Situating the cetacean: Science and storytelling in Witi Ihimaera's The whale rider

Lee Elton Dionne

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SITUATING THE CETACEAN: SCIENCE AND STORYTELLING

IN WITI IHIMAERA'S THE WHALE RIDER

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
English Composition:
Literature Concentration

by
Lee Elton Dionne
June 2006
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ABSTRACT

This thesis analyzes two major discourses that intersect and inform one another in Witi Ihimaera's *The Whale Rider*: storytelling and modern science. Taking a cultural studies perspective, "Situating the Cetacean" studies trends in the cultural significance of whales and dolphins in both the scientific and literary spheres in order to enrich our reading of the novel itself. *The Whale Rider* tells two stories. The first is of an indigenous girl named Kahu in a New Zealand Maori village who rediscovers the power of her people's belief that their ancestors came to their island on the backs of whales. The second concerns the ancient leader of a pod of cetaceans who has suffered from spiritual negligence on behalf of the Maoris in modern times, and who, as a result of his longing for the time when he shared companionship with the Maori ancestor Paikea, leads his pod to beach themselves on Maori shores. The whales are full-fledged characters in the novel, complete with powers of speech. In analyzing Ihimaera's characterizations of cetaceans, their relationship with humans, and by situating both within a historical context, this thesis sheds light on the reciprocal relationship.
between scientific discourse and literature relating to cetaceans. "Situating the Cetacean" finds *The Whale Rider* to be a crucible for these forces, fusing science and storytelling in a unique and significant characterization of the human-cetacean relationship that subverts millennia of differentiation between the two in favor of celebrating a future of possible connections.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>CHAPTER ONE: LEVIATHAN STORIES</td>
<td>1</td>
</tr>
<tr>
<td>Hellenistic Representations</td>
<td>3</td>
</tr>
<tr>
<td>Cetaceans and the Judeo-Christian Tradition</td>
<td>8</td>
</tr>
<tr>
<td>Industrial Whaling</td>
<td>10</td>
</tr>
<tr>
<td>CHAPTER TWO: SCIENCE AND THE TALKING CETACEAN</td>
<td>19</td>
</tr>
<tr>
<td>The Inefficient Cetacean Brain</td>
<td>21</td>
</tr>
<tr>
<td>The Astonishing Cetacean</td>
<td>27</td>
</tr>
<tr>
<td>Lilly's Fieldwork</td>
<td>32</td>
</tr>
<tr>
<td>The 1970's to the Present: New Focus and New Cast Members</td>
<td>37</td>
</tr>
<tr>
<td>CHAPTER THREE: COMPOSITE VISIONS</td>
<td>48</td>
</tr>
<tr>
<td>Islands Apart</td>
<td>52</td>
</tr>
<tr>
<td>Ihimaera's Human-Cetacean Mirror</td>
<td>60</td>
</tr>
<tr>
<td>Beached Whales and the Culmination of Conflict</td>
<td>66</td>
</tr>
<tr>
<td>Kahu Rides the Whale</td>
<td>73</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>79</td>
</tr>
</tbody>
</table>
The sun rose and set, rose and set. Then one day, at its noon apex, the first sighting was made. A spume on the horizon. A dark shape rising from the greenstone depths of the ocean, awesome, leviathan, breaching through the surface and hurling itself skyward before falling seaward again. Underwater the muted thunder boomed like a great door opening far away, and both sea and land trembled from the impact of the downward plunging... The dark shape rising, rising again. A whale, gigantic. A sea monster. (Ihimaera 5-6)

In this passage, Witi Ihimaera writes of the founding myth of the Maori people of New Zealand. According to this legend, a man named Paikea rode upon the back of a whale to the island and settled there. The communion between man and whale is an ancient and common story in Polynesian cultures, though it is echoed in many other cultures throughout the world, albeit with different details and culturally-specific shades of significance. Ihimaera’s The
Whale Rider, the novel that is the focus of this thesis, is the product of different discourses derived from many cultural roots. The Whale Rider, on one level, tells the story of a Maori royal family forced to confront deep-seeded issues resulting from the stress between New Zealand's colonial rule and certain founding principles of this indigenous society. On yet another level, the novel is about the human-cetacean relationship and the ways in which humans characterize it through storytelling. Storytelling is infused with competing discourses about our origins and ways of being, and this is the case even when the subject is cetaceans. That said, in recent decades the influence of scientific discovery and fantasy has been especially prominent in the story of the cetaceans' cultural significance to humans. Of central concern to this discussion, then, is how this human characterization of the whale has been influenced by science in recent centuries, and how science has been influenced by traditional storytelling all along. Retracing the web that binds this symbiotic exchange is a challenge, but one that cultural studies can illuminate; it is a challenge that requires an investigation into both the contemporary forces that
receive explicit attention in Ihimaera's novel and into those inherited from long ago, but that influence the reader's experience of the text.

Hellenistic Representations

Western traditions of science and storytelling regarding cetaceans is said to have begun with the ancient Greeks—the relationship between Western human societies and whales was, at least, first recorded then. The Greeks were one of many seafaring peoples along the Eastern Mediterranean coast and examples of cultural/archaeological artifacts that visually represent dolphins, the most common species of cetacean found in that part of the world, predate the written record (Catton). In speaking of the importance of whales and dolphins to the human species, such representations as these exist may be more persuasive than the written accounts. This is simply because visual representations attest to an established semiotic tradition, and because literacy in the ancient world was restricted to the elite. The Oracle at Delphi was named for dolphins, and this perhaps speaks to their significance to an oral culture as possessors of language and foresight.
And, once a written culture became apparent, the cetaceans were not slow to follow in becoming subjects of writing.

Modern audiences of television shows such as *Flipper* or aquatic theme parks like SeaWorld will find the representation of dolphins in Greek myths as sympathetic to humans quite familiar. Such myths frequently tell of dolphins rescuing stranded sailors and swimmers:

The best known of all such legends, the rescue of Arion after his leap into the sea to avoid murder... and... the much less familiar story of how Apollo, in the guise of a dolphin, rescued his son Icadius from drowning...all three are unambiguously optimistic in tenor. (Creaser 236)

In addition, just as whale-riding is frequently represented in Maori mythology, there are a large number of ancient stories that relate the riding of a dolphin by a particular person or large group of people (Higham 83). There is something curious about the frequency and reverence in Greek representations of dolphins; after all, this was not the type of subsistence-based or economy-based relationship that typifies totem spirituality. Rather, the Hellenistic view speaks to a kind of distant appreciation or respect
built on some other terms. Many in today's world of "dolphin friendly" tuna might recognize a pleasing continuity in the classical perspective of these particular cetaceans—though, as we shall see later on, this view becomes quite problematic.

Aristotle's *Historia Animaleum* is perhaps the oldest extant text that introduces and discusses cetaceans in a scientific manner, serving additionally as the source of some of the great cetacean mysteries that continue to puzzle and intrigue scientists and storytellers equally. This is so for two primary reasons. First, Aristotle described the dolphin (as well as the whale) with an accuracy that was confirmed only in the last century:

The Dolphin, the Whale and other Cetacea have no gills but a blowhole instead, are viviparous...

None of these is to be seen carrying eggs; they omit this stage, and begin with the actual fetation, which becomes articulated and gives rise to the young animal, exactly as occurs with the human species and the viviparous quadrupeds. For the most part the dolphin produces one offspring, occasionally two; the whale either two
(more generally two) or one... All animals who have a blowhole breathe in and out as they possess lungs. A dolphin has been observed, while asleep, with its snout above water, and snoring in its sleep. Both dolphin and porpoise have milk and suckle their young... The dolphin’s gestation period is ten months...it is an animal that dotes on its children. It lives many years; some are definitely known to have lived for over twenty-five years; others for thirty by the following method. Fishermen dock the tails of some of them then let them go again; this enables them to discover how long they live. (qtd. in Brown 20-1)

As indicated above, Aristotle’s keen observations have been verified on numerous levels, including corroborating evidence regarding gestation period and life-span (Perrin 248; Brown 22). Here, then, is one mystery: how were Aristotle and/or his available sources able to describe this marine species with such specificity and accuracy?

Another mystery derives from Aristotle’s observations of the dolphin’s vocal capabilities: “The voice of the dolphin in air is like that of the human in that they can
pronounce vowels and combinations of vowels, but have difficulties with the consonants” (qtd. in Lilly 11). This latter observation, in addition to the former, was reduced to mere "mythology" in medieval Europe and by nineteenth century scientists (Lilly 11). Aristotle poses this question: can dolphins speak? As striking a proposal as this sounds, it became not only the inspiration for a great deal of fiction but for quite a bit of non-fiction, as well. One thing is abundantly clear: the Greeks not only held cetaceans in high esteem, but they had the means and the interest to investigate the natural qualities of dolphins and whales. In the West, at least two millennia and more would pass before this curiosity was equaled.

