

Groups

This week we will go over the behavioral literature on groups.

The basic unit of analysis in economics is the individual

However, many decisions are made by groups:

- ▶ households, governments, board of directors, parliament, committees

Groups

We will look at several different questions regarding groups:
Are groups “better” decision-makers?

- ▶ Faster, more rational?

What is the decision-making dynamic within a group?

Does our membership of groups affect our decisions?

Decision-Making

Before reviewing the evidence, we must distinguish between two types of “problems”:

- ▶ Eureka!-type problems
- ▶ Decisions which depend on one’s preferences.

Groupthink

Janis (1972) first introduced the idea that group dynamics could be behind a number of policy “fiascos”

- ▶ Bay of Pigs invasion

Janis (1972) defined groupthink as “a mode of thinking people engage in when they are deeply involved in a cohesive in-group, when the members striving for unanimity override their motivation to realistically appraise alternative courses of action”

Groupthink

Groupthink captures excessive forms of agreement-seeking behavior by members of a policy-making group or committee.

- ▶ Committee members value the group and its membership over other functions
- ▶ This leads them to seek consensus so as to avoid fracturing the group
- ▶ To do so, members suppress doubts, silence dissenters and follow the leader's suggestions

Group members believe in the moral superiority of the group, combined with a disregard for the group's dissenters

- ▶ This leads to distorted views of reality, overconfidence and consequently to sub-optimal decisions.

Groupthink

Janis postulates that key *antecedent conditions* lead to groupthink tendencies, resulting in *observable consequences*, and undermining the success of the group decision-making process.

Janis identifies three types of antecedent conditions:

- ▶ *Group Cohesiveness*
- ▶ *Organizational Structural Faults*
 - ▶ Insulation of the group
 - ▶ Lack of impartial leadership
 - ▶ Lack of methodical procedure group norms
- ▶ *Situational Factors*
 - ▶ High stress from external threats
 - ▶ Temporary low self-esteem

Groupthink

Janis identifies two categories of observable consequences:

- ▶ *Symptoms of Groupthink*
 - ▶ Type I: overestimation of the group
 - ▶ Illusion of invulnerability
 - ▶ Belief in group's inherent morality
 - ▶ Type II: closed mindedness
 - ▶ Collective rationalization
 - ▶ Stereotypes of out-groups
 - ▶ Type III: pressure toward uniformity
 - ▶ Self-censorship
 - ▶ Illusion unanimity
 - ▶ Direct pressure on dissenters
 - ▶ Self-appointed mind guards

Groupthink

- ▶ *Symptoms of defective decision-making*
 - ▶ Incomplete survey of alternatives
 - ▶ Incomplete survey of objectives
 - ▶ Failure to examine risks
 - ▶ Failure to reappraise rejected alternatives
 - ▶ Poor information search
 - ▶ Selective bias in processing information
 - ▶ Failure to work out a contingency plan

Groupthink

Janis (1982) provides nine recommendations designed to prevent groupthink from occurring:

1. Each member should be a critical evaluator of the group's course of action; an open climate of giving and accepting criticism should be encouraged by the leader.
2. Leaders should be impartial and refrain from stating personal preferences at the outset of group discussion; they should limit themselves initially to fostering open inquiry.
3. Establish multiple groups with different leaders to work the question in parallel.
4. Split groups into subgroups to assess feasibility and effectiveness of proposals.

Groupthink

Janis (1982) provides nine recommendations designed to prevent groupthink from occurring (cont):

5. Each member of the group should privately discuss current issues and options with trusted associates outside the group and report reactions.
6. From time to time, bring in outside experts to challenge the views of the core members.
7. There should be one or more devil's advocates during every group meeting.
8. In conflict situations, extra time should be devoted to interpreting warning signals from rivals and to constructing alternative scenarios of their intentions.
9. Reconsider the decision in second chance meetings before going public.

Groupthink

Empirical studies of groupthink have used different methodologies:

- ▶ Case studies
 - ▶ This suffers from the fact that usually only secondary data is available
- ▶ Experimental studies
 - ▶ This suffers from the fact that the lab's artificiality makes the dynamics envisaged by Janis are difficult to induce.

This, allied to the complexity of the model makes testing the full model extremely difficult.

- ▶ Unsurprisingly the evidence is mixed (see Rose, 2011)

Nevertheless this model has been immensely influential.

