

“Dolphins, Captivity and SeaWorld: The misuse of science”

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SeaWorld has been the ongoing target of sharp criticism by animal rights experts and marine mammal scientists because of the company’s treatment of its captive dolphins. This has included the claim that the cetaceans’ living conditions contributed to the three deaths associated with the orca Tilikum.¹

While the deaths and controversy surrounding captivity has garnered most of the attention in the popular press, the company’s studied strategy of dishonesty has been overlooked.² SeaWorld misrepresents the nature of the company as one committed to scientific integrity, and uses that to advance a false picture of the nature of dolphins. SeaWorld’s defense of their questionable practices is thus based on the misuse of science as a marketing tool, and represents a thoroughgoing lack of intellectual honesty.

This essay identifies the actions in question and describes their ethical weaknesses, thus exposing new flaws in the culture of the beleaguered company.

SeaWorld’s mission and the expectations of science

¹ Regarding the orca Tilikum, see 2013 documentary “Blackfish.” On a variety of problems with captivity, see, for example, the Lori Marino’s testimony before The House Committee on Natural Resources Subcommittee on Insular Affairs, Oceans and Wildlife regarding educational aspects of public display of marine mammals, Washington D.C., 27 April 2010. There are more than thirty species of dolphins, ranging from small dolphins (spotted and spinner dolphins) to orcas. In this essay, “dolphin” will be used to refer to any of the species.

² See www.seaworldfactcheck.com for a detailed examination of SeaWorld’s claims by two marine mammal scientists.

Although SeaWorld is a major, publicly owned company in the entertainment industry, its mission statement includes aims similar to nonprofit scientific, environmental or educational organizations. As CEO Joel Manby explains in his letter to shareholders,

Our fundamental mission remains the same – to provide experiences that matter and *inspire guests to protect animals and the wild wonders of the world. ...* We are making a range of changes over time so that guests who visit us find opportunities to enjoy family time and pure fun, while also *learning how to make the world a better place for animals and their habitats.*³

This statement is echoed on the company's website which describes numerous activities that support this mission. "The SeaWorld Cares" segment of the site plays an especially important role in this regard. Under the heading, "Caring for animals all over the world," the company writes:

We believe that together, through our work, we are making a difference all over the world. Our commitment to animal care, conservation, rescue and research has advanced the well-being of animals in our parks as well as the wild. We rescue, rehabilitate and return wild animals in need, and have helped more than 28,000 to date. SeaWorld Cares is dedicated to making a difference one animal at a time. With your help, we can do it. Inspiring care is at the heart of our company's mission, and our philanthropic areas of focus include efforts that help children, education, and the environment.⁴

³ SeaWorld Entertainment Annual Report 2015. Emphasis added.

⁴ <https://seaworldcares.com/our-work/>

Visitors are then invited to click links labeled “Rescue,” “Care,” “Conservation,” “Research,” “Education” and “Communities.”⁵ The “Rescue” link, for example, showcases an impressive history in this area.

Our legacy of animal rescue spans 50 years and has benefited more than 28,000 animals. Working in partnership with state, local, and federal agencies, we help animals that are orphaned, ill, injured or in need of expert care.

Our goal for every animal we rescue is to successfully rehabilitate and return it to the wild. The small percentage of animals with conditions that would prevent them from surviving in the wild are given lifelong care at *SeaWorld* or another accredited facility.

Our passionate team is continuously creating new ways to rescue and treat these animals, as no case is ever the same. Our inventive animal experts have:

- Created nutritional formulas and nursing bottles to hand-feed orphaned animals.
- Saved sea turtles with cracked shells using everyday items like honey and baby ointment.
- Crafted prosthetic beaks for injured birds.
- Developed an "animal wetsuit" to help injured manatees stay afloat.⁶

Indeed, the *SeaWorld* website probably devotes at least as much attention to its conservation accomplishments and educational initiatives as it does to its profit

⁵ <https://seaworldcares.com/en/our-work/>

⁶ <https://seaworldcares.com/en/rescues/call-247/>

centers—the entertainment activities of its parks. The typical visitors to SeaWorld’s site or readers of its promotional materials could, therefore, be excused for thinking that the company is something of a profit/nonprofit hybrid, with its altruistic activities being as important as those that directly generate the company’s profits.