Perhaps one fact, more than any other, best summarizes the nature of the Hellenistic human-dolphin relationship: the killing of a dolphin was considered equal to the killing of a person (Brown 32). Such a law is unique because it implies that the society weighted the value of this cetacean species and found it to be equal to that of a human being, or at least very near so. The elevation of a nonhuman species to such status in a human society speaks to the immense significance attached to that species by the
society. The phenomenon is an interesting one and beyond my powers or the scope of this thesis to explain, and surely has antecedents in the ineffable and unarticulated past of human beings. Given the often quoted debt to Greece by the West, we might expect that the privileged status of cetaceans would be retained by the Christian West, and in the limited terms of semiotics and devices in literature (see Creaser's "Dolphins in Lycidas"), one could argue that such was the case. For the most part, however, the end of the Western Hellenistic period resulted in a collapse of the cetacean's elevated status.

Cetaceans and the Judeo-Christian Tradition

As recognizable as the Greek cultural attitude toward whales and dolphins may seem in a contemporary world that has a moratorium on whaling, the inherited Judeo-Christian tradition exerted much more influence on Western societies throughout most of post-classic history. The rise of Christianity coincided with the final centuries of the Roman Empire, through the infrastructure of which the nascent religion was able to secure footholds throughout Europe, the Eastern Mediterranean, and parts of North
Africa. The development of monotheist dogmas in place of earlier polytheistic ones changed the way these societies made sense of their environments, essentially restricting agency from a pluralist vision to a single overarching deity. This recasting of the metaphysical universe would have impact on the material world as humans now fostered a relationship with a single God rather than with nature. Indeed many interpretations of Genesis have posited that nature was created for the sole purpose of exploitation by human beings; this notion is also known as dominion theory (Lowe 408). It was in this changing worldview that the cultural importance of cetaceans began to recede.

In any discussion of the Judeo-Christian tradition and whales it would be difficult to omit the biblical account of Jonah and the whale (Jonah 2:1). Jonah is one of twelve Minor Prophets in the Hebrew Bible and the Christian Old Testament. He is best known for surviving three days in the belly of a whale. Jonah landed himself in the belly of the whale by attempting to flee the will of God that he should become a prophet. After three days, the whale vomited Jonah and, as a result of his revelation, Jonah proceeded to do God’s work. It would appear that this
particular biblical narrative would provide much fodder for the discussion of cetaceans—and perhaps it does, although obliquely. Jonah, in fact, did not become consumed by a whale until William Tyndale’s 1534 translation from the Latin and/or Greek account(s) of Christ’s retelling of Jonah’s tale in Matthew 12:40. The Greek word ketos and the Latin cetus refer to either large fish or (more likely) sea monsters (“Book of Jonah”). Cetaceans, mammals in the time of Aristotle, had become indistinguishable from the leviathan. Tyndale’s translation belies a greater distance, in terms of knowledge and empathy, between humans and whales in his time than in the time of Aristotle. As human ignorance of cetacean species increased, their cultural status decreased. Cetaceans became another resource for human consumption.

Industrial Whaling

Leaping forward two centuries, the Eighteenth and Nineteenth centuries were witness to the confluence of industrialization and dominion theory in the form of a growing whaling industry that nearly succeeded in eradicating cetaceans altogether. While many different
cetacean species were slaughtered, the sperm whale came under an especially focused attack. Spermaceti oil was used for candle wax and later in industrial lubrication (Forestell 958); orcas, for example, escaped widespread whaling because they lacked large quantities of this substance (Knudtson 13). While nineteenth century commercial whaling produced ample cetacean corpses, there was little scientific effort expended toward understanding the basic physiology of whales or dolphins, and the far greater part of even the educated world continued to think of cetaceans as fish rather than as mammals (Brown 5). Nor did whaling’s furious pace abate during the first six decades of the twentieth century—upwards of fifty-thousand whales a year were “taken in the Antarctic alone” (Forestell 959).

Herman Melville’s Moby Dick tells the story of a whaling crew aboard the Pequod who bear witness to the reckless and maddening quest of their captain, Ahab, to slay an albino sperm whale named Moby Dick. Ahab’s trek across the oceans of the globe results in the destruction of the Pequod by the white whale, with the narrator and lone survivor, Ishmael, narrowly escaping death. For much
of its history in the canon of American literature, *Moby Dick* has been regarded as an adventure story sutured with a moral tale warning of the hazards of excessive pride, greed, and obsession with revenge. More recently, however, critics such as Kim Evans have mined Melville’s masterpiece for still deeper and more complex meanings within the text, suggesting that the novel is more about human-kind’s insatiable thirst to conquer the unknown, to come face to face with God or some other metaphysical force. Ishmael even chastises himself for attempting to define and categorize the whale based solely upon its physical remains: “How vain and foolish, then, thought I, for timid untravelled man to try to comprehend aright this wondrous whale, by merely poring over his dead attenuated skeleton” (Melville 363). I would suggest that, seen in this light, the whale *Moby Dick* takes on a tremendous metaphysical significance (parallel to a deity) not seen before in the Judeo-Christian West. Melville’s whale represents much more than an animal or resource; given Ahab’s passion for *Moby Dick*, the whale represents a purpose for human action. The question arises: why would this whale suddenly take on greater cultural significance in this Judeo-Christian
moment? Perhaps the answer lies in the rise of a schizophrenic modernity, torn between atavistic longings for traditional paradigms and the technocracy of science and industry. While Darwin’s findings were not published until 1859, eight years after Melville’s novel, evolutionary theories had been supposed and circulated since the Eighteenth century. For many, the upheaval caused by such notions was tantamount to a battle with God. If Moby Dick represents the unknowable, then perhaps Ahab’s conflict with the whale shares something in common with the societal tension of the day. While Melville’s contrast of the individual Moby Dick with the other whales the Pequod comes across ensures that the reader will not confuse the text with an elevation of the cetacean generally, the novel may reflect a growing level of cultural interest in the whale both as a kind of prize kill (like a lion or an elephant) and as an unknown creature inspiring awe.

Given the exploitive nature of whaling, perhaps it is no coincidence that this industry’s peak decades occurred concomitantly with the rise of European Imperialism, the legacy of which is vital to understanding The Whale Rider. Ihimaera’s text concerns the meeting and negotiation of
indigenous and imperial cultures in the specific context of New Zealand. Needless to say, with the introduction of the colonial government, indigenous societies lost the greater part of their sovereignty. Most importantly, imperial arrangements force indigenous cultures, including the Maori people of the novel, to renegotiate their culture and heritage. For example, until recent political events altered the political and cultural landscape in New Zealand (Baron 33), indigenous languages were suppressed in large part through the adoption of the colonial language, English, throughout the school system. The loss or decline of indigenous languages is significant for more reasons than can be recanted here, one of which is that the transmission of culture into one language from another entails semantic change, necessarily, and that change—as seen above in the case of biblical translator William Tyndale—will affect the view of the original culture by posterity in ways that are often indelible.

Consequently, when considering the effects of an imperial past, the power to create official nomenclature becomes important and controversial, as the authority assumed in such an act is a signifier for the colonial
era's cultural tension and power imbalance (i.e., the current dislike of Columbus' term 'Indian' to refer to peoples indigenous to the Americas). Another example is the interesting saga of the naming of the orca, or killer whale. The ancient Romans described the species by the name currently in vogue, orca (Gormley x). The Spanish explorers of the Fifteenth and Sixteenth centuries named the cetacean "whale killer," presumably after having witnessed the orcas' coordinated kill of another cetacean; this term was then corrupted in English translation to "killer whale" which, due to popular and prevailing usage, was ironically then re-translated into Spanish as "killer whale" ("Orca"). While the issue may seem trivial, it is important to note that the name "killer whale" was in large part responsible for the misrepresentation of the species as bent on sadistic, antisocial behavior, with the propensity to harm humans (Brown 36). This view of the species carried on well into the 1960s, in spite of the fact that there are no recorded instances of orcas, outside of captivity, attacking human beings. The power of the fearsome misnomer allowed this popular representation to manifest itself in such cultural products as the 1970s horror film Orca. The
image of the orca as a blood-thirsty beast has endured despite the narratives and accounts of the peoples who lived most closely to orca populations, Native American groups of the Pacific Northwest and Polynesians.

The significance of orcas and other cetaceans is as broad culturally as is the widespread range of the species, which is second only to human beings among mammals (Knudtson 4). The Kwakiutl people of the Pacific Northwest, for example, hold the orca in high esteem because the species, in social organization and appetite, mirror human societies to such an extent that legend holds the orcas are "former human beings who, by donning magical masks and robes, have simply transformed themselves into the whales" (Knudtson 14). The Haida, also of the Pacific Northwest, compare the orca to wolves. A Haida myth involves a pack of clever wolves who, by killing so many whales, incurred the wrath of the creator who, in turn, attempted to drown the wolves; the wolves outsmarted the creator and became whales themselves and continued to feed on other cetaceans (Knudtson 10). Polynesian peoples, which include the Maori of The Whale Rider, commonly represent close relationships between humans and whales: in the story of Kae and Sinilau,
“Sinilau’s father’s sister’s adopted daughter is introduced as giving birth to... two pet whales” (Chadwick 434). Kae later becomes responsible for the murder of one of the whales, and his penalty is death (Chadwick 436). The traditions of the peoples of Polynesia and the Pacific Northwest are but two of those that represent cultures that traditionally recognized cetacean cultures as being similar to human cultures—a point that recent science may have confirmed:

Killer whales are...alongside Chimpanzees, the exemplar of a nonhuman animal whose life and evolution are shaped by cultural processes...intriguing evidence of cultural processes has surfaced in other whale species as well. (Norris, S. 9)

The Whale Rider makes explicit reference to Maori myths—especially the narrative about Paikea, the original Maori man, who arrived at what is today New Zealand upon the back of a whale. The whale riding narratives, common throughout Polynesian mythology, indicate not only reverence for the whale, or sympathy with its human-like social web, but a level of cooperation between and across  

17
species. The idea of riding a whale, or rather the concept of intentional cooperation that implies, has been seen as fantasy and as the basis for dismissing other information present in indigenous legends and stories as unfounded. The same thing is true of the post-Hellenistic West, which read incredulously classic accounts of humans riding dolphins—a point which hardly seems difficult to believe today. Thus the line between "truth" and imagination is blurred when it comes to cetaceans, species which spend only a small fraction of their lives above water, where we can see and study them. From this small fraction visible to humans, assertions are made and contentions disputed, often with the pretense of absolute certainty. In truth, as shall be shown in the second chapter, very little of what is known about cetaceans can be safely categorized as absolutely certain.
CHAPTER TWO

SCIENCE AND THE TALKING CETACEAN

Suddenly the sea was filled with awesome singing, a song with eternity in it, a song to the land:

You have called and I have come,
bearing the gifts of the Gods.

