

Identity Economics..... and Inequality

Rachel E. Kranton

HCEO – NES – CREC Summer School
July 2021

Introduction – Identity and Inequality

- Inequality – some people have more, some people have less.
- Why do we care?
- As social scientists, we want to describe such patterns.
- But why do we concentrate on inequality as a pattern of interest?
 - Maybe bad for growth, development overall.
 - Maybe its unfair, unjust.
- Particularly unjust: inequality associated with social difference
 - Systematic – certain social groups have more and others have less.
- Inequality is not randomly distributed.
 - US – blacks, Hispanics,
 - Europe – North Africans, Africans, Roma
 - Many parts of the world – women

Introduction – Social Categories

- Identity –
- At a minimum a designator of a social group.
- How does identity figure into inequality??
 - Mere descriptors?
 - Part of processes and structures that create and sustain inequality?

Introduction – Preferences & “Identity”

- What is “identity?”
 - A person’s sense of self; a person’s self-image.
 - How a person views him/herself and/or others view him/her.
 - Note “identity” is used as a descriptor: **“I am Hispanic.”**
 - And “identity” is used as way of feelings/emotions
 - **“I have a strong sense of identity; I feel good about myself.”**
 - Judgment depends on ideals, norms a person holds for oneself and others hold for that person – depends on social norms for who you are
 - **“I am proud to be Hispanic”**
 - This judgment depends on how “Hispanic” one feels, and whether you and other Hispanics are living up to norms and ideals.

Introduction - “Identity”

- Identity-contingent utility/payoff function.
 - Individuals have preferences over own and others’ actions, depending on identity and norms
 - Social categories & norms for categories
- Individuals care about own actions, depending on identity.
- Utility enhanced when abide by norms for own category.
- Individual care about others’ actions - externalities
 - Externality: Others suffer a utility loss (offended?) when norms are violated.
 - Externality: Others retaliate against those who break the norms – incur a cost but restore utility loss from offense.

Introduction - “Identity”

- Why do we want a model with identity?
- Add identity to economic framework:
 - Individuals make choices, interact strategically when utility depends on identities and norms for categories
 - patterns of behavior
- Identity model can explain patterns that cannot be explained (or uncomfortably explained) with standard model
- Add a new understanding to phenomena and policy

Outline of Lecture

- Identity & Inequality – Part 1 – Theory
 - Overview theoretical approaches to social norms/social differences
 - * Standard Models: Preferences & Constraints
 - * Strategic Interaction
 - * “Identity Economics” as a new approach
 - * *Human capital acquisition (schooling) as an example*
 - * *Identity and Redistribution as an example*
- Identity & Inequality – Part 2 – Experiments
 - Experimental evidence for impact of identity on behavior
 - Experiments with identity variation
 - Do people have preferences for “inequality”? **YES**

Identity and Inequality
Part 1
Economic Theory

Rachel E. Kranton

HCEO Summer School
2021

Introduction – Why theory?

- Putting identity/social category markers is standard practice in empirical study of socioeconomic outcomes.
 - (Dummy) variables: black, female, ethnicity, region, state
 - Interaction effects: black, female, etc.
- To fix ideas – consider education
 - child or adolescent “underachievers” in school; does not get the education that would be predicted by benefits and costs
 - Black children in the United States
 - Roma children in Hungary
 - Girls in a developing country
- What can account for the dummy variables, the interaction effects?
- Unpack the black box of these effects.

General Overview of Theoretical Approaches

- Basic Economic Model
 - Individuals have utility from own choices/actions
 - Idiosyncratic preferences, which are exogenous
 - Technology (constraints)
 - choices lead to patterns of behavior
- Strategic Interaction
 - Individuals have payoffs from own and others' actions
 - Idiosyncratic costs/benefits, which are exogenous
 - Game form (institutions), specifying information asymmetries etc.
 - equilibria give patterns of behavior
- Preferences determine utilities and payoffs
 - Preferences – what a person “likes” or “doesn’t like” (Becker)
 - Preferences – what a person “should” or “shouldn’t do” (A&K)
 - Combine with technology & constraints, strategic interaction
 - choices & equilibria give patterns of behavior

General Overview: Basic Economic Model

- Utility Function: individual w/exogenous, idiosyncratic preferences
 - Makes choice given technology and constraints.
- Child likes or not school (or is more or less talented at schoolwork)
 - Weighs costs and benefits of schooling, given school quality and opportunity cost of attending school, job networks, discrimination.
 - Pattern: Blacks have lower levels of academic achievement because they attend worse schools, have worse job networks.
 - Pattern: Girls have lower levels of academic achievement because they have high opportunity cost of time (household).
- Useful, because there could be such technology, constraints.
- Begs the question why blacks attend worse schools, why women “should” attend to household chores, why there is discrimination.
- Pushes the inequality question up one level, to what is behind the assumptions in our models.

