunter Media, Liesbeth Verharen, 2003.

- Hatfield, Gordon Toi, and Patricia Steur. *Thin Blue Line: A Dedication to Culture*. Amsterdam: Patricia Steur, 2011.
- Hawkes, Kristen, and Rebecca Bliege Bird. "Showing off, Handicap Signaling, and the Evolution of Men's Work." *Evolutionary Anthropology: Issues, News, and Reviews* 11, no. 2 (2002): 58-67.
- Hawthorne, Geoffrey. *Enlightenment and Despair: A History of Social Theory*. Cambridge: Cambridge University Press, 1994.
- "Hēmi Te Peeti, Master Carver and Tattooist." A documentary by *Waka Huia*, Series 2010/2011, episode 20. Originally aired November 21, 2010. Accessed March 24, 2014. <http://tvnz.co.nz/waka-huia/s2010-2011-e20-video-3903948>.
- Henare [Salmond], Amiria, Martin Holbraad, and Sari Wastell. "Introduction: Thinking through Things." In *Thinking through Things: Theorising Artefacts Ethnographically*, edited by Amiria Henare, Martin Holbraad, and Sari Wastell, 1-31. London: Routledge, 2007.
- Henare [Salmond], Amiria. "Nga Rakau a te Pakeha: Reconsidering Maori Anthropology." In *Anthropology and Science: Epistemologies in Practice*, edited by Jeanette Edwards, Penny Harvey, and Peter Wade, 93-113. Oxford: Berg, 2007.
- Henare, Manuka. "Te Tangata, te Taonga, te Hau: Māori Concepts of Property." In *Conference on Property and the Constitution, Wellington for the Laws and Institutions in a Bicultural Society Research Project*. Hamilton, N.Z.: University of Waikato, 1998.
- Henrich, Joseph. "The Evolution of Costly Displays, Cooperation, and Religion: Credibility Enhancing Displays and Their Implications for Cultural Evolution." *Evolution and Human Behavior* 30 (2009): 244-60.
- Henrich, Joseph, and Natalie Henrich. *Why Humans Cooperate: A Cultural and Evolutionary Explanation*. Oxford: Oxford University Press, 2007.
- Henrich, Joseph, and Richard McElreath. "The Evolution of Cultural Evolution." *Evolutionary Anthropology: Issues, News, and Reviews* 12, no. 3 (2003): 123-35.
- Henry, Ella, and Hone Pene. "Kaupapa Maori: Locating Indigenous Ontology, Epistemology and Methodology in the Academy." *Organization* 8, no. 2 (2001): 234-42.
- Herman, Doug. "A New Way for Stewardship of Mother Earth: Indigeneity." *Smithsonian.com*, September 30, 2014. Accessed March 13, 2015. <http://www.smithsonianmag.com/smithsonian-institution/new-way-stewardship-mother-earth-indigeneity-180952855/?no-ist>.
- Higgins, Rawinia. "He Tānga Ngutu, He Tūhoetanga Te Mana Motuhake o te Tā Moko Wāhine: The Identity Politics of *Moko Kauae*." PhD dissertation, University of Otago, 2004.

- Higgins, Rawinia. “Kei ngā Ngutu o ōku Kuia: It is Tattooed on the Lips of My Kuia.” *Te Pouhere Kōrero, Māori History, Māori People* 4 (2010): 61–71.
- Higgins, Rawinia. “Tā Moko-Māori Tattoo.” In *Te Ara: The Encyclopedia of New Zealand*. Last modified August 13, 2013. Accessed January 28, 2015. <http://www.teara.govt.nz/en/tamoko-maori-tattooing>.
- Higham, James P. “How Does Honest Costly Signaling Work?” *Human Behavioral Ecology* (2013). Accessed June 3, 2016. <http://beheco.oxfordjournals.org/content/early/2013/10/18/beheco.art097.full>.
- Higham, James P., and Eileen A. Hebets. “An Introduction to Multimodal Communication.” *Behavioral Ecology and Sociobiology* 67, no. 9 (2013): 1381-8.
- Hill, Richard S. *Maori and the State: Crown-Maori Relations in New Zealand/Aotearoa, 1950-2000*. Wellington: Victoria University Press, 2009.
- Hill, Richard S. “Maori Urban Migration and the Assertion of Indigeneity in Aotearoa/New Zealand, 1945-1975.” *Interventions: International Journal of Postcolonial Studies* 14, no. 2 (Jun. 1, 2012): 256-78. Accessed March 20, 2014. doi: 10.1080/1369801X.2012.687903.
- Hilliard, Christopher. “Licensed Native Interpreter: The Land Purchaser as Ethnographer in Early-20th-Century New Zealand.” *The Journal of Pacific History* 45, no. 2 (Sept., 2010): 229-45.
- Hinde, R.A. *Animal Behavior: A Synthesis of Ethology and Comparative Psychology*. New York: McGraw-Hill, 1966.
- Hobsbawm, Eric. *On History*. London: Weidenfeld and Nicolson, 1997.
- Honing, Henkjan, Carel ten Cate, Isabelle Peretz, and Sandra E. Trehub. “Without It No Music: Cognition, Biology and Evolution of Musicality.” *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 370, no. 1664 (2015): 20140088. Accessed July 24, 2015. <http://dx.doi.org/10.1098/rstb.2014.0088>.
- Hook, Gary Raumati. ““Warrior Genes” and the Disease of Being Māori.” *Mai Review* 2 (2009): 1-11.
- Horsley, Richard A. *Religion and Empire: People, Power, and the Life of the Spirit*. Minneapolis, MN: Fortress Press, 2003.
- <http://www.katoa.net.nz/kaupapa-maori>. Accessed May 7, 2016.
- <http://www.kaupapamaori.com/theory/6/>. Accessed January 25, 2015.

- Hudson, Karen L. "Ta Moko Maori Tattoo: When Imitation is the Sincerest Form of Insult." Accessed March 14, 2014. <http://tattoo.about.com/cs/articles/a/maoritamoko.htm>.
- Hwang, Hyisung C., and David Matsumoto. "Dominance Threat Display for Victory and Achievement in Competition Context." *Motivation and Emotion* 38, no. 2 (2014): 206-14.
- Iannaccone, Laurence R. "Sacrifice and Stigma: Reducing Free-Riding in Cults, Communes, and Other Collectives." *Journal of Political Economy* 100, no. 2 (1992): 271-91.
- Irons, Williams. "How Did Morality Evolve?" *Zygon* 26 (1991): 49-89.
- Irons, William. "Morality as an Evolved Adaptation." In *Investigating the Biological Foundations of Human Morality: An Interdisciplinary Perspective*, edited by James P. Hurd, 1-34. Lewiston, NY: The Edwin Mellen Press, 1996.
- Irons, William. "Morality, Religion, and Human Evolution." (Oct. 31, 1996): 1-30. Accessed June 12, 2014. <http://www.williamirons.net/wp-content/uploads/2011/06/Morality-Religion-and-Human-Evolution.pdf>.
- Irons, William. "Nomadism as Political Adaptation: The Case of the Yomut Turkmen." *American Ethnologist* 1, no. 4 (1974): 635-58.
- Irons, William. "Religion as Hard-to-Fake Sign of Commitment." In *Evolution and the Capacity for Commitment: A Volume in the Russell Sage Foundation Series on Trust*, edited by Randolph M. Nesse, 292-309. New York: Russell Sage Foundation, 2001.
- Irons, William. *The Yomut Turkmen: A Study of Social Organization among a Central Asian Turkic-Speaking Population*. Museum Anthropology, University of Michigan, Anthropological Papers no. 58. Ann Arbor, MI: University of Michigan, 1975.
- Irons, William, and Lee Cronk. "Two Decades of a New Paradigm." In *Adaptation and Human Behavior: An Anthropological Perspective*, edited by Lee Cronk, Napoleon A. Chagnon, and William Irons, 1-26. Hawthorne, NY: Aldine de Gruyter, 2000.
- Irwin, James. *An Introduction to Māori Religion: Its Character Before European Contact and Its Survival in Contemporary Māori and New Zealand Culture*. Bedford Park, S. AUS: Australian Association for the Study of Religions, 1984.
- Jablonka, Eva, and Marion J. Lamb. "The Evolution of Information in the Major Transitions." *Journal of Theoretical Biology* 239, no. 2 (2006): 236-46.
- Jackson, Steven J. "Sport, Tribes, and Technology: The New Zealand All Blacks Haka and the Politics of Identity." *Journal of Sport and Social Issues* 26, no. 2 (2002): 125-39.