... Just as it burst through the sea, a flying fish leaping high in its ecstasy saw water and air streaming like thunderous foam from that noble beast and knew, ah yes, that the time had come. For the sacred sign was on the monster, a swirling tattoo imprinted on the forehead.

(Ihimaera 5)

The above characterization of the ancient whale in Ihimaera’s complex novel reveals an animal aligned with the metaphysical realm of deities and who possesses the ability to speak through song. This characterization may be recognizable to many audiences who are familiar with the whale’s revered status in our contemporary society. However, such significance has not always been attributed
to cetaceans. The story of how these creatures changed, in the human imagination, from leviathans to talking and praying entities—virtual human counterparts in the sea—is essential to understanding the significance of Ihimaera’s choices in *The Whale Rider*.

Donna Haraway writes: “The two major axes structuring the potent scientific stories of primatology... are defined by the interacting dualisms, *sex/gender* and *nature/culture*” (*Primate Visions* 10). There are many differences between primate studies and cetacean studies, but in regards to the interacting dualisms of *sex/gender* and *nature/culture* there is much that is similar. Beginning in the 1880’s the science of anatomy was turned upon bottlenose dolphins and several compelling discoveries were made regarding the dolphin spinal cord, nervous system and brain size by early neurologists (Brown 168-9). For example, it was found that the bottlenose dolphin possessed a brain which was 1800cc, larger than human beings (Brown 168). The prevailing theory at the time was that intelligence was tantamount to brain size. A chimpanzee, for example, has a brain size of about 350cc. The human brain weighs in at 1500cc. Therefore, human beings were calculated to be about five times as
intelligent as chimpanzees. I note that, had science remained rooted in this approach, it would have been concluded that dolphins were twenty percent more intelligent than human beings. This conclusion was not made. Science instead came to the conclusion that brain size was not, in fact, the absolute determiner of intelligence. To be fair, the best of our current knowledge does indicate that this is correct in general; brain size is not the absolute, or even primary, indicator of intelligence. This conclusion, though, has been roughly settled upon after a century of marine biology case studies. How was it that turn of the century scientists came to this conclusion, having surveyed only the superficial qualities of the dolphin brain?

The Inefficient Cetacean Brain

The answer has to do with the network of hegemonic discourses which dominated the time. By the 1880s, Darwin’s On the Origin of Species was only three decades old, and to describe evolution as controversial at the time is an understatement. The theological notions of “Dominion Theory” (the inference from Genesis that humanity’s duty is
to control nature) constituted the hegemonic discourse. It would have been unthinkable to even suggest that another species was man's equal in intelligence. When in the 1880s, neurologists analyzed the bottlenose dolphin it was already taken for fact that men were more intelligent than dolphins—that men were more intelligent than all creatures. I write 'men' to refer not only to the species of humanity, but also to the gender; both evolutionary and metaphysical discourses converged on the point that men were superior in intellectual terms to women. Most famously, Paul Broca was thought to have scientifically demonstrated this as fact through his craniological studies of men and women. Broca found that the average weight of the female brains he analyzed was fourteen percent smaller than the male brains and concluded that, "the relatively small size of the female brain depends in part upon her physical inferiority and in part upon her intellectual inferiority" (qtd. in Gould 152). Broca did not account for variables such as height or age, both of which disproportionately disadvantaged the female brains he studied, dismissing these variables as unable to account for the entire gap for, as Gould ironically paraphrases, "we know, a priori,
that women are not as intelligent as men" (152). Broca’s perspective reveals that the superior intelligence of men was assumed in advance of his conclusions. This shows that, even as scientific fields proliferated and the scientific method was accepted, there were rhetorical restraints on what knowledge could be uncovered; because, intelligent life was still conceived of as having derived from a god, and it was only in his image that such life could exist. Men resembled God, not women—and certainly not a dolphin! Science was thus able to reach a conclusion, a fact, simply by drawing on the unquestionable impermeability of the human/animal dualism.

At the turn of the Twentieth century, neurologists began to recognize that the cerebellum of the dolphin’s brain showed an extremely complex level of development (Brown 168). One may expect that this discovery, coupled with the previous findings regarding dolphin brain size, might have resulted in speculation regarding the intelligence of the animal. As in the 1880’s, it did not. Dolphins were considered to be intelligent for animals, but certainly not in any extraordinary way. Given the primitive capabilities and understandings of the nascent field of
neurology and the lack of recognizable technology on the part of the dolphin, this conclusion of a lesser intelligence—had it been considered open-ended speculation—could be viewed as contextually appropriate. However, dolphin intelligence was not considered an open-ended question. The reason this question was closed (albeit temporarily) has more to do with imperialism and human racial hierarchy. Imperialist societies could suppose themselves superior because of their technological advantage over other peoples. This paradigm, Social Darwinism, applied the maxim of "survival of the fittest" to human societies and peoples. The result was that indigenous societies, such as Ihimaera's Maori people of New Zealand, were placed into an under-evolved category of humanity. The situation of dolphins when viewed through the techno-centric paradigm could play out no differently. Thus, the link between the assessment of cetacean intelligence and imperialism was cemented long before Witi Ihimaera's novel.

Then human events occurred which suddenly made dolphins an object of interest for the techno-centric imperialist societies. World War I was the first major war
to be fought in large part by locomotive machines. One of these machines was the submarine. Fascination with the submarine was intense because Europe by the time of the First World War was not agriculturally self-sufficient. Naval transport was the only way that the continent could be fed. Therefore, the ability to cease naval transport could help ensure victory in a continental war; and the submarine was seen as the most likely way this goal could be accomplished. This is relevant to the study of dolphins because of Gray’s Paradox. Gray’s Paradox is really rather simple to describe; the dolphin is able to swim at speeds which should not be possible given its physiological design (Pendick 39). The discrepancy between recorded dolphin speeds and our human understanding of what those speeds should be is not small; the factor is seven, at a minimum (Brown 59). The English scientist Dr. James Gray engineered an experiment in 1936 which analyzed the amount of force produced by dolphin muscles and then calculated the force of drag exerted by water (which is reliably calculable) and concluded that a dolphin should not be able to exceed three or four knots (Brown 59). Speeds of over thirty knots have been
officially recorded. These may not be maximums. Jacques Yves Cousteau once observed: “I was standing on the bridge, enthralled by the performance of the mighty cruiser as it cut through the sea with incredible violence... A school of dolphins was alongside... suddenly I realized that the dolphins were... swimming at a speed of no less than 50 miles per hour!” (qtd. in Brown 57).

This paradox fascinated the navies of the world because the only plausible explanation was that dolphins swam in such a way that reduced the drag of the sea almost to a zero point. They believed that, if this capability were mimicked in submarines, the seas would be dominated by whichever nation achieved it first. Gray’s Paradox created a lucrative relationship (for humans, anyway) between dolphins and Navy research budgets. The United States Navy has been in the vanguard of dolphin research for the past fifty years through the U.S. Navy Marine Mammal program; among the purposes of this program was to enhance artificial sonar through the study of the natural sonar of dolphins (“U.S. Navy”). When sonar was first deployed, the Navy encountered loud, seemingly inexplicable sounds. They guessed that it was the sound of the world’s oceans
striking the continents. In fact, it was the sound of the fin whale—the largest after the blue whale—whose vocalizations travel the length of entire continents (Crail 211). Cetaceans had always been vocal creatures. In the middle of the twentieth century, we began to hear them.

