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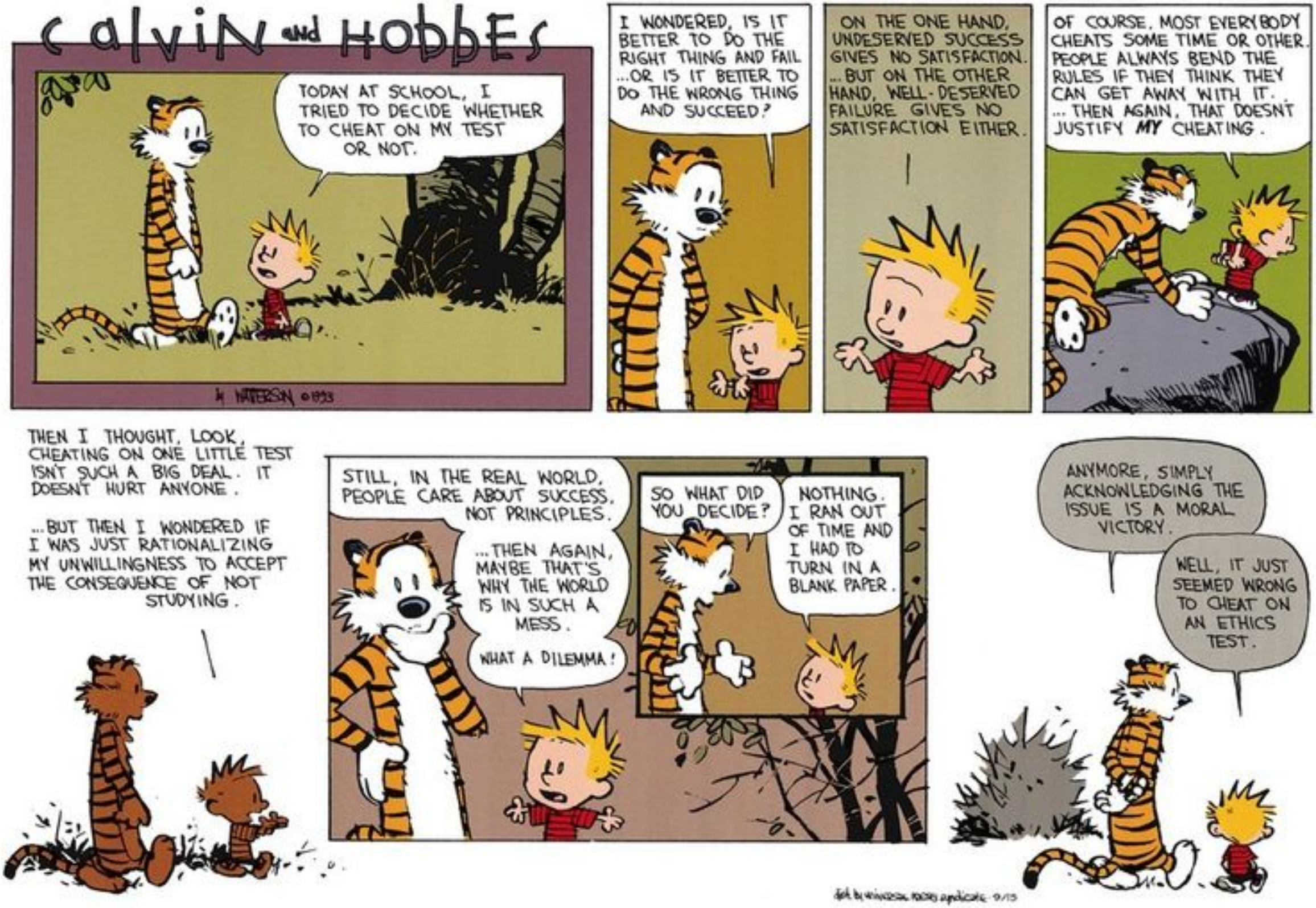
CS349

ETHICAL FRAMEWORKS

NOTE: CANVAS PEER-REVIEW

- Canvas will randomly assign you three people to peer review **if** you submit your blog post before the deadline
  - Please do not submit your blog post late for this reason!
- You can click “View Feedback” to directly comment annotate on the text
  - You will receive a peer-review grade based on the quality of your feedback