- Jahnke, Robert. "Ko Ruamoko e Ngunguru Nei: Reading between the Lines." *Journal of the Polynesian Society* 119, no. 2 (Jun., 2010): 111-30.
- Johnston, Ian, trans. *Discourse on the Arts and Sciences*. Adelaide, AUS: The University of Adelaide Library. Last modified December 17, 2014. Accessed August 15, 2015. https://ebooks.adelaide.edu.au/r/rousseau/jean_jacques/arts/.
- Johnstone, Rufus A. "The Evolution of Animal Signals." *Behavioural Ecology: An Evolutionary Approach* 4 (1997): 155-78.
- Johnstone, Rufus. "Honest Advertisement of Multiple Qualities Using Multiple Signals." *Journal of Theoretical Biology* 177, no. 1 (1995): 87-94.
- Johnstone, Rufus A. "Multiple Displays in Animal Communication: 'Backup Signals' and 'Multiple Messages'." *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 351, no. 1337 (1996): 329-38.
- Joy, David, and Joseph Duggan, eds. *Decolonizing the Body of Christ: Theology and Theory after Empire*, vol. 1. London: Palgrave MacMillian, 2012.
- Joy, Morny. "Beyond a God's Eyeview: Alternative Perspectives in the Study of Religion." *Method and Theory in the Study of Religion* (2000): 110-40.
- Joy, Morny. "Postcolonial Reflections: Challenges for Religious Studies." *Method and Theory in the Study of Religion* (2001): 177-95.
- Kabbana, Rana. *Europe's Myths of the Orient*. London: Macmillian, 1986.
- Kaepler, Adrienne. *The Pacific Arts of Polynesia and Micronesia*. Oxford: Oxford University Press, 2008.
- Kant, Immanuel. *Lectures on Anthropology*. Cambridge: Cambridge University Press, 2012.
- Kincheloe, Joe, and Shirley Steinberg. "Indigenous Knowledges in Education: Complexities, Dangers, and Profound Benefits." In *Handbook of Critical and Indigenous Methodologies*, edited by Norman K. Denzin, Yvonna S. Lincoln, and Linda Tuhiwai Smith, 135-56. Thousand Oaks, CA: Sage Publications, Inc., 2008.
- King, Michael. *Maori: A Photographic and Social History*. Auckland: Heinemann Publishers, 1983.
- King, Michael. *Moko: Maori Tattooing in the 20th Century*. Auckland: David Bateman, Ltd., 2008.
- King, Michael. *Nga Iwi o Te Motu: 1000 Years of Maori History*. Auckland: Reed Books, 1997.

- King, Michael. *The Penguin History of New Zealand*. Auckland: Penguin Books, 2003.
- King, Michael, ed. *Te Ao Hurihuri: Aspects of Māoritanga*. Auckland: Reed Books, 1992.
- King, Richard. *Orientalism and Religion: Post-Colonial Theory, India and the Mystic East*. Routledge: London, 1999.
- Ko, Dorothy. *Every Step a Lotus: Shoes for Bound Feet*. Berkeley; Los Angeles, CA: University of California Press, 2001.
- Kopua, Mark. "Māori Tā Moko." Presentation at Te Herenga Waka Marae, Wellington, N.Z., September 23, 2011.
- Kurzban, Robert, Maxwell N. Burton-Chellew, and Stuart A. West. "The Evolution of Altruism in Humans." *Annual Review of Psychology* 66 (2015): 575-99.
- Laland, Kevin N., John Odling-Smee, and Marcus Feldman. "Cultural Niche Construction and Human Evolution." *Journal of Evolutionary Biology* 14, no. 1 (2001): 22-33.
- Laland, Kevin N., Kim Sterelny, John Odling-Smee, William Hoppitt, and Tobias Uller. "Cause and Effect in Biology Revisited: Is Mayer's Proximate-Ultimate Dichotomy Still Useful." *Science* 334, no. 6062 (2011): 1512-6.
- Laland, Kevin N., and Vincent M. Janik. "The Animal Cultures Debate." *TRENDS in Ecology and Evolution* 21, no. 10 (2006): 542-7.
- Lata, Mani. *Contentious Traditions: The Debate on Sati in Colonial India*. Berkeley, CA: University of California Press, 1998.
- Latour, Bruno. "On Actor-network Theory: A Few Clarifications." *Soziale Welt* 47, Jahrg., H. 4 (1996): 369-81.
- Latour, Bruno. *Reassembling the Social: An Introduction to Actor-network-Theory*. Oxford: Oxford University Press, 2005.
- Latour, Bruno. "On Recalling ANT." *Sociological Review* 47, no. S1 (1999): 15-25.
- Law, John. "Chapter Seven: Actor Network Theory and Material Semiotics." In *The New Blackwell Companion to Social Theory*, edited by Bryan S. Turner, 141-58. Chichester, West Sussex, U.K.: Blackwell Publishing Ltd., 2009.
- Law, John. "The Materials of STS." In *The Oxford Handbook of Material Culture Studies*, edited by Dan Hiscks and Mary Beaudry, 173-88. Oxford: Oxford University Press, 2010.
- Law, John. "Notes on the Theory of the Actor-network: Ordering, Strategy, and Heterogeneity." *Systems Practice* 5, no. 4 (1992): 379-93.

