

Class notes for April 29, 2014

Of Mice and Men -- Readings: Shapiro, Burt, and Rader

Hero Scribe: Megan

Similarities between rats and people:

- intelligent
- clean
- multiply quickly
- consume everything they can
- maybe exaggerated- most animals follow this pattern
 - more like human animal mirroring than human rat mirroring
- adaptability is a huge similarity
 - Burt- humans adapt to every climate- we *create* an environment that suits us
 - only a few specific environments work for us- most mammals like this
 - elephants tear down trees to make more plains?
 - also show signs of grief and empathy- theory of mind? sensitivity?
 - we rationalize mistreatment of animals b/c they're not like us, but we know they are- biomedical research
- some rats are tested individually for machine-mind interfaces (graft machinery onto the mind and control)
- is it ethical to domesticate a species specifically for lab work?
 - we think yes
 - fruit flies, beagles, mice
 - size and shape of animal determines ethicality- if it looked like a dog, we may have an issue with it
 - but actually a lot of work is done on dogs
 - perception of animal's intelligence- stricter laws
 - mice excluded from Animal Welfare Act 1966
 - FDA controls slaughterhouses- not as concerned with welfare
 - would we be able to legally use dogs if we found a good use? like they have the exact same immune system- already doing work with dogs
 - cheap, quick reproduction
 - hemophiliac Irish setters- too much inbreeding caused it- study the human disease at Duke- bring dog into life of suffering in order to improve human health in the long run
 - "end always justifies the means"- human benefit trumps animal rights
 - Russians have always used dogs- start to understand all the in's and out's- were able to beat us in the space race b/c of the use of dogs
 - dogs easily conditioned, withstand stress, easy to get more
- if we enacted laws to forbid the use of certain animals, we would probably change the law so we could still use them
 - push for this before WW2- most science was public at this point
 - after vaccines developed on animals proved effective, feelings started to change
 - labs locked down after WW2- can't publish certain things

- same lockdown with slaughterhouses and food industry- this disconnect makes the public easily convinced that it is ethical
- now people are just beginning to realize animal models maybe aren't as good
 - Georgetown doesn't use animals for psych. research at all
 - don't really need whole animal now
 - maybe we've gone as far as we can- hit our max. with the rat model for cancer research
 - move towards simulation

Zoonotic diseases / Marburg virus:

<http://www.amazon.com/Spillover-Animal-Infections-Human-Pandemic/dp/0393346617>

http://en.wikipedia.org/wiki/Laboratory_mouse

Cultural connections of mice

- Mickey Mouse- anthropomorphized
- lab mice- either super intelligent or broken somehow
- Nihm,
- Rescuers: <http://www.imdb.com/title/tt0076618/>
- Ben: <http://www.imdb.com/title/tt0068264/>
- Stuart Little
- Willard: <http://www.imdb.com/title/tt0310357/>

Rats in close quarters experiment- some became really withdrawn- relate to people crammed into cities- become antisocial- correlation but not same causation

- rats- more rats = more competition- establish dominance
- without the social norms, we probably we go crazy too

Dolphins maintain social relationships- familial bonds, secondary bonds, larger group bonds (like family, friends, colleagues)- not just cogs in the system- they must have a high power processor

Monogamy? Grieving? How can we tell?

- don't necessarily have to see them cry- maybe sleep more, eat less
- if offspring need more care, most likely that the species is monogamous- rabbits definitely not
- depends on the complexity of the social hierarchy- group can raise young- humans somewhere in between?- tendency towards monogamy, but this is due to social pressures, maybe not a biological need
 - industrial revolution- makes sense economically for man to work, and woman to watch kids, then work together to make it happen

Naming the subjects-

- makes sense in case study, not in a test for viruses etc. ex. Coco

- depends on how things are written in lab
- probs all have the same names or variation- replacement Shamu? still keeps the same name- not exactly scientific
 - if animal keeps same role, may as well keep same name
 - ex. see an elephant and associate it with the name Dumbo
 - sharks and Jaws
 - cultural influences affect our perceptions of the animal
- are lab animals a sacrifice?
 - kind of a sacrifice for mankind
 - sacrificing animals for religion not the same- we don't see the experimental animals as an individual versus we must because there is so much control over the system
 - maybe the law isn't in line with morals
- conduct memorial services for lab animals in UCLA
 - also in military- navy uses dolphins
 - do we do this for our own guilt, to show that we did put thought into using them and care about them, ..
 - Laika memorial:
 - <http://www.universetoday.com/13606/russian-memorial-for-space-dog-laika/>
 - <http://www.cnn.com/2014/03/27/world/europe/crimea-dolphins-defect/index.htm>
 -

For Molly: <http://www.wildcamels.com/>