As a publicly owned corporation, however, this is hardly likely to be the case. The significant investment needed for such an emphasis on conservation, science and education is no doubt directly connected with increasing the bottom line. Such an approach differentiates the SeaWorld brand from its main competitors in the entertainment industry: Six Flags, Walt Disney Parks and Resorts, and Universal Parks and Resorts. A philanthropic mission communicates to potential customers that SeaWorld is more than just a theme park and that consumers’ dollars will go to support such altruistic activities. Because SeaWorld’s use of captive dolphins has been criticized for a number of years, representing itself as an organization with scientific credibility would also provide the company with a ready-made defense that any criticism of the company was unfair and coming from extremists.

This is in many ways a smart strategy. An enhanced reputation from altruistic activities can only increase ticket sales. A robust education program aimed at young people (day camps, sleepover camps and teacher guides, for example) can provide benefits in the present (when they ask their parents to take them to SeaWorld) and in the future (when they have disposable income of their own). Trumpeting connections with higher education and the world of scientific research adds to the company’s credibility. Particularly if a number of the company’s activities are, in fact, scientifically legitimate (such as its rescue and rehabilitation program), SeaWorld’s defense of its use of captive dolphins would appear to anyone unfamiliar with the scientific literature on dolphins to be believable.

Unfortunately, SeaWorld's strategy is fundamentally dishonest.

The company's central problem here is that including science and education as part of SeaWorld's mission carries with it challenges that conflict with its primary goal: profit. When an organization puts itself under the umbrella of science, research and education, its relevant activities must meet specific expectations. Science aims to uncover *all* relevant facts about the topic being studied and to identify and explore *all* of their implications—even those that might be inconvenient or unpopular. Scholarly rigor, intellectual honesty, transparency, engaging with opposing positions and grappling with the implications of new discoveries are paramount requirements of professional level research. Disagreement among researchers is expected to be carried out with mutual respect.

Unfortunately, SeaWorld's commitment to using captive dolphins requires it to reject the conventions of science and professional research because what is now known about dolphins makes it plain that captivity is unacceptable for these cetaceans. To defend its practices, then, it cherry picks the scientific research on dolphins it chooses to recognize (detailed below). It disparages researchers who disagree with the company's practices.⁷ It sidesteps criticism by citing irrelevancies.⁸ Moreover, not only does it reject the conventions of science, it creates the illusion that it follows them—presuming a credibility it does not deserve. Overall, the company's strategy is characterized by a lack of a commitment to the level of truthfulness and intellectual honesty expected in professional level research. As a

⁷ For example, SeaWorld argues that the documentary "Blackfish" "relies on animal rights activists masquerading as scientists" (<https://seaworldcares.com/the-facts/truth-about-blackfish/>). Included in this group is Dr. Lori Marino, a well-respected and well-published member of the marine mammal science community.

⁸ Marino and other are dismissed as unqualified because they "have no expertise with killer whale behavior in captivity" (<https://seaworldcares.com/the-facts/truth-about-blackfish/#3>). A key criticism of SeaWorld, however, is that standards of appropriate treatment of dolphins should be determined by the conditions in which they live *in a natural environment*—and this is precisely what scientists like Marino are experts in.

result, SeaWorld's behavior is ethically indefensible and intellectually dishonest.

Creating the illusion of scientific credibility

In order to create the illusion of scientific credibility, the company goes to great lengths to suggest that its work in the areas of conservation, research, education, rescue and rehabilitation are scientifically legitimate. For example, it claims that it is “deeply integrated with universities and research organizations,” that it provides direct support of researchers, and that its researchers have contributed to more than 300 published studies.⁹ Particularly important for cultivating a reputation for scientific credibility are SeaWorld's “Animal InfoBooks” about the various species in the company's parks.

However, instead of being products of neutral and objective science, the booklets are examples of intellectual dishonesty. For the purposes of this essay, the AnimalInfo Books about bottlenose dolphins and orcas are relevant.

AnimalInfo Book: Bottlenose Dolphins

The AnimalInfo Book on bottlenose dolphins is an 11,000-word document consisting of 14 sections: Scientific Classification; Habitat & Distribution; Physical Characteristics; Senses; Adaptations; Communication & Echolocation; Behavior; Diet & Eating Habits; Reproduction; Birth & Care of Young; Longevity & Causes of Death; Conservation & Research; Books for Young Readers; and Bibliography. Most of the facts it reports and the assertions it makes are uncontroversial and accurate. Its 70 item bibliography lists studies about dolphin anatomy, physiology,

⁹ <https://seaworldcares.com/research/>

behavior, evolutionary history and populations.¹⁰ On the surface, the booklet looks like a credible and professional review of the literature.