- Leske, Adrian M. "The Role of the Tohunga-Past and Present." *Religious Studies and Theology* 26, no. 2 (2007): 135-47.
- Levinson, Cynthia. "Moko!" *DIG: Tattoos: Marks with Meaning* 11, no. 6 (Jul.-Aug., 2009): 26-9.
- Lewontin, Richard C. "Evolution and the Theory of Games." *Journal of Theoretical Biology* 1, no. 3 (1961): 382-403.
- Locke, Alain. "The Concept of Race as Applied to Social Culture." *Howard Review* 1 (1924): 290-9.
- Locke, John. *An Essay Concerning Human Understanding*. London: T. Tegg and Son, 1836.
- Lopez, Donald. *Prisoners of Shangri-La: Tibetan Buddhism and the West*. Chicago: The University of Chicago Press, 1998.
- Lumsden, Charles, and E.O. Wilson. *Genes, Mind and Culture the Coevolutionary Process*. Cambridge, MA: Harvard University Press, 1981.
- Macedo, Donaldo. "Preface: Decolonizing Indigenous Knowledge." In *What is Indigenous Knowledge?: Voices from the Academy*, edited by Ladislaus M. Semali and Joe L. Kincheloe, xi-2. New York; London: Falmer Press, 1999.
- Mahuika, Nepia. "Kōrero Tuku Iho: Our Gift and Our Responsibility." *Te Pouhere Kōrero* 4, *Māori History, Māori People* (2010): 24-40.
- Mahuika, Nepia. "'Kōrero Tuku Iho': Reconfiguring Oral History and Oral Tradition." PhD dissertation, University of Waikato, 2012.
- Mahuika, Rangimarie. "Kaupapa Māori Theory is Critical and Anti-Colonial." *Mai Review* 3, no. 4 (2008): 1-16.
- Malafouris, Lombros. "Chapter Two: At the Potter's Wheel: An Argument for Material Agency." In *Material Agency: Towards a Non-Anthropocentric Approach*, edited by Carl Knappett and Lambros Malafouris, 19-36. New York: Springer Science and Business Media, 2008.
- Malinowski, Bronislaw. *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagos of Melanesian New Guinea*. London: George Routledge and Sons, Ltd., 1922.
- Mallon, Sean. "Against Tradition." *The Contemporary Pacific* 22, no. 2 (2010): 362-81.

- Marsden, Reverend Maori, and T.A. Henare. "Kaitiakitanga: A Definitive Introduction to the Holistic World View of the Maori." Wellington: Ministry of the Environment, 1992.
- Marsden, Reverend Samuel. *Journal: Reverend Samuel Marsden's First Visit to New Zealand in December 1814*. Marsden Online Archive. Last modified October 3, 2014. Accessed September 27, 2015. http://www.marsdenarchive.otago.ac.nz/MS_0176_001.
- Marsden, Reverend Samuel. *The Letters and Journals, 1765-1838, Senior Chaplain in the Colony of New South Wales and Superintendent of the Mission of the Church Missionary Society in New Zealand*, edited by John Rawson Elder. Dunedin, N.Z.: Coulls, Somerville Wilkie, and A.H. Reed for Otago University Council, 1932.
- Marsden, Reverend Samuel. *Marsden's Account of his First Voyage to New Zealand, 20 June 1815*. Marsden Online Archive. Last modified October 3, 2014. Accessed September 27, 2015. http://www.marsdenarchive.otago.ac.nz/MS_0055_004.
- Marshall, James A.R. "Group Selection and Kin selection: Formally Equivalent Approaches." *TRENDS in Ecology and Evolution* 26, no. 7 (2011): 325-32.
- McCarthy, Conal. "'Empirical Anthropologists Advocating Cultural Adjustments': The Anthropological Governance of Āpirana Ngata and the Native Affairs Department." *History and Anthropology* 25, no. 2 (2014): 280-95.
- McCarthy, Conal. "'Historicising the 'Indigenous International': Museums, Anthropology, and Transpacific Networks." In *TransPacific Americas: Encounters and Engagements between the Americas and the South Pacific*, edited by Eveline Duerr and Philipp Schorch, 3-26. London; New York: Routledge, 2016.
- McCay, John. "Acts Affecting Native Lands, Etc. (in English and Maori) Passed by the General Assembly, Session 1907, no. 13, An Act to Suppress Tohungas." Wellington: New Zealand Electronic Text Centre. Accessed May 11, 2014, <http://nzetc.victoria.ac.nz/tm/scholarly/tei-Gov1907Acts-t1-g1-t12.html>.
- McClennan, Moira. "Maori Spirituality, Christian Spirituality, and Spiritual Direction." A paper submitted in partial fulfilment of the requirements of the Spiritual Directors' Formation Programme of Spiritual Growth Ministries, 2010. Accessed May 22, 2016. <http://www.sgm.org.nz/Research%20Papers/Maori%20Spirituality,%20Christian%20Spirituality%20and%20Spiritual%20Direction%20-%20Moira%20McLennan.pdf>.
- McKenzie, Donald Francis. *Oral Culture, Literacy, and Print in Early New Zealand: The Treaty of Waitangi*. Wellington: Victoria University Press, 1985.
- McLachlan, R.R.L. "The Art of Maori Tattooing." *The New Zealand Railways Magazine* 15, no. 3 (Jun. 1, 1940): 21-4.

- Mead, Hirini Moko. *Tikanga Māori: Living by Māori Values*. Wellington: Huia Publishers, 2003.
- Meijl, Toon van. "Maori Socio-Political Organization in Pre- and Proto-History: On the Evolution of Post-Colonial Constructs." *Oceania* 45, no. 4 (Jun., 1995): 304-22.
- Meredith, Paul. "Urban Māori-Urbanisation." *Te Ara Encyclopedia: The Encyclopedia of New Zealand*. Last modified October 8, 2013. Accessed February 13, 2015. <http://www.teara.govt.nz/en/urban-maori/page-1>.
- Mertens, Donna M., Fiona Cram, and Bagele Chilisa, "Chapter One: The Journey Begins." In *Indigenous Pathways into Social Research: Voices of a New Generation*, edited by Donna M. Mertens, Fiona Cram, and Bagele Chilisa, 11-40. Walnut Creek, CA: Left Coast Press, 2013.
- Mesoudi, Alex. *Cultural Evolution: How Darwinian Theory Can Explain Human Culture and Synthesize the Social Sciences*. Chicago: University of Chicago Press, 2011.
- Mesoudi, Alex. "How Cultural Evolutionary Theory Can Inform Social Psychology and Vice Versa." *Psychological Review* 116, no. 4 (2009): 929-52.
- Mesoudi, Alex, and Andrew Whiten. "The Multiple Roles of Cultural Transmission Experiments in Understanding Human Cultural Evolution." *Philosophical Transactions of the Royal Society B* 363 (2008): 3489-501.
- Mesoudi, Alex, Andrew Whiten, and Kevin N. Laland. "Towards a Unified Science of Cultural Evolution." *Behavioral and Brain Sciences* 29, no. 4 (2006): 329-47.
- Metge, Joan. *New Growth from the Old: The Whanau in the Modern World*. Wellington: Victoria University Press, 1995.
- Metge, Joan. *A New Māori Migration: Rural and Urban Relations in Northern New Zealand*. London: University of London, Athlone Press, 1964.
- Metge, Joan. *Rautahi: The Maoris of New Zealand*. London; Boston, MA: Routledge and K. Paul, 1976.
- Mignolo, Walter. "Decolonizing Western Epistemology/Building Decolonial Epistemologies." In *Decolonizing Epistemologies: Latina/o Theology and Philosophy*, edited by María Isasi-Daíz and Eduardo Mendieta, 19-43. The Bronx, NY: Fordham University Press, 2012.
- Mitchell, Ryan. "Maori Chief on Facial Tattoos and Tribal Pride." *National Geographic News*, October 14, 2003. Accessed April 3, 2014. http://news.nationalgeographic.com/news/2003/10/1014_031014_georgenuku.html.

