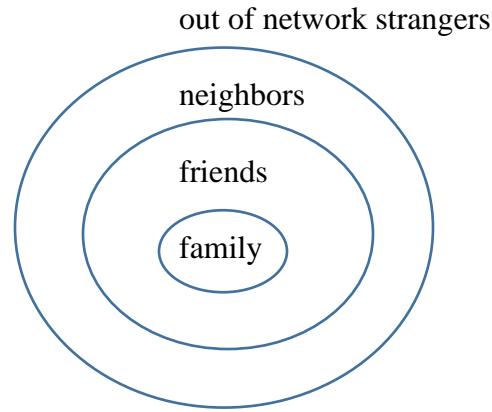


Network Empowerment and Entanglement

1. In the last class we explored the logic of cooperation, both hard-core cooperation among kin with whom we share our genes and soft-core reciprocal cooperation among friends and neighbors to whom we are not genetically related. Kinship altruism is “hard-core” in that it is relatively unconditional. Family members have a genetic interest in the welfare of family members and so are willing to “pay” a cost on their behalf, even up to risking their own life under the right circumstances. Cooperation among friends and neighbors on the other hand is “soft core” in the sense that it is conditional upon reciprocation. Thus it follows the mimetic logic of “tit for tat”--treating others as they treat you. Thus while shared “blood” grounds family cooperation, reputation is critical for reciprocal altruism. As we saw earlier the adaptive value of gossip to learn who can be trusted to reciprocate and who to be wary of trusting may have helped catalyze the very development of language in our species.
2. Cooperative networks are powerful. (1) Having allies to enlist exponentially enhances one’s resources for agency. (2) But cooperative networks also entangle in that they need to be maintained and defended, sustained and repaired. Cooperation relies on trust, that favors will be remembered and reciprocated, promises will be honored, and those in a position to help one in times of need can be relied upon to follow through. So too those who would exploit that trust, renege on promises and take advantage of rather than aid those in need must be identified, punished and sometimes rooted out altogether for the overall health of the network.
 - a. (3) Research has shown that network effects extend to three degrees of separation. As we saw last class, (4) It is not only good to have friends but to have friends with high status, that is friends who themselves have lots of friends. (5) In turn helping a friend also indirectly helps your friend’s friends too, as your aid puts your friend in a stronger position to come to their aid as well.
3. Research has also shown that humans are able to sustain ongoing relationships with at most around 150 people. Note that this is also the size of a hunter-gatherer band. It is at this point, when you can no longer be personal friends with all your neighbors, (1) that reputation and gossip over reputations becomes essential. With the rise of even larger cities in the Bronze Age (2)the arises a need for written laws to regulate cooperation and

competition, (3) soldiers and judges to enforce those laws, and (4) religious rituals to sacralize and regularly renew the legitimacy of the social order they sustain.

4. In summary one can map an expanding succession of networks:



5. Cooperative strategies differ depending on where one is on this map.

- a. (1) Family members share genes. Its to one's advantage to act "hard core" around them in proportion to your relationship to them.
- b. (2) Friends *are* friends because they have proven trustworthy in the past. One needs to reciprocate favors to keep getting favors from them. Thus friendship has both benefits and maintenance costs.
- c. (3) Neighbors you can rely on by reputation. Its to your advantage to do a favor for someone with a good reputation for reciprocation. You are not just getting a new friend, but you are also getting access to his or her own network of family and friends. The higher their status, the larger and more powerful their network is. So be particularly eager to help those of high status. On the other hand those of lower status than yourself, will find your network worth making sacrifices for to ensure access to. Lower status friends are thus relationships that don't cost you as much to maintain.
- d. (4) Strangers, on the other hand, can cheat you without penalty, as you will never see them again, and you have no common friends to harm their reputation. However it is usually not to your advantage to exploit them too much. As you also

do not know how large and powerful their own network of allies and resources are.

