

John Fraser,¹ Diana Reiss, Paul Boyle, Katherine Lemcke, Jessica Sickler, Elizabeth Elliott, Barbara Newman, and Sarah Gruber

Dolphins in Popular Literature and Media

ABSTRACT

This review of how dolphins are portrayed in popular media (including literature, film, television, and music) reveals four themes that may influence public acceptance of current scientific research into dolphin cognition. These themes are: (a) dolphin as peer to humans, of equal intelligence or at least capable of communicating with or helping humans; (b) the dolphin as the representation of a romantic notion of ideal freedom in nature, embodying principles of peace, harmony or love; (c) the dolphin as a naïve, innocent being that is subordinate and in need of human protection; and (d) the dolphin as superior to humans, potentially affiliating with a higher power or intelligence. This review revealed that the use of dolphins in humor reinforced or lampooned the four identified themes, indicating a common acceptance of these themes. The paper concludes with a discussion of the importance of considering popular narratives in the presentation of scientific research results.

Many modern aquariums are striving to discover more effective methods to inform and educate their visitors about the lives of the marine mammals in their facilities. Dolphins, in particular, are a species with a high degree of public familiarity and desirability as a display animal. Aquariums have used

these popular animals in public performances to expand the appeal of their public programs and to promote their conservation missions. Though dolphin shows are popular with the public, actual research into public conceptions of dolphins' lives and the impact of these aquarium performances on that public discourse have not been the subject of empirical study.

Furthermore, the pervasiveness of fictional portrayals of dolphins in popular culture could make it difficult for the general public to distinguish fact from fiction and may pose a barrier for science learning. This review, as part of a 3-year study on the social understanding of dolphin cognition, sought to redress this research deficit by characterizing the themes used to portray dolphins in popular media. The research was intended to aid dolphin researchers and exhibit designers in the framing of their scientific presentations within the public discourse.

Background

This research was motivated by public reaction to scientific findings from a research project at the New York Aquarium that unequivocally demonstrated the self-awareness and complex cognitive capacities of dolphins previously known only to exist in humans and great apes (Reiss & Marino, 2001). The wide-scale media coverage of the story and the incredulity expressed by the reporters covering the topic suggested that the public may not necessarily be willing to accept scientific results at face value. Furthermore, some known characterizations of dolphins as mystical beings suggested that a small minority of the public would not only accept the results but also might exaggerate the implications of these findings beyond the biological and physiological limits of organic life.

It is unclear whether inaccurate portrayals of dolphins affect the public's ability to understand scientific dolphin information. Kellert (1999) looked at dolphins in terms of public opinion about marine animals and their conservation but did not examine how common characterizations influence these opinions, nor whether there were distinct sub-populations based on belief. Prior to Kellert's study, Herzog and Galvin (1997) looked at public beliefs about dolphins in a larger study of perceptions of animals and the belief in animal minds (or BAM). Their study found that most people believe dol-

phins have moderate to high mental abilities; subjects rated dolphins highly in terms of intelligence, consciousness, and capacity for emotion, among other attributes. Herzog and Galvin's study also did not examine where these beliefs originated or whether there was variation in these beliefs. Thus, these studies investigated neither origins nor cultural influences that might have fostered their research participants' opinions—whether variation in social narratives on willingness to accord belief in animal minds existed—or how these beliefs might affect future learning about dolphins.

Two studies of dolphins in popular culture addressed narratives surrounding dolphin cognitive abilities. Bryld and Lykke (2000) assessed the role of dolphins in western social discourse, primarily to reveal a contemporary cosmology that reconciles a continued existence of wildness with dolphins serving as iconographic and mythological mnemonics. Forestell (2002) traces the history of utilitarian and conservation narratives related to marine mammals by reviewing adult literature characterized as new-age, science fiction, or natural history. Forestell's treatment summarizes, in three paragraphs, the master narratives of each category without substantial evidence nor does he address the mutability of these narratives and their potential impact on public beliefs and misconceptions regarding the species. Both studies provide comprehensive references to dolphin presence in literature, but neither analyzes the impact of these narratives on public understanding of the scientific results from dolphin cognitive research.

It was the opinion of the research team that the pervasiveness of exaggerated portrayals of dolphins in popular culture, whether positive or negative, could make it difficult for the public to distinguish fact from fiction and might pose a barrier for science learning. In an effort to develop an effective means to convey science-based evidence about dolphin physicality, mental abilities, and social lives, our research team felt it necessary to understand how the public perceives dolphins, whether there were commonly held misconceptions about dolphins' thinking, and the existence of potential reinforcement for those misconceptions in popular media. This paper represents the first phase of that research, a review of popular media to ascertain the common themes used to characterize dolphins in literature, television, movies, and music to ascertain whether such themes provide reinforcement for common misconceptions.

Preliminary Research

The public can easily access information about dolphins from television shows, films, books, and music in their homes, movie theaters, entertainment centers, and bookstores in most communities. An informal survey conducted by the research team found that 56% of zoo and aquarium visitors reported learning about dolphins primarily from television (Sickler et al., 2006). Other common answers were books, aquariums, and schools (in that order).² The survey also assessed zoo and aquarium visitors' level of knowledge and perceptions regarding dolphins: 60% of the respondents described the word dolphin with positive and affective phrases such as playful, cute, happy, friendly, and peaceful or used words such as intelligent, smart, and communication. These results led the team to question whether the popular representation of dolphins in the media helped contribute to these social stereotypes.