- Mitira, Tiaki Hikawera (J.H. Mitchell). *Takitimu*. Wellington: New Zealand Electronic Text Centre, 2008. Accessed May 11, 2014. <http://nzetc.victoria.ac.nz/tm/scholarly/tei-MitTaki.html>.
- Mladenov, Ivan. "Unlimited Semiosis and Heteroglossia (CS Peirce and MM Bakhtin)." *Σημειωτική-Sign Systems Studies* 2 (2001): 441-61.
- Moeke-Pickering, Taima Materangatira. "Maori Identity within Whanau: A Review of Literature." Hamilton, N.Z.: University of Waikato, 1996. Accessed September 28, 2015. <http://researchcommons.waikato.ac.nz/handle/10289/464>.
- "Moko: Your Rights." Human Rights Commission: Te Kāhui Tika Tangata. Accessed March 17, 2014. <http://www.hrc.co.nz/enquiries-and-complaints-guide/faqs/moko-your-rights>.
- Moorfield, John C. *The Māori Dictionary*. Accessed February 20, 2015. <http://www.maoridictionary.co.nz>.
- Morrison, Andrea. "Space for Maori in Tertiary Institutions: Exploring Two Sites at the University of Auckland." M.A. Thesis, University of Auckland, 1999.
- Moseley, Alexander. *John Locke*. London: Bloomsbury Academic, 2007.
- Nakata, Martin. "Indigenous Knowledge and the Cultural Interface: Underlying Issues at the Intersection of Knowledge and Information Systems." *IFLA Journal* 28, no. 5-6 (2002): 218-21.
- Neich, Roger. *Painted Histories: Early Maori Figurative Painting*. Auckland: Auckland University Press, 1994.
- Neleman, Hans, Tame Wairere Iti, Pita Turei, and Nicole MacDonald. *Moko-Maori Tattoo*. Zurich: Edition Stemmler, 1999.
- Nesse, Randolph M. "Natural Selection and the Capacity for Subjective Commitment." In *Evolution and the Capacity for Commitment: A Volume in the Russell Sage Foundation Series on Trust*, edited by Randolph M. Nesse, 1-44. New York: Russell Sage Foundation, 2001.
- Nicholas, John Liddiard. *Narrative of a Voyage to New Zealand, Performed in the Years 1814 and 1815 in Company with Rev. Samuel Marsden*. Auckland: Wilson and Horton, 1971.
- Niculescu, Basarab. "Transdisciplinarity and Complexity: Levels of Reality as Source of Indeterminacy." *Bulletin Interactif du Centre International de Recherches et Etudes Transdisciplinaires (CIRET)* 15 (2000). Last modified October 20, 2012. Accessed May 9, 2015. <http://ciret-transdisciplinarity.org/bulletin/b15c4.php>.

- Nikora, Linda Waimarie. "Maori and Psychology: Indigenous Psychology in New Zealand." In *Psychology in Aotearoa/New Zealand*, edited by A. Weatherall, 80-5. Auckland: Pearson, 2007.
- Nikora, Linda Waimarie, Mohi Rua, and Ngahuia Te Awekotuku. "In your Face: Wearing Moko-Maori Facial Marking in Today's World." Paper presented at Tatau/Tattoo: Embodied Art and Cultural Exchange Conference, Victoria University, Wellington, August 21-23, 2003.
- Nikora, Linda Waimarie, Mohi Rua, and Ngahuia Te Awekotuku. "Renewal and Resistance: Moko in Contemporary New Zealand." *Journal of Community and Applied Social Psychology* (2007): 477-89.
- Nikora, Linda Waimarie, and Ngahuia Te Awekotuku. "Cultural Tattoos: Meanings, Descriptors, and Attributions." *The Proceedings of the National Māori Graduates of Psychology Symposium* (2002): 129-32.
- Nowak, Martin A., and Karl Sigmund, "Evolution of Indirect Reciprocity," *Nature* 437, no. 7063 (2005): 1291-8.
- Nye, Malory. "Religion, Post-Religionism, and Religioning: Religious Studies and Contemporary Cultural Debates 1." *Method and Theory in the Study of Religion* 12, no. 1 (2000): 447-76.
- O'Brien, Michael J., and Kevin N. Laland. "Genes, Culture, and Agriculture." *Current Anthropology* 53, no. 4 (2012): 434-70.
- O'Connor, Michael, and Angus MacFarlane. "New Zealand Maori Stories and Symbols: Family Value Lessons for Western Counsellors." *International Journal for the Advancement of Counselling* 24 (2002): 223-37.
- Odling-Smee, John F., Kevin N. Laland, and Marcus W. Feldman. *Niche Construction: The Neglected Process in Evolution*. Princeton, NJ: Princeton University Press, 2003.
- Orbell, Margaret. "The Maori Art of Moko." *Te Ao Hou: The New World*, no. 43 (Jun., 1963): 30-5.
- Owens, J.M.R. "Taylor, Richard." In *The Dictionary of New Zealand Biography, Te Ara: The Encyclopedia of New Zealand*. Last Modified March 4, 2014. Accessed May 4, 2015. <http://www.teara.govt.nz/en/biographies/1t22/taylor-richard>.
- p'Bitek, Okot. *Decolonizing African Religions: A Short History of African Religions in Western Scholarship*. New York: Diasporic Africa Press, 2011.

- Paciotti, Brian, Peter J. Richerson, and Robert Boyd. "Cultural Evolutionary Theory: A Synthetic Theory for Fragmented Disciplines." In *Bridging Social Psychology: Benefits of Transdisciplinary Approaches*, edited by Paul A. M. Van Lange, 365-70. Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers, 2006.
- Palmer, Christian, and Mervyn L. Tano. "Mokomokai: Commercialization and Desacralization." *International Institute for Indigenous Resource Management* (Aug., 2004): 1-9.
- Partan, Sarah, and Peter Marler. "Communication Goes Multimodal." *Science* 283 (Feb. 26, 1999): 1272-3.
- Partan, Sarah, and Peter Marler. "Issues in the Classification of Multimodal Communication Signals." *The American Naturalist* 166, no. 2 (2005): 231-45.
- Pedersen, Morten Axel. "Common Nonsense: A Review of Certain Recent Reviews of 'The' Ontological Turn." *Anthropology of This Century* 5 (Oct., 2012). Accessed September 18, 2015. http://aotcpress.com/articles/common_nonsense/.
- Pihama, Leonie, Fiona Cram, and Sheila Walker. "Creating Methodological Space: A Literature of Kaupapa Māori Research." *Canadian Journal of Native Education* 26, no. 1 (2002): 30-43.
- Pihama, Leonie, Kaapua Smith, Mereana Taki, and Jenny Lee. "A Literature Review on *Kaupapa Maori* and *Maori* Education Pedagogy." *Institutes of Technologies and Polytechnics (ITPNZ)* (November, 2004): 3-62.
- Platteau, Jean-Phillipe. "The Evolutionary Theory of Land Rights as Applied to Sub-Saharan Africa: A Critical Assessment." *Development and Change* 27, no. 1 (1996): 29-86.
- Polack, Joel Samuel. *Manners and Customs of the New Zealanders; with Notes Corroborative of Their Habits, Usages, Etc., and Remarks to Intending Emigrants, with Numerous Cuts on Wood*. London: J. Madden and Co., Etc., 1840.
- Powers, Simon T., and Richard A. Watson. "Evolution of Individual Group Size Preference Can Increase Group-Level Selection and Cooperation." In *Advances in Artificial Life: Darwin Meets von Neumann*, edited by Dario Floreano, Jean-Daniel Nicoud, and Francesco Mondado, 53-60. Berlin; Heidelberg: Springer Verlag, 2011.
- Proudfoot, Wayne L. "Religious Belief and Naturalism." In *Radical Interpretation in Religion*, edited by Nancy K. Frankenberry, 78-94. Cambridge: Cambridge University Press, 2002.
- Ra, Mitaki. *Mana a Tōku ko Tane: The Right to Stand Tall: Conversations with Old People*. Te Kauwhata, N.Z.: Mitaki Ra Publications, 2002.
- Rappaport, Roy A. "Ritual Regulation of Environmental Relations among a New Guinea People." *Ethnology* 6, no. 1 (Jan., 1967): 17-30.

