



Social Structure

Social structure is the patterned social arrangements in society that are both emergent from and determinant of the actions of the individuals.

On the macro scale, social structure is the system of socioeconomic stratification (e.g., the class structure), social institutions, or, other patterned relations between large social groups.

On the meso scale, it is the structure of social network ties between individuals or organizations.

On the micro scale, it can be the way norms shape the behavior of individuals within the social system.



The emergence of social classes

Epstein 2006 ch 8



"The history of all hitherto existing society is the history of class struggles... Freeman and slave, patrician and plebeian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed, stood in constant opposition to one another, carried on an uninterrupted, now hidden, now open fight, a fight that each time ended, either in a revolutionary reconstruction of society at large, or in the common ruin of the contending classes.... The modern bourgeois society that has sprouted from the ruins of feudal society has not done away with class antagonisms. It has but established new classes, new conditions of oppression, new forms of struggle in place of the old ones. Our epoch, the epoch of the bourgeoisie, possesses, however, this distinctive feature: it has simplified class antagonisms. Society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other: Bourgeoisie and Proletariat."

Communist Manifesto

Epstein's model

"Bargaining" on the share of a common resource

Connection to norms

Remember the definitions ? Social Norm Norm Moral Norm "A norm is any behavioral rule "A social norm is a rule of "A moral norm is a rule of that is considered valid by the conduct derived from a moral conduct derived from a social majority of a population" behavioral expectation" value" Axelrod's definition Legal norm "A legal norm is a rule of conduct A norm exists in a given derived from the code of law" social setting to the extent that individuals usually act in a certain way and are often punished when seen not to be acting in this way



Our focus: Norms governing the distribution of property

Discriminatory norms

Allocate different share of the pie according to gender, race, ethnicity etc. (e.g. eldest son inherits all)

Equity norms

Do not distcriminate (e.g. Everybody can buy a real estate)



Young's evolutionary model of bargaining

Individuals A and B demand a portion of a "pie" (a piece of available property)

Nash demand game:

Each party gets its demand if the sum of two demands is not more than 100% of the pie. Otherwise, both get nothing.



| ash demand game | | | |
|-----------------|-------|-------|-------|
| | н | М | L |
| Н | 0,0 | 0,0 | 70,30 |
| Μ | 0,0 | 50,50 | 50,30 |
| L | 30,70 | 30,50 | 30,30 |







Adding a random component

With probability $1-\varepsilon$ make a demand that maximizes your expected payoff given your expectations about the opponent's behaviour (based on the last *m* matches). If several demands maximize the expected payoff, they are chosen with equal probability. => described in the previous slide.

With probability ε choose H,M,L at random

Can you describe it as a Markov Process?

High heterogeneity Live in La La land?

А НННННННН ?

B H H M M M M M M M ?

However, most population might plan to demand L

And what if A will be matched against B?

Social Norm

A self-perpetuating state in which players memories and best replies are unchanging.

An equilibrium of the dynamical system.

Example: Everybody demands M

Equal agents = equity norms

When there are no observable differences among individuals, the equity norm (i.e. all demand M) is the unique equilibrium of the Nash demand game. And is the unique restpoint of the unperturbed social dynamic.