Books and films for the general audience range from real observations to speculation, from facts to fallacies, from myths to misconceptions. Many books appear to represent factual accounts, though science does not necessarily validate the "facts." Worth noting are the popular books of Lilly (1961, 1967, 1975, 1978), who first published his dolphin research in the 1960s. Lilly brought the idea of the intelligent and communicative dolphin to the public and scientific arenas. Lilly (1975) called dolphins the "humans of the sea," describing their complex brains and suggesting that dolphins have their own language. Lilly (1978) took his writing further with speculation that dolphins communicate by telepathy, have a high level of awareness, and have stories and a culture of their own. Lilly's mixture of fact and supposition may have influenced subsequent popular characterizations of dolphins; however, this mixture remains a subject of controversy for the marine mammal research community because many of his claims were made without supporting empirical evidence (Forestell, 2002). The degree to which Lilly's speculations find purchase in popular media has not been assessed, nor has the consistency these speculations have assumed as they are translated by new authors.

There are several popular books on dolphin natural history, behavior, intelligence, and interspecies communication (Griffin, 1992; Linden, 1999; Masson & McCarthy, 1995; Nollman, 1987). These books present readers with

information about dolphin play, their communication or what some call “language” skills,³ mental capacities, and ability to learn by observation and imitation. Unlike Lilly (1961, 1967, 1975, 1978), these books emphasize human-dolphin interactions, how dolphins help humans, symbiotic relationships with fisherman in catching fish, and dolphins saving drowning people (Griffin, 1992; Linden, 1999). Authors often use descriptive phrases in the dolphin literature such as “friend to the sea” (Ackerman, 1991, p. 170), which reinforces the notion that dolphins are social and peaceful animals. Masson and McCarthy (1995) present information and accounts of dolphin behavior and cognitive abilities that are organized into discussions of intelligence and social interactions. Lastly, the animal rights debate has seized on dolphin depictions of sociability and intelligence to vilify the historical use of dolphins in military minesweeping exercises, resulting in an aggressive public relations campaign by the navies of both the former USSR and the United States to rewrite the public script regarding government treatment of these highly intelligent marine animals (Bryld & Lykke, 2000; MSNBC, 2005).

Method

The goal of this study was to investigate the themes popular media uses to portray dolphins (including literature, film, television, and music) and where these portraits might reinforce barriers to public acceptance of scientific findings. This review focused on the portrayal of dolphins in three areas: popular adult and children’s literature, television/film, and music.

A variety of resources were used to locate and identify representations of dolphins in popular media. This review concentrated on works of film, television, music, and literature (including fiction, non-fiction, and humor/satirical writing). These resources, all published since the 1950s, were collected through searches of a variety of databases, including libraries, children’s libraries, online retailer Amazon.com, search engine Google.com, and several online lyrics databases.

This review focused on popular culture references to dolphins, where distribution was widespread enough to influence how the general aquarium-going public understands and thinks about dolphins. Therefore, we primarily evaluated relatively well-known sources. For instance, the movie and television

show *Flipper*, works by author Madeline L'Engle, and songs by musician John Denver were all considered well known to the mainstream public. During our research into these more familiar references, we discovered a variety of more obscure works (particularly in literature and music) that supported the themes unearthed in the popular media; we thus included some of these in our review.

To identify common themes, we grouped literature by general portrayal of dolphins' intelligence and communication abilities. We also looked at when and how dolphins were ascribed values and when they were used as a metaphor. In looking at portrayals of intelligence, we noted whether they were ascribed intelligence as demonstrated by knowledge, complex learning skills, and ability to plan. For communication abilities, we categorized whether they communicated (or "talked"), how they communicated, and the context of that communication, including with whom they communicated (other dolphins, humans, other species). We also noted when values were ascribed to dolphins, such as peaceful/forceful, helpful/unhelpful, friendly/unfriendly, or innocent/knowing. Finally, instances where dolphins were used as metaphors or where poetic license created ambiguous meaning were grouped in a general category of *other meaning*, although no consistency was found in these few items.

In considering metaphor and ambiguity in all representations of dolphins, the team recognized the mutability of language and included any reference that could have layered meanings or dual interpretations in all categories as they emerged. The research team also recognized that the intention of the author does not necessarily indicate acceptance by the reader or listener. This review focused exclusively on the depiction of dolphins in popular media, not whether the meaning achieved public acceptance. The method was intended to frame how dolphins are characterized in the media to identify potential influencers on public opinion and potential factors inhibiting public understanding of scientific results.

Results

In our review of the characterizations of dolphins in popular media the following four main themes emerged:

1. Dolphin as peer to humans, of equal intelligence or at least capable of communicating with humans or helping humans;
2. Dolphin as representative of peace, unconditional love, or an idealized freedom in harmony with the natural order;
3. Dolphin as naïve or innocent, in which they are subordinate and vulnerable; and
4. Dolphin as superior to humans, associated with a higher power or intelligence.

All material reviewed fell into one of these four themes, though some depictions contained more than one theme and some references were ambiguous and could represent two themes simultaneously. In addition, a strain of humorous dolphin characterizations acknowledged and played upon these four identified themes, thus lending support to the validity of the themes.