Closer study, however, reveals the publication's serious weaknesses.¹¹

1. Although one of the most common questions asked about dolphins by the general public relates to how intelligent they are, there is no separate section on "intelligence" in the publication. The very limited discussion of the dolphin brain appears under "Senses."
2. While most of the facts in the booklet are accurate, the discussion of the dolphin brain is false and misleading. The section reads,

Comparisons of mammal brains are described as *the ratio of brain size relative to body size*. Bottlenose dolphin brains are larger than many other mammals of the same body size. Scientists are still determining what aquatic adaptations require the large brain size. One likely theory is that a larger brain size in dolphins may be at least partially due to an increased size of the auditory region to facilitate sound processing.

Hypotheses that large brain size in dolphins indicates high intelligence are untested and disputed. The ability of an animal to process information is based upon its brain anatomy as well as the specific experiences the animal has. *Rating the intelligence of different animals is misleading and extremely subjective*. In fact, a reliable and consistent intelligence test for humans has yet to be

¹⁰ <https://seaworld.org/en/animal-info/animal-infobooks/bottlenose-dolphins>

¹¹ For additional discussion of the weaknesses in the AnimalInfo book, see Marino's testimony, noted above.

developed. *It would be improper to attempt to quantify or qualify the intelligence of animals using only human guidelines.*¹²

This section is flawed based on both what it says and what it omits.

Claim #1: “Comparisons of mammal brains are described as *the ratio of brain size relative to body size.*” While this assertion is true, it is fatally incomplete. By implying that this ratio is the only or most important point in inquiries into dolphin intelligence and by ignoring the most important research on the dolphin brain, this sentence is seriously misleading.

Discussions of dolphin intelligence *do* reference the ratio of brain size to body size. However, more important are such facts as: the volume and cellular architecture of the neocortex of the dolphin brain; the “gyrification index” of the dolphin brain relative to that of the human brain; and the presence of “spindle cells”; the ratio of the size of the brain to the spinal cord.¹³ All of these markers—deliberately omitted from the SeaWorld booklet—suggest that dolphins possess an impressive level of intelligence.

Claim #2: “*Rating the intelligence of different animals is misleading and extremely subjective.*” This assertion is false.

¹² Infobook. Emphasis added.

¹³ It is beyond the scope of this paper to summarize the extensive research on the dolphin brain. Details can be found in: Thomas I. White, *In Defense of Dolphins: The New Moral Frontier* (Oxford: Blackwell, 2007), especially chapter 2. On the dolphin brain, see the numerous publications of Lori Marino. Her most recent discussion of the dolphin brain is “The Marine Mammal Captivity Issue: Time for a Paradigm Shift,” in *The Palgrave Handbook for Practical Animal Ethics*, edited by Andrew Linzey (London: in press). See also: Marino et al., “A claim in search of evidence: reply to Manger’s thermogenesis hypothesis of cetacean brain structure,” *Biological Review*, (2008) doi:10.1111/j.1469-185X.2008.00049.x.

In 1976, Donald Griffin's *The Question of Animal Awareness* effectively launched a new discipline of inquiry—cognitive ethology.¹⁴ As Mark Bekoff explains it, “Cognitive ethology is the comparative, evolutionary, and ecological study of nonhuman animal ... minds including thought processes, beliefs, rationality, information-processing, and consciousness.”¹⁵ Over the last few decades, specialists in the field have regularly discussed the intelligence of different nonhuman animals in a way that is neither misleading nor subjective.¹⁶ Moreover, as just mentioned in this essay, dolphins fare quite well when measured by markers that are considered accepted and objective by cognitive ethologists.

Claim #3: “*It would be improper to attempt to quantify or qualify the intelligence of animals using only human guidelines.*” This assertion is true, but what it implies is false. It is also a classic example of the “straw man” logical fallacy.

This claim implies that researchers who assert that dolphins possess sophisticated cognitive abilities rely on “human guidelines.” They do not. Cognitive ethologists use criteria that apply across species—for example, gyrfication index. Therefore, this claim rejects an approach that no credible scientist advances. Hence, this is an example of the “straw man” fallacy.

3. The bibliography is out of date and misleading.

¹⁴ Donald R. Griffin, *The Question of Animal Awareness: The Evolutionary Continuity of Animal Awareness* (New York: Rockefeller University Press, 1976).

