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Analysis of Communication of Animal Welfare and Animal Rights in Aquariums

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Introduction

Writers and writing within the scientific discourse community are greatly shaped by the media that they need to produce, what the media consists of, and whom the media needs to reach. Discourse communities are areas of rhetorical context, yet are often narrower than cultures as a whole. Within discourse communities, loose community-based ideals and norms can influence how writing within that community is done. When analyzing a discourse community, the members of the discourse community are the most important factor, not the audience. The expectations shared by the members of a discourse community provide for a sense of belonging. These expectations are shown in the work produced by the discourse communities, which are conditioned and formed by members of the community.

Discourse communities require oral and written modes of communication that affect the purpose of the media produced, roles for writers, and specific genre conventions that are defined based on the communicative situation related to the topic being covered (Beaufort, 1997). These discourse communities are the foundation for efficient communication of information within fields. Without a scientific discourse community, the research that scientists do to understand the surrounding world and try to improve it would never be seen and engaged with by other scientists. Scientific discourse is built on accountability and factual evidence. At the heart of scientific discourse is the genre of the experimental report, since it provides vital evidence that supports this accountability (Bazerman, 1988, 2000). Furthermore, Montgomery (2014) states, in reference to scientists, “Communicating is our life’s work—it is what determines our presence and place, a shared reality in the world” (p. 2). This statement shows that because communication is so important in creating and sharing science, being a good scientist requires one to also be a good communicator. As Montgomery (2014) elaborates, “To a large degree, your reputation will rest on your ability to communicate,” (p. 4). The stronger one’s scientific writing is, the more effective one’s impact in science will be.

As one example of a scientific discourse community, animal welfare experts communicate across many types of media. For members of the aquarium animal

welfare discipline, an immense amount of communication takes place within this scientific discourse community composed of aquarists and other scientists, as well as among members of this discourse community, advocacy groups, and the general public. Depending on an expert's particular argument regarding aquarium animal welfare and what audience they are addressing, the act of communication takes place in one of many different genres.

The use of specific genres provides scientists and writers with a sense of community, since discourse communities often focus on specific genres. Genres are also flexible categories that are continuously evolving in terms of their purpose and form, so animal welfare experts are always learning how to better communicate with one another and the public (Reiff & Bawarshi, 2016). Scientific articles are first addressed to the scientific discourse community and their targeted audience is mainly scientists and students of science. Science is a process that largely focuses on accountability and scientific papers are a great source of that accountability since they provide detailed evidence of experiments performed (Bazerman, 1988). Policy documents, such as "Caring for Wildlife: The World Zoo and Aquarium Animal Welfare Strategy," are also often used in zoos and aquariums. This document is aimed towards zoos and aquariums with a targeted audience of those in the scientific field, focused on animal welfare. Despite not being a scientific article published in a journal, the document still follows the specific genre standards for an academic paper set by the scientific discourse community. It contains an introduction, literature review, and organized layout with section heading labels ("Caring for Wildlife," 2016).

In this paper, I will analyze the differences in communication styles and genres in two different cases. Each brought the scientific discourse community of animal welfare experts into contact with the animal rights discourse community, exposing both challenges and opportunities regarding how animal welfare experts communicate with others within and beyond their own discourse communities.

Animal welfare and animal rights may seem similar but are vastly different topics. Animal welfare is scientifically based, while animal rights is not. Aquarists and other scientists studying animal welfare focus in their communication on how an animal is coping with the conditions in which it lives. The topic of animal rights isn't based on science but rather on one's ethical philosophy. The animal rights discourse community focuses on the premise that animals should not be viewed as clothing, food, entertainment, property, or research subjects. The common goal of this discourse community is to accomplish things such as getting animals out of captivity, research labs, zoos, and aquariums as well as eliminating animals from clothing and diets.

Whether or not aquariums are ethical can be seen as a debatable and even controversial topic. Many people have fond memories of visiting aquariums as children and being highly entertained and inspired by witnessing dolphins performing marvelous tricks, viewing exotic tropical fish, or participating in

touch-tanks filled with stingrays or starfish. However, the welfare standards that allow for having such animals on display are often questioned by aquarists and other members of the animal welfare discourse community. This issue is debated across a range of media, such as journal articles, webinars, and conference presentations. Animal welfare standards are often discussed in different ways depending on the purpose. There can also be misconceptions regarding these standards that are falsely communicated by people such as animal rights activists, and often aquarists and other members of the animal welfare discourse community try to counter these false claims through different genres, such as magazine articles, conferences, documentaries, or in some cases the news. Meanwhile, animal rights activists often share ideas about moral ethics with one another and the public through social media posts, protests, conferences, magazine and newspaper articles, and documentaries, such as the widely seen 2013 documentary *Blackfish*, produced by Magnolia Pictures and CNN Films (Cowperthwaite, 2013).