Groups and Information Sharing

Stasser and Titus (1985) were interested in how well groups were able to pool the information that all individual group members have to make the best decision on the basis of all the information.

To test this, they constructed a *hidden profile* group decision making task. In this task, individual group members are given information that is relevant to making the decision.




Unbeknownst to them, some of this information is *shared* with other group members and some is *unshared*.

- ▶ In other words, in some cases, they are the only ones who know a particular fact.

Groups and Information Sharing




Consider this example for a 3-person group that was asked to appoint one of two candidates (X or Y) to a job.

- ▶ Each person has 3 pieces of information about each candidate.

	Candidate X			Candidate Y		
	X1	X4	X5	Y1	Y2	Y3
	X2	X4	X5	Y1	Y2	Y4
	X3	X4	X5	Y1	Y2	Y5

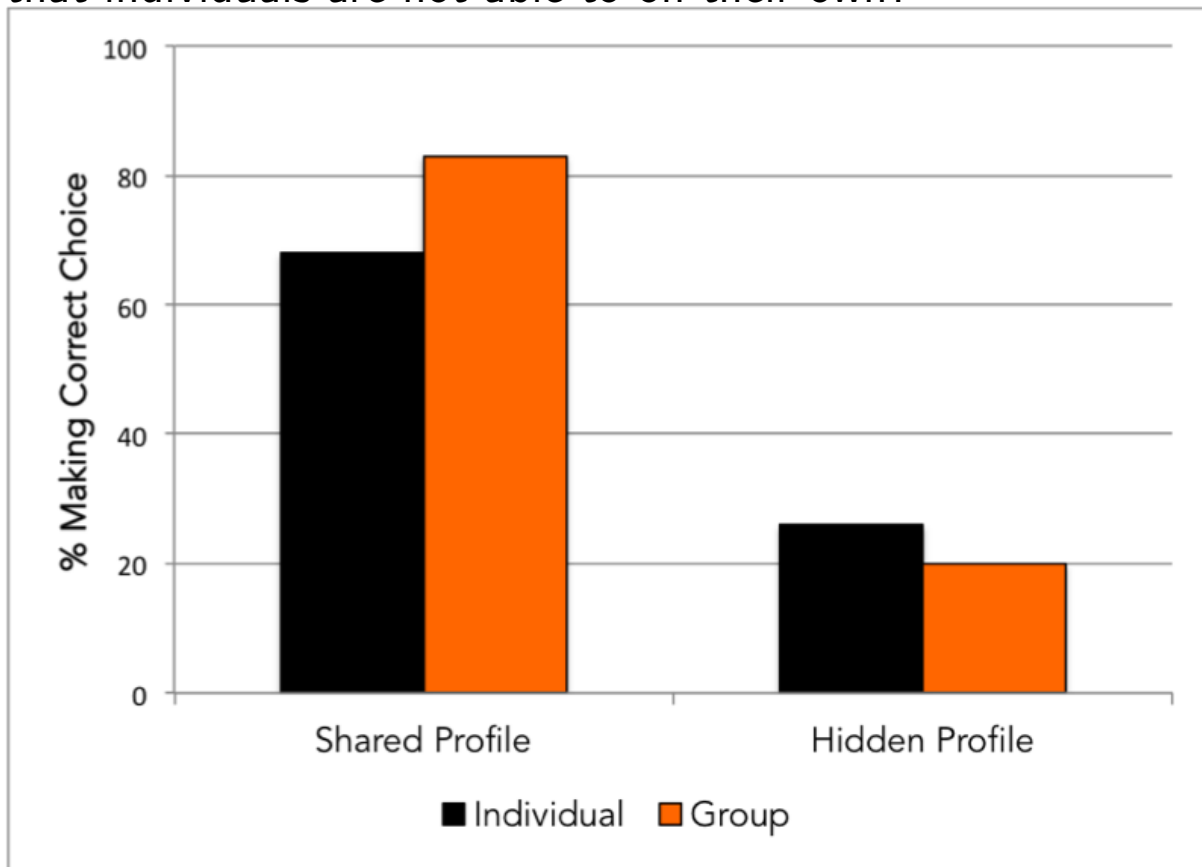
Groups and Information Sharing

Importantly, the unshared information included a hidden profile.