General Overview: Strategic Interaction

- Strategic Interaction:
 - Individual payoffs depend on own preferences and others' actions.
 - Makes choices strategically, taking into account how others' react.
 - Equilibria \square social pattern
- Repeated game, punish those who violate the equilibrium action
 - Equilibrium can be a “bad social norm”
- Signaling game, actions indicate underlying unobserved attribute
 - Equilibrium is a social norm – but notice signaling costs
- Add labels – and then have a theory of an outcome
 - Girls invest less in school to not have bad marriage prospects.
 - Black children achieve less in school to signal more “sociable” type (Austen-Smith & Fryer 2009)
 - Blacks are not hired by firms to avoid boycott by consumers.

General Overview: Strategic Interaction

- Inequality is the capricious outcome of strategic interaction –
- Has no social context per
- There is nothing particularly meaningful about being black, female, North African, etc.
 - This view is useful. Social norms may indeed be “bad equilibria.” Intervention needed to change the equilibrium.
 - United States civil rights law.
- But consider three basic points:
 - Theoretical requirements to sustain equilibria are very strong
 - There is much social context associated with norms – discussions in literature, press, law, activists, etc.
 - People die over these issues

General Overview – Preferences and “Identity”

- Preferences and norms are a possible source of inequalities.
- Becker: a taste-based theory of discrimination
 - In the same way some people like apples and others like oranges, some people may not want to work with Black co-workers or women.
 - Workers with these tastes would require a wage premium.
 - Blacks/women then have lower benefits of education
 - But competition could eliminate such high-cost firms.
- Point: maybe preferences per se matter.
- Akerlof & Kranton: preferences both “likes;” and “shoulds”
 - Preferences are not all idiosyncratic, rather socially derived
 - Depend on peoples’ social identities
 - Identity-based preferences are contested

Akerlof & Kranton – Identity & Preferences (Norms)

- Build a model where individuals think of themselves and other (more or less consciously) in terms of social categories.
- People have tastes, but also norms for how people *should* behave.
- People have utility from own actions, and others' actions
 - people internalize norms
 - punish others who violate “social code”
- Use this utility function to study schooling and minority poverty.

Identity – General Framework

- Start with a standard model of utility.

- The utility of person j is represented as

$$W_j = W_j(a_j, a_{-j})$$

where a_j are j 's actions, a_{-j} are others' actions.

- The inclusion of a_{-j} captures the possibility of externalities or strategic interaction.
- For example:
 - a_j is the effort of j in school, and a_{-j} is the effort of others in school, which may hurt or help j 's academic achievement

Identity - General Framework: *Utility & Identity*

- Add identity ingredients
- Set of Social Categories: C .
- Individual j 's assignment of self and others to categories: c_j .
- Norms, N , give appropriate behavior, ideal attributes of each social category.
- Utility Function

$$U_j = U_j(a_j, a_{-j}, I_j)$$

a_j are j 's actions, a_{-j} are others' actions, I_j is j 's self-image:

$$I_j = I_j(a_j, a_{-j}; c_j, \varepsilon_j, N)$$

where ε_j are j 's given attributes.

Identity - General Framework: *Utility & Identity*

$$U_j = U_j(a_j, a_{-j}, I_j)$$

$$I_j = I_j(a_j, a_{-j}; c_j, \varepsilon_j, N)$$

- Overall utility depends on how actions a_j, a_{-j} affect “economic utility,” and how they affect self-image, I_j .
- Self-image (identity, I_j) depends on
 - Acting as should: match between actions and category norms N
 - Fitting in: match between ε_j and ideal of category specified by N
 - Status: status of assigned category, given by $I_j()$
- In basic case, person j chooses a_j to max utility, taking as given category assignment (c_j) own attributes (ε_j) norms (N).
- In general, a person could act to change own category, own attributes, and societal norms. Third parties have incentives.