Dolphin as Peer to Humans

This theme, in which dolphins are represented as equals, friends, and helpers to humans, is by far the most common in popular media. A common feature of these portrayals is that dolphins are presented as creatures that welcome, or even desire, human companionship and act as loyal assistants or protectors of humans. This portrayal is seen in film and television, as well as across a broad range of literary genres, including fiction and non-fiction for both adults and children.

A classic portrayal of the dolphin as friend and assistant to humans is Flipper, a character well known in American culture from film and television.⁴ The theme song, written for the 1960s television series, exemplifies the smart, playful, and friendly characterization of the dolphin as peer to humans:

They call him Flipper, Flipper, faster than lightning.
No one, you see, is smarter than he.
And we know Flipper, lives in a world full of wonder,
Flying there under, under the sea!

Everyone loves the king of the sea,
Ever so kind and gentle is he.
Tricks he will do when children appear,

And how they laugh when he is near!

(Vars & Dunham, 1964)

A rescued dolphin, the Flipper character formed a strong bond with a young boy, could communicate with his human companions through vocalizations and body movements, and could understand human speech in return. With the boy, Flipper willingly acted as companion, friend, and helper. The dolphin, who had agency over his actions and a high level of intelligence, chose to assist and form a relationship with a specific group of humans.

A similar, though more complex, portrayal of dolphins in the roles of peers, companions, and helpers to humans is seen in the film *Day of the Dolphin* (Nichols & Levine, 1973), starring George C. Scott and based on a novel of the same name (Merle, 1969). In the film, a scientist⁵ on a tropical island teaches dolphins to mimic and speak English; the military then abducts the dolphins, plotting to use them for warfare. These dolphins are very similar to the Flipper-like characterization, demonstrating a desire for human companionship, helpfulness, honesty, loyalty, and intelligence. However, they are also capable of complex reasoning, which is not a factor in the more light-hearted *Flipper* franchise. In *Day of the Dolphin*, the dolphins show high-level cognitive processes by recognizing human deception, making a choice between good and evil, and making a choice to defend their bond with the protagonist. Other similar portrayals of dolphin-human partnerships and relationships are found in a variety of non-fiction accounts (Frohoff & Peterson, 2003; Taylor, 2003; Burns, 2003; Weiss, 1995).⁶

In children's literature, dolphins are frequently characterized as benevolent protectors. Dolphins act as saviors to humans (typically children), arriving in times of difficulty to aid, protect, and save the human characters from a variety of threats (DeSaix, 1991; Grover, 1996; Winnick, 1980; Winton, 1998).⁷ These books often present dolphins as instructors or peers of children, conversing and sharing experience with them (Greenburg, 1997).⁸ *The Music of Dolphins* (Hesse, 1996) is a hallmark of this type of depiction, in which dolphins are capable of conversation, protect an orphaned girl, and eventually serve as the child's foster parents.

In children's non-fiction, this theme of the human-dolphin bond and interspecies communication is prevalent, mixed in with biological information about the animals (Cerullo, 1999; Lauber, 1995; Davidson, 1974).⁹ These books

focus a great deal of attention on interactions and highlight friendships between dolphins and humans, ascribing a quality of agency to the dolphins as they take part in these peer-like relationships with people.

To some extent, the prevalence of dolphin-human interactions in children's fiction suits larger, social educational goals of children, appropriate to their developmental concerns. Books that use animal relationships are useful for modeling desired human social relationships. Interspecies relationships are appropriate because children have a tendency to bond with the natural world and seek animal models for social relationships (Sobel, 1996). The use of these relationships in children's stories may be valuable for the developmental needs of children, but the memorable quality of these stories may perpetuate misconceptions about the species. These misconceptions may continue to promote the idea that dolphins have greater affinity for exclusively positive interactions with people than is warranted.

Dolphin as Metaphor in the Popular Media

Dolphins also often appear in popular media not just as characters but as metaphors or interlocutors for messages from nature. The dolphin frequently becomes a literary device used to represent an ideal of peace, freedom, or unconditional love. This presence of dolphins as metaphor—or embodiment of messages from nature—appears to a limited extent in literature; however, it was more common in the lyrics of popular music.

An exemplary depiction of dolphins as peaceful ideals is in the Red Hot Chili Peppers' "Behind the Sun" (Beinhorn, Flea, Irons, Kiedis, Slovak, & The Red Hot Chili Peppers, 1987). Throughout the song, the dolphin is the embodiment and spokesperson for peace, freedom, and love. He is a messenger, communicating these values, as demonstrated by the following lyrics:

My talking dolphin spoke to me.
He spoke to me in symphony.
From freedom's peace beneath the sea,
He looked to me eyes full of love,
Said yes we live behind the sun.

The Red Hot Chili Peppers' lyrics in general represent a romantic, psychedelic/spiritual tradition common in the rock genre that does not connote

literal capabilities of a real dolphin, but the choice of a dolphin in this text assumes that the species can be linked to such messages without undermining the social critique that underlies the counter-culture lyrics of the band. The association of the dolphin with the word symphony reinforces the concept of harmony in a convivial social group as well as an idealized, harmonic, natural rhythm. Furthermore, the concept of the dolphin as an interlocutor for freedom is underlined by the assumed anthropomorphic interpretation of a dolphin's facial expression as revealing "eyes full of love."

