

Open your mind. LUT.

Lappeenranta University of Technology

Liars and Outliers: Chapters 4-5

CT60A7001 - Critical Thinking and argumentation in Software Engineering

Discussion day 2 Artem Khvatov



- We as a society put group interest ahead of our own selfishness
 - We also control selfish behaviour of other people
 - We do this because of societal pressures and our own impulses
- This is what allowed our society to evolve from primeval times to current global society
- Any system of cooperators includes defectors
 - We as a species became more cooperative
 - We evolved strategies for dealing with defectors
- Social pressures evolved to overcome our deceptiveness and murderousness.



- If everyone was an angel who doesn't do any wrongdoings, many things would be unnecessary
 - Currency, police, judges, jails etc. would not be needed if no one cheated
 - All industries involving security would be unnecessary
- "Not being angels is expensive"
 - Costs are not direct
 - Groceries are more expensive because people shoplift
 - Everything costs more because of security costs that are tied
- Non monetary costs too
 - Reduced freedom
 - Loss of privacy
- These costs are what lead to social collapse if they get too high



- Most of us are trustworthy towards strangers, because it's in our long-term interest
 - And we trust these strangers because it's in their interest to act trustworthy.
 - We don't want reputation of an untrustworthy or untrusting person
- Most of us try not to treat others unfrairly
 - It makes us feel bad
 - We know they will treat us badly in return
- Social pressures protect society
 - They protect against potential destabilizing actions of it's members
 - They protect society from defectors
 - Not by making them disappear
 - By keeping their successes down



- As communities grow larger however, social ties weaken and this system starts to fail
- Dunbar proposed natural human group sizes 5,15,50,150,500,1500
 - Layers relate to intensity and intimacy of relationships, and frequency of contact
 - Smallest group: 3-5, clique = number of people who you seek in times of emotional distress
 - Largest group: 1500, the tribe = roughly the number of faces we can recognize
- Basically: As we move from smaller group to larger our social pressures begin to fail
 - This leads to the need of formal rules
 - With increased number of people, we no longer know them well enough to trust them



- Without additional formal societal pressures, societies would have either stopped growing or disintegrated
- Two forces allowed us to grow further and expand our society
 - Institutional pressure (laws)
 - Security systems (technology)
- These two forces let us overcome the limitations of Dunbar numbers
 - People trust systems instead of people
 - People can trust the laws that regulate individuals instead of trusting individuals
 - Instead of trusting that people won't rob an individual, individual trusts locks on the doors
- Society has moved from informal social pressures to more formal societal pressures



- "As a kamikaze pilot, should I refuse to kill myself?"
- Societal dilemma is the tension between group interest and a competing interest
 - Cooperating means following group norm
 - Defecting means following competing norm
- In these situations risk trade-off is the deciding factor
- Consequences: societal repercussions -> trade-off
- Thus it becomes societal dilemma instead of being free choice to do whatever



- Example of societal dilemma: Prisoner's Dilemma
 - Two convicts Alice and Bob are interrogated in separate rooms
 - Each is offered a deal to betray the other and testify against partner in crime
- 4 possible outcomes
 - Both betray: both get 6 years
 - Both cooperate: both get 1 year
 - Alice betrays: Alice 0 years, Bob 10 years
 - Bob betrays: Bob 0 years, Alice 10 years



- Social dilemma
 - Group interest: minimize total jail time
 - Vs. Competing interest: minimize individual jail time
 - Group norm: cooperate and remain silent
 - Vs. Corresponding defection: testify against the other
- Prisoners dilemma shows the conflict between group interest and individual selfinterest
 - As a society working together, best is to remain silent and both get 1 year
 - As individual following own self-interest, both end up with worse outcome individually
 - Best outcome: act in group interest
 - This requires both individuals to trust each other
 - These two prisoners can't trust eachother and both end up getting 6 years



- Another example is about overfishing, which describes what is called non-zero-sum game
- Limited amount of fish to be fished → overfishing causes population to die
- However if only few overfish for their own profit population won't die
- Dying of population on the other hand means that everyone loses and loses much
- One can think however that my overfishing is insignificant as individual where there are 100 fishers
 - If I don't overfish but population dies anyway I lose
 - If most are overfishing, I should profit while I can, before population dies



- This is called Tragedy of the Commons
 - People act in self-interest and harm the group interest
 - In larger scale situations it makes no sense to cooperate
 - Group will do whatever and actions of one individual won't change it
- In Prisoner case it doesn't make sense to cooperate
 - Prisoners cannot trust eachother
- The fundamental problem with cooperation:
 - Trust is unnatural
 - Not in the individuals short-term self-interest
 - Reason why cooperation took long to develop in human
 - Reason why we developed societal pressures
 - Societal pressures enforce cooperation and hold society together

Questions



- How do you begin to trust someone?
- Do you ever really trust someone completely?
- If you can steal something and no one will ever know about it, will you do it?