Cases

The communication of animal welfare standards and animal rights in aquariums is a wide and complex topic. To further examine the communication of this topic, I analyze videos, personal communications, and texts that represent differences in viewpoint and source of information between the animal welfare and animal rights discourse communities. Two different debates around the documentary *Blackfish* and a study regarding cyanide fishing by Breen et. al (2018) are analyzed in depth to better understand how communication styles vary across these two discourse communities and what these communication styles mean for how scientists can better communicate with the public to challenge false or unscientific notions regarding animal welfare.

The Blackfish Controversy

The film *Blackfish* covered the tragic death of SeaWorld trainers, including Dawn Brancheau, who was killed by the orca Tilikum. Other trainers' stories featured in the documentary were those of Tamarie Tollison, Alexis Martinez, and Ken Peters. The documentary discusses the issue of keeping animals, specifically orcas, for entertainment. The film claimed that due to being kept at SeaWorld in captivity, Tilikum was driven into a state of psychosis. This powerful documentary caused the already hot topic of animal rights in the aquarium industry to flare up, which resulted in many consumers boycotting and protesting SeaWorld. Many of the businesses SeaWorld partnered with at the time were also boycotted, such as Southwest Airlines, which had a plane with an image of an orca on it. Many musicians, such as Trace Adkins and Willie Nelson, also backed out of SeaWorld's "Bands, Brews, & BBQ" concert series in response to the documentary (Kuo & Savidge, 2014).

Blackfish received close to 21 million views on its CNN premier (Kuo & Savidge, 2014). The documentary was and still is extremely accessible, available for viewing on many popular streaming services. Due to the accessible nature of the documentary, it was circulated very quickly throughout the general public. The documentary was also very easy to understand, as opposed to a scientific journal article or other genre directed towards scientists. It was also a very compelling film, featuring footage from SeaWorld, the call to the Orange County Sheriff's Department when a trainer had been killed by a whale, and many interviews with people who were involved with SeaWorld and the tragic death of Dawn Brancheau.

Many aspects of the film directly appealed to the audience's emotions. For example, the film begins immediately with the 911 call made to Orange County Sheriff's Department after a whale killed one of the trainers. This is extremely compelling to the audience, since it makes the audience have sympathy for the trainer; it also makes the audience anxious to find out how the whale could have killed the trainer. The dramatic start to the film captures the audience's attention early and already creates a bias against SeaWorld. The documentary was a widely seen film that enabled information to spread quickly, and with it the controversy over the ethics and practices of animal welfare in aquariums was also spread extremely quickly by animal rights activists.

Blackfish played a large part in the spread of information about the ethics of aquariums. However, much of this information that was so widely spread regarding animal welfare of cetaceans in captivity was false information spread by animal rights groups. Dr. Andrew Rhyne, an associate professor of marine biology at Roger Williams University in Bristol, Rhode Island, specializes in aquaculture, aquariums, and larval ecology. When asked his opinion on *Blackfish* during a February 19, 2020, interview, his reply was, "It is not accurate. It is almost all propaganda." Rhyne expressed that there is little to no data in the documentary to support the claims that were made. However, he believes that by SeaWorld putting up highly intelligent animals for public display, the public began to think of SeaWorld as a circus, and that is why *Blackfish* was created by animal rights activists. Rhyne went on to state that animal rights activists creating the film presented a huge conflict of interest and resulted in an overall lack of scientific evidence to support the claims made by the film. He compared animal rights activists producing a documentary on animal welfare at SeaWorld to the tobacco industry doing an "honest" study on health.

At the same time, Rhyne believed that there was a huge lack of protocol for situations when an animal displayed dangerous behavior at SeaWorld. He said that at any other zoo or aquarium, if an animal had behaved that dangerously towards a human, the animal would have been euthanized, similar to the incident involving Harambe the gorilla at the Cincinnati Zoo in 2016. Rhyne also stated that failing to put a protocol into place for dangerous incidents like the death of Dawn Brancheau and the other SeaWorld trainers implied an interesting

corporate stance since it showed that SeaWorld valued the lives of their whales over human life, as the whales were major corporate assets and SeaWorld would rather risk a human life over losing a whale. Now, SeaWorld can raise the floor of the main arena fairly quickly in case of an emergency. Rhyne also said that this documentary greatly shaped zoos and aquariums nationwide, due to this highly persuasive documentary.

