Defining denial and sentient seafood
Commentary on Sneddon et al., on Sentence Denial

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Abstract: Sneddon et al. address the scientists who reject the empirical evidence on fish sentience, calling them “sceptics” and their work “denial”. This is the first article to frame the question of fish sentience in these terms, and it provides an obvious opening for social science and humanities research in the science of fish sentience. It is also worth asking what practical changes in the lives of fish might arise from the mounting evidence of their sentience. I suggest that the relationship between sentience and our sense of moral obligation is not as clear as we often assume.

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1. Defining Denial

Sneddon et al. (2018) address the scientists who reject the empirical evidence on fish sentience. The authors frame this work as “fish sentience denial” in the title, and they use the term “sceptics” throughout their target article. Sneddon et al. (2018) note that: (1) “sceptics still deny anything beyond reflex responses in fishes and state that they are incapable of complex cognitive abilities”; (2) “processing is not restricted to hindbrain and spinal reflexes as sceptics have suggested”; and (3) “widespread calls for use of the precautionary principle (Birch 2017) have been called into question by sceptics”, for example, “we should abandon the precautionary principle because the costs to industry would be too high”.

The denial of empirical evidence has been well-documented on many scientific issues, including the negative health effects of tobacco, asbestos, and lead paint, the side effects of vaccinations, and the existence and causes of climate change. In the case of climate change, the extent of top-down forces, linked primarily to fossil fuel corporations, is only just being broadly understood (e.g., Dunlap and McCright, 2015).

Some lessons from these issues might be useful here, particularly with regard to the language. For one, scientists studying climate change have asked for greater nuance when using the terms “denier”, “contrarian”, and “skeptic” (O’Neill and Boykoff, 2010). In 2014, a group of scientists represented by the Committee for Skeptical Inquiry wrote an open letter asking the media to stop using the term “skepticism” when referring to climate change denial, as it grants the viewpoint false credibility (Gillis, 2015).
Discretion with these terms is warranted. Biologists recently published an article titled “The rise of invasive species denialism” (Russell and Blackburn, 2017), which offered a poor, circular definition of denial (“science denialism is the rejection of undisputed scientific facts”) and unsurprisingly elicited numerous responses along the lines that disagreement does not constitute denial. Scientists countered that it is “apparent from the invasion science literature that there is not, and has never been, scientific consensus about biological invasions, but that there has been continuous and healthy debate (both within and beyond academia) about how to understand, evaluate, and respond to the challenges they pose” (Crowley et al., 2017). Davis and Chew (2017) argued, “If we have denied anything, it is that introductions per se need be considered fundamentally harmful. Rather, we seek more emphasis on understanding effects and discerning functions, and less on date of arrival and place of origin”.

I do not mean to suggest that the denial of fish sentience is not occurring, but only that the term “denial” has certain implications, and when it is used, it should be defined and, ideally, used in ways that are consistent with expert understanding. To suggest that the opposition to fish sentience represents denial as “denial” has been understood in other contexts, such as climate change, it is necessary that we know something of the nature of the counter-arguments, the motivations behind them, the kinds of evidence presented, the possible and documented industry interests, and what is at stake.

In addition, some tactics do suggest that social values rather than empirical findings are probably at play, including the rejection of mounting evidence, strategical capitalization of scientific uncertainty, claim that economic costs are too great, and argument about what constitutes “precaution”. Finally, it is worth noting that with climate change, scholars could have become more involved in early efforts to uncover the elite, top-down networks of denial rather than leaving the bulk of the early work to journalists and NGOs (Jacquet, 2017).

What all of this suggests is that there is an opening for social science and humanities research in the science of fish sentience.

2. Sentient Seafood

It is also worth asking what will happen if or when the body of evidence rests with the Sneddon camp? Will evidence of sentience change the way fish are treated? Or will fish continue to be treated as commodities, caught, farmed, and eaten without much moral consideration? (Fish represent by far the largest number of individuals killed for food of any animal group and are currently given no protections as research subjects or pets.) Perhaps because we are also learning about the capabilities of other species alongside our understanding of fish, the same old Great Chain of Being will persist.

The work on animal sentience is interesting when it elevates an animal that might otherwise have continued to occupy a position of low moral status. The octopus serves as an interesting example of how science and philosophy have helped elevate the moral status of a group of animals. The Cambridge Declaration on Consciousness included octopuses as the only invertebrates. A few countries extend protections to octopuses as research subjects. Writers have argued against eating octopuses in the New Yorker (Killingsworth, 2014) and the Guardian (Hunt, 2016). PETA has protested serving octopus alive.
Yet there are active fisheries for octopuses all over the world, experimental attempts at farming them, as well as little to no protection for them as research subjects outside the EU. And if history is any example, it will not matter what happens to octopuses in terms of their population status: they will not be listed on the Convention for International Trade in Endangered Species (CITES) – the most powerful international legal regime we have for protecting wild animals.

This is the case for other animals too. Southern Atlantic bluefin tuna are sentient according to Sneddon et al. According to any scientific standard, they are critically endangered; but proposals to list them on CITES have failed, as have proposals to list the slow-growing, overexploited Patagonian toothfish (found off Antarctica and sold in high-end markets as Chilean sea bass).

