

## Whales, Dolphins and Humans: Challenges in Interspecies Ethics

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One of the most important features of science is that major discoveries regularly raise important *ethical* questions, and this is especially true with research about cetaceans. As Lori Marino's essay has just documented, the discoveries of marine mammal scientists over the last 50 years have made it clear that whales and dolphins share traits once believed to be unique to humans: self-awareness, abstract thought, the ability to solve problems by planning ahead, understanding such linguistically sophisticated concepts as syntax, and the formation of cultural communities.

As important as these facts are, however, their philosophical implications—especially their *ethical* implications—are even more significant. Only when viewed through an ethical “lens,” we might say, does the full meaning of these scientific findings become clear.

Sadly, discussions of cetacean captivity are regularly marked by unsophisticated approaches to ethics. Senior scientists who are capable of nuanced scrutiny of empirical data regularly fail to demonstrate even the most rudimentary skills of ethical analysis. While these individuals are expert in employing the descriptive methodology that typifies empirical science, they lack the requisite technical skills required to handle the intangible character of normative, philosophical thinking. As a result, most discussions of cetacean captivity in the marine mammal community are intellectually weak—marked by the combination of formal and informal logical fallacies and a flawed understanding of such key concepts as “consciousness,” “personal identity,” “self-awareness,” “moral standing,” “moral rights,” “personhood,” and “flourishing.”

and. Not surprisingly, similar weaknesses are evident in the arguments offered by representatives of businesses that profit from cetacean captivity.

The fundamental problem regarding the captivity of whales and dolphins, then, is not a lack of scientific evidence about what kind of beings these cetaceans are or about the harm captivity inflicts on them. Rather, the problem is that most scientists in the marine mammal community and most executives in the entertainment industry are largely blind to the ethical significance of the facts already known.

This essay, then, aims to be a small corrective to this problem. Picking up where Lori Marino left off, I will place the scientific evidence she described in a philosophical frame and point out its ethical implications. Thus, this essay argues that a proper understanding of the problem of cetacean captivity lies in an interdisciplinary and multi-faceted approach that combines both scientific and philosophical methodologies.

Conveniently, both of the two main traditions of moral philosophy—deontological and teleological—illuminate the ethical indefensibility of captivity. The scientific facts that establish “cetacean personhood”—and what this implies about the moral standing of whales and dolphins as individuals with moral rights—form the basis of the deontological argument. Evidence for the tangible harm that cetaceans suffer from the impossibility of “flourishing” in captivity makes a teleological case.

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#### Marine mammal science and personhood

From a deontological perspective, the most important findings in the last half-century of research on whales and dolphins relate to cetacean intellectual and emotional sophistication. As

Marino has noted, these discoveries feature: self-awareness (Lori Marino and Diana Reiss); the structural sophistication of the dolphin brain (Lori Marino and others); the ability to understand artificial human languages, “representations of reality” and human “pointing” and “gazing” behavior (Lou Herman); dolphins’ abilities to plan (John Gory and Stan Kuczaj); and cetacean social intelligence (Richard Connor, Denise Herzing, Ken Norris, Rachael Smolker and Randy Wells).<sup>1</sup> Especially important are the discoveries of cetacean *culture*—as Hal Whitehead defines