The dolphin's connection to the sea, lifestyle, and swimming behavior seems to be part of its use as a symbol of freedom and independence. Music from artists such as Prince (1995), The Red Hot Chili Peppers (Flea, Irons, Beinhorn, Kiedis, Slovak, & The Red Hot Chili Peppers, 1984), and Alisha's Attic (1998) all use the dolphin for this purpose.¹⁰ For example, in "Dolphin," Prince (1985) alludes to the dolphin's freedom:

U can cut off all my fins,
But 2 your ways I will not bend.
I'll die before I let U tell me how 2 swim.
And I'll come back again as a dolphin.

This lyric denotes that dolphins are morally superior to human hegemony, willing to accept martyrdom in the face of human assault. By embedding the narrative in a reincarnation story, the dolphin is characterized as having an ideal existence because its next life form is identical to that given up through human hubris. The dual meanings are evident in this lyric in the use of the number 2. This number brings attention to the inter-species complexity of dolphins as messengers who understand that human-dominated manners of being may be dualistic and hold complex meaning that is not fully developed.

Another common metaphorical use of dolphins is as a symbol of unconditional, pure love. Artists such as Olivia Newton-John (1981), Live (1999), and Emmylou Harris (2000) have all employed dolphins as more literal representatives of an ideal and peaceful love.¹¹ Some artists with more narrow market appeal, such as Renaissance (Dunford, Haslam, & Renaissance, 2001) and China Crisis (1983) have similarly used dolphins as a symbol of a knowing, unconditional, and admirable love.¹² Newton-John's song "The Promise (The Dolphin Song)" (1981) is an exemplar of these characterizations:

They deserve to be treasured as a source of love.
In their minds there are answers
And in time we will know
What the truth is about all we don't know.
They have no room for hatred
Though they've suffered much pain.

Finally, dolphins serve as a signifier of peace in both music and literature. John Denver's song "Ancient Rhymes" (Denver & Samples, 1990) depicts a baby carrying the message of peace and hope from a dolphin.¹³ Similarly, in L'Engle (1980), dolphins are characterized as interlocutors for the spiritual principles of peace found in nature when they have contact with humans. The story's heroine finds peace, clarity, and a sense of her place in the universe—thanks to the experience of swimming and interacting with dolphins in the wild.

Public acceptance of this peace, harmony, and freedom discourse could pose a significant barrier to understanding scientific research regarding collaborative predation by dolphins, anti-human actions, or aggression responses.

Dolphin as Naïve, Innocent, Subordinate, or Vulnerable

In contrast to characterizations of dolphins as intelligent or peers of humans, some children's literature and music lyrics subordinate dolphins as naïve, innocent, and vulnerable creatures. These depictions imply a superiority of humans to these animals, giving humans responsibility over the care, protection, and well being of dolphins. Although dolphins are still frequently idealized as innocent, peaceful, and playful creatures, inherent in this theme is that the humans are the ones with agency and decision-making ability, while the dolphins are subordinate, often trainable, creatures.

One such example of the innocent, naïve dolphin is in Orr (1993), a children's picture book. In this book, tourists and islanders swim with a lone dolphin in the wild.¹⁴ This story briefly portrays the dolphin as dangerous, frightening swimmers with rough play and injuring an islander. However, the book ultimately does not discourage interaction with the dolphin. Instead, both the dolphin and islanders receive training on how to interact safely with one another. Throughout this story, the dolphin is portrayed as lonely, playful,

and naïve, because the harm the dolphin causes to people is attributed to not knowing better. The dolphin is in need of understanding, guidance, and training from humans in order to interact safely with them. In this story, the dolphin is stripped of agency and not accorded the right to have malice toward humans who may have also treated the mammal badly.

Dolphins' need for human guidance further reinforces characteristics of innocence and vulnerability in stories where a dolphin is imperiled. These books tend to focus on concepts of altruistic caring for the animals and human behavioral modeling. In one example, dolphins are denied agency and selfhood but accept all human control, performing tricks to demonstrate their return to health and gratitude for human control.¹⁵ Children's literature, both fiction and non-fiction, seems to reinforce the concept that dolphins have need of human care (Grover, 1990).¹⁶ Furthermore, some authors use dolphins to provide lessons on the principles of care-taking (Rorby, 1996).¹⁷ Vigor (1993) is exemplary of this portrayal of dolphins. Three siblings are tasked with caring for an injured dolphin, making humans the necessary source for the solution. The dolphin has a newborn baby, further exaggerating the perilous, Bambi-like vulnerability of the species. The children learn about the basic needs of their charges and keep 24-hour vigils until the animals can be released from the cove, suggesting that—without human intervention—innocent dolphins are incapable of survival. When children are presented as caretakers, the animals become infantilized, incapable of personal agency and in need of human dominion.

Many of these depictions use dolphin behavior or tricks as evidence of naiveté or lack of conscious awareness of the frightening reality found at sea. Innocent, playful dolphins feature prominently in the song "Like Thunder" (Alphaville, 1999): "And if I was a dolphin, I'd be playing all the time." The suggestion that play is a constant activity parallels the common phrase, "play is the work of children," an idea that suggests both innocence and focused consciousness. In a similar vein, Benchley's (1970) children's book portrays the protagonist dolphin as clever and playful, yet characterizes his behaviors as "tricks," trained behaviors to receive attention and affection.