The Astonishing Cetacean

Revelations regarding cetacean species can be attributed in large part to a human fascination with a brain whose complexity rivals that of our species. It should be noted that very little is truly understood about the relationship between physiological characteristics of the brain and overall intelligence, even today. Since quantitative speculation regarding intelligence is based upon ratios between brain size qualities and the overall body size of the species being studied, toothed whales have most frequently been studied because “[g]iant cetaceans are difficult to interpret because their brains, although approaching 10 kg in total mass, are dwarfed by their huge bodies” (Oelschlager & Oelschlager 155). This point about brain size poses an inconvenience to this discussion, as so very little is known about the cognitive abilities of the
largest cetacean species. However, toothed whales do very well under this kind of analysis, with early studies of gray matter and the size of the neocortex inspiring eminent scientists like Pilleri and Brenner to express shock and surprise: "A comparison reveals the amazing fact that some species of dolphins have attained a degree of encephalization...equal to that of man... also a brain structure equal to that of man. One even wonders if they are really animals" (qtd in Brown 171). The last sentence of the quotation—presumably suggesting that dolphins are more like the human animal than other animals—articulates a rupture about to occur in the scientific community. Deleuze and Guattari write about the prophetic power of text: "Writing has nothing to do with signifying. It has to do with surveying, mapping, even realms that are yet to come" (Deleuze & Guattari 4-5). Even contemporary science, though its enthusiasm has become more tempered than at first, suggests that dolphins possess cognitive abilities, as measured by the encephalization quotient, ranging somewhere between modern humans and our most recent ancestor, Homo hablis (Marino 159).
These revelations about the dolphin brain created a rift in the scientific community beginning in the middle of the twentieth century. In one camp, there were those who believed that the data on the dolphin brain indicated intelligence at least equal to our own. On the other hand, there were those who believed that the data on the dolphin brain merely indicated that our understanding of brains and how intelligence functions was inadequate, Neurology being among the newest and least comprehended fields of science.

In the area of cetacean research, the 1950s and 1960s were dominated by two men: Ken Norris and John Lilly. Ken Norris was a renowned naturalist who set up shop at UC Santa Cruz and worked with dolphins in the wild and in tanks. He saw the dolphins as intelligent animals, but no more than that, and his work garnered him the reputation as the world's foremost expert on dolphins (Forestell 961).

Dr. John Lilly was a neurologist by trade who in 1955 began studying dolphins in the traditional manner of marine zoos—in heavily controlled tanks with wires attached to dolphins' heads. He found that he was able to elicit conditioned responses by stimulating different parts of the dolphin brain with electric currents (Crail 32). Dr.
Lilly’s interactions with the dolphins convinced him that this method was cruel and he soon abandoned it. As a result of his moral crisis, Dr. Lilly’s further research methods, such as observing a woman and dolphin cohabitating in flooded living quarters, represent a critical break with those methods used previously. The sum total of these methods, Lilly believed, led him to proclaim in 1961 that dolphins and humans would someday communicate in a common tongue (Forestell 962). While giving due credit to Lilly for his early successes in demonstrating that two dolphins exchange signals, Ken Norris dismissed Lilly’s later conclusions as pure fancy and the result of drug use:

These early, useful contributions were followed by a series of books in which Lilly spun out scenarios related not to scientific reality but instead to his experimentation with altered consciousness states and imagination. These extended his real findings into claims that dolphins possessed a language and that some, such as the sperm whale, possessed an intelligence whose complexity far exceeded our own. They
extended the hope of interspecies communication between humans and dolphins. (Norris, K. 298)

Lilly’s proclamations captured the attention of the nation and his promise of interspecies direct communication won a large degree of public support, as well as a lion’s share of rebuke from the scientific community, who sided with Norris (Forestell 962). At UC Santa Cruz, Ken Norris became frustrated with what he perceived as a decline in the standards of scientific observation and the scientific method (Crail 209). He complained that the graduate school applications were overwhelmingly of the language-seeker type dwelling dreamily in the territory of science-fiction. Norris found equally troubling the widespread equation of dolphins with utopian, harmonious societies. Norris had frequently observed that the dolphin could be “aggressive as hell” (Crail 209). Long-term observation has proven Norris correct in this point; there may be no animal outside of the human so prone to acts of sadistic play as the toothed whales.

A definitive answer has yet to be provided regarding which man—-the visionary or the naturalist conservative—was correct with regard to dolphin language and
intelligence. But Lilly has become the more popular by a landside, and his popularity and the reasons for it are worthy of some exploration and attempts at explanation. It is also important to note that Lilly’s vision is the one that predominantly pervaded cultural artifacts about cetaceans, ranging from Star Trek IV’s humpback whales to the extremely human-like whales of The Whale Rider. Hence, though it may frustrate scientists to have talking, metaphysical cetaceans so frequently compared or related to accepted science, it is difficult to differentiate the two, as the pseudo-science (or, perhaps more kindly, the premature conclusions) of Lilly and others like him sprung from the same root as the Ken Norris school of thought.

Lilly’s Fieldwork

In June 1965, an experiment was begun at Lilly’s research lab at St. Thomas in the Virgin Islands. A woman named Margaret Howe spent two and a half months living with a dolphin named Peter. They were placed together in a room that was flooded with two feet of water; the room was complete with a bed, chairs, a desk, and other various pieces of furniture. The goal of the experiment was loosely
defined, but it was hoped that Peter would learn some English. According to Howe and Lilly, Peter got so far as being able to produce her name as “Magrit” (Crail 37). No syntactical progress was ever reported. However, the production of “Magrit” may be seen as truly remarkable given that the dolphin has no vocal chords. Lilly also reported that he recorded dolphins in their tanks when humans were around or nearby, in an effort to detect any efforts at mimicry. On a first listen, there was no evidence of such mimicry. Lilly suspected by this time that dolphins communicated much more quickly than humans, and on a hunch he slowed the tapes by a factor of ten—Lilly claims to have heard recognizable fragments of human speech (Crail 32). The majority of science considers this to be irrelevant to the issue of dolphin language—parrots, for example, mimic parts of human speech. Mimicry poses a real complication in the study of life, especially that life which lives in an environment so totally different from our own. I quote Deleuze and Guattari again: “Mimicry is a very bad concept, since it relies on binary logic to describe phenomenon of an entirely different nature” (Deleuze & Guattari 11). Human attempts to define other intelligent
life are rampant with the practice of mimesis—John Lilly the visionary is no exception.

The final note to Lilly's dolphin research in the 1960's is probably what endeared him most to the swelling public that wished for dolphin language. In a single week, three of Lilly's five dolphins died. They simply stopped breathing. Lilly describes this as an act of suicide (Keen 149). Although other scientists have concluded that this could not possibly be the case, Lilly decided that he was murdering creatures which he considered to be his superiors by keeping them in his laboratory; he released the remaining dolphins back into the wild (Keen 149).

In retrospect, John Lilly has to be considered most remarkable for voicing a new perspective on the human-animal binary. His research proved little, if anything. Dolphins did not learn English, and the fact that he tried to teach them our language represents a kind of Imperialistic ideology that Lilly himself would surely deny. People wanted to believe him though, and he inspired the new wave of research that would come into being later. He did as much to change the rhetoric of marine biology as anyone in history, and he was able to do it because of a
cultural shift in ideas of what actually constituted intelligence.

The sixties were a period of simultaneous science-fiction and science-fact. Super computers were developed whose computing capacities dwarfed those of even the most nimble-witted man. Rockets propelled men to the lunar surface. Speculation about the existence of extra-terrestrial life was gaining support among scientists, eventually leading to the highly funded S.E.T.I. project, which scanned the skies for evidence of radio waves—searching for language. Lilly's fantasies about a human-dolphin common tongue struck a sentimental chord because of the proximity of the dolphin to humans, whereas the prospect of speaking to extraterrestrial aliens was so much more remote. In the minds of many, the Rosetta stone of Dolphinese was just around the corner. Lilly himself often indicated that this was the case; that any day now, dolphin and man would share narratives and histories: "The whales know...They know about World War I. They know about World War II. They know about submarine warfare. They recognize we have navies that could destroy them" (qtd. in Crail 38).
When Lilly released his two surviving dolphins into the open sea, research into dolphin language capabilities took a respite. Paradigms had been shifted, in small steps rather than in revolutionary storms. The dolphin brain was accepted as an anomaly, the intelligence of which was an open question. The question of dolphin language was also left open—in the popular imagination, anyway. It is no coincidence that a lot of paradigms and dualisms were in a period of rapid flux as well. The 1960's was the decade of decolonization, of the Cold War, of the Civil Rights movement, of Feminism, of Vietnam and American intra-societal paranoia. In short, it was a time when politics, science, warfare, and the culture of man evidences reconsideration around the world of the traditional West/East relationship and the Man/Woman relationship. It was also a period when the idea of animal rights was brought into the boxing ring of cultural discourse. Donna Haraway is absolutely correct when she associates the fate of animals with the fate of these binaries. She writes, "Movements for animal rights are not irrational denials of human uniqueness; they are the clear-sighted recognition of connection across the discredited breach of nature and
culture” (“A Cyborg Manifesto” 3-4). In other words, animal rights begin to exist when cultures recognize their interdependency with animals. At this point, the feint outlines of a cultural and cross-species rhizome begin to be recognized by humans. As we shall see in the following chapter, the emergent recasting of cetaceans as a symbol of the connectivity, or lack of connectivity, to nature born by man becomes a central part of Ihimaera’s The Whale Rider, as the human and the animal components of the novel refer to, depend upon, and inform one another.