In response to *Blackfish*, many animal welfare experts publicly countered the documentary, claiming that it was an inaccurate representation of animal welfare standards and ethics. Likewise, SeaWorld and many of its trainers spoke out against the documentary, insisting that SeaWorld takes utmost care of its animals and that the documentary is unfair, misleading, and exploits the huge tragedy of the passing of Dawn Brancheau and other SeaWorld trainers (Kuo & Savidge, 2014). These conceptions in the animal welfare industry are often countered by leading experts in the field, through magazine articles, scientific papers, interviews, news stories, and many other forms of communication.

Jack Hanna, an American zookeeper and director emeritus of the Columbus Zoo and Aquarium was interviewed on the misconception surrounding the tragic death of Dawn Brancheau, whom he knew personally. In this interview, he defended SeaWorld's policies and expressed that SeaWorld takes excellent care of their orcas, all while contributing significant amounts of research towards marine animals and educating the public. He also explained that 99% of animals in zoological parks are from other zoos and that almost all of the whales in SeaWorld were born there, and therefore are not taken from the wild and brought into captivity. He stated that SeaWorld spent millions of dollars in rescuing orcas and that the animals seem "very happy." He also stated that "we do everything we can for the safety of our animals and visitors first" and that the animals at SeaWorld were very well taken care of (CBS News, 2010). Jack Hanna was an excellent interview choice for this popular news station to broadcast animal welfare information aimed at the public since Hanna is a well-known public figure due to many television appearances, and therefore, since many members of the general public know of Hanna, this boosts public trust in his statements.

The Cyanide Controversy

Misconceptions in this field are also countered through magazine articles, such as a 2018 *National Geographic* article by Ret Talbot, an independent writer and journalist who covers fishery and ocean issues focusing on sustainability and science. Talbot does not consider himself to be a part of any activist community and therefore considers his work unbiased (R. Talbot, personal communication, January 19, 2021). The article Talbot authored covers the controversy over falsified data in two different cyanide detection studies. There is a large problem with the use of potassium cyanide in illegal and unregulated fishing, primarily in Indonesia. When potassium cyanide is mixed with seawater and fish become exposed to this harmful mixture, they become temporarily paralyzed, making

them much easier to catch. Since these fish become so easy to catch, they can be collected at an alarmingly fast rate, and this is dangerous for the environment. Cyanide also kills coral, fish, and invertebrates. To prevent the trade of illegally caught fish, many scientists are trying to develop a test to detect cyanide fishing in aquarium fish. In 2012, a paper published in the journal *PLoS ONE* by Vaz et al. claimed to have developed this test.

However, when Breen et al. (2018) tried to replicate the results from this paper, they found that they could not with an amount of cyanide that would paralyze fish and not completely kill them (Talbot, 2018). In the study, four cyanide exposure studies on common clownfish were performed in three years. Fish were either exposed to 25 parts per million (ppm) of potassium cyanide twice or, as the previously published method did, 50 ppm of potassium cyanide once. Over 100 of the exposed water samples were analyzed, yet no thiocyanate levels were detected. It was eventually found that the fish could not possibly take in enough cyanide to lead to the results published in the 2012 paper. However, a 2016 piece of gray literature self-published by the Center for Biological Diversity and For the Fishes and heavily influenced by the work of the For The Fishes's founder and Executive Director Rene Umberger's work stated that the results were successfully replicated.

These papers that have proved cyanide testing to be possible have been published by animal rights activists who have skewed their data to manipulate the public through the use of poor lab techniques (Talbot, 2018). Unpublished information has been delivered at conferences, provided to news outlets, and cited in some of their own subsequent publications. For example, a website called Science News for Students also published that cyanide testing is possible, citing Rene Umberger. When originally interviewed, Dr. Rhyne expressed his belief that animal rights activists often maliciously publish false data to try to affect the public's opinion in their favor because they see the aquarium trade as a danger to coral reefs (A. Rhyne, personal communication, January 19, 2021). They did not care whether their data was correct or not; they simply saw it as a means to an end. It can be difficult to determine what sources are reputable and what sources have been manipulated since animal rights activists use similar writing standards as scientists and animal welfare experts. Rhyne is taking part in trying to combat this issue through replicating experiments done by animal rights activists and publishing his results in scientific journals targeted at the scientific discourse community, as well as magazines targeted more towards the general public and those interested in science, like *National Geographic*.