The innocence narrative has also been useful for composers to introduce a theme by pathos as they critique human behavior toward aquatic wild animals. Owen's "Is That What it's All About?" (1996) suggests that dolphins

caught in nets are innocents destroyed by human arrogance. "Men in Helicopters" (Belew, 1990) reinforces this theme with the lyrics:

Wouldn't it be something
For the men killing dolphins
To be caught up by their necks
In their greedy fishing nets.

In the song, the listener also hears the dolphins' reaction:

The dolphins and the whales still left alive
Cry to the stars in the deep blue night
"There's nowhere to hide.
The people on earth will not be denied."

Although this alignment of the destruction of wild animals with a violation of a romantic peaceful nature is consistent with pastoral literary traditions, according these values to sea creatures is a contemporary interpretation that expands the romantic traditions into the frontiers of the sea. As a protest song, these lyrics appear to interpret directly the Japanese dolphin hunt, where entire dolphin pods drown in fishing nets as they are hauled into a ship. The lyricist interprets their vocalizations as innocent cries of self-interest and fear of personal loss of life rather than remorse that would be expected of a social species experiencing the loss of loved ones.

Public acceptance of these narratives could pose a barrier to understanding the complexity of the social learning and pre-planned actions witnessed in dolphin behavior because these narratives suggest dolphins act purely on instinct without pre-planning or collaborative decision-making.

Dolphin as Superior to Humans

Another significant theme presents dolphins as superior to humans in intelligence, communication abilities, and/or spiritual purpose. Many writers since Lilly have proposed that dolphin vocalizations are language. These depictions tend to idealize this language as a mediating skill since the narrative of innocence and peacefulness are also present. Although the sources that fall within this theme are quite varied, all of them attribute to dolphins

specific abilities and competencies beyond the capabilities of humans. Such abilities include inter-species communication, telepathy, extraterrestrial communication, healing powers, and spiritual powers.

The most widely distributed story of dolphins as superior beings with the ability to communicate with aliens is the science fiction television series, *SeaQuest: DSV* (O'Bannon, et al., 1993-1996). The events of this series took place on a sea vessel staffed by a team of humans. A dolphin character, Darwin, lived on-board the ship and assisted the crew. Darwin was able to talk to humans with the aid of a computer but was also given the unique trait of being able to communicate with extra-terrestrials.

Similar to *SeaQuest*, Grimwood (1995) portrays a dolphin who communicates with a scientist. This dolphin has a unique sentience that allows him to deliver warning of an impending global catastrophe. Both of these fictional examples suggest that sufficient information about dolphin behaviors allows writers some credibility in ascribing attributes to dolphins that in other animals would be humorous. Furthermore, these interpretations suggest that dolphins are uniquely qualified to be interpreters of natural phenomena for humans, retaining a deep connection with natural systems, an ability to predict global environmental change, and having an altruistic interest in protecting humans from danger.

In popular literature, this theme is supported by a significant group of non-fiction books whose authors claim and support claims for unique, super-human abilities of dolphins. In these examples, dolphins are most frequently depicted as spiritual intelligences, agents of a higher power, spiritual guides, or communicators with extraterrestrial beings (Wyllie, 1992; Wyllie, 2001; Robbins, 1997; Nollman, 1985).¹⁸ Although these books emphasize the authors' experiences with, and beliefs about, the healing and communication abilities of dolphins, they are not grounded in empirical study.

In music, dolphins also appear in a range of similar characterizations. These songs tend to imply meanings that include both superiority and a pacifist agenda. In these songs, dolphins become guides toward peaceful sanctuary. One well-known variation on this theme is John Denver's song "Calypso" (1975), which includes the lyrics, "Like the dolphin who guides you, / you bring us beside you, / to light up the darkness and show us the way . . ."

These lyrics reinforce the dolphin as a spiritual representative of compassion or altruistic love covered earlier in the review, but the more dominant meaning places emphasis on the dolphin as a simile for a god/savior whose instructions lead wayward souls out of darkness and despair toward enlightenment. Similarly, the words in "Bright Blue Rose" (McCarthy & Black, 1991) compare the human to a superior dolphin: "For she is the perfect creature, / natural in every feature. / And I am the geek with the alchemist's stone." An example of dolphins presented as far superior to humans is found in the song by Enigma "The Dream of the Dolphin" (Farstein & Enigma, 1994): "... In every color there's the light / In every stone sleeps a crystal. / Remember the Shaman when he used to say: / 'Man is the dream of the dolphin.'"

It would appear, from the frequency of these references, that dolphins are commonly accepted as associated with peacefulness. The examples included in this review demonstrate that the use of dolphins as a spiritual guide or avatar of superior intelligence is often combined with the peace metaphor to criticize human behavior and idealize the ocean environment. Furthermore, these examples place dolphins within a romantic narrative of divine human selection. These animals appear to validate human uniqueness, but this altruistic, peaceful intent attributed to dolphins may mitigate developing a fully formed understanding of the complexity of dolphins' emotional lives and actions. Such narratives may foster exaggerated expectations about dolphin capabilities that would hinder the construction of scientifically based knowledge.