- Reder Stephen, and Erica Davila. "Context and Literacy Practices." *Annual Review of Applied Linguistics* 25 (2005): 170-87.
- Rees, Tomas James. "Is Personal Insecurity a Cause of Cross-National Differences in the Intensity of Religious Belief?" *Journal of Religion and Society* 11 (2009): 1-24.
- Reeves, William Pember. *The Long White Cloud: "Ao Tea Roa."* London: George Allen and Unwin Ltd., 1950.
- Richerson, Peter J., and Robert Boyd. *Not by Genes Alone: How Culture Transformed Human Evolution.* Chicago: University of Chicago Press, 2005.
- Richerson, Peter J., Ryan Baldini, Adrian Bell, Kathryn Demps, Karl Frost, Vicken Hillis, Sarah Mathew. "Cultural Group Selection Plays an Essential Role in Explaining Human Cooperation: A Sketch of the Evidence." *Behavioral and Brain Sciences* (2015): 1-71.
- Ricouer, Paul. *Figuring the Sacred: Religion, Narrative, and Imagination.* Minneapolis, MN: Augsburg Fortress, 1995.
- Roberts, Mere, Bradford Haami, Richard Anthony Benton, Terre Satterfield, Melissa L. Finucane, Mark Henare, and Manuka Henare. "Whakapapa as a Maori Mental Construct: Some Implications for the Debate over Genetic Modification of Organisms." *The Contemporary Pacific* 16, no. 1 (2004): 1-28.
- Robley, H.G. *Moko: or, Maori Tattooing.* London: Chapman and Hall, Ltd., 1896.
- Robley, H.G. *Moko; or Maori Tattooing.* Mineola, NY: Dover Publications, Inc., 2003.
- Roth, H. Ling. "Maori Tatu and Moko." *Royal Anthropological Institute of Great Britain and Ireland* 31 (Jan.-Jun., 1901): 29-64.
- Rousseau, Jean-Jacques. *Discours sur les Sciences et les Arts.* New York: Modern Language Association, 1946.
- Rua, Mohi. "Contemporary Attitudes to Traditional Facial Ta Moko: A Working Paper." In *Maori and Psychology: Research and Practice-The Proceedings of a Symposium sponsored by the Maori and Psychology Research Unit*, edited by N. Robertson, 27-32. Hamilton, N.Z.: Department of Psychology, University of Waikato, Maori and Psychology Research Unit, 1997.
- Ruffle, Bradley J., and Richard Sosis. "Does It Pay to Pray?: Costly Ritual and Cooperation." *The B.E. Journal of Economic Analysis and Policy: Contributions* 7, no. 1 (2007): 1-37.
- Sahlins, Marshall. *Culture in Practice: Selected Essays.* New York: Zone Books, 2000.

- Sahlins, Marshall. *How "Natives" Think: About Captain Cook, For Example*. Chicago: The University of Chicago Press, 1996.
- Sahlins, Marshall. *The Use and Abuse of Biology: An Anthropological Critique of Sociobiology*. Ann Arbor, MI: The University of Michigan Press, 1976.
- Said, Edward W. *Culture and Imperialism*. London: Vintage, 1994.
- Said, Edward W. *Orientalism*. New York: Pantheon, 1978.
- Said, Edward W. *The World, the Text, and the Critic*. Cambridge, MA: Harvard University Press, 1983.
- Salmond [Henare], Amiria. "Transforming Translations (part 2): Addressing Ontological Alterity." *HAU: Journal of Ethnographic Theory* 4, no. 1 (2014): 155-87.
- Salmond, Anne. "Ontological Quarrels: Indigeneity, Exclusion, and Citizenship in a Relational World." *Anthropological Theory* 12, no. 2 (2012): 115-141.
- Salmond, Anne. *Two Worlds: First Meetings between Maori and Europeans, 1642-1772*. Auckland: Viking Press, 1993.
- Salzman, Michael. "The Dynamics of Cultural Trauma: Implications for the Pacific Nations." In *Social Change and Psychosocial Adaptation in the Pacific Islands*, edited by Anthony J. Marsella, Ayda Aukahi, and Bruce Grant, 29-51. New York: Springer, 2005.
- Sanders, Clinton R. *Customizing the Body: The Art and Culture of Tattooing*. Philadelphia, PA: Temple University Press, 2008.
- Sautet, Frédéric. "Once Were Iwi?: A Brief Institutional Analysis of Maori Tribal Organisations through Time." *New Zealand Business Roundtable* (2008): 5-30.
- Savage, John. *Some Account of New Zealand; Particularly the Bay of Islands, and Surrounding Country; with a Description of the Religion and Government, Language, Arts, Manufactures, Manners, and Customs of the Natives &c., &c.* Auckland: University of Auckland, 2004.
- Schacter, Daniel L. *Searching the Memory: The Brain, the Mind and the Past*. New York: Basic Books, 1996.
- Scherzer, Karl von. *Reise der Oesterreichischen Fregatte Novara um die Erde. English Selections. Narrative of the Circumnavigation of the Globe by the Austrian Frigate Novara (Commodore B. von Wullerstorf-Urbair), Undertaken by Order of the Imperial Government, in the Years 1857, 1858, and 1859, under the Immediate Auspices of His I. and R. Highness the Archduke Ferdinand Maximilian, Commander-in-Chief of the Austrian Navy*. London: Saunders, Otley, and Co., 1863.