	Candidate X			Candidate Y		
	X1	X4	X5	Y1	Y2	Y3
	X2					Y4
	X3					Y5

Groups and Information Sharing

Can groups uncover the hidden profile and reach the conclusion that individuals are not able to on their own?



Groups and Information Sharing

Several reasons are typically proposed for why groups fail to share unshared information.

1. People prefer to present and receive information that is shared.
2. People prefer to discuss shared information.
3. People don't like to change their original preference.
4. Desire for consensus leads to early settling on the shared preference.

Groups and Information Sharing

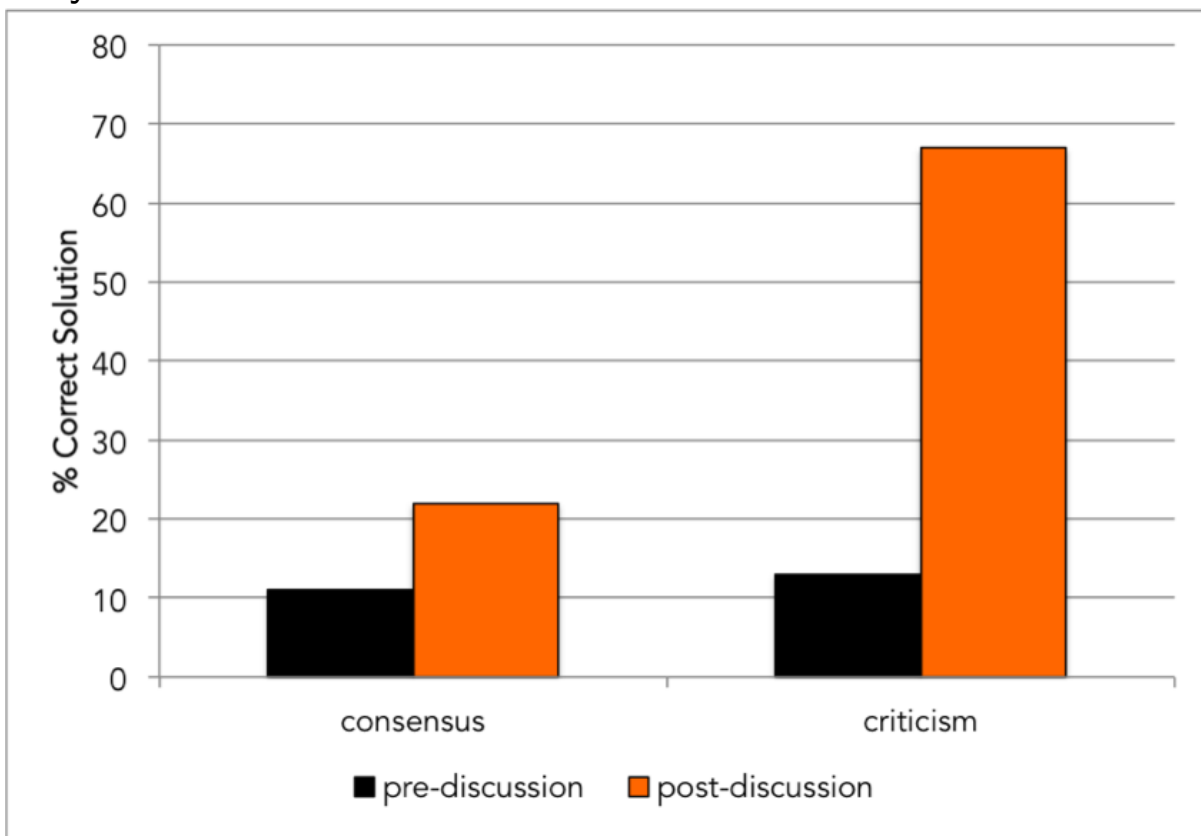
Postmes et al. (2001) have explored the role of different group norms for decision making performance.

18 groups of 4 participants took part in two supposedly unrelated tasks.

- ▶ The first task was selected to either create a more critical norm (around debate and dissent) or a more consensual group norm (around positive interaction).
- ▶ The second task was the usual hidden profiles task.

Groups and Information Sharing

Groups were much more likely to uncover the hidden profile when they had a norm of criticism rather than consensus.



Are groups better decision-makers?

Blinder and Morgan (2000) study whether:

- ▶ Groups are slower DMs than individuals;
- ▶ Groups make worse decisions than individuals.

The authors consider a simple DM under uncertainty experiment.