The 1970’s to the Present: New Focus and New Cast Members

A new wave of cetacean study was brought on as part of a wider effort to protect endangered species. By this time every variety of baleen whale was approaching extinction, and it came to light that a staggering number of dolphins were being slaughtered as a byproduct of the tuna fishing industry. The figure was five-hundred-thousand dolphins per year (Crail 226). The public sympathy aroused in the 1960’s for the dolphin resulted in an enraged public. The movement in 1970 eventually reached Congress; both scientists and
congressmen made impassioned pleas to save dolphins and all cetaceans from extinction. The pleas centered around the possible existence of spoken cetacean languages, as here evidenced by a comment by Senator Hubert Humphrey: "'Could not the dolphin’s brain contain an amount of information comparable in volume to the thousands of tons of books in our libraries?'" (qtd. in Crail 225). A criticism can be leveled at the Senator because he argued for legislation on the grounds of pure speculation, fanciful metaphysics, and/or pure science-fiction. But, as Haraway notes:

Speculative fiction has different tensions when its field also contains the inscription practices that constitute scientific fact. The sciences have complex histories in the constitution of imaginative worlds and of actual bodies in modern and postmodern "first world" cultures. (Primate Visions 5)

One result of these efforts was the Marine Mammal Protection Act of 1972, a piece of legislation aimed at preserving cetacean life; the tuna industry eventually reduced incidental dolphin slaughter to twenty-thousand per year (Crail 226). In this piece of legislation, then, one
can see that cultural impressions of cetaceans, whether supported or discredited by science, surmount that which is known as scientific fact. Perhaps, cetacean fiction has proved just as powerful as cetacean science, aptly reflecting on the Maori philosophy that permeates the novel, and that is well summarized in the words of the grandfather chief, Koro Apirana:

"Man assumed a cloak of arrogance and set himself up above the Gods. He even tried to defeat death, but failed. As he grew in his arrogance, he started to drive a wedge through the original oneness of the world. In the passing of Time he divided the world into the half he could believe in and the half he could not believe in. The real and the unreal... if we have forgotten the communion then we have ceased to be Maori!"

(Ihimaera 116-7)

Furthermore, the demarcation between cetacean truth and cetacean myth is obscured by science's not insignificant adoption of the metaphysical hope expressed by the "save the whales" mentality. For example, Voyager I and Voyager II carry not only human language, but also the recordings
of cetaceans (Forestell 964). The hope is that including two languages of such distinct natures would double the odds of alien comprehension. This act constitutes perhaps the first official act of any government to recognize the strong probability of language in a non-human species. Nearly one hundred years after Spitzka first studied a dolphin brain in the 1880s, and nearly one-hundred and twenty years after Darwin’s Theory of Evolution was put forth in 1859, human beings were seriously considering that their place on the planet may require rethinking.

DNA research and its role as an informant on evolutionary progression is a major reason for this development. The evolution of the dolphin brain appears to be comparable to our own—but it occurred along a completely different path and in a different environment (Oelschlager & Oelschlager 133). This suggests a rhizomatic possibility for the development of intelligent life. The dolphin is not descended from primates—it is descended from extinct hoofed mammals (Cipriano 406). It has been a persistent belief that high levels of intelligence developed in successive species of primates and hominids due to very specific alterations in physiology, from leaving the trees to
becoming bipeds to developing opposable thumbs. The evolution of dolphins and other cetaceans was marked by quite different physical alterations—the receding of the hind legs, the restructuring of the cranium for underwater audio capabilities, the exchange of distinct digits for uniformly surfaced flippers. If comparable intelligence could be the end product of such different evolutions, many of our paradigms regarding the nature of our own evolution of intelligence will have to be rethought. In addition, our ideas of what constitutes intelligent life in the universe will have to be rethought, especially should we harbor the hope of recognizing such life.

The late 1960’s and the 1970’s introduced into clinical study the orca. The orca, also known as the killer whale, is in fact a dolphin—by far the largest of the species. Whereas a bottlenose dolphin has a brain that weighs in at 1800cc, an orca can weigh in at as much as 6000cc, four times that of an average human (Brown 167). It is in the study of these animals that a cetacean culture may, for the first time, have been identified. Such a confirmation would, perhaps, simultaneously legitimate as “scientific” Ihimaera’s characterization of cetacean
societies as consisting of stable generation-to-generation populations of whales.

The story of human recognition of orca culture begins with the capture of the orca Namu in 1965 and the subsequent recordings performed by Dr. Thomas Poulter—who was at the time the senior scientific advisor at the Stanford Research Institute (Crail 227). Namu was one of the first orcas to be brought into captivity and Poulter was eager to study him because never before had the opportunity presented itself to systematically study orca vocalization between orcas. Shamu, a female orca of great fame, was introduced into the same holding pen in Seattle as Namu (Crail 229). Poulter recorded the whales day and night and soon found himself inundated with nearly incessant vocalizations—the curious thing being that more than two orcas had been recorded. Namu, when captured off the British Columbia coast, had been pursued by forty orcas (who were apparently present due to Namu's distress calls). Poulter realized that these whales were, at very least, transmitting sounds to one another, from distances of up to seven miles (Crail 229). The most remarkable element of the tapes, though, had to do with recurring two-octave sound
groupings that were two to five seconds in duration, and which were used in the context of various other sound groupings; Poulter described the vocalizations as evidencing "punctuating, syllabifying, hyphenating, and prefixing," and he concluded that the existence of an orca language was probable (Crail 230).

The story of orca culture then goes on hold for some time until a study was begun off the coast of Vancouver in the late 1980's. The study was similar to Poulter's in that it sought to gather massive recordings of orca vocalizations, and then to analyze them and mine them for whatever comprehensible information they might provide humans. The difference between this study and Poulter's was two-fold. First, the recordings would be continuous over a span of thirteen years (at the time of Scott Norris' article in Bioscience, 2002); second, the recordings would be of orcas in the wild instead of in captivity. The waters off Vancouver are ideal for this kind of study because they are densely populated and trafficked by orca pods. The fact that these orca pods inhabit the same waters is a key note in understanding the implications of this study (Norris, S. 11). Like the Poulter study, this study found that sound
groupings were constantly being repeated and amended in different contexts. Unlike Poulter, the researchers in this case were not concerned with decoding orca language; they found instead concrete evidence of socially conditioned vocalization. Each pod “speaks” in a different dialect, and these pod-specific dialects do not show significant change over the course of the thirteen year study (Norris, S. 10-11). The conclusion that these orcas have developed cultures has been refuted by some who contend that genetic traits specific to certain pods would explain this phenomenon; however, orcas self-protect against inbreeding by mating across pods. The fact that orcas have developed a strategy for avoiding inbreeding suggests culture in and of itself, as Jacques Derrida observed in human societies: “[t]he incest-prohibition is universal; in this sense one could call it natural. But it is also a prohibition, a system of norms and interdicts; in this sense one could call it cultural” (3). That orcas adopt their new dialects strongly suggests that orcas are themselves conscious of these distinctions in vocalization and that they thus define their cultures in part through them. The results of this study challenge the view that Ihimaera’s vision is
simple anthropomorphism; rather, the study’s conclusion may better be seen as support for the public’s view, inherited from John Lilly, that cetaceans are the species closest to humans.

Another recent study reinforces the suggestions of the Vancouver study. Dr. Vincent Janik has studied the repeated sound groupings in bottlenose dolphin vocalizations and has found reason to believe that dolphins have names for each other (Norris, S. 13). If this is the case, then semantic meaning for cetacean sounds will have been determined for the very first time. The implication is that the dolphin understands the linguistic relationship between the signified and the signifier. The implication of that is even more revolutionary: dolphins possess language. If a dolphin can recognize another dolphin through differentiation (by identifying a particular dolphin by the other dolphins he is not) then linguistic theory strongly suggests that dolphins not only have language but that they may experience it in a way comparable to ours. That can be seen as an optimistic point for those who wish to bridge the human/animal gap.
Should human beings ever be able to communicate with the dolphin, Janik's study may show that dolphins (and perhaps other cetaceans) could tell us about their ancestors and their histories—that they are aware of life, death, generations, and dimensions of time. John Lilly may not have been altogether out of his mind (as so many believed and continue to believe) when he said that the whales knew about the World Wars and human navies (Crail 38).

These developments and discoveries are intensely controversial. Linguistics still by and large contends that all animal communication systems lack productivity. In addition, the broad consensus of the scientific community today continues to regard cetaceans as more or less on par with chimpanzees and other primates in terms of intelligence. However, the human/animal binary has been altered, fragmented, and deconstructed by these studies and what they suggest. As demonstrated by Scott Norris' study, the cetacean as a signifier of extra-terrestrial culture—insofar as cetaceans occupy the sea rather than land—is very much in play within the scientific community. This development within the rhetoric of science has coincided
with further genetic discoveries which disprove the notion of human 'races', a discovery which further challenges the Orientalism of the West, which also affects animals (especially primates, as Haraway has shown). The following chapter—"Composite Visions"—will go on to illustrate how Ihimaera's novel functions as a crucible for the rethinking of the human/animal binary described in this chapter.
CHAPTER THREE
COMPOSITE VISIONS

Then the flying fish saw that astride the head, as it broke skyward, was a man. He was wondrous to look upon, the whale rider. The water streamed away from him and he opened his mouth to gasp in the cold air...

Rising, rising. And the man felt the power of the whale as it propelled itself from the sea. He saw far off the land long sought and now found, and he began to fling small spears...