¹⁵ Mark Bekoff, “Cognitive Ethology: The Comparative Study of Animal Minds” in *A Companion to Cognitive Science*, William Bechtel and George Graham, editors, (Oxford: Blackwell, 1998).

¹⁶ See, for example, Stewart H. Hulse, Harry Fowler, Werner K. Honig, editors, *Cognitive Processes in Animal Behavior* (Hillsdale, NJ: Erlbaum, 1978); and Edward R. Wasserman and Thomas R. Zentall, editors, *Comparative Cognition: Experimental Explorations of Animal Intelligence* (Oxford: Oxford University Press, 2009).

- The most recent publication cited was published in 2003.
- Worse still, despite the fact that the most important research that has been done on dolphins in the last thirty years has to do with their advanced intellectual, emotional, social and cultural abilities, there is no significant reference to any of the relevant studies. For example, all of the following are missing from the bibliography: Diana Reiss and Lori Marino's work on mirror self-recognition in dolphins; Lori Marino's extensive work on the dolphin brain; Denise Herzing's long-term study of a community of wild Atlantic spotted dolphins; John Gory, Stan Kuczaj and Rachel Thames' work on dolphins' ability to solve problems by planning; Hal Whitehead's research on culture in cetaceans; Rachel Smolker's evidence of dolphin tool use; Louis Herman's groundbreaking research demonstrating the abilities of the bottlenose dolphins he worked with to understand an artificial human language; the extensive research on dolphin social intelligence by Denise Herzing, Randy Wells and Richard Connor; and the discoveries by Louis Herman, Stan Kuczaj and Karen Pryor of a variety of advanced intellectual skills (understanding "representations of reality" and human "pointing" and "gazing" behavior, the capacity to operate in a "foreign cognitive environment," and interesting ways of solving the problem of getting food).¹⁷

¹⁷ Reiss D & Marino L (2001) Self-recognition in the bottlenose dolphin: A case of cognitive convergence. *Proceedings of the National Academy of Sciences USA* 98 (10): 5937-5942. Marino's extensive bibliography of discussions of the dolphin brain begins with 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. Denise L. Herzing, *Dolphin Diaries: My 25 Years with Spotted Dolphins in the Bahamas* (New York: St. Martin's Press, 2012). 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

- No reference is made to any of the published papers or presentations at major conferences that advance the idea that captivity is inappropriate for beings with such advanced intellectual, emotional, social and cultural abilities.¹⁸

AnimalInfo Book: Killer Whale

The AnimalInfo Book about orcas (killer whales) is a 21,000-word document consisting of 15 sections: Scientific Classification; Habitat & Distribution; Physical Characteristics; Senses; Adaptations; Communication & Echolocation; Behavior; Diet & Eating Habits; Reproduction; Birth & Care of Young; Longevity & Causes of Death; Conservation & Research; Appendix; Further Reading; and Bibliography.¹⁹

Mammals, Wailea, Maui, Hawaii, November-December, 1999. Stan A. Kuczaj II and Rachel S. Thames, "How Do Dolphins Solve Problems?," in Wasserman and Zentall, *Comparative Cognition*; Hal Whitehead and Luke Rendell, *The Cultural Lives of Whales and Dolphins* (Chicago: University of Chicago Press, 2014). Rachel Smolker, *To Touch a Wild Dolphin* (New York: Doubleday, 2001). Richard C. Connor and Dawn Micklethwaite Peterson, *Lives of Whales and Dolphins* (New York: Henry Holt, 1996). Karen Pryor, *Lads Before the Wind* (New York: HarperCollins, 1975). 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. Louis M. Herman, Douglas G. Richards and James P. Wolz, "Comprehension of Sentences by Bottlenosed Dolphins," *Cognition*, 16 (1984), 129-219; Marino L (2002) Convergence in complex cognitive abilities in cetaceans and primates. *Brain, Behavior and Evolution* 59: 21-32. Hof P, Chanis R, & Marino, L. (2005). Cortical complexity in cetacean brains. *The Anatomical Record*. 287A: 1142-1152; Marino L, Connor RC, Fordyce, RE, Herman LM, Hof PR, Lefebvre L, Lusseau, McCowan B, Nimchinsky EA, Pack AA, Rendell L, Reidenberg JS, Reiss D, Uhen MD, Van der Gucht E, & Whitehead H. (2007) Cetaceans have complex brains for complex cognition. *Public Library of Science (PLOS) Biology*, 5(5): e139.

