

# Judgments and Stereotypes

CS109: Ethical Foundations of Computer Science

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# Discuss

Consider the following questions and address one or more of them:

- Have you been in a situation where someone has made you uncomfortable?
- Have you been in a situation where you saw someone making someone else uncomfortable?
- How did you feel?
- How did you react?

# What is a Judgment?

From Merriam-Webster:

- The process of forming an opinion or evaluation by discerning and comparing
- An opinion or estimate so formed

# Are Judgments Inherently Bad?

- Of course not! Humans need to evaluate things all the time!
- The problem comes when judgments turn into stereotypes and/or the judger fails to consider additional variables

# Why Do Humans Stereotype?

- Antonio Damasio studied patients with brain lesions that make them unable to feel emotions
  - Patients also had trouble making decisions despite being able to phrase the choice in logical terms
  - Implication: emotion is a requisite part of decision-making
- Neuroimaging also supports that human emotion influences the reasoning part of the brain
- Quick judgments that bypass rational consideration have helped humans survive historically
- ...but this has led to some unfortunate side effects!

# Stereotypes are not rational

- Emotional and anecdotal evidence informs “gut response”
- Rational mind justifies these conclusions rather than creates them
- Just consider stereotypes surrounding women (~3.8B or half of the earth’s population)
  - While there are anatomical differences in male versus female brains, the distributions highly overlap
  - Neuroscience suggests brains can change structurally based on experiences beyond their inherent biology
  - Also how is it rational to believe that an entire group has similar emotional and behavioral profiles based on the incredibly small subsample you’ve encountered?

# Example: The Google Memo

- Full article here: <https://gizmodo.com/exclusive-heres-the-full-10-page-anti-diversity-screed-1797564320>
- Google employee writes memo to open discussion about Google's biases, claiming they unfairly favor employing women over men in a bid for equality
  - Believes men and women have biological differences that make women less suited to software development
  - Women are more anxious and have too much empathy to work in development environment
  - Cites statistics on this to support his supposedly unbiased and fact-based opinion
- But is it fact-based?

# What Went Wrong?

- Humans are not particularly good at statistics
  - Unlike pigeons who are better at solving the Monty Hall problem!
- Humans are prone to confirmation bias
  - Easy to discard facts that contradict beliefs while reinforcing beliefs with supporting evidence
- A lot of statistical training and knowledge is required to conduct experiments properly
  - But when our self identity involves being “smart” we just assume we can pick up those things
- Many studies only show correlation – causation is harder to prove
  - Especially hard in population studies which can have tremendous number of variables

# And Even If He Were Right...

- His conclusions are still questionable at best!
- Empathy and teamwork are critical parts of working at a large company/creating industry-grade code
  - The things he argues as not ideal qualities for development are in fact **explicitly necessary** for development and promotion
- Rebuttal article by former Google employee here:  
<https://medium.com/@yonatanzunger/so-about-this-googlers-manifesto-1e3773ed1788>

# How Do We Know What's Unbiased/True?

- You don't necessarily!
- Some studies are blatantly wrong or biased (see Andrew Wakefield)
  - But numerous well-meaning, well-conducted studies may still seemingly conflict
- Important to:
  - Consider why your views are what they are
  - Be critical of studies (particularly conclusions) even when you agree with their results
  - Avoid oversimplifying complex systems like the world and human society
  - Be open to other people's perspectives and life experiences
  - Treat others with as much empathy and kindness as possible

# People are Different

- People want and need different things
  - Do not assume you know what's best for someone
- People view and interact with the world differently
  - Do not assume you know someone's motivations
- Giving people the benefit of the doubt and showing compassion helps your personal well-being
  - Helps reduce stress and anxiety

## iClicker Question

How can you actively reduce your personal biases? (Pick the one you prefer the most)

- A. Engage in experiences outside your usual sphere
- B. Meet people and make friends outside your usual sphere
- C. Consider outside perspectives when you have a “gut” reaction
- D. Consider why you made the assumptions you did when you have a “gut” reaction

## References

- <<https://www.technologyreview.com/s/528151/the-importance-of-feelings/>>
- <<http://www.sciencemag.org/news/2017/04/study-finds-some-significant-differences-brains-men-and-women>>
- <<http://neurosciencenews.com/male-female-brain-differences-3617/>>
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