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<sup>1</sup> John D. Gory and Stan A. Kuczaj II, “Can Bottlenose Dolphins Plan their Behavior?” Paper presented at the Biennial Conference on the Biology of Marine Mammals, Wailea, Maui, Hawaii, November – December, 1999; Louis M. Herman, Douglas G. Richards, James P. Wolz, “Comprehension of Sentences by Bottlenosed Dolphins,” *Cognition*, 16 (1984), 129-219. Louis M. Herman, “Cognition and Language Competencies of Bottlenosed Dolphins,” in *Dolphin Cognition and Behavior: A Behavioral Approach*, edited by Ronald J. Schusterman, Jeanette A. Thomas and Forrest G. Wood (Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1984), pp. 221-252. Louis M. Herman, Adam A. Pack and Palmer Morrel-Samuels, “Representational and Conceptual Skills of Dolphins,” in *Language and Communication: Comparative Perspectives*, edited by H. L. Roitblat, L. M. Herman, P. E. Nachtigall (Hillsdale, NJ: Erlbaum Associates, 1993), pp. 403-442; Herman, L. M., Morrel-Samuels, P. and Brown, L. A., “Recognition and Imitation of Television Scenes by Bottlenosed Dolphins,” Eighth Biennial Conference on the Biology of Marine Mammals (1989); Louis M. Herman, Adam A. Pack et al., “Dolphins (*Tursiops truncatus*) Comprehend the Referential Character of the Human Pointing Gesture,” *Journal of Comparative Psychology*, 1999, Vol. 113, No. 4, p. 347; Denise L. Herzing, “A Trail of Grief,” *The Smile of a Dolphin: Remarkable Accounts of Animal Emotions*, edited by Marc Bekoff (New York: Discovery Books, 2000), pp. 138-139 and *Dolphin Diaries: My 25 Years with Spotted Dolphins in the Bahamas* (New York: St. Martin’s Press, 2011); Stan A. Kuczaj II and Rachel S. Thames, “How do dolphins solve problems?,” Zentall & E. Wasserman (Eds.), *Comparative Cognition: Experimental Explorations of Animal Intelligence* (Oxford: Oxford University Press, 2009), pp. 580-601; Janet Mann, Richard C. Connor, Peter L. Tyack and Hal Whitehead, eds., *Cetacean Societies: Field Studies of Dolphins and Whales* (Chicago: University of Chicago Press, 2000); Lori Ann Marino, “Brain-Behavior Relationships in Cetaceans and Primates: Implications for the Evolution of Complex Intelligence,” Ph.D. Dissertation, State University of New York at Albany, 1995, p. 173. Lori Marino, “Convergence of Complex Cognitive Abilities in Cetaceans and Primates,” *Brain, Behavior and Evolution* (2002) 59:21-32; P. J. Morgane, M. S. Jacobs and Albert Galaburda, “Evolutionary Morphology of the Dolphin Brain,” in *Dolphin Cognition and Behavior: A Comparative Approach*, edited by Ronald J. Schusterman, Jeanette A. Thomas and Forrest G. Wood (Hillsdale, N.J.: Lawrence Erlbaum Associates, 1986), pp. 5-30; Diana Reiss and Lori Marino, “Mirror Self-Recognition in the Bottlenose Dolphin: A Case of Cognitive Convergence,” *Proceedings of the National Academy of Science*, Volume 98, Number 10 (May 8, 2001), pp. 5937-5942; ); Kenneth S. Norris, *Dolphin Days: The Life and*

it: the “flow of information—both ideas and behaviors—between the members of a population, which happens because they learn from each other.”<sup>2</sup> Particularly critical in this regard are: the ongoing studies of the Pacific Northwest orcas by a variety of scientists, Denise Herzing’s long-term research on Atlantic spotted dolphins, and Hal Whitehead’s work on culture in sperm whales. An especially interesting discovery that suggests just how sophisticated cetacean culture may be is Whitehead’s claim that there are moral norms in whale cultures—as seen in rules among whales that prohibit using one whale’s sonar against another.<sup>3</sup>

When looked at through a philosophical lens, the abilities revealed by this body of research clearly match even the strictest criteria that a being must meet in order to qualify as a “person”—that is, a being, no matter what its species, who possesses the advanced cognitive and affective capabilities that were traditionally assumed to be present only in humans.<sup>4</sup> Simply put,

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*Times of the Spinner Dolphin* (New York and London: W. W. Norton, 1991); Kenneth S. Norris, Bern Würsig, Randall Wells, Melany Würsig, *The Hawaiian Spinner Dolphin* (Berkeley, CA: University of California Press, 1994); *Dolphin Societies: Discoveries and Puzzles*, edited by Karen Pryor and Kenneth S. Norris (Berkeley, CA: University of California Press, 1991); John E. Reynolds, III, Randall S. Wells and Samantha D. Eide, *The Bottlenose Dolphin: Biology and Conservation* (Gainesville, FL: University Press of Florida, 2000); Sam Ridgway, “Physiological Observations on Dolphin Brains,” in *Dolphin Cognition and Behavior*, pp. 31-60; Rachel Smolker, *To Touch a Wild Dolphin* (New York: Doubleday, 2001).