The politics are such that the Convention fails to protect aquatic animal species commercially traded for food, endangered or not, conscious or not (Doukakis et al., 2009). Seafood trumps sentience.

A number of corals are indeed on CITES, even though these invertebrates are in the consciousness-challenged phylum Cnidaria. They have no centralized nervous system and are often described as “forests of the sea”. When it comes to the protection offered by CITES, corals are fortunate not to be food.

So while the presence of sentience might encourage some moral deliberation about an animal, just as an endangered status might, it in no way ensures it (Jamieson, 2008). At the same time, we value and protect many things with no known sentience, including corals, stone arches, grand canyons, cave drawings, and the moon. Last year, New Zealand and India granted their rivers legal personhood status.

The relationship between sentience and our sense of moral obligation is not as clear as we might assume. The hard empirical work of scientists like Sneddon et al. is necessary; but alone it is not sufficient to make a difference in the lives of fish.
References

Overview. Since Descartes, philosophers know there is no way to know for sure what — or whether — others feel (not even if they tell you). Science, however, is not about certainty but about probability and evidence. The 7.5 billion individual members of the human species can tell us what they are feeling. But there are 9 million other species on the planet (20 quintillion individuals), from elephants to jellyfish, with which humans share biological and cognitive ancestry, but not one other species can speak: Which of them can feel — and what do they feel? Their human spokespersons — the comparative psychologists, ethologists, evolutionists, and cognitive neurobiologists who are the world’s leading experts in “mind-reading” other species — will provide a sweeping panorama of what it feels like to be an elephant, ape, whale, cow, pig, dog, chicken, bat, fish, lizard, lobster, snail: This growing body of facts about nonhuman sentience has profound implications not only for our understanding of human cognition, but for our treatment of other sentient species.

Gregory Berns: Decoding the Dog’s Mind with Awake Neuroimaging
Gordon Burghardt: Probing the Umwelt of Reptiles
Jon Sakata: Audience Effects on Communication Signals
WORKSHOP 1: Reptiles, Birds and Mammals
WORKSHOP 1: Kristin Andrews: The "Other" Problems: Mind, Behavior, and Agency
Sarah Brosnan: How Do Primates Feel About Their Social Partners?
Alexander Ophir: The Cognitive Ecology of Monogamy
Michael Hendricks: Integrating Action and Perception in a Small Nervous System
PANEL 2: Primates, Voles and Worms
PANEL 2: Jonathan Birch: Animal Sentience and the Precautionary Principle
Malcolm Maclver: How Sentience Changed After Fish Invaded Land 385 Million Years Ago
Sarah Woolley: Neural Mechanisms of Preference in Female Songbird
Simon Reader: Animal Social Learning: Implications for Understanding Others
PANEL 3: Sea to Land to Air
WORKSHOP 3: Steven M. Wise: Nonhuman Personhood
Tomoko Ohyama: Action Selection in a Small Brain (Drosophila Maggot)
Mike Ryan: "Crazy Love": Nonlinearity and Irrationality in Mate Choice
Louis Lefebvre: Animal Innovation: From Ecology to Neurotransmitters
PANEL 4: Maggots, Frogs and Birds: Flexibility Evolving
SPECIAL EVENT: Mario Cyr: Polar Bears
Colin Chapman: Why Do We Want to Think People Are Different?
Vladimir Pradosudov: Chickadee Spatial Cognition
Jonathan Bromberg: The Sentient World of Fishes
PANEL 5: Similarities and Differences
WORKSHOP 5 (part 1): Gary Comstock: A Cow's Concept of Her Future
WORKSHOP 5 (part 2): Jean-Jacques Kona-Boun: Physical and Mental Risks to Cattle and Horses in Rodeos
Joshua Plotnik: Thoughtful Trunks: Application of Elephant Cognition for Elephant Conservation
Lori Marino: Who Are Dolphins?
Larry Young: The Neurobiology of Social Bonding, Empathy and Social Loss in Monogamous Voles
Panel 6: Mammals All, Great and Small
WORKSHOP 6: Lori Marino: The Inconvenient Truth About Thinking Chickens
Andrew Adamatzky: Slime Mould: Cognition Through Computation
Frantisek Baluska & Stefano Mancuso: What a Plant Knows and Perceives
PANEL 7: Microbes, Molds and Plants
WORKSHOP 7: Suzanne Held & Michael Mendl: Pig Cognition and Why It Matters
James Simmons: What Is It Like To Be A Bat?
Debbie Kelly: Spatial Cognition in Food-Storing
Steve Phelps: Social Cognition Across Species
PANEL 8: Social Space
WORKSHOP 8: To be announced
Lars Chittka: The Mind of the Bee
Reuven Dukas: Insect Emotions: Mechanisms and Evolutionary Biology
Adam Shriver: Do Human Lesion Studies Tell Us the Cortex is Required for Pain Experiences?
PANEL 9: The Invertebrate Mind
WORKSHOP 9: Delcianna Winders: Nonhuman Animals in Sport and Entertainment
Carel ten Cate: Avian Capacity for Categorization and Abstraction
Jennifer Mather: Do Squid Have a Sense of Self?
Steve Chang: Neurobiology of Monkeys Thinking About Other Monkeys
PANEL 10: Others in Mind
WORKSHOP 10: The Legal Status of Sentient Nonhuman Species