But there was one spear, so it is told, the last, that, when the whale rider tried to throw it, refused to leave his hand. So the whale rider uttered a prayer over the wooden spear, saying, "Let this be the one to flower when the people are troubled and it is most needed." (Ihimaera 5-6)

Witi Ihimaera's The Whale Rider represents a combination of the narrative currents discussed in Chapter One and the scientific trends and debates present in the
second chapter of this thesis. Ihimaera’s retelling of the myth of the original settling of New Zealand—quoted, in part, above—explicitly connects the contents of the novel to Maori folklore, though not without the author’s alterations. In order to keep tradition and innovation distinct, the conventional Maori view of this event should be kept in mind as such: life sprang from spears flung by a man sitting astride a whale. Ihimaera’s additions to the myth include the attribution of an emotionally powerful bond between the cetacean and the human rider, and in the stubborn spear that refuses to be cast by the original whale rider, Paikea. In the discussion that follows, I will contend that Ihimaera included them in his retelling in order to signify changes in response to modern cetacean science and to post-colonial tensions. The author himself hints at the significance of the three elements of cetacean semiotics, colonial politics, and traditional Maori roots in an often quoted anecdote:

Some years ago I was living in New York in an apartment overlooking the Hudson River when my daughters, Jessica and Olivia, arrived on vacation from New Zealand. It was Jessica who,
after we’d seen many movies, said, “Daddy, why are the boys always heroes while the girls yell out, ‘Save me, save me, I’m so helpless’?”

Jessica and Olivia’s visit coincided with an astounding event that many New Yorkers may remember: a whale swimming up the Hudson River to Pier 86, at 12th Avenue and West 46th Street. Inspired by both of these events, while still living in New York, I wrote this novel that takes place in New Zealand, on the other side of the world. (Ihimaera Author’s Note)

In discussing this novel, it is important to keep in mind that traditional Maori culture is patriarchal in the relationship between men and women, as well as humans to other animals. One might misinterpret the above anecdote to suggest that the author’s Maori daughters did not encounter patriarchal hegemony until visiting New York; rather, patriarchy is and has been an organizing principle in the traditional Maori culture: “Maori women did not have political power... their whole lives were engaged in negotiations with a primarily patriarchal cultural and political framework. That is still the situation today”
(Meklin 360). Ihimaera, in establishing a narrative whose central conflict features a granddaughter and a grandfather (referred to as "great-grandfather" in the text as a sign of formal respect) who refuses to recognize her value, challenges the Maori political and cultural traditions. Furthermore, while the Maori founding myth and many other Polynesian accounts with similar themes revere the whale, the whale's position is less than equal to that of the humans who ride them. Given the transportation function attributed to whales in this myth and its comparables, cetaceans in the Maori view may be appropriately likened to beasts of burden, rather than individualized autonomous beings. Thus, the degree of andro-centrism in the author's representation of whales and of their relationship to humans will be of special interest here, as will the motives for it.

Again, Witi Ihimaera both uses and challenges these traditional components of Maori social structure, which reasonably may be seen as the primary function of the novel. While this point will be plain to many readers, there is, as an extension of this observation, a more important issue: how does the challenge to patriarchy
relate to the representation of cetaceans in this novel? This is an investigation into cetaceans in literature, not an investigation into feminist themes, after all. The answer is that the author’s challenge to the Maori social order and his challenge to the natural order end up having to be resolved simultaneously in the novel, due to their complex inter-relationship, as described by Haraway ("Cyborg Manifesto"). In *The Whale Rider*, the conflict between a young girl, Kahu, and her patriarchal grandfather, Koro Apirana, is examined, discussed, and reflected upon through the author’s characterization of whales.

**Islands Apart**

*The Whale Rider* constructs three communities for the reader: that of the Maori village itself, the whale pod, and a cosmopolitan one representing Western modernity. Koro is the chief of the Maori people in Whangara, New Zealand, a village that is repeatedly described as having seen better days—that is to say, Maori culture and prosperity has suffered in Whangara due to economic changes and the encroachment of Western culture: "Koro...was...preoccupied
with the many serious issues facing the survival of the Maori people and our land" (Ihimaera 34). The reader also learns that "much of [Maori] progress was dependent on European goodwill" (Ihimaera 70). The pod of whales, though itinerant throughout the book, is similarly described as experiencing decline—not because of whaling, human fishing, or any other commercial endeavor, but rather due to the neglect of the Maori people with whom they once enjoyed a symbiotic relationship: "It was the Lord Tangaroa who took the Kingdom of the Ocean; he was second in rank only to the Lord Tane, the Father of Man and the Forests, and so was established by them [the Maori gods] the close kinship of man with the inhabitants of the ocean, and of land with sea" (Ihimaera 39). The third community is that of Kahu’s uncle, Rawiri, who travels to Sydney in Australia and there befriends a privileged white, Jeff. Rawiri goes with Jeff to visit the family’s plantation in Papua New Guinea and quickly finds himself made unwelcome. While each of these communities is more complex than can be recapitulated in a single sentence, it is important to keep in mind that each community is unhealthy in some way, out of contact with its past or center. Additionally, Ihimaera demonstrates that
these communities are in dialogue with one another. None of the three figures so prominently as a link between the communities as the whale pod, because the whales' direct relationship with Kahu's family lasts only a short time, and that only at the end of the novel.

To begin with, Ihimaera makes some interesting decisions regarding his representation of the social organization of the whale pod, decisions which reflect both the scientific trends to which the author was exposed and also the Maori narratives with which he was raised. The pod itself is ordered politically in a hierarchical fashion resembling a monarchy. A king and queen, both of advanced age (though the former is represented as being centuries old), head the social group while young males form the military branch that is primarily loyal to the ancient bull, and young females in turn respond primarily to the queen. There is, in this way, a division of labor within the pod that is altogether quite familiar to human readers and may seem like the pure fictive creation of the author. However, if we refer back to the revelations regarding cetacean social organization in the second chapter, we will find that science supports Ihimaera on this point—to an
extent. Whale pods of many species do appear to exhibit elements of hierarchy revolving around a central authority. In addition, division of labor is frequently evident, with young males often set to the task of foraging and keeping watch for predators—humans primarily and, secondarily, sharks (Trillmich 1118).

However, Ihimaera’s characterization of the whale pod is decidedly patriarchal, which is in conflict with science’s contemporary understanding of cetacean social organization. Balleen whales’ social strategies are not well understood; however, well known toothed cetacean species (sperm whales, dolphins, orcas) live in social pods which revolve around a senior female; they are, in fact, matrilineal (Trillmich 1118). Of course, one should note that Ihimaera uses the extremely general description “whale” and never goes into the specifics in terms of species, which poses an obstacle in discussing the influence of “hard” science on this representation. On the other hand, coastal New Zealand, while frequented by a wide variety of cetacean species, is known for a variety of delphinids, beaked whales, humpback whales and right whales (Childerhouse & Donoghue 9). Of these, only right whales
and humpback whales fit the text's description of a whale 65 feet in length (Ihimaera 97). While little is known of these whales' day-to-day social existence, these whale species do organize around females during breeding season, and, unlike humpbacks, right whale males do not exert dominance through aggressive behavior (Kenney.811). If my deduction that Ihimaera's novel describes balleen whales is correct, then we can plainly see that the characterization of these whales is not derived from science--though it is derived from cultural representations of whales that involve language, as language implies a socially cohesive group for purposes of comprehension (Forestell 964). In other words, "soft" science, or cultural impressions of scientific discovery or possibility like those left by John Lilly, likely influenced Ihimaera's decisions as he characterized the whales.

Perhaps Ihimaera departs from science in this depiction of whale society in order to foreground the central source of conflict within the narrative: patriarchy. The story of the whale pod through the first two-thirds of the narrative is the story of a stubborn old bull too depressed and proud to listen to the reasoning of
his wife. Correspondingly, this same conflict surfaces between the human characters. Koro Apirana and Nanny Flowers, wife and grandmother to Kahu, engage in an often testy and irreverent back-and-forth that centers around Koro’s treatment of his granddaughter and his refusal to include her in his attempts to revive Maori culture by training a successor. Korō, finding that neither of his sons will fill the role of messiah he envisions as essential for the future of the Maori, selects a group of the most promising Maori young men for traditional training in Maori principles and ceremony. From amongst these youth, Koro hopes to find the hero his people needs. Kahu, despite her passion to be the answer to her grandfather’s prayers, is excluded—her sex disqualifies her. Koro explains Kahu’s exclusion by saying: "‘Just the men... because men were sacred’" (Ihimaera 35). Adherence to Maori cultural norms, in the form of explicit patriarchy, prevents Koro from keeping peace and order within his own home, much less than that of all Maori Whangara.