- Schloss, Jeffrey P., and Michael J. Murray. "Evolutionary Accounts of Belief in Supernatural Punishment: A Critical Review." *Religion, Brain and Behavior* 1, no. 1 (2011): 46-99.
- Schupbach, Jonah N., and Jan Sprenger. "The Logic of Explanatory Power." *Philosophy of Science* 78, no. 1 (2011): 105-27.
- Schwimmer, E.G. "Warfare of the Maori." *Te Ao Hou*, no. 36 (Sept., 1961): 51-3.
- Scott-Phillips, Thomas C., Kevin N. Laland, David M. Shuker, Thomas E. Dickins, and Stuart A. West. "The Niche Construction Perspective: A Critical Appraisal." *Evolution* 68, no. 5 (2014): 1231-43.
- Scutt, Ronald, and Christopher Gotch. *Skin Deep: The Mystery of Tattooing*. London: Peter Davies, Ltd., 1974.
- Semali, Ladislaus M. and Joe L. Kincheloe. "Introduction: What is Indigenous Knowledge and Why Should We Study It." In *What is Indigenous Knowledge?: Voices from the Academy*, edited by Ladislaus M. Semali and Joe L. Kincheloe, 3-58. New York; London: Falmer Press, 1999.
- Semali, Ladislaus, and Tataleni I. Asino. "Decolonizing Cultural Heritage of Indigenous People's Knowledge from Images in Global Films." *Decolonization: Indigeneity, Education and Society* 2, no. 2 (2013): 25-56.
- Servant, Father Catherin. *Customs and Habits of the New Zealanders, 1838-42*, translated by J. Glasgow. Wellington: A.H. and A.W. Reed, 1973.
- Shennan, Stephen. *Genes, Memes, and Human History: Darwinian Archaeology and Cultural Evolution*. London: Thames and Hudson, 2002.
- Shirres, Michael P. "Tapu." In *Customary Concepts of the Maori: A Source Book for Maori Studies Students*, edited by Sidney Moko Mead, 68-82. Wellington: Department of Maori Studies, Victoria University of Wellington, 1984.
- Shortland, Edward. *The Southern Districts of New Zealand; A Journal, with Passing Notices of the Customs of the Aborigines*. London: Longman, Brown Green, and Longmans, 1851.
- Shortland, Edward. *Traditions and Superstitions of the New Zealanders: with Illustrations of Their Manners and Customs*. London: Longman, Brown, Green, Longmans and Roberts, 1856.
- Sim, Stuart, ed. *The Lyotard Dictionary*. Edinburgh, Scotland: Edinburgh University Press, 2011.
- Simmons, David. *The Carved Pare: A Mirror of the Maori Universe*. Wellington: Huia Publishers, 2001.

- Simmons, David. *The Great New Zealand Myth: A Study of the Discovery and Origin Traditions of the Maori*. Wellington: A.H. & A.W. Reed, 1976.
- Simmons, David. *Iconography of New Zealand Maori Religion*. Leiden, The Netherlands: E. J. Brill, 1986.
- Simmons, David. "Moko." In *Art and Artists of Oceania*, edited by S.M. Mead and B. Kernot, 226-43. Palmerston North, N.Z.: Dunmore Press, 1983.
- Simmons, David. *Ta Moko: The Art of Maori Tattoo*. Auckland: Reed Books, 1997.
- Simon, Judith A., and Linda Tuhiwai Smith, eds. *A Civilising Mission?: Perceptions and Representations of the New Zealand Native Schools System*. Auckland: Auckland University Press, 2001.
- Sissons, Jeffrey. "Best, Elsdon." In *The Dictionary of the New Zealand Biography, Te Ara: The Encyclopedia of New Zealand*. Last modified October 30, 2012. Accessed August 2, 2015. <http://www.teara.govt.nz/en/biographies/2b20/best-elsdon>.
- "Skin Stories: The Art and Culture of Polynesian Tattoo: Role of Tattoo-Maori Moko." *Pacific Islanders in Communication*. Accessed April 7, 2014. <http://www.pbs.org/skinstories/culture/role2.html>.
- Smale, Aaron. "Ta Moko." *New Zealand Geographic* 91 (May-Jun., 2008). Accessed March 12, 2014. <https://www.nzgeographic.co.nz/archives/issue-91/ta-moko>.
- Smith, Eric Alden. "Three Styles in the Evolutionary Analysis of Human Behavior." In *Adaptation and Human Behavior: An Anthropological Perspective*, edited by Lee Cronk, Napoleon Chagnon, and William Irons, 128-35. Hawthorne, NY: Aldine de Gruyter, 2000.
- Smith, Eric Alden, Monique Borgerhoff Mulder, and Kim Hill. "Controversies in the Evolutionary Social Sciences: A Guide for the Perplexed." *TRENDS in Ecology and Evolution* 16, no. 3 (Mar., 2001): 128-135.
- Smith, Eric Alden, and Rebecca L. Bliege Bird. "Costly Signaling and Cooperative Behavior." In *Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life*, edited by Herbert Gintis, Samuel Bowles, Robert Boyd, and Ernst Fehr, 115-48. Cambridge, MA: MIT Press, 2005.
- Smith, Eric Alden, and Rebecca L. Bliege Bird. "Turtle Hunting and Tombstone Opening: Public Generosity as Costly Signaling." *Evolution and Human Behavior* 21, no. 4 (2000): 245-61.

- Smith, Graham Hingaroa. "Protecting and Respecting Indigenous Knowledge." In *Reclaiming Indigenous Voice and Vision*, edited by Marie Battise, 209-24. Vancouver, B.C.: University of British Columbia Press, 2000.
- Smith, Jean. "Tapu Removal in Maori Religion." *The Journal of the Polynesian Society* 83 (1974): 1-42.
- Smith, John Maynard. *Evolution and the Theory of Games*. Cambridge: Cambridge University Press, 1982.
- Smith, John Maynard, and George R. Price. "The Logic of Animal Conflict." *Nature* 246 (Nov. 2, 1973): 15-8.
- Smith, Kenneth. *Émile Durkheim and the Collective Consciousness of Society: A Study in Criminology*, vol. 1. London: Anthem Press, 2014.
- Smith, Linda Tuhiwai. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books; Dunedin, N.Z.: University of Otago Press, 1999.
- Sober, Elliott. *The Nature of Selection: Evolutionary Theory in Philosophical Focus*. Chicago: University of Chicago Press, 1984.
- Sociobiology Study Group of Science for the People. "Dialogue: The Critique: Sociobiology: Another Biological Determinism," *BioScience* 26, no. 3 (Mar., 1976): 182-6.
- Soros, George. "Theory of Relativity." Lecture, MIT Department of Economics World Economy Laboratory Conference, Washington, D.C., April 26, 1994.
- Sosis, Richard. "Costly Signaling and Torch Fishing on Ifaluk Atoll." *Evolution and Human Behavior* 21 (2000): 223-44.
- Sosis, Richard. "Religious Behaviors, Badges, and Bans: Signaling Theory and the Evolution of Religion." In *Where God and Science Meet: How Brain and Evolutionary Studies Alter Our Understanding of Religion*, edited by Patrick McNamara, 61-86. Westport, CT: Praeger Publishers, 2006.
- Sosis, Richard, and Candace Alcorta. "Signaling, Solidarity, and the Sacred: The Evolution of Religious Behavior." *Evolutionary Anthropology* 12 (2003): 264-74.
- Sosis, Richard, Howard C. Kress, and James S. Boster. "Scars for War: Evaluating Alternative Signaling Explanations for Cross-Cultural Variance in Ritual Costs." *Evolution and Human Behavior* 28 (2007): 234-47.
- Sperber, Dan. *Explaining Culture: A Naturalistic Approach*. Oxford: Blackwell Publishers Ltd., 1996.

