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English 112

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Writing to: anyone who might own a fish or be interested in the subject or everyone (assuming I make it accessible enough)
Writing for: challenging a common idea, evaluating the "criteria" for our morality status of living things, changinging opinions

Fish Are Friends

When you ask someone if they own a pet the typical answer you receive is usually a dog or cat, sometimes even a rodent. But how often do you ask someone if they own any pets and their response is fish? Not very likely I would assume. I myself am actually part of the very few percentage of people that when asked if they own a pet reply with a "fish". Growing up my younger brother was severely allergic to anything with fur, meaning we always had to settle for these small aquatic animals as pets that were not nearly as fun and interesting as an animal with 4 legs. Looking back on it, my mom was the only one in my house who genuinely interacted with our pet fish in any capacity. Some mornings I would wake up to hear her feeding the fish "breakfast" while confiding in the fish about her dream the night before. Or sometimes I would hear her praise the fish in ways you would normally only see someone praising a dog. She would constantly tell me how she was convinced the fish could recognize her voice and understood the idea that he was our pet and we were his owners, and each time I would dismiss her as crazy. That was until she finally convinced me to let her show me how the fish would swim over to whatever side of the tank she was standing on if he heard her voice, and that is exactly what he did. This small test of intelligence on our very own pet fish sparked my curiosity in the

intelligence of fish as a species overall. Could these seemingly small minded sea creatures actually be much more intelligent than we assume them to be?

The generative idea that fish are not capable of having any or very little brain intelligence is an idea that has more than likely been fed to us since we were children. One of my very own most memorable moments from childhood is hearing that fish have 'low attention spans' be recited to me. Even influential pieces of media such as the Disney movie *Finding Dory* portrays these animals as being less intelligent through one of the main characters, Dory. One of the most unintended consequences of our beliefs surrounding the intelligence of fish is their placement on our morality scale. In this context, the morality scale can be described as the levels of importance in which we place other living things depending on their intelligence and our ability to connect to them emotionally. Culum Brown, an assistant editor of the Journal of Fish Biology and professor at Macquarie University claims that "because fish are also phylogenetically distant to humans in comparisons with mammals, we find it very difficult to empathize with them" (Brown 2015). Fish do not communicate with humans in any visible or audible capacity and are very low maintenance animals to keep around the house, making it that much more difficult for humans to form a bond or connection the way they would to a pet cat or dog. As humans, when unable to empathize or form a meaningful connection with any creature, we tend to treat these beings with less respect and compassion. This is the reason why we might not think twice about buying and selling fish for such cheap prices or for flushing them down the toilet when they reach the end of their life. Through this it is fair to deduce that fish as a species are placed on a much lower level on our morality scale, and so the question stands; what would it mean for fish as a species if they were more intelligent than given credit for?

There is one thing that undeniably stands to be true; fish are much more complex creatures than we like to think of them as. Evidence has time and time again concluded that they have much more brain complexity and capacity than we would otherwise expect them to have. In a study aimed to discuss the cognitive abilities in fish including social intelligence, social strategies, social learning and tradition, and co-operative hunting, the results conclude that fish check off the box in most if not all of these cognitive categories. For example the study results find that "Fish often live in diverse stable groups of varying sizes and sex composition and defend their territories and/or their eggs and larvae" (Bshary et al. 2002). The ability to live in fully functioning communities with the capacity to comprehend the importance of protecting and looking after their offspring is a trait often associated with animals of 'higher' intelligence, yet many species of fish have been found to possess the ability to live in structured environments amongst the rest of their species. Fish have also been known to be able to observe and interpret the behavior of other fish, and then adjust their own actions and decisions based on the behavior they observe. Evidence to support this goes back to researchers observing " female guppies changing their preferences between two males if they observe another female being courted by the less preferred male" (Bshary et al. 2002). These observations contribute to the evidence surrounding a fish's social awareness of the environment and other fish around them. Beyond just the social awareness of their environment, they are also capable of individually recognizing fish belonging to their family, further advocating for the presence of complex social behavior in the fish species.

Researcher's particularly interested in the way species interact and work together as a whole to utilize their resources as a mutual team came across a breakthrough in their research when they observed two species of fish that were otherwise none to be competitors for food,

working together to hunt and catch their prey together. And, the collection of evidence did not stop here as these researchers went on to create a multitude of intelligence tests catered towards fish and the hypothesized tasks fish would be capable of completing. Through these intelligence tests researchers found a number of discoveries concerning the social behaviors of fish, one of them being that “not only can they signal to each other and cooperate across species, but they can also cheat, deceive, console or punish one another — even show concern about their personal reputations” (Abbott 2015). With these new discoveries, animal scientists are not only studying a species of animal long overlooked and underestimated, they are also destroying and pushing against the stereotype that fish are dumb creatures, and with these new developments have encouraged other scientist to question and look into the validity of the long accepted idea of fish being simpleminded creatures.

Animal scientists and researchers are not the only people taking notice of these animals' complex abilities either. Normal everyday fish owners are beginning to catch on to their intelligence as well. Take my mom for example, who is an avid believer in the unnoticed intelligence in fish. Her very beliefs are what prompted her as the most suitable person to interview for further information on my research. Through a facetime call she laughed excitedly when I told her I had called her to interview her about our pet fish. “I would just start talking to the fish as if I was talking to a person and the more I did this the more I noticed it seemed like he would swim to whatever side of the fish tank I was standing on to listen, so I really do think he can recognize my voice.” my mom said when asked about what behaviors made her first suspect in the animal’s higher intelligence. This response made me curious as to whether or not she had perhaps developed a bond with Shorty (our fish),“No, it is not technically a bond because he’s a goldfish and I know that, but I would say that I feel a sense of responsibility over him and want

to make sure that he lives as long as he possibly can." she said. Although still not capable of creating a bond with the animals, they display enough intelligence and capability that reminds us that they are living beings occupying space on this earth, meaning they are worthy of enough respect and care to be bumped higher on our morality scale.

Our simple minded beliefs that fish are not capable of intelligence the way we believe other animals are, is holding us back on further researching and understanding the way fish live and behave. We have gone as far as affording this species such little respect and regard that we mindlessly flush them down our toilets when their life has come to a tragic end. But, evidence contradicts our accepted belief and even goes as far as to question the moral standing of these animals in a human society that classifies them as easily disposable and overlooked. Since indulging myself in the fascinating world of fish, I have gained a new found respect and appreciation for the small creatures, so much so that now when my mother calls me over to see our own fish swimming to her side of the tank, I run as fast as I can to witness his undeniable display of intelligence.

Works Cited

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