Example of Identity Model – Education & Schooling

Akerlof & Kranton (2002)

- Basic model of education = investment in human capital
- Large population of individuals
 - Each individual n_i = “ability”
 - Marketable Skills/Payoffs from effort choice e_i and ability:
$$v_i = n_i e_i - k(e_i)$$
- Optimal effort (schooling level) balances benefits and effort costs
- Not a good model of children or adolescents
- Identity model makes the child/adolescent the decision-maker
 - Considers *their* motives and interactions – US high school

Example of Identity Model – Education & Schooling

Akerlof & Kranton (2002)

- Large population of individuals
 - Each individual exogenously given $n_i =$ “ability”
 - Marketable Skills/Payoffs from ability and effort choice e_i :
$$v_i = n_i e_i - k(e_i)$$
- Each individual has a second exogenously given characteristic
 - $l_i =$ “looks” ; i.i.d. uniform on $[0,1]$
- Social Categories: $C = \{Leading\ Crowd, Nerds, Burnouts\}$
 - Norms/Ideals: $l=1$ for Leading Crowd, $n=1$ for Nerds
 - Norms/Ideals: $e(N) > e(L) > e(B)$
- Identity utilities depend on category, effort, and fit with Ideal
 - $I_c - t(1 - \varepsilon_i(c)) - \frac{1}{2}(e_i - e(c))^2$
 - $I_L > I_N > I_B$

Example of Identity Model – Education & Schooling

Akerlof & Kranton (2002)

Individual's overall utility:

$$U_i(e_i, C; \varepsilon_i, Norms) =$$

$$n_i e_i - k(e_i) + I_C - t(1 - \varepsilon_i(C)) - \frac{1}{2}(e_i - e(C))^2$$

- Individuals choose effort, e_i , and category, C , to max utility
- Tradeoff: skills, status, fitting in, and abiding by norms
 - E.g., high n_i : choose $C = Nerd$ and $e_i = e(N)$
high skills, fit in, abide by effort norms for category, but low status

Example of Identity Model – Education & Schooling

Akerlof & Kranton (2002)

- Individuals choose (simultaneously) effort and category.
- Balance payoffs from effort in school, “fitting in” to category
- High l , also high n , individuals choose to be L rather than N
- Low l and low n students choose to be B, rather than L or N.
 - (don't want to be a “wannabe”)
- Choose effort in school according to norms $e(C)$
- Identity payoffs lead lower academic achievement/schooling

Example of Identity Model – Education & Schooling

Akerlof & Kranton (2002)

- School policy to affect achievement through social arrangements
- Introduce athletics, and social category *Jocks* (as part of L)
- Students have another characteristic $a_i = \text{athletic ability}$
- Students make choice of category and effort:
 - High a but low l and low n students now choose to be L
 - High a but high n now choose to be L rather than N
- Overall increase or decrease academic achievement
- But less divergence in academic achievement
fewer B's and fewer N's

Example of Identity Model – Education & Schooling

Akerlof & Kranton (2002)

- Consider a population with different ethnic, social groups.
- Curriculum thought to favor one of the groups (dominant/majority)
- Marketable skills depend on effort at mastering this curriculum but curriculum has identity associations, payoffs
 - Math vs. English class. data
- School policy to affect achievement by changing curriculum to affect identity payoffs of effort.

Example of Identity Model – Redistribution

Shayo (2009)

- Identity model: less redistribution

Standard setting:

- Population of agents N
- Set of actions A available for each agent i
- Social outcomes T that follow from individual actions A
 - e.g., voting \rightarrow tax rate
- Each agent i earns economic payoff $\pi_i(t)$ for outcome t
- Agents take actions that lead to outcome that maximizes $\pi_i(t)$
 - *Poor should vote for more redistribution*

Example of Identity Model – Redistribution

Shayo (2009)

Add identity considerations – groups and utility

- Set of groups, each group J characterized by ideal attribute q_J
- Status of group J based on relative income vis a vis J'
- *Ideal attribute and status depend on social outcome t*
- Each agent i has individual attribute q_i
- An agent i identifies with group J if i :
 - prefers social outcomes in which group J 's status higher
 - prefers social outcomes in which i 's distance from group J ideal is lower