¹⁸ For example, early in 2010, a panel entitled "Intelligence of Dolphins: Ethical and Policy Implications" was held at the American Association for the Advancement of Science, the largest and most widely recognized global science conference. Later that year, a group of scientists, philosophers and experts in international law issued the "Declaration of Rights for Cetaceans: Whales and Dolphins." Discussion of findings about the ethical implications of dolphin intelligence continued at the London Times Cheltenham Science Festival in 2011 and again at the AAAS meeting in 2012.

¹⁹ <https://seaworld.org/en/animal-info/animal-infobooks/killer-whale>

This booklet is similar to the AnimalInfo Book about bottlenose dolphins in both its strengths and weaknesses. It accurately reports many facts about orcas, but it is silent about any topic that could raise doubts about the appropriateness of captivity. Like the booklet about bottlenose dolphins, the picture this presents to the average reader is misleading.

Intelligence

As is the case with the bottlenose dolphin AnimalInfo book, there is no systematic discussion of the central question of orca intelligence. The few references to the orca brain appear in a variety of sections (Senses; Adaptations; Communication & Echolocation) and are limited to discussions about hearing, the absence of a sense of taste, and sleeping.²⁰

Benefits of captivity: education

Not surprisingly, the booklet claims that one of the benefits of captivity is an increase in knowledge about orcas. “The unique opportunity to observe and learn directly from live animals increases the body of scientific knowledge and enhances public awareness and appreciation for wildlife.”²¹ Again, the company’s position is

²⁰ “A killer whale's brain and nervous system appear physiologically able to process sounds at much higher speeds than humans, most likely because of their echolocation abilities.” <https://seaworld.org/en/animal-info/animal-infobooks/killer-whale/senses>. “Olfactory lobes of the brain and olfactory nerves are absent in all toothed whales, indicating that they have no sense of smell.” <https://seaworld.org/en/animal-info/animal-infobooks/killer-whale/senses>. “Several species of cetaceans, including the bottlenose dolphin and beluga whales, have been shown to engage in unihemispheric slow wave sleep (USWS) during which one half of the brain goes into a sleep state, while the other maintains visual and auditory awareness of the environment and allows the animal to resurface for respiration.” <https://seaworld.org/en/animal-info/animal-infobooks/killer-whale/adaptations>. “Sounds are received and conducted through the lower jaw to the middle ear, inner ear, and then to hearing centers in the brain via the auditory nerve.” <https://seaworld.org/en/animal-info/animal-infobooks/killer-whale/communication-and-echolocation>.

²¹ <https://seaworld.org/en/animal-info/animal-infobooks/killer-whale/conservation-and-research>

both accurate and questionable. It is true that captivity has produced greater knowledge of some facets of orcas. However, orca specialist Naomi Rose argues that “research on captive orcas is very rare, comparatively speaking.”²² Moreover, the picture that SeaWorld presents to the public does not include findings from *all* the research. Rather, by omitting the most important research on these cetaceans—their intellectual, emotional and social sophistication—SeaWorld engages in *mis*-education of its audience.²³

Life span

The primary controversial topic explicitly discussed in the booklet is the comparative life span of orcas in captivity opposed to a natural habitat. Nonetheless, the treatment is one-sided. Reference is made to “new research [which] shows there is no difference in life expectancy between killer whales born at SeaWorld and a well-studied population of wild killer whales,” but not to a competing study that concluded: “Survival of captive killer whale cohorts has generally improved through time, although survival to age milestones are poor when compared to wild killer whales.”²⁴

²² Private communication. Rose references Hill et al., “An Inventory of Peer-reviewed Articles on Killer Whales (*Orcinus orca*) with a Comparison to Bottlenose Dolphins (*Tursiops truncatus*),” *Animal Cognition*, ABC 2016, 3(3):135-149 DOI: 10.12966/abc.03.08.2016.

²³ Somewhat ironically, most of the relevant research that forms a basis for the argument that captivity is inappropriate and is omitted by the company was conducted in captivity.

²⁴ Naomi Rose argues that it is important to note “that this ‘well-studied population of wild killer whales’ is listed as endangered and threatened in the US and Canada respectively and faces several environmental threats. In other words, this new research shows that there is no difference in life expectancy between killer whales born at SeaWorld and *an endangered/threatened population of wild killer whales*.” (Private correspondence.) Robeck, T. R., K. Willis, M. R. Scarpuzzi and J. K. O'Brien. 2015. Comparisons of life-history parameters between free-ranging and captive killer whale (*Orcinus orca*) populations for application toward species management. *Journal of Mammalogy* Advance Access published July 10, 2015; and John Jett and Jeffrey Ventre, “Captive killer whale (*Orcinus orca*) survival,” *Marine Mammal Science*, 31(4): 1362-1377 (October 2015).