<sup>2</sup> Rendell, L., Whitehead, H., “Cetacean Culture: Still Afloat after the First Naval Engagement of the Culture Wars,” *Behavioral and Brain Sciences*, 24, 360–373.

<sup>3</sup> Hal Whitehead, “The Cultures of Whales and Dolphins,” in *Whales and Dolphins: Cognition, Culture, Conservation and Human Perceptions*, edited by P. Brakes and M. P. Simmonds (London: Earthscan, London, 2011).

<sup>4</sup> For a full explanation, see my *In Defense of Dolphins: The New Moral Frontier* (Oxford: Wiley, 2007). The set of criteria I use sets the bar quite high: being alive; aware; the ability to experience positive and negative sensations (pleasure and pain); emotions; self-consciousness and a personality; self-controlled behavior; recognizes and treats other persons appropriately; and a series of higher order intellectual abilities (abstract thought, learning, solves complex problems and communicates in a way that suggests thought). The most recent extensive philosophical discussion of personhood and nonhumans is Gary Varner’s *Personhood, Ethics, and Animal Cognition: Situating Animals in Hare’s Two-Level Utilitarianism* (Oxford: Oxford University Press, 2012). Because Varner labels dolphins as “near persons,” it should be no surprise that I disagree with his analysis. However, it is beyond the scope of this essay to detail my reservations with his analysis.

a person is a *who*, not a *what*; a *subject*, not an *object*. The scientific findings over the last few decades strongly support the assertion that whales and dolphins are, then, *nonhuman persons*.

In philosophical discussions related to nonhuman animals, one of the primary justifications for employing the concept of personhood is to guarantee that inquiries are conducted free of species bias. Ideally, “person” is a species-neutral term. The aim in using this concept is to avoid the mistakes that were made in “scientific” defenses of slavery, racial discrimination and gender discrimination. In those cases, empirical data were distorted by being viewed through the lenses of racial superiority and gender superiority.<sup>5</sup> That is, objective scientific inquiry was hijacked by *racism* and *sexism* for the purpose of subjugating targeted groups. “Personhood” aims to prevent *speciesism* from having the same effect in discussions about relationships between human and nonhuman animals. That is, the point is to counter the self-serving belief that humans are superior to all other beings on the planet, and that whenever there is a conflict between the interests of human and nonhuman animals, human concerns always take precedence.

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One of the most important implications of personhood is that beings with the requisite traits are recognized as having “moral standing” as *individuals*.<sup>6</sup> However, the idea that the welfare of *individual* whales and dolphins is ethically relevant marks a fundamental departure from the way these cetaceans have traditionally been regarded. In the past, what we might call a “conservation” perspective has been the norm. From this point of view, whales and dolphins are

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<sup>5</sup> Steven J. Gould, *The Mismeasure of Man*, revised and expanded (New York: W. W. Norton, 1996).

<sup>6</sup> Christopher W. Morris, “The Idea of Moral Standing,” *The Oxford Handbook of Animal Ethics*, edited by Tom L. Beauchamp and R. G. Frey (Oxford: Oxford University Press, 2011), pp. 255-275.

simply a “resource” to be managed. Only when a group of cetaceans (“a population” or “stocks”) is stressed or a species is endangered is there reason for concern.