Example of Identity Model – Redistribution

Shayo (2009)

- Identity model of politics and redistribution
 - explain empirical pattern: more nationalistic, less redistribution

Standard setting:

- Population of agents N
- Set of actions A available for each agent i
- Social outcomes T that follow from individual actions A
 - e.g., voting \rightarrow tax rate
- Each agent i earns economic payoff $\pi_i(t)$ for outcome t
- Agents take actions that lead to outcome that maximizes $\pi_i(t)$
 - *Poor should vote for more redistribution*

Example of Identity Model – Redistribution

Shayo (2009)

- *Social Identity Equilibrium* = actions and identities for each agent and outcome t such that
 - each agent's identity choice optimal given t
 - each agent's action is optimal given identity J
 - t is determined by agent's actions via aggregation process
- *Multiple Social Identity Equilibria* =
 - poor identify with lower class, vote for redistribution (which enhances status of lower class)
 - poor identify with the nation, do not vote for redistribution, status derives from national group

Identity and Inequality
Part 2
Economic Experiments

Rachel E. Kranton

HCEO Summer School
2021

Experiments with Social Groups, Identity

- Do people behave differently (towards others) depending on identity/social group?
- Experiments where social category/identity is research objective
 - *Own Actions* – do people have different behavior when identity is “salient”
 - *Strategic Play* – do people play differently depending on identity/social group?
 - Social Preferences (fairness, inequity aversion)
Do people have preferences for inequality? YES
- Challenge is to design experiments with social group variation.
 - Real-world groups – different ethnicity, club membership
 - Preserve anonymity to avoid repeated game effect
 - Create groups in the lab.

Experiments: Own Behavior

- “Stereotype Threat”
 - Steele & Aronson (1995)
- Incentives and Stereotype Threat?
 - “Discrimination, Social Identity and Durable Inequality
Hoff & Pandey (2006)
 - Children in India, paid to solve mazes – piece rate
 - Three conditions –
anonymous, caste revealed integrated, caste revealed segregated
 - Lower caste subjects completed fewer mazes in both caste revealed conditions relative to control

Experiments: Strategic Games

“Discrimination in a Segmented Society” Fershtman & Gneezy (2001)

- Objective: test for “taste for discrimination” vs. “stereotypes”
 - Do people discriminate per se or are they concerned about actions others will stereotypically take?
- Israeli Jewish students – European vs. Eastern origin (last name)
- Trust game – sent less to Eastern (though return about the same)
- Dictator game – sent about the same to both types
- Ultimatum game – sent more to Eastern (“concern for respect”?)
- Trust result only for males.

Experiments: Social Preferences

- Social Preferences = value placed on other's income

Many experiments where subjects allocate income to self and to others. E.g., i chooses top or bottom row

π_i	π_j
π'_i	π'_j

Show inequity aversion, social welfare max.

People not only self-interested.

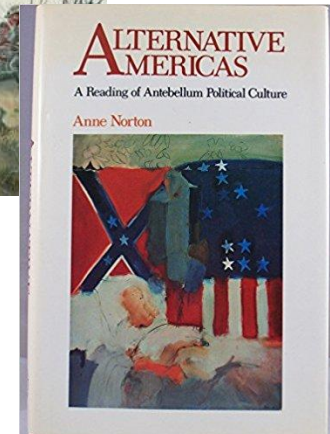
Fehr & Schmidt (1999), Bolton & Ockenfels (2000), Andreoni & Miller (2002), Charness & Rabin (2002)

Reality Check on Social Preference Experiments

- Group conflict feature of human history
 - Groups defined on religion, “race,” nationality, culture
 - NOT inequity averse: Forcibly extract labor, resources from others



- Country and regional borders, civil wars, alternative identities




Experiments: Group Conflict, Identity, Social Prefer

- Social Psychology Experiments (1950's – 1970's)
 - Robbers Cave (Sharif & Sharif)
 - Minimal Group Experiments (Tajfel & Turner)

- Social Preferences and Groups – Chen & Li (2009)
 - Minimal Groups
 - Allocate income to self and others
 - in-group vs. out-group
 - Results: less inequality averse to those in other group

