

HUMAN SUPREMACY IN NEUROETHICAL DISCOURSE ABOUT HUMAN-NONHUMAN NEURAL CHIMERAS

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DISCLOSURES

NONE

THE OVEREXAMINED PROBLEM: "HUMANIZING" CHIMERAS

- "What is the likelihood that human RSCs developing in the monkey brain would cause a human-like psychological alteration? This is precisely the question we should ask ourselves before deeming this experiment ethically acceptable or unacceptable." (Karpowicz, Cohen, van der Kooy 2004)
- "But a mouse with human language capabilities or that seemed to have a human level of self-consciousness would be, at the least, troubling... human consciousness trapped in a mouse's body would truly be cruel treatment" (Greely et al 2007)
- "The worry, therefore, is that in the process of biologically humanizing a research animal, scientists may end up also morally humanizing the resulting chimera, especially if there is acute human/non-human chimerism of the central nervous system" (Hyun 2016)
- "Thus, the key ethical question appears to be: Could the biological humanization of animal models imbue human-animal chimeras with morally important cognitive attributes?" (Hyun 2019)

NIH BRAIN INITIATIVE NEUROETHICS ROADMAP

- “As biological aspects and their resulting characteristics are added to non-human species such as NHPs to make them more biologically similar to humans, might they become more morally similar, and in the process, raise unique animal welfare issues.”



THE UNDEREXAMINED PROBLEM: HUMAN SUPREMACY

- The assumption that other conscious animals are inferior in status to humans by virtue of species membership or capacities
 - There are no uniquely human capacities
 - There are no capacities shared by all and only humans
- Human supremacy grounded in “capacities” collapses into speciesism
- Handwringing about “humanizing” chimeric animals is disingenuous

THE ETHICAL ISSUES ARE NOT UNIQUE

- The concern about generating enhanced ethical concerns by humanizing animals to optimize their utility in research fails to recognize that the use of animals in invasive and harmful neuroscientific research already generates enhanced ethical concerns
- Neuroethics as a discipline has consistently failed to interrogate the use of animals – chimeric or not – in neuroscience
- It has not extended its scope to all animals with minds and brains



THE NONHUMAN ANIMAL CARVE-OUT

- Neuroethics has long been focused on the speculative potential for consciousness or morally concerning capacities in human-origin entities and organisms like cerebral organoids, cultured neural tissues and neural cells, and human embryonic stem cells
- And has systematically ignored the ethical issues raised by using and killing unquestionably conscious animals in neuroscience

- Anthropocentrism and human supremacy are baked in to uncritical acceptance that human-nonhuman similarities and continuities matter for scientific but not ethical justification simply because it favors human interests to adopt that inconsistency.
- Neuroethics has not sufficiently called out that inconsistency in neuroscience, nor encouraged meaningful discussion of the scientific and ethical justifications for experimenting on animals
- As a field, neuroethics has largely neglected what is not merely possible, but actual in neuroscientific research – significant harms to sentient animals



AN OPPORTUNITY

- Neuroethics has frequently been at the forefront of examining potential but largely speculative ethical concerns about new developments and technologies.
- The moral humanization of human-nonhuman chimeras is an instructive example of how that analysis is excessively framed and constrained by human supremacy and exceptionalism to the detriment of both scientific and ethical rigor.
- Intellectual and ethical rigor and honesty in neuroethics requires thinking more critically about the value and ethics of using animals as models for humans in brain research

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