6. These strategies have been “gamed out” by social scientists.
 - a. In the “pre-emption game” \$10 is placed between two players. (1) If neither takes the money after five minutes the two can split it \$5 each. However, (2) if one does take the \$10, that player gets to keep \$8 and the other only gets \$2. Consider how this game will play out in the different circles of relationship:
 - i. (3) Friends?
 - ii. (4) Both attend Gonzaga but do not know one another?
 - iii. (5) Total strangers?
7. Maintenance issues:
 - a. One needs to protect one’s cooperative network (1) not only against cheaters but also (2) against “free riders” those who enjoy the benefits of a network but do not bear their fair share of the costs. The notion comes from public buses which will only work if most people can be trusted to pay their fare and not try to get a “free ride.”
 - b. Both cheaters and free riders undermine the trust necessary for your network to function. (3) In fact, your network is so valuable that it can be worth it to punish someone who, although not cheating you, is nevertheless cheating others in your network, or (4) free riders who exploit your network, enjoying its benefits without sharing in its costs. (5) Such forms of punishment is called “altruistic punishment.” Just as altruistic cooperation (6) builds networks, altruistic punishment protects the trust necessary to sustain them.
8. Consider for example, the “ultimatum game:”
 - a. (1) One player is given \$10 and gets to decide how to share it with another player. However (2) if the other player does not agree to the deal neither gets anything.
 - i. Why would the first player not just offer the other \$1 and keep \$9. Or in other words, why would the second player not just accept whatever the first offers. After all, if the second player rejects the offer he or she gets nothing at all.

- ii. Have you ever refused a “bad deal” considering it worse than “no deal” in which you end up with nothing at all?
- 9. Consider yet another game, the “Dictator game”: One player gets \$10 to split however he or she sees fit, but the other player has no veto power but has to accept whatever is offered.
 - i. Why would anyone give the second person anything at all? Can you think of examples in your own life when you shared with another when you did not need to?
- 10. Consider yet a fourth game in which (1) a third person observes two others playing the dictator game (2) except that the second player (3) has to take whatever is offered. (4) However the third outside observer has \$5 which they can either keep or can spend to punish the first player. (5) For \$1 the observer can fine the first player \$3.
 - i. (6) At what point might you spend a dollar to punish the first player?
 - ii. (7) Can you think of cases where you have been willing to come to the defense of someone who is being taken advantage of?
- 11. Finally consider the following example of “network altruism”
 - a. Someone does you a favor but says you do not need to return the favor. It’s a gift. You respond not by returning the favor but rather by giving a favor to someone else. In this case you have not paid *back* the favor but have paid it “forward.” Why would one do this? Have you ever “paid it forward?”
- 12. Let us now turn from cooperation to the logic of aggression:
 - a. (1) when harmed by someone how decide when to fight back and when to back down or walk away?
 - i. (2) If one sees one cannot win the fight, why risk getting hurt? (3) In this case the stronger wins without a fight. He or she has won by intimidation.
 - ii. On the other hand, (4) if one sees one can easily win why even let the other back down or get away?
 - 1. (5) There is always the risk of lucky punch
 - 2. (6) And of course one may not know the weak person’s network of allies.

- a. (7) Police and justice system has evolved as a network of allies for all of us to prevent the stronger from taking advantage of the weaker
 - b. (8) Who then is most vulnerable to aggression? Who is most likely to be intimidated?
 - i. (9) Those who are perceived to be weak and those without strong networks of support, ie the marginal, (10) those who can be easily scapegoated.
 - c. (11) However if a marginal group is depicted as an existential risk to society as a whole, then the mainstream may seek to eliminate the threat once and for all. This is the logic of “hate speech” and genocide.
13. On the other hand, axial religious language intensifies networks by drawing people further in. (1) Axial religion calls its practitioners to:
- a. (2) Treat co-religionists like family
 - b. (3) Treat neighbor like yourself
 - c. (4) Treat stranger like a neighbor
 - d. (5) Forgive sinners, ie seek to repair broken relationships
 - e. (6) Love enemies. Resist the genetic temptation to feed into the “tit for tat” cycle of mimetic violence.
14. In the next lecture we shall explore an evolutionary approach to free will and to psychiatric disorders, where we feel we have no free will but where our evolved genetic programming runs amok and becomes dysfunctional. In contrast to Freud who had argued that there is more anxiety and depression in modern civilization due to the need to repress “natural” instincts, evolutionary psychology will argue that psychiatric disorders are not uncontrolled releases of repressed emotions but rather bugs in our genetic programming or obsolete programming no longer adaptive in modern society. After all our genetic programming evolved in a hunter-gatherer lifestyle. Its hardly a surprise that some instinctual programs are no longer functional. Last week in the introduction to evolutionary psychology we explained phobias and cravings for fat and sugar as genetic programming that, while adaptive for hunter gatherers on the African savannah have

become dysfunctional today. In the next lecture we will explore anxiety, depression, schizophrenia, self-cutting and other disorders along similar evolutionary lines.