CALVIN and HOBBES
TODAY AT SCHOOL, I TRIED TO DECIDE WHETHER TO CHEAT ON MY TEST OR NOT.
I WONDERED, IS IT BETTER TO DO THE RIGHT THING AND FAIL ...OR IS IT BETTER TO DO THE WRONG THING AND SUCCEED?
ON THE ONE HAND, UNDESERVED SUCCESS GIVES NO SATISFACTION. ...BUT ON THE OTHER HAND, WELL-DESERVED FAILURE GIVES NO SATISFACTION EITHER.
OF COURSE, MOST EVERYBODY CHEATS SOME TIME OR OTHER. PEOPLE ALWAYS BEND THE RULES IF THEY THINK THEY CAN GET AWAY WITH IT. ...THEN AGAIN, THAT DOESN'T JUSTIFY MY CHEATING.
THEN I THOUGHT, LOOK, CHEATING ON ONE LITTLE TEST ISN'T SUCH A BIG DEAL. IT DOESN'T HURT ANYONE.
...BUT THEN I WONDERED IF I WAS JUST RATIONALIZING MY UNWILLINGNESS TO ACCEPT THE CONSEQUENCE OF NOT STUDYING.
STILL, IN THE REAL WORLD, PEOPLE CARE ABOUT SUCCESS, NOT PRINCIPLES.
...THEN AGAIN, MAYBE THAT'S WHY THE WORLD IS IN SUCH A MESS.
WHAT A DILEMMA!
SO WHAT DID YOU DECIDE?
NOTHING. I RAN OUT OF TIME AND I HAD TO TURN IN A BLANK PAPER.
ANYMORE, SIMPLY ACKNOWLEDGING THE ISSUE IS A MORAL VICTORY.
WELL, IT JUST SEEMED WRONG TO CHEAT ON AN ETHICS TEST.

ETHICS AND MORALITY

- Morality, from Latin moralis (custom). Actions are moral if they are "good" or worthy of praise
- Ethics, from Greek ἠθος (custom). The formal study of moral standards and conduct
- Goal: construct a general basis for deciding what is moral

WHAT ABOUT LAWS AND RELIGION?

- These categories are related but…
- Laws are about maintaining order in society
  - Not necessarily ethical
- Religions have diverse approaches to beliefs and behaviors
  - Too broad to study in this class
- Both will come up indirectly though!

WHAT CAN BE MORAL?

ETHICS IN COMPUTER SCIENCE

- Machine ethics
  - The moral behavior of artificially intelligent beings
- Roboethics
  - The moral behavior of designing artificially intelligent beings
- Computer ethics
  - The moral behavior of using computers and computing systems

WHAT ARE ETHICAL FRAMEWORKS?

- Systems that guide ethical choices and provide a reason for that choice
- This is an unsolved problem!
  - Numerous approaches that result in vastly different outcomes and behaviors
- Three broad frameworks:
  - Duty-based framework
  - Consequentialist framework
  - Virtue framework

ETHICAL THEORIES

- Non-consequentialist
  - Concerned with agent's intent rather than consequence
- Consequentialist
  - Concerned with consequence of agent's actions
- Agent-centered
  - Concerned with ethical makeup of agent

NON-CONSEQUENTIALIST (DUTY-BASED)

- Often associated with Immanuel Kant's "categorical imperative"
  - "Act only according to that maxim by which you can at the same time will that it should become a universal law."
- Ethical conduct means choosing actions that are right and good
- Consider duties and obligations when choosing

PROBLEMS?

- Good intents are valued over good outcomes
- Does not answer how to act when two duties conflict
- Does not provide definition of ethical behaviors

CONSEQUENTIALIST

- Based on Utilitarian philosophy
  - Weights good and bad produced by action to determine overall best action
- Ethical conduct means attempting to do the most good and the least harm
- Considers the impact on all individuals involved when choosing

PROBLEMS?

- The needs of the many override the needs of the few
- Any action can be justified if enough good comes out of it
- Does not address how to predict outcomes based on actions

AGENT-CENTERED (VIRTUE)

- Based on ideas of Aristotle and Confucius
  - Agents should act according to their ideal self
- Ethical conduct means determining an agent's traits and behaviors and building on those that foster good
- Considers entirety of an agent's life rather than individual actions

PROBLEMS?

- Focuses on personal character rather than a system for determining action
- High level approach requires a depth of understanding and interpretation to implement effectively
- Does not define virtuous traits

SOME OTHER VARIANTS

- Duty-based
  - Rights approach: rights of those affected should be protected
  - Fairness approach: fair and equal conduct is ethical conduct
  - Divine command: higher powers dictate what is right
- Consequentialist
  - Ethical egotism: self-interest leads to interest and respect of others
  - Common good approach: what is good for the general society is what is good for all
- Virtue
  - Eudaimonism: living a good life leads to ethical action
  - Ethics of care: feminist theory that care and nurturing should be valued as much as justice and autonomy

WHAT SYSTEMS OF ETHICS DO YOU USE?

CASE STUDY

- Your first job after graduation is system administrator for a 200 person privately held manufacturing company of pacemakers.
- The president/owner sends this message to the employees: “I want to encourage each of you to make comments to me about any facet of our operation you care to. Your response should be made through our anonymizer program so that your identity will not be disclosed”
- The president/owner finds one response saying: “This company sucks. The only way I find to retaliate for the way I have been treated is sabotage. Every tenth part I turn out is defective.”
- The president/owner insists that you examine the computer usage records to determine the identity of the alleged saboteur.