An additional problem with this section of the booklet is that it fails to address the challenge that has been raised to using longevity as the critical marker of dolphin wellbeing SeaWorld claims that it is. Because of the advanced intellectual, emotional, social and cultural abilities of dolphins, *quality* of life—that is, whether captive cetaceans can thrive and flourish, not merely how long they might live—has been advanced as a more appropriate standard.²⁵

Bibliography

The orca AnimalInfo Book “Further Reading” and “Bibliography” sections consist of 185 citations. While this list is more up to date than that found in the bottlenose dolphin AnimalInfo Book (the most recent entry is 2015), it too avoids reference to any studies that suggest just how intelligent and socially complex orcas are or, as just noted, that orcas may live shorter lives in captivity. Noteworthy in their absence are critical studies of the orca brain and culture.²⁶

In addition, in a blatant display of bias, the bibliography includes two entries explaining the importance of research on captive dolphins, yet no items from the growing literature of ethicists and scientists that provide an opposing position.²⁷

²⁵ Marino, “The Marine Mammal Captivity Issue: Time for a Paradigm Shift.”

²⁶ Marino, Lori, Chet C. Sherwood, Bradley N. Delman, Cheuk Y. Tang, Thomas P. Naidich, Patrick R. Hof. “Neuroanatomy of the killer whale (*Orcinus orca*) from magnetic resonance images,” *Anat Rec* 281A, 2:1256-1263 264:397-414, 2004; and Rendell, Luke & Hal Whitehead, (2001) “Culture in whales and dolphins.” *Behav. Brain. Sci.* v24(2): 309-382

²⁷ Kuczaj, S. (ed.) 2010a. Research with Captive Marine Mammals is Important Part I. *International Journal of Comparative Psychology* 23(3): pp. 225-534; and Kuczaj, S. (ed.) 2010b. Research with Captive Marine Mammals is Important Part II. *International Journal of Comparative Psychology* 23(4): pp. 536-825. The most notable opposing position, because of the scientific stature of its author, is: Lori Marino, “The Marine

Ethical issues

The specific omissions and overall bias of SeaWorld's AnimalInfo Books on bottlenose dolphins and orcas are, of course, neither accidental nor the result of sloppiness. They can only be part of a pattern of creating the illusion of professionalism and scientific rigor which lets the company defend its current practices by misrepresenting what is known about dolphins. Accordingly, this makes it clear that the company regards science not as a neutral and objective mode of inquiry, but as a marketing tool which can be used to misrepresent the scientific corpus and manipulate an audience for its own purposes.

As serious as this is, however, it is important to recognize the broader ethical consequences of the company's misuse of science.

Dolphins, personhood and flourishing

It is no accident that SeaWorld refuses to acknowledge any research that suggests that dolphins possess sophisticated intellectual, emotional, social and cultural abilities—especially self-awareness. That is, the point of SeaWorld's pattern of misleading and deceptive actions becomes clear when one understands the implications of the scientific research the company refuses to make reference to.

According to the edited picture SeaWorld presents, captive dolphins live happy and healthy lives.²⁸ However, when we add the scientific research on the

Mammal Captivity Issue: Time for a Paradigm Shift." See also Thomas I. White, "Whales, Dolphins and Humans: Challenges in Interspecies Ethics," in *Palgrave Handbook of Practical Animal Ethics*.

²⁸ The company claims that the dolphins in their facilities "are healthy and happy, and thrive in our care." <http://timesofsandiego.com/business/2014/07/22/petas-24000-anti-seaworld-poster-greets-comic-coners/>

advanced intellectual, emotional, social and cultural abilities of dolphins that the company omits, we get a very different picture. These cetaceans emerge as *nonhuman persons* who, in captivity, live in conditions that make it impossible for them to *thrive* or *flourish*. Captivity, then, is revealed to be ethically indefensible on two separate grounds.

First, in evidencing a variety of advanced intellectual, emotional and social abilities, dolphins qualify as *nonhuman persons*.²⁹ They thus have moral standing as individuals, and they have rights.³⁰ For the purposes of this discussion, their most important right is not to be treated as property, which makes captivity a practice akin to slavery.