Social Preferences Estimation

- $U_i(\pi_i, \pi_j) = \beta_i \pi_i + \rho_i (\pi_i - \pi_j) r + \sigma_i (\pi_j - \pi_i) s$
- β_i weight on own income
- ρ_i weight on income difference for $\pi_i > \pi_j$ ($r = 1; s = 0$)
- σ_i weight on income difference for $\pi_i \leq \pi_j$ ($r = 0; s = 1$)

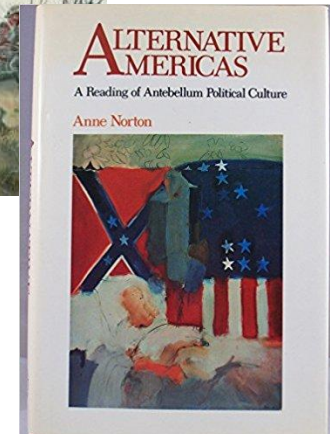
$\beta_i > 0$	$\sigma_i = 0$	$\sigma_i > 0$	$\sigma_i < 0$
$\rho_i = 0$	<i>Selfish</i>	<i>Total Income Max*</i> if $\beta_i - \sigma_i > 0$	<i>Inequity Averse/ Dominance Seeking</i>
$\rho_i < 0$	<i>Inequity Averse/ Total Income Max*</i> if $\beta_i + \rho_i > 0$	<i>Total Income Max*</i> if $\beta_i + \rho_i - \sigma_i > 0$	<i>Inequity Averse</i> 
$\rho_i > 0$	<i>Dominance-Seeking</i>	<i>Inequity Loving **</i>	<i>Dominance-Seeking</i>

But what about ubiquitous group conflict??

- Group conflict feature of human history
 - Groups defined on religion, “race,” nationality, culture
 - NOT inequity averse: Forcibly extract labor, resources from others



- Country and regional borders, civil wars, alternative identities



“Deconstructing bias in social preferences reveals groupy and not-groupy behavior”

Rachel Kranton, Matthew Pease, Seth Sanders, Scott Huettel

PNAS (2021)

“Deconstructing Bias” – Introduction

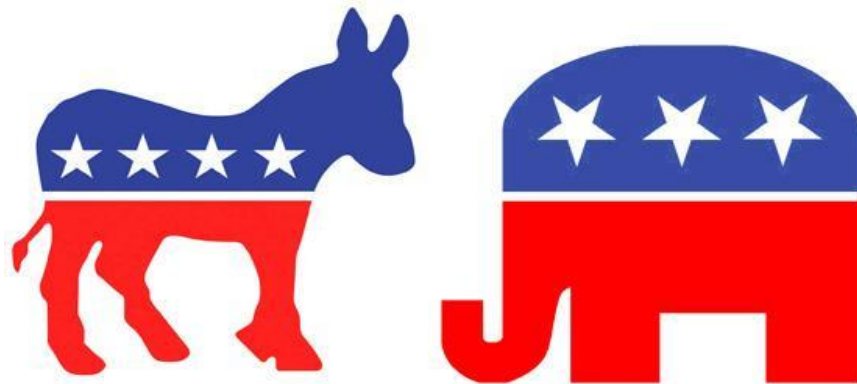
- *Maybe stronger identification with group ?*
- *Do people who identify more with a group engage in discriminatory behavior?*
- Findings: No but
 - Groupy vs. Non-Groupy Individuals
 - Some people have no ingroup bias – same towards everyone
 - Some people have strong ingroup bias - destructive
(consistent with average of “inequity averse”)
 - **tendency for ingroup bias could be individual tendency**
 -Individual correlates of groupy/not groupy ?
 - Settings/information change behavior towards others?