Humorous Play on Common Narratives about Dolphins

The authors of this review recognize that humor contributes to the evolution of social discourse and potentially undermines the hegemony of the cultural narratives established by the more serious treatment of dolphins in the four categories identified in this review. The presence of humorous treatments reinforced significant presence of the identified discourses and demonstrated that each of these narratives is subject to speculation. Furthermore, the presence of humor lampooning each of the discourses suggest that there may be public discomfort with the degree to which these claims may be scientifically validated or how these discourses challenge popular belief regarding the distinct, dualistic separation of humans from other species.

A characteristic example of mockery is Adams (1979; 1980; 1982; 1985), who plays on the human understanding of intelligence and the idea of dolphins as connected to a higher extraterrestrial power. Adams wrote the satirical science fantasy epic in a four-book “trilogy,” where dolphins are the first extraterrestrials to leave the planet but are polite enough to leave a note thanking humanity for “all the fish.”¹⁹

Mockery can also be found in music. The band Corky and the Juice Pigs makes fun of the portrayal of dolphins as anything other than wild creatures.²⁰ In their song “Dolphin Boy” (1994), they tell the story of a boy who swims with dolphins, “the mammals he loved.” However, the dolphins did not help as may be expected. When severely injured by a boat, the boy asked the dolphins for help, and “The dolphins said simply, ‘e! e! e!’ and they nibbled the pieces as they drifted free. Goodbye to the dolphin boy.” Although Corky and the Juice Pigs do not represent a widely known comic band, their choice of subject suggests a highly controversial challenge to fictional portrayals. The intent to shock even lampoons the notion that dolphins are “humans of the sea” by subverting the altruistic, peaceful love narrative by suggesting that dolphins are merely instinctive carnivores without regard for the romantic notion that humans and dolphins have a natural affinity and concern to protect each other.

Humorists often reinforce the theme of the dolphin-as-peer, or the dolphin as a helpful companion, like Flipper (The Onion Staff, 2004; McIntyre, 1998).²¹ There are also many spoofs of dolphins as our mental equals (Piraro, 1999; Larson, n.d.).²² These jokes sometimes put people at the mercy of the dolphins, expressing the idea that if dolphins are as smart as we are, humans should be concerned (Hickey, n.d.; Ryan, n.d.),²³ as with *The Onion’s* headline, “Dolphins Evolve Opposable Thumbs. ‘Oh Shit,’ Says Humanity” (Hanson, 2000).

Some cartoonists also expand the theme of dolphin-human friendships (Williamson, n.d.; Bennett, n.d.; Hannaford-Hill, n.d.)²⁴ and the therapeutic effects of swimming with dolphins (Baker, n.d.).²⁵ One example that toys with ideas of interspecies interaction depicts a man and a dolphin sitting in a bar, each with a drink and a cigarette. The man is saying to the bartender, “I used to want to swim with Dolphins but it turns out sharing a beer and a fag is even more fun” (Jolley, n.d.). In these cases, the cartoons suggest that

humans are a bad influence on peaceful, naïve dolphins and that interspecies communication may not be in the best interest of either species. They also suggest that if the scientific results are true and dolphins have social structures similar to humans, these social structures would, of necessity, have the same vices as human society. It has been proposed by primatologist de Waal (2001) that this type of mockery, in which animals are placed into human contexts, mimicking uniquely human activities, may also reflect an underlying desire to separate and re-emphasize human uniqueness from other animals. Through the humor of such absurd situations, humans can “laugh away any doubt we might harbor about ourselves,” particularly when faced with “animals similar to us” (p. 4).

The theme of the peaceful dolphin also exists in humor. These cartoons may ask readers to think about dolphins in a contrary manner—as tough and mean, possibly hiding aggression under their pleasant exterior (Turner & Karl, n.d.-b.).²⁶ The aggressive dolphins characterized in cartoons stand in contrast to the common, peaceful characterization, suggesting that current social narratives may not fully appreciate the complexity of dolphin societies and the detrimental impacts of being naïve in engaging in interspecies contact where humans are vulnerable. This contrast acts as an underlying acknowledgment of a strongly held, romantic, social bias about dolphins as peaceful and the humorists’ desire to invert the overly spiritual, new-age representation of dolphins as happy creatures.

When innocent dolphins are seen in cartoons, they appear in two ways: as acrobats or as animals in need of protection. A docile, playful dolphin is often found in comics that use the performing dolphin to tell a joke about a human situation (Fist, n.d.; Williams, n.d.; Bryant, n.d.; Hagen, 2003).²⁷ Other comics portray dolphins as vulnerable creatures that are at the mercy of humans and/or in need of our protection. There are those that make fun of humans and human creations with deleterious effects on dolphins—sometimes playing on dolphins and tuna nets (Hagen, 2002; Turner & Karl, n.d.-a),²⁸ other times on pollution or species endangerment (Lynch, n.d.-a; n.d.-b).²⁹

The assessment of these humorous characterizations of dolphins appears to poke fun at the seriousness with which humans compare themselves with dolphins. These humorous depictions appeared to parallel the four themes

identified in our review, with some critiquing more than one narrative at a time. These cartoons can be seen as an attempt by humorists to prompt readers to consider alternative narratives about dolphins.

Conclusion

The artists who have used dolphins to create meaning in their work appear to draw from a limited group of themes. The four themes presented in this paper provide insight into the metaphoric use of, and common traits attributed to, dolphins in mainstream culture and into how these metaphors and characterizations may reinforce biases about the species. The commonality of these themes suggests that there are strong social stereotypes about dolphins and dolphin behavior. Though this analysis does not explore actual public belief, this information is believed to have a strong influence on any discussion of dolphin attributes and mental capabilities.