Blinder and Morgan (2000)

Subjects were faced with an urn whose composition was:

- ▶ 50% blue balls and 50% red balls.

In every round, a ball would be drawn with replacement.

They were told that at some point in the experiment this would change into:

- ▶ 70% blue balls and 30% red balls, or
- ▶ 30% blue balls and 70% red balls.

Blinder and Morgan (2000)

Subjects had to guess which change had happened, based on the draws.

- ▶ Change happened no later than the first 10 draws.
- ▶ Either case was equally likely to happen.

Earnings were calculated based on how fast (number of draws) and how accurate the estimate was:

- ▶ $S = 40 + 60C - |L|$

Blinder and Morgan (2000)

$$S = 40 + 60C - |L|$$

$C = 1$ if estimate was right, 0 otherwise

$L = TN$, where

- ▶ T was the draw at which the composition of the urn changed;
- ▶ N the draw at which the estimate was made.

Blinder and Morgan (2000)

Think of the original (50/50) urn as a default state in the economy.

The other two urns could signify a recession or a boom.

- ▶ The draws signify the new bits of information that arrive to the policy-maker.
- ▶ Note that the change of contents is quite subtle, hence not easy to detect.

Blinder and Morgan (2000)

Changes in macroeconomic conditions are rarely drastic.

- ▶ Hence the question to policymakers is not whether to cut or raise interest rates;
- ▶ It is more about doing nothing or raise/cut?

The payoff function also puts a much higher premium on accuracy over speed.

Acting quickly but incorrectly can have disastrous consequences.

Blinder and Morgan (2000)

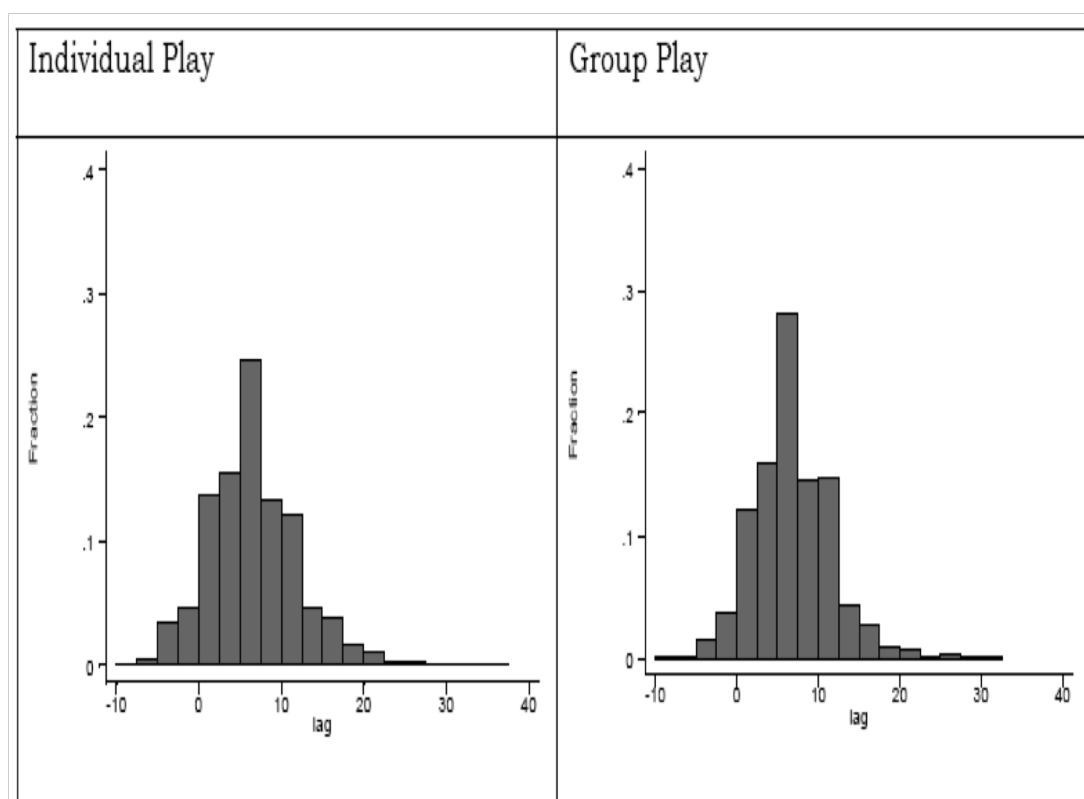


Figure 1: Histograms of Lag in Urn Experiment

Blinder and Morgan (2000) findings

Groups are no slower than individuals at making decisions;

- ▶ Majority rule is faster than unanimity (unsurprising).

