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FOCUS

PROJECT

Pain - When Does It Hurt?

While pain is no longer considered to be an exclusively human experience, we struggle to agree on which animals suffer from it. Yet if we are to provide appropriate care and welfare for the animals we interact with, we need to have a workable definition of animal pain and a way of determining which animals experience the hurt generated by pain processes. To date, studies in animals have relied on the definitions created to describe human pain, but with our uniquely complex nervous system this presents problems when we try to translate pain processes to animals. Pain is recognized as having two distinct phases; first an unconscious set of reactions, mostly reflex responses, followed by a conscious awareness of the emotions and discomfort. While it is clear that that first phase is observed throughout much of the animal kingdom, the second stage is limited to animals with emotional states. Recent advances in our understanding of the neural processes that underlie emotions as well as empirical evidence of empathy and changes in cognition associated with pain suggest that we now need to review and revise the criteria used to define animal pain. With this more refined approach, we can then start to explore which animals are aware of a negative emotional state induced by pain. My overarching goal is to devise a framework that will allow us to determine which animals experience the negative emotional effects associated with pain.

Recommended Reading

Braithwaite, Victoria A. (2010). Do Fish Feel Pain? Oxford: Oxford University Press.

Droege, Paula and Victoria A. Braithwaite (2014). "A framework for investigating animal consciousness." In Ethics in Behavioural Neuroscience, edited by Frauke Ohl, Grace Lee, and Judy Illes, 79-98. Berlin und Heidelberg: Springer, 2015 (Current Topics in Behavioral Neurosciences).

Patton, B. Wren and Victoria A. Braithwaite (2015). "Swimming against the current: ecological and historical perspectives on fish cognition." WIREs Cognitive Science 6: 159-176.

COLLOQUIUM, 16.11.2015

What is Pain and Why Does it Hurt?

In 1961 Julia Child published a cookery book titled "Mastering the Art of French Cooking". Its publication led to a veritable revolution in the way that mainstream America both prepared and cooked food. On page

221 of this now iconic book, she describes how to cook Lobster Thermidor.

Ingredients:

3 live lobsters , 2 pounds each,

3 cups dry white wine

2 cups water,

1 large onion , thinly sliced,

1 medium carrot , thinly sliced,

1 stalk celery , thinly sliced,

1 bay leaf,

6 peppercorns... etc.

Directions: Simmer wine, water, vegetables, herbs, and seasonings in the kettle for 15 minutes. Then bring to the boil and add the live lobsters. Cover and boil for about 20 minutes...

Would you be comfortable putting three live lobsters into a pot of boiling water? If not, why not - what bothers you?

Pain is a negative sensation that most of us try to avoid. It is a subjective experience, we can describe it to others, but only you can experience your pain. When it comes to animal pain, however, we move into a much more difficult area. It might seem plausible that mammals and birds feel pain, but what about fish? They are so alien and live in such a different environment - do they feel pain? And if you are willing to accept that a fish feels pain, then what about lobsters? Could you follow Julia Child’s recipe for Lobster Thermidor and feel good about the dish?

In my talk, I will discuss why pain is such a difficult process to understand, why we find it hard to agree on which animals feel it, and why being able to make this distinction matters. I will use fish as a "hard case" example, and I will propose a framework of criteria that might allow us to compare pain processes across different animal groups to help elucidate which animals really feel hurt by their pain.

For those interested, here is a link to a video of Julia Child tackling lobsters:
https://www.youtube.com/watch?v=surrqHK28Oc

PUBLICATIONS FROM THE FELLOW LIBRARY

Braithwaite, Victoria A. (2017)

Physical and psychological motivation tests of individual preferences in rainbow trout

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1048672255

Braithwaite, Victoria A. (2017)

Behavioral evidence of felt emotions

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1040811159

Braithwaite, Victoria A. (Berlin,2016)

Stress during adolescence shapes performance in adulthood : context-dependent effects on foraging and vigilance

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1762684381

Braithwaite, Victoria A. (Wageningen,2016)

Beneath the surface : killing of fish as a moral problem

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1726819078

Braithwaite, Victoria A. (2015)

A framework for investigating animal consciousness

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=83217422X

Braithwaite, Victoria A. (2013)

Variation in emotion and cognition among fishes

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=832335169

Braithwaite, Victoria A. (2005)

Environmental variability in the early rearing environment generates behaviourally flexible cod : implications for rehabilitating wild populations

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=832334693

Braithwaite, Victoria A. (2003)

Do fishes have nociceptors? : evidence for the evolution of a vertebrate sensory system

https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=832334367