In the novel, patriarchy also pervades the representations of the West (Sydney, Australia and the plantation in Papua New Guinea) by calling our attention as
readers to the legacy of racial politics. Kahu’s uncle, Rawiri, seeks to escape the pain of his past by disappearing into the din of the modern metropolis of Sydney and engaging a foreign culture in preference to his own, which becomes a kind of self erasure. Rawiri, in leaving Whangara for Sydney, also distances himself from his father’s expectations, which he has not lived up to. The oppressive culture that drives Rawiri to flee is Maori and not Western. Rawiri, in fact, is driven to the Western, which is clearly the opposite of what Koro intended. This will not be the only time in the novel that Koro’s unintended consequences hinder, rather than advance, his goals. Rawiri’s realization that his home cannot be found in the West occurs as a result of his friendship with Jeff, who is of European descent. Jeff, whose plantation-owning family in Papua New Guinea calls him home to assist his ailing father, invites Rawiri to come along. In Papua New Guinea, Rawiri confronts a situation in which natives do the bulk of the manual labor and are simultaneously beheld by the whites as terrifying, posing a threat to their inherited property and their lives. For example, when
Rawiri wants to assist a native Jeff’s family struck while driving on the road, they urge him to leave the victim:

Clara [Jeff’s mother] screamed again, “Oh, no. No. His tribe could be on us any second. Payback, it could be payback for us. It’s only a native.”

I pushed her away. Tom [Jeff’s father] yelled, “For God’s sake, Rawiri, try to understand, You’ve heard the stories—” (Ihimaera 74)

The whites fear the natives because they understand that the indigenous culture that threatens them operates outside the network of imperial laws and governments, rendering that official protection useless. Thinking back to the justifications of imperialism, one commonly encounters the ideology of the paternalism of nations and all its implied hierarchical systems of arranging political power. The terror that grips Jeff’s parents may come to us not only as a warning about imperialism but also about the perils of holding on to power over another, even when the basis for that power no longer exists. Ironically, these perils occur
frequently in the struggles between children and their parents, which is certainly the case in this novel.

Ihimaera’s Human-Cetacean Mirror

The parallels between the novel’s cetacean characters and the human ones does not end at the point of social organization, but rather drives the reader to compare the ancient bull whale with the grandfather. First, the text constantly reminds the reader of the age of these characters. In both cases, the age descriptions are of the extreme type: “ancient” over “old” and “great-grandfather” over “grandfather.” And, in both cases, the characters are acutely aware that their time on this earth is nearing an end and they have set, or had at one time set, certain goals with which they meant to leave the world in tact: Koro wants to ensure the legacy of his people; the ancient bull whale seeks to return to a human relationship and end the human-imposed exile faced by his pod. However, their goals are thwarted and the result is a crushing depression that harms not only their egos but their relationships. In sum, the whale and the man are bound together by a lost past they yearn to reconstruct (but not re-envision) and a
maddening melancholy about their respective communities. In many ways, this last statement sounds quite similar to many of the claims advanced by John Lilly and his disciples following the marine mammal language movement of the 1960s and the 1970s. As was established earlier, the marine mammal movement has had a strong core of people who either suspect the possibility of a forgotten relationship between man and cetacean or who advocate for a very similar position, such as is clear in the speech made by Senator Humphrey on behalf of the Marine Mammal Protection Act of 1972 (see Chapter Two). While it is quite true that a human-cetacean relationship is a recurring theme of Maori and other Polynesian myths, it seems clear that Ihimaera went to great lengths to strengthen and enlarge the scope of this relationship. Ihimaera accomplishes this by taking care to characterize his whales as individual beings who use language competently to express their points-of-view, and who operate in a hierarchical society. The element of language use, which we are about to tackle in depth, echos the ideas and movements represented in John Lilly’s work, which enjoyed such popular support after the 1960s.
Of course, the characterization of the whales as using language is perhaps the most direct evidence in the text of the influence of modern science and the fiction and non-fiction it inspired. Again, while little has been objectively proven or even suggested by the mainstream study of cetacean language use, the vision of man and whale speaking to one another was, in terms of cultural currency, the major selling point in this generation of storytelling. Cultural representations of our fascination with cetacean speech can be found in award winning science-fiction novels such as Startide Rising (1983) by David Brin and The Dolphins of Pern (1994) by Anne McCaffrey and by speaking dolphin and whale characters in a variety of television shows and films, including Sci-Fi’s Seaquest (1993) and Star Trek IV: The Voyage Home (1986). The representation of speaking cetaceans in the popular media of the 1980s and 1990s is the product of great public interest in whales and dolphins. In an article on the cultural significance of cetaceans, Paul Forestell demonstrates that the human fascination with cetaceans as creatures of spiritual significance reached a kind of apogee at this time period: "Undoubtedly the most significant demonstration of the
cultural importance of marine mammals in modern times is
the virtual explosion of interest... that has taken place
over the past two decades [1980s and 1990s]" (966).

A thorough analysis of the cetacean’s language usage
in The Whale Rider requires an expansion of the definition
of language to one perhaps better termed as communication.
For example, though both human characters and cetacean
characters communicate with members of their own distinct
species through language, other means of communication are
employed in the cross-species encounters that may not be
easily labeled. Let us look at a portion of the scene that
takes place between Kahu and the beached bull whale:

Then, screwing up her courage, she started
to kick the whale as if it were a horse.

"Let us go now," she shrilled.

The whale began to rise in the water.

"Let us return to the sea," she cried.

Slowly, the whale began to turn to the open
sea. Yes, my lord. As it did so, the younger
whales came to push their leader to deeper water.

"Let the people live," she ordered.
Together, the ancient whale and its escort began to swim in the deep ocean. (129-30)

The comment in italics clearly represents the whale's perspective, as all italicized text in the novel functions as such. However, three aspects are unclear and give rise to questions on the part of the reader. First: does the whale's italicized perspective constitute spoken language or internal dialogue? Second: do the whale's words/thoughts indicate that the ancient whale understands Kahu's utterance as language, or is the ancient whale responding to the implicit significance of the girl's physical actions and gestures? Third: does Kahu understand the whale? Since the text does not provide the reader with anything explicit to suggest definite answers to these questions, one is left to one's own interpretation. With that disclaimer, I will attempt to suggest reasonable responses to these questions in the following discussion by relying on familiarity with the text and the cultural themes and scientific movements which influenced the composition of the novel.

In The Whale Rider, cetacean language is a principle element of the whale characters' representation in the novel. It is clear that the whales possess a spoken
language akin to that of humans. It is also quite clear that Ihimaera’s decision to characterize the whales as possessing such a language was influenced by cultural movements of the day stemming from both the work of John Lilly, as well as other neurophysiologists, and the resulting human attribution of metaphysical significance to the cetacean. Furthermore, the dream of Lilly and the others seeking signs of cetacean language, as discussed in the second chapter of this thesis, was one of direct communication between humans and cetaceans. Ihimaera has, in the climactic scene of Kahu riding the ancient whale toward the sea, created a partial realization of this dream, however fictional. What I mean by “a partial realization” is that the comprehension of the spoken language is one-sided: only on the part of the ancient whale. This makes sense when one considers that the ancient whale remembers the days when interaction between Maori humans and whales was commonplace. Kahu has not had comparable exposure to cetacean culture and, as a result, she is unable to communicate her needs to the whale as he takes her out to sea with the pod. The significance of this partial realization is that it leaves room for more to be
done to more completely reconnect the Maori to their spiritual origins and cultural identity. Kahu’s riding of the whale does not constitute the end of Maori patriarchy or the Maori’s struggle to preserve their culture against the onslaught of the colonial government. Rather, Kahu’s interaction with the ancient whale marks her emergence as a powerful agent within these ongoing tensions.

Beached Whales and the Culmination Of Conflict

The event in the novel which best embodies the culmination of the thematic conflicts of the text (Maori and Colonial, Human and Cetacean) is the beaching of the whale pod. The beaching occurs as a result of the ancient whale’s depression. Nostalgia for his relationship with Paikea, the original whale rider, so pains the bull that he decides that life in exile from humanity is no longer worth enduring. The bull decides to beach himself in Whangara, where he once led Paikea to cast the spears that became the thriving life of New Zealand. The other whales in the pod are incapable of abandoning the bull, and so they follow him, resigned to extinguish their pod for all time:
The herd followed through the crashing, falling ice. They saw their leader rising to the surface and watched as the surface stared around him. They began to mourn, for they knew that their journey to the dangerous islands was now a reality. Their leader was totally ensnared in the rhapsody of his dreams of the golden rider. So long part of their own genealogy and legend, the golden rider could not be dislodged from their leader’s thoughts. The last journey had begun, and at the end of it Death was waiting. (97-8)

Soon after, the pod in its entirety, some two hundred whales, beaches itself and waits to die. The beaching inspires contrasting responses on the part of the New Zealanders, Maoris and others alike. There is a great outpouring of grief for the whales, as expressed by Kahu, Koro, Nanny Flowers, and the rest of their family and bulk of their community; a helicopter pilot flying for a local television station "says on camera, 'I’ve been to Vietnam, y’know, and I’ve done deer culling down south... But I swear, this is like seeing the end of the world’" (100). The other response is just as grim but even less palatable:
memento-seekers descend upon the beach to claim their souvenirs. Many people drive to the beach with chain saws in hand: "The chain saw has just completed cutting through the whale's lower jaw... There is a huge spout of blood as they wrench the jaw from the butchered whale" (100). The whale is still alive throughout. Ihimaera describes those responsible for this butchery as "triumphant" (100), as if their memento-hunting represented a successful conquest of nature. This spectacle is broadcast to all throughout the community and it arouses the sympathetic and the opportunistic to serve quite different ends on the same beach.