Groups make better decisions than individuals:

- ▶ Average score for groups = 86.8
- ▶ Average score for individuals = 83.7

Group dynamics

How do groups operate when there is no right or wrong decision to make?

Psychologists have found that decisions taken by groups systematically differ from individuals.

Group polarisation hypothesis:

- ▶ Group discussion moves decisions to more extreme points in the same direction as the average of the members initial choices.

Group dynamics

Two hypotheses have emerged to explain this phenomenon:

- ▶ Social Comparison Theory (SCT);
- ▶ Persuasive Argument Theory (PAT).

PAT argues that individuals are influenced by the number and persuasiveness of arguments made during discussion.

Persuasive Argument Theory

An individual will change his mind towards a given direction if (s)he is exposed to sufficiently many arguments of that nature.

If group members will put forward arguments in favour of their private position, the final group decision should reflect the average of the initial positions.

Social Comparison Theory

SCT argues that people like to perceive and present themselves in a socially desirable way.

It argues that individuals like to perceive themselves as more favourable than the average tendency.

Hence, unlike PAT, it is the type of arguments that matter, not how many.

Cason and Mui (1997)

Cason and Mui (1997) study group vs. individual behaviour in a dictator game.

The research question is how group dynamics shape decision-making.

- ▶ SCT predicts groups will converge to more other-regarding behaviour;
- ▶ PAT predicts that groups will converge to more other-regarding behaviour only if individuals exhibit such preferences.

Cason and Mui (1997)

To gauge individual preferences, individuals were asked to state their decisions in the standard dictator game.

Pairs were then made and subjects were asked to decide again how to split an amount of money with a different pair.

Cason and Mui (1997)

Frequency of Shifts Toward Other-Regarding and Self-Regarding Team Offers and Classification of Mean Individual Offer

	Direction of shift (team)			
	Self-regarding (team < mean individual)	No change (team = mean individual)	Other-regarding (team > mean individual)	Total (row)
(a) Individual-Team (I-T) treatment				
Mean of the individual offer is				
Self-regarding (< \$1.50)	1*	6	9††	16
Neutral (= \$1.50)	2	0	0††	2
Other-regarding (> \$1.50)	2	4	1*††	7
Total (column)	5	10	10	25

Cason and Mui (1997)

Majority of shifts were in the direction predicted by SCT.

Especially for teams whose members made self-interested offers.

Group membership and identity

We now turn to the issue of how groups shape the decision-making of individuals.

Economists model preferences in a “vacuum”

Psychologists have long identified the importance groups have in shaping individuals preferences.

Group membership and identity

In particular, strong bonds within a group tend to lead to increased levels of cooperation within that group

- ▶ Business networks within immigrant communities;
- ▶ Old Boy networks (Old Etonians);

but may also lead to discrimination against those who do not belong to that group

Group membership and identity

Economists claim that such groups are a barrier to trade and therefore could hinder efficient outcomes.

However, this argument flies in the face of the success of some of these groups.

Social Identity Theory tries to explain why we observe discrimination by some groups against others.

Social identity theory

Social Identity is based on three factors:

- ▶ Categorisation
- ▶ Identification
- ▶ Comparison

Categorisation is the process of labelling individuals (ourselves included) into multiple identities

- ▶ E.g. Female, Muslim, White, English, Man Utd fan

Social identity theory

Identification is the process by which we identify ourselves (or not) with some groups.

- ▶ In-groups are groups with which we identify;
- ▶ Out-groups are groups with which we don't identify.

Comparison is the process by which we compare our in-groups with our out-groups.

- ▶ The norm is to have a bias towards our in-groups.

Social identity theory

Tajfel et al. (1971) was the one of the first papers to study this in an experimental setting.

The study generated artificial groups with very little basis in the “real world” :

- ▶ Subjects were asked to state their preference between Klee and Kandinsky paintings.
- ▶ They were then sorted according to their preferences.

Social identity theory

Subjects were then asked to make an allocation of money between two participants:

- ▶ One in-group and one out-group subject.