The “conservation” perspective is perhaps best represented by the Presidential Letter that the Society for Marine Mammalogy sent to the Japanese government opposing the drive hunts there.<sup>7</sup> The communication ignores any ethical dimension to the problem, stating that the point of the letter is “to convey our serious concern regarding the sustainability of those hunts.” The letter refers only to “stocks” and “population recovery,” and it completely ignores the welfare of individual dolphins. The letter suggests that the drive hunts kill too many dolphins for the population to sustain itself. Unfortunately, this implies that if the hunts simply kill fewer dolphins, they would be defensible. From an ethical perspective, however, this would be like saying that—if we take a small human community as an example—as long as the number of people we kill doesn’t have a significant, negative impact on reproduction rates in the town, then the deaths are acceptable.

#### The deontological argument: personhood, ethical standards, and moral rights

Personhood implies a clear standard for evaluating the ethical character of captivity.

Reflecting the traditional attitude that each human being is unique and, one might say, “beyond measure,” individual persons of any species have *intrinsic worth* and a *dignity* that must be respected. Best represented by the point of view of the philosopher Immanuel Kant, persons are seen as categorically different from physical objects. Kant writes, “[E]verything has either a price or a dignity. Whatever has a price can be replaced by something else as its equivalent; on the other hand, whatever is above all price, and therefore admits of no equivalent, has a dignity .

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<sup>7</sup> Society for Marine Mammalogy, “Letter to Japanese Government Regarding Dolphin and Small Whale Hunts,” May 29, 2012.

. . and intrinsic worth.”<sup>8</sup> Accordingly, simply by virtue of being persons, such beings are entitled to treatment of a particular sort—treatment consistent with their dignity. Among humans, being the victim of deception, manipulation or a serious invasion of privacy, for example, is typically seen as ethically inappropriate, even if this produces no tangible harm. In fact, such treatment is seen as inappropriate even if it leads to some tangible benefit (for example, manipulating people to do something that actually is in their interest but which they would not choose to do).

The immediate implication of these two perspectives for human treatment of whales and dolphins is clear and unambiguous. Each individual person, human or cetacean, is entitled to special consideration in how he or she is treated. Persons may not be harmed—deliberately or negligently—except in extraordinary circumstances. Personhood sets firm boundaries on what counts as ethically acceptable and ethically unacceptable treatment, that is, what sort of treatment is consistent with a person’s dignity.

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The most succinct way to express the idea that there are restrictions on how we treat persons is that persons have “moral rights.”<sup>9</sup> That is, in the same way that we recognize a set of “basic human rights” which all members of our species are entitled to enjoy, this perspective

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<sup>8</sup> Immanuel Kant, *Grounding of the Metaphysics of Morals*, Ak 4: 434-435.

<sup>9</sup> It is important to note three important points related to “moral rights.” First, “moral rights” are different from “legal rights,” which are the province of a legislature or other political body. All that is required for an entity to possess legal rights is that the legislature assigns them. As is apparent from the fact that corporations have a variety of legal rights, not even being a living being is necessary. “Moral rights” are different and, as will be shown below, are grounded in the defining properties and basic needs of the beings in question. Second, to argue that “persons have rights” should not be taken to imply that “nonpersons lack rights.” Third, there are many other bases for arguing that nonhuman animals deserve better treatment. Best known is Peter Singer’s position that sentience is enough to grant moral standing (*Animal Liberation: A New Ethics for our Treatment of Animals* [New York: New York Review/Random House, 1975]) which echoes Jeremy Bentham’s classic statement about nonhumans, “The question is not, Can [nonhumans] reason? nor Can they talk? but, Can they suffer?” (*Principles of Morals and Legislation* [New York: Hafner, 1948], p. 311). However, because personhood is a particularly strong basis for asserting that a being has rights, and because whales and dolphins qualify as persons, this essay offers this concept as a foundation for evaluating the ethical character of human actions towards these cetaceans.

argues for an equivalent set of “basic cetacean rights.” A proposed set of rights has been delineated in the “Declaration of Rights for Cetaceans: Whales and Dolphins” and includes: life; protection against “cruel treatment” and “[being] removed from their natural environment”; freedom from “captivity or servitude,” being treated as “property,” “disruption of their cultures” and “freedom of movement and residence within their natural environment.”<sup>10</sup>