- Sperber, Dan. "An Objection to the Memetic Approach to Culture." In *Darwinizing Culture: The Status of Memetics as a Science*, edited by Robert Aunger, 163-73. Oxford; New York: Oxford University Press, 2000.
- Spivak, Gayatri Chakravorty. *A Critique of Postcolonial Reason: Toward a History of the Vanishing Present*. Cambridge, MA: Harvard University Press, 1999.
- Stephens, Māmari. "A Return to the Tohunga Suppression Act 1907." *Victoria University Law Review* 32, no. 2 (2001): 437-62.
- Sterelny, Kim. "SNAFUs: An Evolutionary Perspective." *Biological Theory* 2, no. 3 (2007): 317-28.
- Steward, Julian H. *Theory of Cultural Change: The Methodology of Multilinear Evolution*. Urbana, IL: University of Illinois Press, 1972.
- Swallow, Dallas M., and Mark G. Thomas. "Evolution of Lactase Persistence: An Example of Human Niche Construction." *Philosophical Transactions of the Royal Society B: Biological Sciences* 366, no. 1566 (2011): 863-77.
- Tā Moko*. A documentary produced by Claudette Hauiti and directed by Kim Webby. N.Z.: Front of the Box Production. Originally aired on TV One. October 7, 2006. Screened on TVNZ, 2007. Accessed March 19, 2014. <http://www.nzonscreen.com/title/ta-moko-2007>.
- "Tā Moko Rising." *Te Karaka*. October 18, 2012. Accessed April 11, 2014. http://ngaitahu.iwi.nz/our_stories/ta-moko-rising/.
- Tait, Morgan. "Maori Tattoo Doesn't Cut It at Air NZ." *The New Zealand Herald*, May 28, 2013. Accessed March 9, 2014. http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10886641.
- Taliaferro, Charles, and Mark Odden. "Chapter One: Tattooing and the Tattooing Arts in Perspective." In *Tattoos-Philosophy for Everyone: I Ink, Therefore I Am*, edited by Robert Arp, 3-13. The Atrium, West Sussex, England: John Wiley and Sons, Inc., 2012.
- Taonui, Rāwiri, and Greg Newhold. "Staunch: Māori Gangs in Urban New Zealand." In *Urban Social Capital: Civil Society and City Life*, edited by Joseph D. Lewandowski and Gregory W. Streich, 159-76. Surrey, England: Ashgate Publishing Limited, 2012.
- Taonui, Rāwiri. "Tribal Organisation: The History of Māori Social Organisation." In *Te Ara: The Encyclopedia of New Zealand*. Last modified September 22, 2012. Accessed January 8, 2014, <http://www.teara.govt.nz/en/tribal-organisation/page-6>.
- "Tattooist with Moko Banned from Bar." *TVNZ*. Accessed May 18, 2013. <http://tvnz.co.nz/national-news/tattooist-moko-banned-bar-3003102>.

- Tau, Rawiri Te Maire. "Tirohia Atu Nei Ka Whetū Rangitia, Minding the Past." *Te Pouhere Kōrero 5: Māori History, Māori People* (2011): 7-31.
- Tawhai, T.P. "Maori Religion." In *the World's Religions: The Study of Religion, Traditional and New Religion*, edited by Stewart Sutherland and Peter Clarke, 96-105. London: Routledge, 1991.
- Taylor, John Patrick. *Consuming Identity Modernity and Tourism in New Zealand*. University of Auckland: Department of Anthropology, 1998.
- Taylor, Richard. *Te Ika a Maui, or, New Zealand and Its Inhabitants Illustrating the Origin, Manners, Customs, Mythology, Religion, Rites, Songs, Proverbs, Fables, and Language of the Natives; Together with the Geology, Natural History, Productions, and Climate of the Country, Its State as Regards Christianity, Sketches of the Principal Chiefs, and Their Present Position*. London: Wertheim and Macintosh, 1855.
- Taylor, Richard. *The Past and Present of New Zealand with Its Prospectus for the Future*. London: William Macintosh, 1868.
- Te Ahukaramū (Charles Royal). "Māori: Urbanisation and Renaissance." In *Te Ara: The Encyclopedia of New Zealand*. Last modified February 3, 2015. Accessed September 20, 2015. <http://www.teara.govt.nz/en/maori/page-1>.
- Te Awekotuku, Ngahuia. "Maori: People and Culture." In *Maori: Art and Culture*, edited by Dorota Starzecka, 26-49. London: British Museum Press, 1996.
- Te Awekotuku, Ngahuia. "Maori Women and Research: Researching Ourselves." In *Maori and Psychology: Research and Practise: The Proceedings of a Symposium Sponsored by the Maori and Psychology Research Unit*, edited by N. Robertson, 59-66. Hamilton, N.Z.: University of Waikato, Maori and Psychology Research Unit, 1999.
- Te Awekotuku, Ngahuia. "Mataora: Chiselling the Living Face-Dimensions of Maori Tattoo." In *Sensible Objects, Colonialism and Material Culture*, edited by Elizabeth Edwards, Chris Gosden, and Ruth B. Phillips, 121-40. New York: Berg, 2006.
- Te Awekotuku, Ngahuia. "Memento Mori: Memento Maori-Moko and Memory." Tangi Research Programme Working Paper. Hamilton, N.Z.: Maori and Psychology Research Unit, University of Waikato (Nov., 2009): 1-12.
- Te Awekotuku, Ngahuia. "The Rise of the Maori Tribal Tattoo." *BBC News Magazine*. Last modified September 21, 2012. Accessed April 27, 2014. <http://www.bbc.com/news/magazine-19628418>.
- Te Awekotuku, Ngahuia. "Tā Moko: Maori Tattoo." In *Goldie*, edited by R. Blackley, 109-14. Auckland: Auckland Art Gallery, 1997.

- Te Awekotuku, Ngahuia. "Wearing Moko: Maori Facial Marking in Today's World." In *Tattoo: Bodies, Art and Exchange in the Pacific and the West*, edited by Nicholas Thomas, Anna Cole and Bronwen Douglas, 191-204. London: Reaktion Books, 2005.
- Te Awekotuku, Ngahuia, Linda Waimarie Nikora, Mohi Rua, and Rolinda Karapu. *Mau Moko: The World of Māori Tattoo*. Auckland: Penguin Viking, 2007.
- Te Rangihīroa (Sir Peter Buck). *The Coming of the Maori*. Wellington: Maori Purposes Fund Board, 1949.
- Te Riria, and David Simmons. *Maori Tattoo*. Auckland: Bush Press, 1989.
- Te Riria, and David Simmons. *Moko Rangatira: Maori Tattoo*. Auckland: Reed Books, 1999.
- Te Rito, Joseph Selwyn. "Whakapapa: A Framework for Understanding Identity." *MAI Review* (2007): 1-10.
- Tëmkin Ilya, and Niles Eldredge. "Phylogenetics and Material Cultural Evolution." *Current Anthropology* 48, no. 1 (Feb., 2007): 146-54.
- Thomas, Tim. "The Social Practice of Colonisation: Re-thinking Prehistoric Polynesian Migration." *People and Culture in Oceania* 17 (2001): 27-46.
- Thompson, Christina. "A Dangerous People Whose Only Occupation is War: Maori and Pakeha in the 19th-Century New Zealand." *The Journal of Pacific History* 32, no. 1 (1997): 109-19.
- Thomson, Arthur S. *The Story of New Zealand: Past and Present—Savage and Civilized*, vol. 1. London: John Murray, 1859.
- Tiger, Lionel, and Robin Fox. "The Zoological Perspective in Social Science." *Man, New Series* 1, no. 1 (Mar., 1966): 75-81.
- Tinbergen, N. "On Aims and Methods of Ethology." *Zeitschrift Für Tierpsychologie* 20, no. 4 (1963): 410-33.
- Tomasello, Michael. *Why We Cooperate*. Cambridge, MA: MIT Press, 2009.
- Tomlins-Jahnke, Huia, and Malcolm Mulholland. *Mana Tangata: Politics of Empowerment*. Wellington: Huia Publishers, 2011.
- Treagus, Mandy. "Representing Pacific Tattoos: Issues in Postcolonial Critical Practice." *Journal of Postcolonial Writing* 44, no. 2 (Jun., 2008): 183-92.
- Tregear, Edward. *The Maori Race*. Wanganui, N.Z.: Archibald Dudingston Willis, 1904.