Table 1
Multiple-Choice Allocation Matrices^a

Matrix	Payoffs for members of in-group and out-group													
A														
In-group	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Out-group	14	13	12	11	10	9	8	7	6	5	4	3	2	1
B														
In-group	19	18	17	16	15	14	13	12	11	10	9	8	7	
Out-group	1	3	5	7	9	11	13	15	17	19	21	23	25	
C														
In-group	7	8	9	10	11	12	13	14	15	16	17	18	19	
Out-group	1	3	5	7	9	11	13	15	17	19	21	23	25	

^a Adapted from Tajfel, Billig, Bundy, and Flament (1971).

Social identity theory

When faced in the IG-OG condition, subjects chose the allocation which *maximised the difference* in payoffs between subjects

- ▶ Whilst favouring the IG player

Does this extend to real groups?

- ▶ Do real groups exhibit in-group favouritism?
- ▶ Are groups better at enforcing norms?

Social identity in real groups

Huffman et al. (2006) conduct a series of prisoners dilemmas using Swiss Army personnel.

- ▶ All Swiss males are required to do military service
- ▶ As part of training, recruits are randomly sorted into platoons.

Authors use random assignment to platoons as a proxy for group generation.

Social identity in real groups

Experiment 1: Standard Prisoners' dilemma with 2 conditions:

- ▶ Playing with IG member;
- ▶ Playing with OG member;

Experiment 2: Two players were added who could “pay” to deduct points from the players playing the PD.

Social identity in real groups

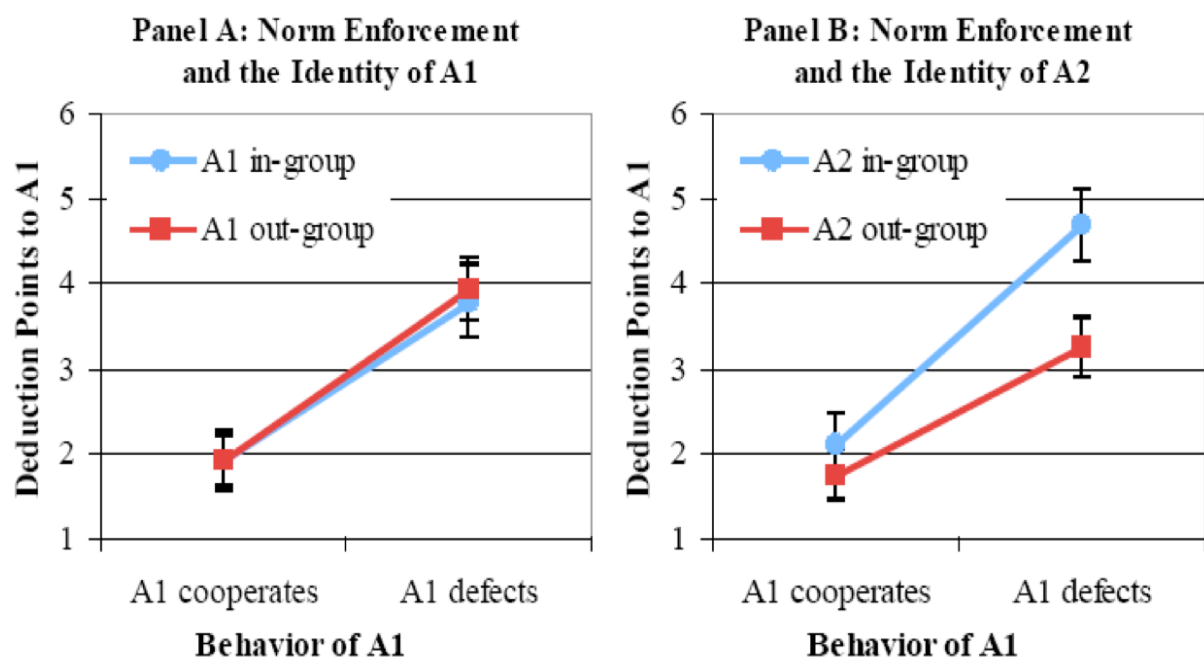
Result 1: Cooperation and expected cooperation of others is higher in IG than OG

TABLE 3 – COOPERATION AND BELIEFS IN IN-GROUP
AND OUT-GROUP TREATMENT

	Fraction deciding to cooperate	Average Expected cooperation rate
In-group treatment	69.4 %	56.8 %
Out-group treatment	50.0 %	40.5 %
Test of difference	Fisher's exact test: $p < 0.05$	t - test: $p < 0.001$

Social identity in real groups

Result 2: Punishment is not a function of who defects, but of who is affected by the defection.