Discussion

When animal welfare experts are speaking in a more scientific manner, they do not typically communicate directly with the general public through documentaries and popular magazine articles. For example, The Aquarium Vet is a program and vet service specifically targeted towards those who care for aquatic life, and it has an Aquatic Animal Welfare Module that consists of a two-hour webinar that

focuses on aquatic animal welfare, as well as many other education opportunities. They have a very specific mission, which is “to advance the health and welfare of aquatic animals in aquariums and zoos globally” (Jones, n.d.). This is not a heavily advertised resource and you must first register to take the Aquatic Animal Welfare Module, which requires you to provide what facility or institution you work at. Therefore, a resource such as this one is only targeted towards actively working scientists, aquarists, or possibly students. It is meant to help them improve their knowledge of animal welfare. This seminar was given in Australia, so it discusses care standards based on those established by Australian agencies, such as the Australian Animal Welfare Strategy. However, the source also discusses the World Association of Zoos and Aquariums standards and states that other countries have their own federal and state regulations for animal welfare. Since an informed understanding of animal welfare requires that one is educated on the various regulations and standards at the federal, global, and state level, this is not an easy task for the average citizen. This therefore reinforces the notion that the aquarium animal welfare discourse community is a community made up of scientists, aquarists, and those with experience in the aquarium industry. Most of this discourse community’s resources are put into internally establishing the standards that dictate animal welfare practices through venues such as webinars, conferences, and academic publications and there is insufficient attention given to communicating with the general public about animal welfare.

Overall, the need for scientists to better communicate to the public on these issues is significant. When interviewed in January of 2021, Dr. Rhyne argued it is imperative that scientists speak up about misinformation. Rhyne claimed that animal rights activists often argue that it is okay for them to skew information as they believe they have an “ethical high ground” (A. Rhyne, personal communication, January 14, 2021). Anyone can claim ethics; however, it is important for people to root their decisions in fact and not just emotion. Dr. Rhyne says that scientists should not just sit back and allow people to knowingly manipulate data to serve their own causes, but instead counter these claims. However, Dr. Rhyne also claims that it is very challenging to communicate these issues to the public.

For a long time, scientists have tried to stay away from political arguments and many people say that scientists shouldn’t get involved in policy. This argument has been used to keep scientists from speaking up about misinformation. Dr. Rhyne believes that if you are going to research a topic, you must be willing to speak up about it and not just work silently in a lab (A. Rhyne, personal communication, January 14, 2021). In an email, Ret Talbot also stated that the news cycle and the process of scientific publications are poorly aligned, as he has previously sat on stories for years awaiting the publication process to proceed (R. Talbot, personal communication, January 19, 2021). Good scientific communication to the public requires both scientists and journalists to work together to achieve a common goal.

Conclusion

Overall, there are many ways in which scientific ideas on animal welfare are communicated amongst scientists in the scientific discourse community, as well as to the general public. Through scientific papers, seminars, workshops, and webinars, scientists can share information within the scientific discourse community on a specific topic. Animal rights activists also share their ideas and ethics with their discourse communities in very similar ways. When science is shared, aquariums can implement the new science into their protocol for animal welfare. Since these forms of media are often very scientific, they are usually not exposed to the general public. Documentaries such as *Blackfish*, the documentary created by animal rights activists, and magazines such as *National Geographic*, a more science-based medium, however, are designed for consumption by the general public. These forms of media are generally much less scientific and appeal to the audience's emotions much more than relying on facts and concrete information. Misconceptions regarding animal welfare practices and techniques can be easily spread through any forms of media, even those that are generally more scientific, such as scientific papers that have false data. The same ways in which these false claims are spread, they are also countered by true claims from animal welfare experts.

The ethics of aquariums are debated by people of many different backgrounds, over many forms of media, and across many audiences. These publications published by these authors make up the animal welfare discourse community. As animal rights activists become better at selectively choosing information to be in their favor and communicating it in ways that mimic and even improve upon those of the animal welfare discourse community in terms of persuading the broader public, the more animal welfare experts have to refute these claims, not only by using data and scientific fact, but by putting more effort into communicating directly with the public by building coalitions with science writers and popular science publications. Further implications for studying this issue involve finding ways to better fact-check information from sources that may seem reliable, finding ways to teach young students how to better verify information they find that may seem reliable, and finding more effective ways for animal welfare experts to counter false claims.

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