Examination of the list of cetacean rights asserted in the Declaration reveals the same duality noted above regarding the ethical constraints on human behavior towards whales and dolphins. Respect for the *intrinsic worth* and *dignity* of individual cetaceans is reflected in prohibitions against treating them as property, constraining their movements, disrupting their cultures, and removing them from a natural environment. These prohibitions are based on the idea that whales and dolphins have the capacity for free, autonomous behavior and that, as is the case with humans, any interference with a person’s free choice is ethically unacceptable.

In light of this list of moral rights, the captivity of whales and dolphins is unambiguously unacceptable.

The prohibition against treating persons as objects implies that buying and selling cetaceans—or anything that amounts to treating them as *property*—is as ethically offensive as buying and selling humans. From a strict application of a deontological perspective, no tangible benefit—whether research, education, entertainment, jobs, or profit—can justify treating cetaceans as property.

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<sup>10</sup> [www.cetaceanrights.org](http://www.cetaceanrights.org).

The teleological argument: rights, basic conditions for growth and flourishing, species specific standards

Despite their inherent philosophical strength, deontological arguments about cetacean rights are regularly misunderstood by individuals who lack the appropriate technical background. A common mistake is to think that “nonhuman persons” must demonstrate exactly the same intellectual and emotional abilities that “human persons” have, and they must do so in precisely the same way. Another common mistake is to think that a document like the Declaration calls for whales and dolphins to enjoy all the same rights as humans—in short, that “the rights of a human” and “the rights of a nonhuman” are identical. But this is not what appeals to recognize “animal rights” mean.

Properly understood, however, the concept of moral rights is simply a short-hand reference to the conditions that members of a species require in order to grow and develop so that they have a reasonable chance of success at living a successful and satisfying life. That is, the central concept in a teleological approach to animal rights is *flourishing*. Put simply, this perspective argues that a being has a “right” to something because it *needs* it in order to flourish. Claims about “rights” are expressions of “basic needs,” that is, “the necessary conditions for flourishing.”<sup>11</sup>

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<sup>11</sup> The most important thinker to advance this perspective is Martha Nussbaum. Her “capabilities approach” makes central the concept of a being’s “flourishing.” First used in her *Women and Human Development*, Nussbaum approached issues of justice through “human capabilities, that is, what people are actually able to do and to be—in a way informed by an intuitive idea of a life that is worthy of the dignity of a human being.” She then applies this approach to nonhuman animals in her *Frontiers of Justice* and “The Capabilities Approach and Animal Entitlements” in *The Oxford Handbook of Animal Ethics*. Rejecting consequentialism’s view that “the best choice is defined as the one that promotes the best overall consequences,” Nussbaum endorses “the Aristotelian idea that each creature has a characteristic set of capabilities, or capacities for functioning, distinctive of that species, and that those more rudimentary capacities need support from the material and social environment if the animal is to flourish in its characteristic way.” Combining this with a Kantian idea that “we owe respect to each sentient creature considered as an end,” she observes “we should then find a way to argue that what we owe to each animal, what treating an animal as an end would require, is, first, not to obstruct the creature’s attempt to flourish by violence of

For example, if “human rights” are understood as the most fundamental conditions that individual humans need in order for us to remain alive, to stay physically and emotionally healthy, to develop our abilities optimally, and to experience a sense of well-being, then claims to such rights as life, freedom from pain and suffering, liberty, equality, some sort of education, and the like are statements that these conditions are essential for that task.<sup>12</sup> That is, the conditions that beings of our sort need in order to survive, prosper, and experience a sense of well-being have been determined by how our ancestors as humans evolved. Key, of course, are our traits as terrestrial, social mammals, with the anatomy and physiology of Great Apes, and complex brains that allow for sophisticated cognitive and affective abilities and experiences. A typical list of these necessary conditions (“basic human needs [moral rights for humans]”) includes: life; physical health and safety; emotional health and safety; absence of pain and suffering; freedom of choice in actions, beliefs, spiritual life, etc.; education (that is, some mechanism to acquire the knowledge and skills needed to survive and prosper in the physical and social environment in which we live); fairness, care, equality, respect for our dignity as persons, etc.; access to meaningful emotional relationships (family, friends, intimate partners); and rest.