These results suggest that there are significant, positive characterizations of dolphin social interactions with humans. Though these narratives suggest that dolphin cognitive abilities range from naïve instinctive behavior, through intentional altruism, to interspecies communication, the humorous portrayals suggest a social desire among some people for more scientifically grounded explanations of how dolphins are intelligent and the meaning of their interactions with humans. Some of these characterizations may be far-fetched, but further research into social beliefs regarding dolphins would resolve whether society accepts these narratives.

The consistency of these themes in popular media appears to parallel the presence of these same biases in public surveys about dolphins as a species (Barney, Mintzes, & Yen, 2005; Kellert, 1999; Herzog & Galvin, 1997; Sickler et al., 2006). Although it is not possible to determine a causal relationship between the fictional portrayal of emblematic animals and social narratives about these same species, further investigation of the impact of fiction on species stereotyping seems warranted. Based on these findings, we have pursued further inquiry into the public perception of dolphins, including a study of the range of social narratives on understanding dolphin intelligence, how common each narrative is, and how these narratives may influence visitors' understanding of science (Sickler et al., this issue). We hope that the results

of this research will begin to inform and direct the way in which dolphins are presented to the public in aquariums and other settings.

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* John Fraser, Wildlife Conservation Society, New York

Notes

- ¹ Correspondence should be addressed to John Fraser, 2300 Southern Blvd, Wildlife Conservation Society, Bronx, NY 10460. E-mail: jfraser@wcs.org
- ² Interviewees were presented with the question, "Where did you find out about dolphins?" Answers frequently included, maybe, probably, and I guess. Therefore, responses may not be entirely accurate. It should also be noted that "television" was not specified to mean fictional or scientific programs.
- ³ It is noted that some of the claims regarding linguistics do not demonstrate the syntactical aspects of language and may be misleading to the non-scientific reader.
- ⁴ 1) *Flipper* [motion picture] (Clark & Tors, 1963)
2) *Flipper's New Adventure* [motion picture] (Benson & Tors, 1964)
3) *Flipper* [television series] (Tors, 1964-1968)
4) *Flipper* [motion picture] (Shapiro & Hool, 1996)
5) *Flipper: The New Adventures* [television series] (Coote, Goldwyn, Jr., Hayes, Leder, & Wallengren, 1995-2000)
- ⁵ Adult characters who develop advanced interaction and communication with dolphins are often marine biologists, park rangers, computer specialists, or other non-specified "scientists." This is the case for the adult characters in three out of four *Flipper* productions, *Day of the Dolphin*, *Into the Deep*, *SeaQuest*.
- ⁶ 1) *Between Species: Celebrating the Dolphin-Human Bond* (Frohoff & Peterson, 2003)
2) *Souls in the Sea: Dolphins, Whales, and Human Destiny* (Taylor, 2003)
3) *Lore of the Dolphin: Tales of Our Connection Through the Ages* (Burns, 2003)
4) *Quest for the Dolphin Spirit* [motion picture] (Weiss, 1995)
- ⁷ 1) *The Girl Who Danced with Dolphins* (DeSaix, 1991). Girl saved by dolphins; she dreams of dancing with dolphins.
2) *Dolphin Treasure* (Grover, 1996). Dolphin saves boy in storm.

- 3) *Sandro's Dolphin* (Winnick, 1980). Dolphins help fishermen catch fish.
- 4) *The Deep* (Winton, 1998). When dolphins come to her beach, a little girl who is afraid of deep water becomes unafraid.
- ⁸ *How to Speak Dolphin in Three Easy Lessons* (Greenburg, 1997). Boy communicates with dolphins; dolphins help him solve a crime.
- ⁹ 1) *Dolphins* (Cerullo, 1999). Dolphin behavior, dolphin-human interactions and how each species is good for the other.
- 2) *The Friendly Dolphins* (Lauber, 1995). Dolphin-human friendships, dolphin biology, dolphin research.
- 3) *Nine True Dolphins Stories* (Davidson, 1974). Dolphin-human interactions both in the wild and in captivity.
- ¹⁰ 1) "Green Heaven" (Flea, Irons, Beinhorn, Kiedis, Slovak, & The Red Hot Chili Peppers, 1984): "Cause dolphins just-a like to have a lot of fun / No one tells them how their life is run."
- 2) "Me and the Dolphins" (Alisha's Attic, 1998): "Soul fishing under the waves / Like a freedom . . . / Something here feels so Inviting / Me and the dolphins . . . / what a thought."
- ¹¹ 1) "The Dolphin's Cry" (Kowalczyk & Live, 1999): "Love will lead us, she will lead us / Can you hear the dolphin's cry?"
- 2) "My Baby Needs a Shepherd" (Harris, 2000): "I pray she's ride a dolphin, / but she's swimming with the shark, / out where no one can save her."
- ¹² 1) "Animals in the Jungle" (China Crisis, 1983): "dolphin love."
- 2) "Dolphins Prayer" (Dunford, Haslam, & Renaissance, 2001): "Dolphins have been here . . . / Teaching the world of love . . . / Free . . . / We send you love / We send you on your way / Sacred in Peace."
- ¹³ "Ancient Rhymes" (Denver & Samples, 1990): ". . . the songs you learned in dolphins lair, / giving hope to life as all we must, / and teach us how their grace to share."
- ¹⁴ It was expressed as unusual for the dolphin to prefer socializing with the islanders to other dolphins.
- ¹⁵ *A Dolphin Named Bob* (George, 1996). A very sick dolphin is cared for by the staff of a an aquarium; the dolphin's baby becomes the aquarium's performing star later years.
- ¹⁶ *Dolphin Adventure* (Grover, 1990). An autobiographical account of a diver who interacts with a group of dolphins and saves their baby.
- ¹⁷ *Dolphin Sky* (Rorby, 1996). A confused and alienated dyslexic girl befriends and rescues a mistreated captive dolphin. In her ill-informed attempt at the rescue she nearly strands two dolphins.
- ¹⁸ 1) Two books by Timothy Wyllie: *Dolphins, ETs and Angels* (1992), and *Adventures among Spiritual Intelligences: Angels, Aliens, Dolphins, & Shamans* (2001).