The act of removing the jaw bones of the beached whales is of great significance because it contains iconic reference to both the devastation of nature by man and the silencing of non-human voices. Aside from whether or not cetacean jaws would function comparably to human jaws in the production of language, the jaw has special significance for humans as it is the only part of the human head that moves when speaking, and that significance is superimposed onto whales in the scene. In symbolic terms, then, the removal of the cetacean jaw is tantamount to
destroying the voice that Ihimaera uses in his rich characterization of whales in the novel. The whale loses its agency in this brutal interaction, transferring the reader's attention to the acts of the gleeful, chain saw wielding butchers involved. This scene is deliberately connected by the author to the post-colonial political issues that are running themes through the text. For example, the helicopter pilot above situates the significance of the beaching and slaughter in relation to, in part, his experiences in Vietnam—perhaps the most frequently represented, in terms of cultural currency (films, books, etc), of all the twentieth century's post-colonial wars. Additionally, the beaching scene is filled with descriptions of machinery and technology that do not permeate the rest of the text: vehicles, from helicopters to trucks to heavy construction equipment; chain saws, television crews, radio broadcasts, newspapers etc. The chapter in which the beaching occurs, Chapter Fifteen, even begins as a news story related by a morning jogger to the Gisborne Herald (99). The effect of these allusions is to infuse the desecration of the whales by the humans with symbolic significance, representing the silencing of the
whales with the Western colonial governments' silencing and devastation of indigenous communities. Ihimaera thus creates in the beaching scene a nexus point for the effective commingling of the novel's political themes with Kahu's personal family saga.

By removing the focus from the effects of the desecration of the whales and placing it on the human agents, one's attention is called not only to the silencing of the whales' voices, but to the failure of human characters to listen effectively in the first place. The failure to listen is paralleled in the relationships between Kahu's great-grandfather and his family and community and between the ancient bull whale and his family and pod. Both Nanny Flowers and Kahu frequently implore Koro to question his assumptions in excluding women from roles of Maori leadership, assumptions which lead him to even deny the value of his granddaughter. Koro tells his wife, "'She won't be any good to me... No good. I won't have anything to do with her'" (Ihimaera 16). Koro dismisses their views out of hand, in the name of tradition. Similarly, the ancient whale does not pay attention to the pod's matriarch and instead insists on the
rights of a dominant patriarch. The consequences of these characters' failure to listen are heavy indeed, with Koro losing the affection of his family and sinking into a paralyzing depression and the ancient bull whale guiding his entire pod to destruction upon the Whangara beach. Strict adherence to traditional beliefs goes hand-in-hand with the male characters' dismissive and destructive attitudes, serving as an unassailable justification for the patriarchs' every decision. The relationship between such adherence and the silencing of voices, the active removal of another's agency, indicates that both Koro and the ancient whale, in holding onto their atavistic need for the past to return without alteration, have in effect killed their dream. Their shared visions are so bound by reverence for what came before that their collective past can no longer be actively engaged with, thereby reducing the unquestioning reverence to a dead barrier that precludes the objectives that Koro and the whale seek. Koro and the whale both make the mistake of yearning for the epoch when humans and whales shared a bond to repeat itself. This yearning has handicapped their abilities to respond effectively to the present. Thus, Koro drives his son to
the West; thus, the whale beaches his pod. The bull whale and Koro cannot be leaders so long as they are completely closed to considering unfamiliar possibilities that lie in the present. In this respect, Koro fails to take into account his own philosophical advice regarding the separation of fact and myth as artificial: "It [the whale] is a reminder of the oneness that the world once had. It is the birth cord joining past and present, reality and fantasy" (Ihimaera 117). Koro’s negative attitude towards Kahu helps to destroy the past for the younger generations as much as the encroaching dominant modern culture. Koro will not allow his granddaughter to engage Maori traditions because she is female—traditionally considered less in the culture. Koro’s persistence in maintaining the Maori view that women are less than men ignores the possibility that Kahu’s desire to fulfill a typically male role is the result of change in the way new generations of Maori men and women may relate to one another. Consequently, Koro ignores the possibility that alienating women may also alienate men. Koro’s sons, in finding it so difficult to live near their father, reveal such a sense of alienation. Ironically, Koro’s hope that Maori traditions will have a
future may be most betrayed by his stubborn reliance on a single tradition: patriarchy.

Kahu Rides the Whale

The response of Kahu and her family to the beaching of the whales is revealing for it intensely manifests the personal issues which divide the Maori people, from each other and from the whales. In individual terms, Koro and Kahu respond to the suicidal whales similarly; both wish to assist the whales into the sea and to simultaneously stop the opportunistic slaughter occurring along the surf. However, the characters are divided from one another and are unable to accomplish their collective aims because Koro continues to resist cooperation with his granddaughter. In chastising Kahu for her efforts to help, Koro exacerbates her sense of alienation from her family and, by extension, her people and culture. That Koro does so is, of course, expected at this point in the text, although it is ironic, given the character’s concern for reinvigorating the Maori and the fact that alienation is what drove the whales and the humans away from one another in the first place. While Koro scolds Kahu for not helping the situation, it is Koro
who fails to improve the circumstances despite his own best intentions. This time, though, Kahu does not retreat from the scene; instead, she sees a whale, dying alone. Kahu recognizes the ancient bull whale by his fabled tattoo markings, a symbol of his intimate relationship with Paikea in ages past. She decides to go to him.

Kahu, in approaching the stubbornly beached bull whale, enters into an undetermined space, the elements of which will have to be negotiated and renegotiated by the two characters and what they represent, their respective communities on the shores of Whangara and in the seas that engulf it. Up to this point in the beaching episode, the ancient whale has sullenly awaited death, unresponsive to stimuli around him. Then Kahu arrives. Though the enormous whale is beached, the tide waters remain deep enough that Kahu needs to swim to him and cling to the whale’s body in order not to be swept away: “She had reached the whale and was hanging on to its jaw” (126). Again, the jaw features prominently in the text. Here, one can read Kahu’s touching the ancient whale’s jaw prior to addressing the whale as a restoration of agency to the whale. When a surge in the water loosens her grasp, Kahu says: “Help me... Ko Kahutia
Te Rangi, au. Ko Paikea" (127). Her words, which identify her as Paikea in the whale’s mind, capture the bull’s attention. When Kahu then strokes the whale as the original whale rider once had done, the ancient whale acknowledges her by assisting her onto his back, contracting his muscles in such a way as to provide footholds for Kahu. The two return to the sea. Koro, standing on the shore, straining in vain to compel the other whales into the ocean, sees his granddaughter upon the bull’s back. The ancient whale’s return to his world is cause enough for the others of the pod to follow him off of the beach. Kahu’s whale riding is significant enough for Koro to recognize the embodiment of his vision for the Maori people in the form of his young granddaughter. For both the grandfather and the whale, the barriers to listening are broken down. Koro can now accept Kahu and see her value to his family and the Maori people of Whangara. Koro tells his wife, "'You know, dear... I should have known she was the one’" (145). A similar epiphany is evoked in the ancient bull. At the urging of the elderly female whale, he releases Kahu so that she will not be harmed or removed from where she belongs, in Whangara:
“Yes,” the old mother whale crooned, agreeing with the decision he hadn’t yet made. “This is the last spear, the one which was to flower in the future.” She let the words sink in. She wanted to make sure that the bull whale really understood that the rider was Paikea’s descendant, and if it was not returned to the surface and taken back to the land, then it would not fulfill its tasks. “It is the seed of Paikea,” she said, “and we must return it to the land.” In her voice was ageless music. (141)

Thus, Witi Ihimaera uses the modern concept of cetacean language and communication between species as the central tool by which harmony is restored to the world of the narrative. Communication between the species pulls double duty by simultaneously strengthening the Maori indigenous culture yet still challenging it and calling it back into a dynamic relationship with nature. This novel is a vibrant embodiment of this view, as it forms a hybrid tale born of tradition and modernity, patriarchy and matriarchy, human and cetacean, infusing the one and the other with life in place of two-dimensional dogma and
counterproductive conflict and differentiation. In confronting these issues, the text deals with despair explicitly and aggressively, without falling prey to its paradigm, as is frequently the case in postmodern and postcolonial texts. *The Whale Rider* instead envisions and looks toward a future where fact and fiction shape each other, in dynamic, living accordance with the traditional Maori vision of the world.

In conclusion, while *The Whale Rider* is a Maori text, Ihimaera’s novel is the product of the intersection of a great number of discourses crossing discursive and cultural boundaries. Thus, this thesis as sought, in part, to demonstrate that *The Whale Rider* is simultaneously a culturally-specific text and a hybrid text. In a postmodern and post-colonial world in which cultural contact across the globe has destabilized cultural centers, hybridism is a fact of contemporary life. This destabilization can be seen as the catalyst for cultural studies, which identifies relationships previously unarticulated due to the categorization of knowledge, people, other animals, and ideas; the field exults in the hybrid. So, too, does Ihimaera’s novel find hope in the concept of hybridism,
taking the perspective that the hybrid is an opportunity to explore the possibilities offered by the intersection of discourse. And, as a hybrid, the optimism of *The Whale Rider* is available to any who desire it.
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