- Trivers, Robert L. "Chapter Four: Reciprocal Altruism: 30 Years Later." In *Cooperation in Primates and Humans: Mechanisms and Evolution*, edited by Peter Kaeppler and Carel P. van Schaik, 67-84. Berlin; Heidelberg, Germany: Springer Verlag, 2006.
- Trivers, Robert L. "The Evolution of Reciprocal Altruism." *Quarterly Review of Biology* 46, no. 1 (Mar., 1971): 35-57.
- Tylor, Sir Edward Burnett. *Primitive Culture*. New York: Harper and Row, 1958.
- Vaughan, Graham M. "Social Change and Intergroup Preferences in New Zealand." *European Journal of Social Psychology* 8, no. 3 (1978): 297-314.
- Vayda, Andrew Peter, ed. *Environment and Cultural Behavior: Ecological Studies in Cultural Anthropology*. Austin, TX: University of Texas Press, 1969.
- Vice, Sue. *Introducing Bakhtin*. Manchester, U.K.: Manchester University Press, 1997.
- Voyce, Malcolm. "Maori Healers in New Zealand." *Oceania* 60, no. 2 (December, 1989): 99-123.
- Wagner, Elliot O. "The Dynamics of Costly Signaling." *Games* 4, no. 2 (2013): 163-181.
- Wakefield, Edward Jerningham. *Adventure in New Zealand, from 1839 to 1844: with Some Account of the Beginning of the British Colonization of the Islands*, vol. 2. London: J. Murray, 1845.
- Walker, Shayne, Anaru Eketone, and Anita Gibbs. "An Exploration of Kaupapa Maori Research, Its Principles, Processes, and Application." *International Journal of Social Research Methodology* 9, no. 4 (2006): 331-44.
- Walker, Sheilagh. "Kia Tau te Rangimarie: Kaupapa Maori Theory as a Resistance against the Construction of Maori as the Other." PhD dissertation, University of Auckland, 1996.
- Walker, Timothy. *Robley: Te Ropere, 1840-1930*. Auckland: New Zealand Electronic Text Centre, 1985. Accessed March 3, 2014. <http://nzetc.victoria.ac.nz/tm/scholarly/tei-WalRobl.html>.
- Webster, John. *Reminiscences of an Old Settler in Australia and New Zealand*. Christchurch, N.Z.: Whitcombe and Tombs, 1908.
- West, Stuart A., Ashleigh S. Griffin, and Andy Gardner. "Evolutionary Explanations for Cooperation." *Current Biology* 17, no. 16 (2007): R661-72.
- "What is Moko?" *Te Whariki Moko-Tokoroa*. Accessed February 2, 2012. <http://www.tewhariki.moko.com/index.php>.

- Whiten, Andrew. "The Scope of Culture in Chimpanzees, Humans and Ancestral Apes." *Philosophical Transactions of the Royal Society B: Biological Sciences* 366, no. 1567 (2011): 997-1007.
- Whiten, Andrew, Robert A. Hinde, Christopher B. Stringer, and Kevin N. Laland, eds. *Culture Evolves*. Oxford: Oxford University Press, 2012.
- Whitt, Laurelyn. *Science, Colonialism, and Indigenous Peoples: The Cultural Politics of Law and Knowledge*. Cambridge: Cambridge University Press, 2009.
- Wiley, Shelley C. "Chapter Seven: Postcolonial Studies and Decolonizing Spiritualities: Reading Haitian Vodou with Rosemary Reuther and Frantz Fanon." In *Voices of Feminist Liberation*, edited by Emily Leah Silverman, Dirk von der Horst, and Whitney A. Bauman, 99-114. New York: Routledge, 2014.
- Williams, George C. *Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought: A Critique of Some Current Evolutionary Thought*. Princeton, NJ: Princeton University Press, 2008.
- Williams, George C., ed. *Group Selection*. New Brunswick, NJ: Transaction Publishers, 1971.
- Williams, George C. "Natural Selection, the Costs of Reproduction, and a Refinement of Lack's Principle." *The American Naturalist* 100, no. 916 (Nov.-Dec., 1966): 687-90.
- Williams, George C., and Doris C. Williams. "Natural Selection of Harmful Social Adaptations among Sibs with Special Preference to Social Insects." *Evolution* 11, no. 1 (Mar., 1957): 32-9.
- Wilson, David Sloan. "Groups as Units of Functional Analysis, Individuals as Proximate Mechanisms." *The Behavioral and Brain Sciences* 37, no. 3 (2014): 279-80.
- Wilson, David Sloan. "Human Cultures are Primarily Adaptive at the Group Level (with comment)." *Cliodynamics: The Journal of Theoretical and Mathematical History* 4, no. 1 (2013): 102-38.
- Wilson, David Sloan. "A Theory of Group Selection." *Proceedings of the National Academy of Sciences* 72, no. 1 (1975): 143-6.
- Wilson, Edward O. *Sociobiology: The New Synthesis*. Cambridge, MA: Harvard University Press, 2000.
- Wiredu, Kwasi. "Toward Decolonizing African Philosophy and Religion." *African Studies Quarterly* 1, no. 4 (1998): 17-46.
- Wynne-Edwards, V.C. *Animal Dispersion: In Relation to Social Behavior*. New York: Hafner, 1962.

- Wynne-Edwards, V.C. *Evolution through Group Selection*. Oxford: Blackwell Science, 1986.
- Young, Robert. *The Southern World: Journal of a Deputation from the Wesleyan Conference to Australia and Polynesia*. London: Hamilton, Adams, and Co., 1854.
- Zahavi, Amotz. "Mate Selection—A Selection for Handicap." *Journal of Theoretical Biology* 53, no. 1 (1975): 205-14.
- Zerubavel, Eviatar. *Time Maps: Collective Memory and the Social Shape of the Past*. Chicago: University of Chicago Press, 2003.
- Zinnbauer, Brian J. and Kenneth I. Pargament. "Chapter Two: Religiousness and Spirituality." In *Handbook of the Psychology of Religion and Spirituality*, edited by Raymond F. Paloutzian and Crystal Park, 21-42. New York: The Guilford Press, 2005.
- Zinnbauer, Brian J., Kenneth I. Pargament, Brenda Cole, Mark S. Rye, Erik M. Butter, Timothy G. Belavich, Kathleen M. Hipp, Allie B. Scott, and Jill L. Kadar. "Religion and Spirituality: Unfuzzifying the Fuzzy." *Journal for the Scientific Study of Religion* 36, no. 4 (Dec., 1997): 549-64.
- Zygadlo, Frania Kanara, Hirini Paerangi Matunga, David G. Simmons, and John R. Fairweather. "Tourism and Maori Development in Westland." *Tourism Recreation Research and Education Centre (TRREC)*, Lincoln University, report no. 25 (Jul., 2001): iii-54.