Second, if dolphins have moral standing as individuals, systematically depriving them of the conditions necessary for their wellbeing constitutes *harm* and is unquestionably wrong. Indeed, from an ethical perspective, it can be argued that captivity subjects dolphins to a form of *cruelty*. The measure of whether beings with such advanced intellectual, emotional, social and cultural abilities are happy, healthy and thrive is how well the conditions in which they live allow for *flourishing*—that is, the full, healthy growth and development of the traits, skills and dispositions necessary to have a reasonable opportunity to experience a rudimentarily satisfying

²⁹ A succinct, but rigorous, set of criteria for personhood consists of the following traits: being alive; aware; able to experience positive and negative sensations (pleasure and pain); possesses emotions, self-consciousness and a personality; can control one's behavior; recognizes and treats other persons appropriately; and possesses a series of higher order cognitive abilities (abstract thought, learning, solving complex problems, communication that suggests thought). For a full explanation, see White, *In Defense of Dolphins*. Alastair MacIntyre labels dolphins as only "prelinguistic" and rejects the idea that they have the advanced abilities White claims. (Alastair MacIntyre, *Dependent Rational Animals* (Chicago: Open Court, 1999). Gary Varner labels them "near persons." (Gary Varner, *Personhood, Ethics, and Animal Cognition* [Oxford: Oxford University Press, 2012], pp. 220-21.) The analyses of MacIntyre and Varner, however, are seriously flawed by an unfamiliarity with the full corpus of the scientific literature on dolphins.

³⁰ For a delineation of these rights, see the "Declaration of Rights for Cetaceans: Whales and Dolphins." www.cetaceanrights.org.

and successful life as a member of that species.³¹ In contrast to the socially rich and challenging conditions wild dolphins experience, the barren, boring, lonely, frustrating and stressful conditions captive dolphins live in can reasonably be viewed as *harm* and *cruelty*.³²

Investors

However, dolphins are not the only potential victims of the company's dishonesty. While dolphins are being treated as property and harmed by being subject to conditions that prevent them from flourishing, investors are being misled into making less well-informed, and hence riskier, decisions because of the SeaWorld's misrepresentations. In the world of investment, transparency and full disclosure are paramount in order for transactions to be ethical. However, SeaWorld fails to measure up in what it owes anyone thinking about investing in the company.

As noted earlier in this essay, the company represents to the public that a significant part of the organization pursues legitimate scientific and educational goals. This *should* mean that its account of what the scientific literature reveals about dolphins is valid and complete. Similarly, SeaWorld boasts that "our commitment to research and conservation also has led to advances in the care of animals in zoological facilities and in conserving wild populations."³³ And this should imply

³¹ On the concept of "flourishing," see Martha Nussbaum, "The Capabilities Approach and Animal Entitlements," in *The Oxford Handbook of Animal Ethics*, edited by Tom L. Beauchamp and R. G. Frey (Oxford: Oxford University Press, 2011), pp. 228-254 and *Frontiers of Justice: Disability, Nationality, Species Membership* (Cambridge, MA: Harvard University Press, 2006).

³² For one discussion of the stresses associated with captivity, see John S. Jett and Jeffrey M. Ventre, "Keto and Tilikum express the stress of captivity," <https://theorcaproject.files.wordpress.com/2011/01/keto-tilikum-express-stress-of-orca-captivity.pdf>. The authors are former SeaWorld trainers. Also see Marino's Congressional testimony, cited above.

³³ SeaWorld Initial Public Offering, p. 77. (<https://www.sec.gov/Archives/edgar/data/1564902/000119312512515221/d448022ds1.htm>). SeaWorld 2015 Annual Report, p. 14 (http://s1.q4cdn.com/392447382/files/doc_financials/Annual%20Reports/2015-SEAS-Annual-Report.pdf).

that its treatment of dolphins is consistent with the best and most up-to-date research about what constitutes appropriate treatment of the cetaceans in their facilities. Yet, as we saw above, neither is the case because a strong argument can be made for the idea that the best science calls for the end of captivity. In fact, understanding the implications of the full corpus of the scientific literature on dolphins is what has been leading such major facilities as the National Aquarium to commit to retiring their dolphins to a seaside sanctuary.³⁴

SeaWorld is fulsome—but circumspect—in the cautions it has offered to investors. In the discussion of “risk factors” in the company’s IPO and annual reports, it is careful to point out that SeaWorld’s success could be affected by any number of factors out of its control.³⁵ References to “war,” “terrorism,” “pandemic diseases” and “volcanic eruptions” certainly suggest that the company is identifying anything with even a remote possibility of disrupting the business.