- 2) *The Call Goes Out: Messages from Earth's Cetaceans: Interspecies Communication* (Robbins, 1997). "... a collection of messages channeled by Diane Robbins from cetaceans . . . how they work with extra-terrestrials, and how humans are interfering with their unique mission" (quote from amazon.com).
- 3) *Dolphin Dreamtime: The Art and Science of Interspecies Communication* (Nollman, 1985).
- ¹⁹ The series includes four books: *The Hitchhiker's Guide to the Galaxy* (1979); *The Restaurant at the End of the Universe* (1980); *Life, the Universe and Everything* (1982); *So Long, and Thanks for All the Fish* (1984).
- ²⁰ The lyrics in "Suzanne" (Corky and the Juice Pigs, 1993) say, "I am a dolphin; I am a squirrel; I am a beast who lives beneath the waters."
- ²¹ 1) "Boy, Dolphin, No Longer on Speaking Terms". (The Onion Staff, 2004).
 2) *When Bud grows up and joins the Coast Guard* (McIntyre, 1998). Cartoon: Flipper's young friend Bud as an adult Coast Guard; Flipper helping him work.
- ²² 1) Untitled (Piraro, 1999). Cartoon: researcher at door, sees dolphins at his computer; dolphin says, "Good morning, Dr. Sullivan. We were just reviewing your files and couldn't help noticing you could use some help on your research regarding dolphin intelligence." 2) Untitled (Larson, n.d.). Cartoon: researchers monitoring dolphin sounds. "Matthews . . . we're getting another one of those strange 'aw blah es span yol' sounds."
- ²³ 1) *Ocean levels are rising faster than expected so world domination could be sooner than later.* (Hickey, n.d.). Cartoon: dolphins depicted holding a "Human-Watch Conference."
 2) *Wake up—the dolphin has stolen our palm tree* (Ryan, n.d.). Cartoon: humans on a deserted island.
- ²⁴ 1) *I told you not to go swimming with humans* (Williamson, n.d.). Cartoon: dolphin has gone swimming with humans and has returned tattooed and pierced.
 2) *Stressed dolphins* (Bennett, n.d.). Cartoon: humans and dolphin on couch watching television; caption says, "Stressed dolphins find it therapeutic to watch TV with humans."
 3) *Hi there, can I get you a drink?* (Hannaford-Hill, n.d.). Cartoon: Man hears on television that dolphins have sex for pleasure; he later flirts with a female (made-up, purse-carrying) dolphin in a bar.
- ²⁵ 1) *But Darling, you always wanted to swim with dolphins . . .* (Baker, n.d.). Cartoon: Cruise ship sinking, woman surrounded by toothy dolphins while frantically reaching for lifeboat.
- ²⁶ 1) *Don't let those perpetual smiles fool ya' Eddy. These guys mean business* (Turner & Karl, n.d.-b). Cartoon: sharks and dolphins playing pool.
- ²⁷ 1) *You've been letting him watch Flipper again, haven't you?* (Fist, n.d.). Cartoon: Couple talking about pet fish, as it flips above its fishbowl.

- 2) *Oh, you mean those dolphins* (Williams, n.d.). Cartoon: neighbors with performing dolphins in backyard.
 - 3) *Keeping up with the Joneses* (Bryant, n.d.). Cartoon: couple watching neighbor feed backyard dolphin say, "Because we've built a koi pond, them next door have to go one better."
 - 4) *Jumping dolphin hits a palm tree* (Hagen, 2003). Cartoon: dolphins jumping in sea; one on small Island with bump on head from palm tree.
- ²⁸
- 1) *It's a Jungle out There* (Hagen, 2002). Cartoon: two dolphins at net with "Caution Tuna Net" sign. Dolphin says, "Sometimes I think that men imagine us smarter than we really are . . . What on earth does that mean? . . ."
 - 2) *Dolphin caught In tennis net* (Turner & Karl, n.d.-a). Cartoon: dolphin caught in net between two tennis players.
- ²⁹
- 1) *Isn't that just like Kevin, never thinking of himself* (Lynch, n.d.-a). Cartoon: koala marching with sign that says, "Save the Dolphins."
 - 2) *Dolphins Only Began Jumping out of Water After we Threw Stuff in it* (Lynch, n.d.-b). Cartoon: dolphins jumping out of polluted water, spitting.

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