From a teleological perspective, then, the fact that such conditions are necessary for full and healthy human growth, development, and flourishing means that depriving someone of these

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cruelty, and, second, to support animal efforts to flourish in positive ways.” (*Oxford Handbook of Animal Ethics*, 235-238).

A capabilities approach addresses major limitations of *personhood* by using the “flourishing” of a being as a central ethical issue and by recognizing the “species-specific” character of flourishing. Nussbaum’s reference to “species-typical ways of flourishing” and a “species norm” immediately requires that attention be paid to the differences, as well as the similarities, between humans and, for our purposes, whales and dolphins.

<sup>12</sup> While it is beyond the scope of this essay to draw out the details of this point of view, the general perspective being advanced is that these “basic needs” point to behaviors that are essentially adaptations which *Homo sapiens* has developed as mechanisms that make our survival, growth, development and well-being possible. That is, a claim that we have a right to “equal and nondiscriminatory treatment” would be viewed as a restriction on the way humans treat each other that grew out of the fact that human communities (and their individual members) likely have greater odds of survival and a sense of well-being when equal and nondiscriminatory treatment is the norm.

conditions constitutes *harm*. And it is not difficult to see how quickly *harm* can rise to the level of *cruelty*. A life lacking these conditions is a life of frustration, failure, absence of purpose, and the like. Because *Homo sapiens* is such an adaptable species, we are able to bear with extremely difficult conditions. But being able to tolerate bad conditions does not mean that full and healthy development or a satisfying and successful human life is possible in such circumstances.<sup>13</sup>

Because humans and cetaceans have such different evolutionary histories, there is reason to think that there would be significant differences in our respective lists of “basic needs.” Because the specific skills and capacities that large brained, self-aware, social mammals need to survive on land differ from those required in the oceans, there are important differences in the conditions needed for growth, development, and a sense of well-being in humans versus whales and dolphins.<sup>14</sup> Different lists of “basic needs” imply, then, differences in what constitutes *harm* for humans versus cetaceans.

As noted above, from a teleological perspective, then, the central question is “What do cetaceans need to flourish?”

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<sup>13</sup> It is critical to note that one of the most important teleological implications of personhood is that the advanced cognitive and affective abilities that persons possess produce a unique vulnerability to pain and suffering. Because persons are beings who experience life as self-aware individuals with sophisticated intellectual and emotional abilities (for example, the capacity to plan and control behavior, to form significant emotional relationships, to recall past events, and the like), they are vulnerable to a greater range of harms than is the case with nonpersons—not simply physical pain, but complex emotional pain such as traumatic memories, fear in the present, dread regarding the future, etc.

<sup>14</sup> As suggested earlier, the ultimate ethical implication of these differences in “basic needs” is that “moral rights” is a *species-specific* concept.

In her essay, Marino presents a detailed answer. For our purposes, all we need is her summary. She writes, “Cetaceans need to move. They need to travel and to experience variety in their physical environment. They also need personal space so that they can spread out and avoid each other when conflict arises. As highly intelligent beings they need to be challenged by their physical and social environment. As autonomous beings, cetaceans need to exercise control over their lives. They need to be able to raise their children and navigate a complex social environment. Cetaceans need social opportunities to bond, to relate, to interact, to reproduce, and to learn from each other. They also need a social infrastructure, that is, an intact social network, family ties, and even social competition. And, far from the sheltered life of captivity, they need to be challenged and expend effort solving problems and escaping dangers.”<sup>15</sup>

