

## Armstrong and Botzler, part two, Animal Capacities: pain, emotion, consciousness

### Some Key Issues

- The problem of **agenda-driven research** (on various ‘sides’)
- The case of artificial intelligence, ‘**drawing the line**’, and even plants

M. Mendl and E.S. Paul, “Consciousness, Emotion and Animal Welfare: Insights from Cognitive Science.”

- Understanding the role of “self-concept, language, and **theory of mind**”
- Distinguishing ‘**feelings consciousness**’ from ‘**self-consciousness**’
- ...’how to define cognitive complexity’ (73)
- The role of metacognition and blindsight (74)
- behavioural components of the emotional response...escape behavior, elevations in heart rate or ‘stress hormones’ such as cortisol...and high levels of defecation are all...indicators of ‘fear’ or ‘anxiety’

Sandra D. Mitchell, “Anthropomorphism and Cross-Species Modeling” [see passage on bottom of 92]

- Why is **anthropomorphism** a bad word in science? (what’s wrong—or right—with the argument from analogy?)
- Darwin claims that “there can, I think, be no doubt that a dog feels shame...and something very like modesty when begging too often for food.”

Daniel C. Dennett, “Animal Consciousness: What Matters and Why?”

- How do “hidden and not so hidden agendas distort discussion and impede research”? (see Dennett on the case of Descartes’ legacy in relation to animals)
- On Thomas Nagel’s famous essay, “What is it Like to be a Bat?” (1991)
- The example of analogies from robot ‘intelligence’ (114) (Dennett’s lesson being that “feelings are too easy to provoke for them to count for much here.”)
- The role of *Moby Dick* and the whale’s eyes (and ‘interocular transfer of learning’)
- Dennett’s thesis: bottom of 116 and top of 118—and revisiting the pain-suffering distinction (118-9)

Marian Stamp Dawkins, “Animal Minds and Animal Emotions”

- Functional v. mechanistic approaches to understanding emotion (121), and the shortcomings of being too general and of “expecting emotions to be reflected in obvious autonomic measures” (122)
- The limits (and utility) of **choice tests**, and the use of ‘anticipatory mechanisms’ and refined reward-punishment systems (123)
- Dawkins’ view “implies that emotional awareness is evolutionarily very old and possibly very widespread” – this is very different from Bob Bermond’s view that suffering requires an advanced prefrontal cortex region. How might different **stakeholders** be drawn to these different views for less-than-unbiased reasons?

Bernard E. Rollin, “Animal Pain”

- What does Rollin mean when he says that: ironically, “Cartesianism has been its own undoing”? (135)
- What different kinds of evidence does Rollin give that ‘animals feel pain’?