PUTTING ETHICAL FRAMEWORKS IN CONTEXT

- Ethical frameworks are a good starting point for understanding ethical choices…
- But what has our discussion not yet addressed?

HOW DO HUMANS MAKE CHOICES?

- It feels right

"When you see something that is technically sweet, you go ahead and do it and you argue about what to do about it only after you have had your technical success."

—J. Robert Oppenheimer

HOW DO HUMANS MAKE CHOICES?

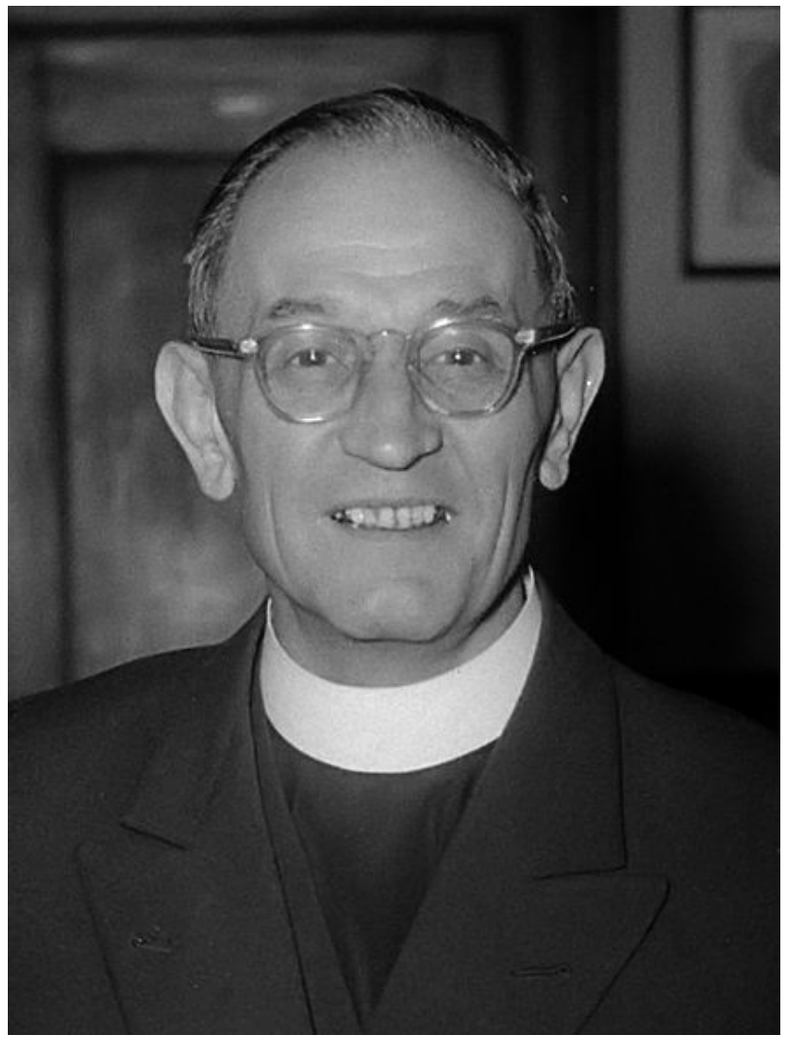
- It feels right
- Listen to your conscience

"To issue a marriage license which conflicts with God's definition of marriage, with my name affixed to the certificate, would violate my conscience"

—Kim Davis

HOW DO HUMANS MAKE CHOICES?