In contrast to the conditions cetaceans evolved in—and wild cetaceans experience—captive whales and dolphins live in conditions that clearly make flourishing impossible. They typically live in small, artificial tanks with small, similarly artificial social groups. The chronic stress produced by these conditions leads to physical and behavioral abnormalities and decreased life span. They spend their days doing little of consequence. Given the potential that comes from their advanced intellectual and emotional abilities, it is reasonable to suggest that their lives feel stunted, barren, and without purpose. As Marino asserts, “It is clear that, because of their evolutionary and adaptive history, cetaceans cannot flourish in captivity.”<sup>16</sup>

As suggested above, a life lacking the conditions necessary for the full, healthy, growth, development and flourishing which cetaceans are capable of constitutes not merely *harm*, but *cruelty*. And when seen in this light, it is clear that a defense of captivity based on its benefits—

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<sup>15</sup> Lori Marino, “The Marine Mammal Captivity Issue: Time for a Paradigm Shift,” xxx

<sup>16</sup> Marino, p.

to humans or to wild dolphins, for example—cannot succeed. For no matter how much good might be produced, the *quality* of the harm involved means that, beyond question, captivity is as indefensible teleologically as it is deontologically.

### Conclusion

This essay has attempted to demonstrate that a full understanding of the ethical issues related to the captivity of whales and dolphins by humans requires a multi-disciplinary approach—specifically, a methodology that integrates scientific findings with their philosophical implications.

Specifically, this essay argues that the scientific evidence for cetacean cognitive and affective complexity shows that a defense of the captivity of whales and dolphins fails when viewed from both of the two major traditions of philosophical ethics. First, cetaceans are *nonhuman persons* who have basic *moral rights* as *individuals*. Paramount among these rights is not to be treated as an object that can be bought, sold, or used as a means to someone else's end. Second, captivity is not only unable to provide whales and dolphins with the conditions necessary for flourishing, it leads to tangible, serious harm.

As noted at the outset, this essay is firmly grounded in the idea that the ethical implications of the scientific research on whales and dolphins become evident only when viewed through the lens of such philosophical concepts as “person,” “moral standing,” “moral rights” and “flourishing.” One of the most important needs in future cetacean research, then, is for the descriptive methodology of science to be supplemented by perspectives from intellectual approaches that specialize in normative judgments. Future marine scientists must become as adept at ethical analysis as data analysis. They must acquire a thorough understanding of the

methodology, intellectual perspectives and relevant literature in fields like philosophy and environmental ethics. Failure to do so will produce the disappointing situation of scientists not fully understanding the ethical dimensions of their own research.<sup>17</sup> And this will obviously slow the pace of improving the treatment of cetaceans by humans.

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<sup>17</sup> Unfortunately, this failing is currently very common in the marine science community. To cite just one example, Diana Reiss writes, "Since dolphins are, like humans, intelligent, self-aware beings with personalities, emotions, and the capability to govern their own behavior, [Thomas White] proposed they be viewed as 'nonhuman persons' . . . I worry about this argument, however—does it mean that other species may be mistreated?" (*The Dolphin in the Mirror*, [New York: Houghton Mifflin Harcourt, 2011], pp. 248-9). Reiss's findings (with Lori Marino) about mirror self-recognition in dolphins are one of the key pieces of evidence for supporting the claim that dolphins are persons. However, Reiss is unaware that her worry is unwarranted. First, as noted above, arguing that "persons have rights" does not imply that "nonpersons do not have rights." To say that it does is to commit the logical fallacy of denying the antecedent. Second, personhood is clearly not the only basis for arguing that members of a nonhuman species deserve appropriate and compassionate treatment. Presumably, a deeper knowledge of the relevant literature in philosophy, environmental ethics and animal rights would have reassured Reiss. The Presidential Letter of the Society for Marine Mammalogy to the Japanese government was noted above. Noteworthy in its absence, despite the large amount of data that supports the claim that individual dolphins have moral standing, is any reference to the ethical issues involved in the drive hunts.

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