Specific reference, however, is also made to “animal activist and other third-party groups [who] may make claims before government agencies and/or bring lawsuits against us.” And while this statement is true, it is not the whole truth that a potential investor deserves. Because of the steady progress of scientific discovery, *mainstream scientific researchers* actually pose a greater risk to the company than “animal activists.” “Activists,” after all, have gained traction in their campaign against SeaWorld only because scientific research done by reputable investigators has called into question the company’s practices and because, internationally, there has been a trend to recognize the ethical implications of the scientific findings in a way

³⁴ “National Aquarium dolphins will leave Baltimore for seaside sanctuary,” by Dana Hedgpeth, *The Washington Post*, June 14, 2016.

³⁵ <https://www.sec.gov/Archives/edgar/data/1564902/000119312512515221/d4448022ds1.htm>

that challenges the viability of SeaWorld's business model.³⁶ Accordingly, a more complete warning might have been, "Over the last thirty years, research on the intelligence of dolphins has shown them to be so cognitively sophisticated that it can be argued that they are 'nonhuman persons.' Research on dolphins in their natural habitat suggests that dolphins cannot experience an acceptable quality of life in captivity. Ongoing scientific research of this sort combined with greater public awareness of it may lead the company to give up captivity altogether."

It can even be argued that at the time of the IPO filing (December 27, 2012) marine mammal scientists had discovered and publicized enough about orcas and their negative response to captivity that SeaWorld should have warned potential investors about the possible negative impact of the release of the documentary "Blackfish."³⁷

Conclusion

While SeaWorld may claim that it has an adequate defense for its practice of using captive dolphins and argue with opponents about the proper criteria for

³⁶ For example, early in 2010, a panel entitled "Intelligence of Dolphins: Ethical and Policy Implications" was held at the American Association for the Advancement of Science, the largest and most widely recognized global science conference. Later that year, a group of scientists, philosophers and experts in international law issued the "Declaration of Rights for Cetaceans: Whales and Dolphins." Discussion of findings about the ethical implications of dolphin intelligence continued at the London Times Cheltenham Science Festival in 2011 and again at the AAAS meeting in 2012. The most dramatic legal and political development was that India declared dolphins to be "nonhuman persons" in 2013.

³⁷ "Blackfish" is a 2013 documentary that focuses on the SeaWorld's orca Tilikum, who has been involved in three deaths, most notably, that of SeaWorld trainer Dawn Brancheau. SeaWorld knew the film was in production at the time of the IPO. Shareholder suits alleged that the company misled them by not warning them about the effect the film could have on the company's performance. Share price opened at 27 in April 2013, and ranged from a high of 38 before falling to 18 on August 13, 2014 because of the combination the company's weak performance and a proposal in the California legislature to ban the use of captive orcas for entertainment purposes. The company cited other causes for a decrease in attendance (poor weather, timing of the holidays, the company's international pricing strategies, etc.). The shareholder suit was dismissed. The company has continued to struggle, however, and the stock price has not recovered.

assessing the wellbeing of the cetaceans in its facilities, the company can offer no defense for its overarching strategy of misrepresentation and dishonesty. This essay has shown that SeaWorld's actions constitute a pattern of serious ethical failings.

- While the company claims that science and research are central elements of its mission, it refuses to respect even the most fundamental expectations of scientific investigation—a commitment to objectivity, and gathering and dealing with *all* relevant facts about the topic under investigation.
- By using science as simply a marketing tool, while purporting to respect the norms of research, it is guilty of a thorough lack of intellectual integrity.
- Its “educational” materials about dolphins in fact *mis*-educate because of the false and misleading picture they paint.
- The company ignores and refuses to engage with any scientific research that calls into question its practices. Particularly indefensible from an ethical perspective is SeaWorld's ignoring research that suggests that dolphins are nonhuman persons whose nature makes it impossible for them to flourish in captivity.
- Finally, the company fails to give potential investors adequate warning about the risks they face if they choose to purchase stock in the company.

Many businesses argue that their commitment to ethics is, in fact, a source of their financial success. This essay argues that, in contrast, SeaWorld's ethically indefensible actions—the way it treats dolphins and its dishonesty towards the

general public and potential investors—are major factors in its ongoing financial weakness.