Social identity in real groups

We see higher levels of cooperation within group members than with outsiders

- ▶ Even when groups are formed randomly.

Individuals are not harsher to IG than OG;

However, norm violations which hurt an IG member are punished harder.

Networks and Homophily

Although (labour) economists have been concerned about issues like racial discrimination, only very recently has the focus shifted towards formally modeling this type of phenomenon.

Central to this approach is the concept of *homophily* (Lazarsfeld & Merton, 1954), the tendency of individuals to associate with those who have similar characteristics as themselves.

This concept, coupled with theory of networks can be a very powerful tool of analysis.

Networks, Homophily and Education Decisions

Consider a simple model of the world where there are two types of jobs: skilled and unskilled.

An unemployed worker can search for new job through his own effort or via his social network (family & friends).

However, jobs he finds out via his friends will be the types of jobs they do:

- ▶ “Uneducated” friends will have (low paid) low-skilled jobs;
- ▶ “Educated” friends will have (highly paid) high-skilled jobs.

Networks, Homophily and Education Decisions

So, one would expect that one's decision to invest in education will be a function of the level of education in his social network.

How do the structure of one's network and homophily matter?

Higher homophily leads to different groups being more segregated;

Since the level of education of one's group influences the decision to invest in education, one could find very stark patterns across different groups.

Networks, Homophily and Education Decisions

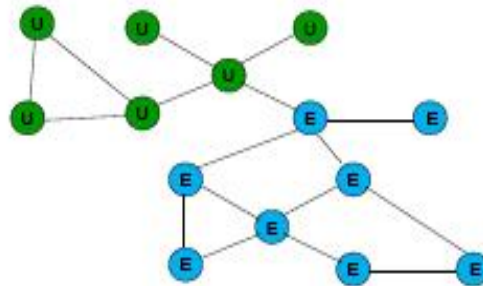


Figure 6: Homophily and education choices: an equilibrium in a situation where each agent prefers to choose to be educated (E) if at least one third of his or her friends are educated (E), and otherwise prefers to choose to be uneducated (U).

Networks, Homophily and Education Decisions

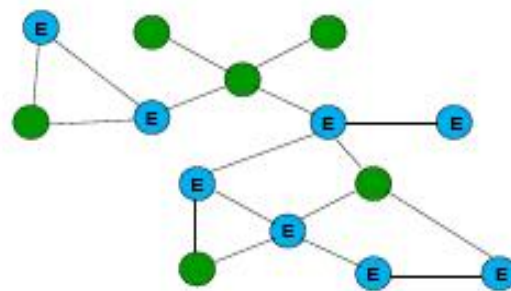


Figure 7: Homophily and education choices: an equilibrium in a situation where each agent prefers to choose to be educated (E) if at least one third of his or her friends are educated (E), and otherwise prefers to choose to be uneducated (U). If all blues choose E then it can be checked that all greens will prefer to choose E as well.

Some field data

Currarini et al (in press) investigate the role of homophily in social networks:

They study Add Health Data Set:

- ▶ A data set from 84 US High Schools;
- ▶ Students were asked to name up to five friends of each gender
- ▶ Authors classify a link as a friendship if two people identify each other as friends.

Some field data

Percent of Friends by Ethnicity:	Ethnicity of Students			
	White	Black	Hispanic	Others
	n=131	n=96	n= 13	n=15
	%=51	%=38	%=5	%=6
White	85	7	47	74
Black	4	85	46	11
Hispanic	4	6	2	4
Others	7	2	5	11

Table 1: Percentage of Links Across Ethnicities in an American School; from Add Health 1994 Data.

Some field data



Figure 1: Friendships network in a U.S. School. Colors identify races: white=Whites;



Miguel A. Fonseca

Groups

Some field data

Currarini et al find that:

- ▶ Larger groups tend to form more same-type ties and fewer other-type ties than small groups;
- ▶ Larger groups form more ties per capita;
- ▶ Same-type bias is most prevalent in middle-sized groups

The authors develop a model which tries to explain the patterns in this data set based on two factors:

- ▶ You may be more likely to meet people of your own type;
- ▶ You may have an intrinsic preference for interacting with people of your own type.