- It feels right
- Listen to your conscience
- Avoid mistakes by doing nothing

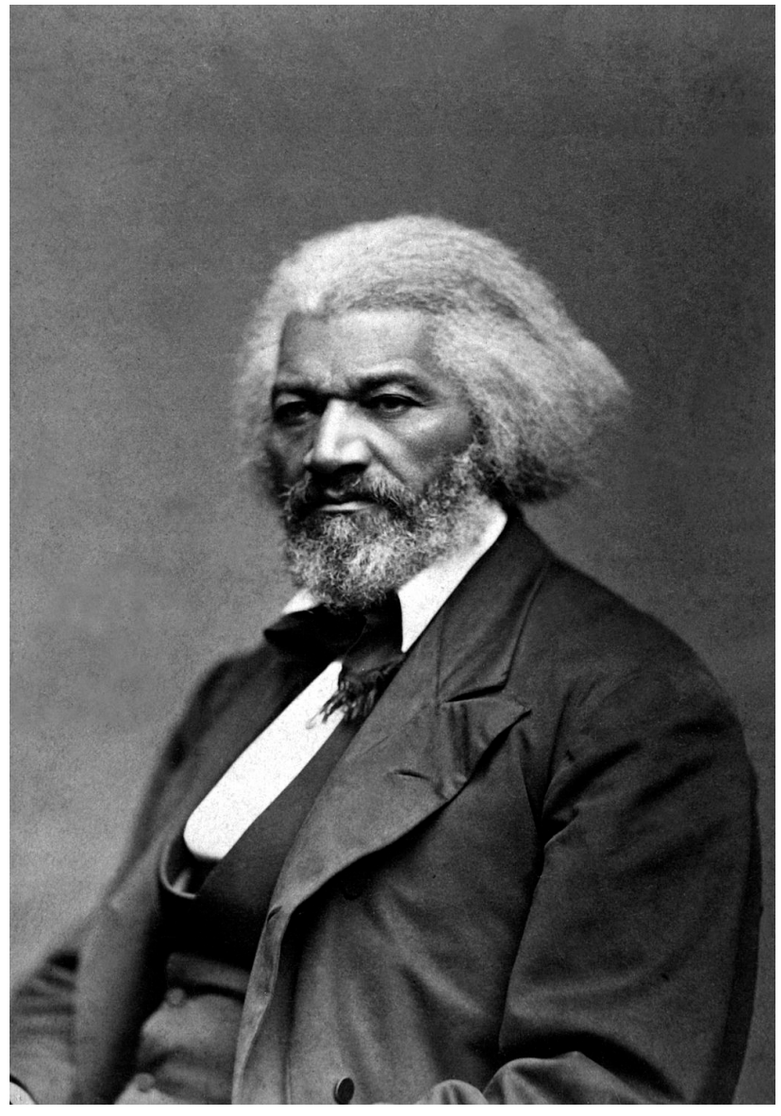


“First they came for the Communists, and I did not speak out—Because I was not a Communist. Then they came for the Trade Unionists, and I did not speak out—Because I was not a Trade Unionist. Then they came for the Jews, and I did not speak out—Because I was not a Jew. Then they came for me—and there was no one left to speak for me.”

—Martin Niemöller

HOW DO HUMANS MAKE CHOICES?

- It feels right
- Listen to your conscience
- Avoid mistakes by doing nothing
- Appeal to authority



"Power concedes nothing without a demand. It never did and it never will."

—Frederick Douglass

HOW DO HUMANS MAKE CHOICES?

- It feels right
- Listen to your conscience
- Avoid mistakes by doing nothing
- Appeal to authority

"We all knew what the implication was without actually coming out and saying it. We all knew if the seals failed the shuttle would blow up."

—Roger Boisjoly

OKAY, BUT HOW DO HUMANS ACTUALLY MAKE CHOICES?

- Libet experiment asked participants to press a button at a time of their choosing
  - Motor-control part of participant's brain activated before participant consciously decided to push the button
- Additional studies suggest that higher brain functions can veto an action even if the initial decision is pre-conscious

OKAY, BUT HOW DO HUMANS ACTUALLY MAKE CHOICES?

- 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

WHAT DOES THIS IMPLY FOR DEALING WITH ETHICS?

- Humans make choices without realizing they've already decided
- Core feelings and beliefs (and implicit biases) have a huge, unseen impact on our decision making
- It is difficult to have a "fair and balanced" perspective
- No…I'm not arguing you don't have free will – no need to have an existential crisis!

ETHICAL DILEMMAS

- Rushworth Kidder defines ethical dilemmas as choices that are right vs right:
  - Truth vs loyalty
  - Justice vs mercy
  - One vs many
  - Short-term vs long-term

SECURITY VERSUS PRIVACY

https://www.nytimes.com/interactive/2016/03/03/technology/apple-iphone-fbi-fight-explained.html

CREATORS VERSUS CONSUMERS

https://www.pastemagazine.com/articles/2017/10/loot-boxes-are-more-proof-that-the-economics-of-vi.html

MANY VERSUS FEW

https://www.cnbc.com/2018/03/29/the-kentucky-coal-town-fighting-to-survive-after-coal-mining-closings.html

CASE STUDY

- Break into groups of 3 or 4
- Choose one of the issues above to discuss (if unfamiliar with the topic, feel free to read the linked article and/or related articles)
- Consider the parties involved and where the conflict between parties arises
- Examine potential resolutions based on the 3 main ethical frameworks
- Discuss what you personally consider the best resolution

HOW DO WE RECONCILE THESE?

REFERENCES

- <https://www.brown.edu/academics/science-and-technology-studies/framework-making-ethical-decisions>
- <https://www.psychologytoday.com/blog/intense-emotions-and-strong-feelings/201012/it-or-not-emotions-will-drive-the-decisions-you>
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