“Deconstructing Bias” – Introduction



Klee

Kandinsky



- *Two conditions*: minimal group, political group – w/i subject
- *Individuals*: more or less identify with assigned group
- Replicate ingroup bias on average, but large heterogeneity

Groupy vs. Not Groupy individuals

“Deconstructing Bias” – Overview of Experiment

- Duke University subject pool - no deception lab
- Schematic of experimental session:

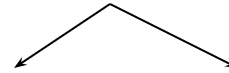
Instructions	3-5 minutes
Asocial Control	
52 Choices	12 minutes
Minimal or Political Group	
Survey Treatment	2-5 minutes
<hr/>	
78 Choices	17 minutes
Minimal or Political Group	
Survey Treatment	2-5 minutes
<hr/>	
78 Choices	17 minutes
Post-experiment Survey	10 minutes

- Paid for one choice in each – control, MG, POL group

“Deconstructing Bias” – Overview of Political Treatment

- Political Group: participants self-identified as

Democrat Republican Independent None of the Above



closer to Dem closer to Rep

Democrats

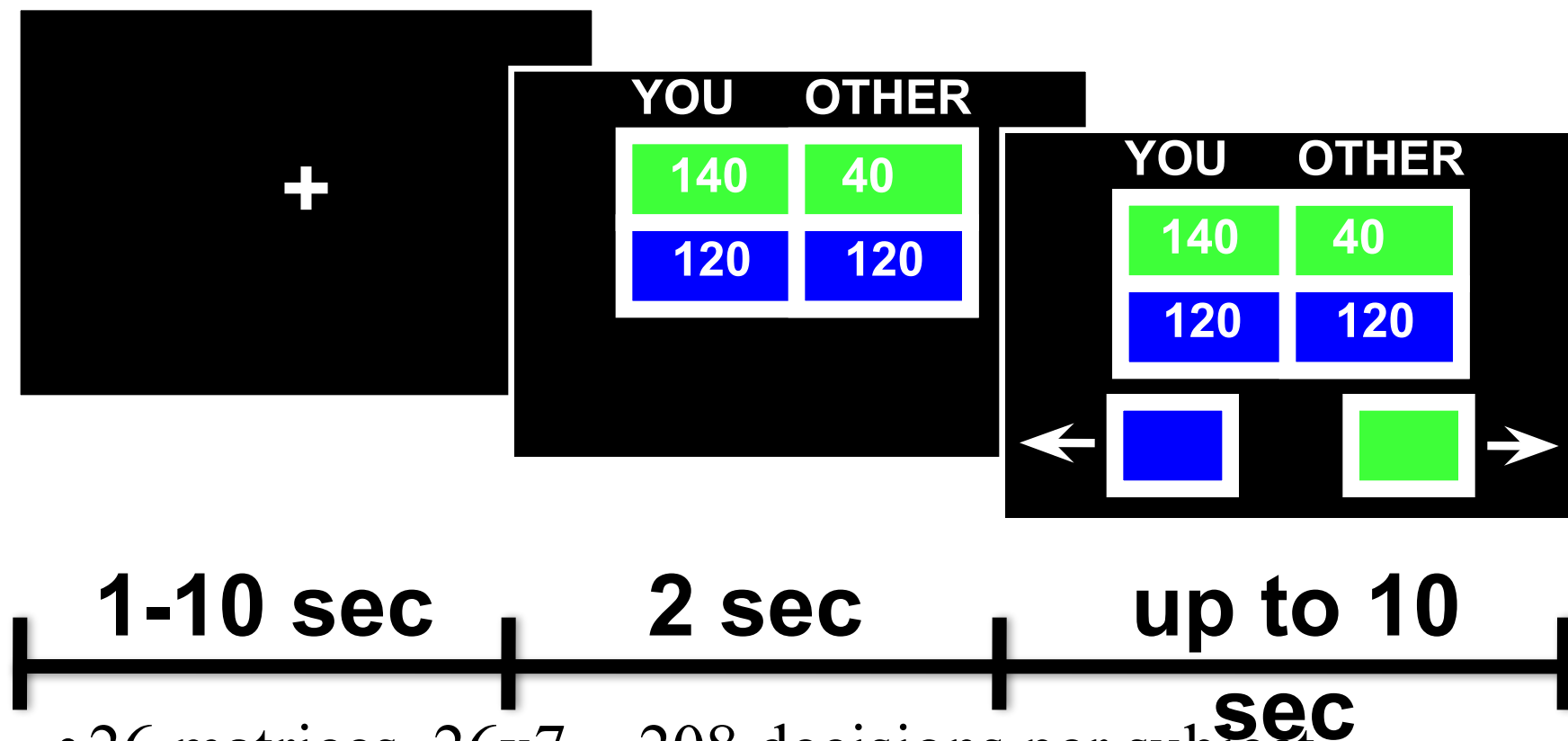
D-Leaning Ind

Republicans

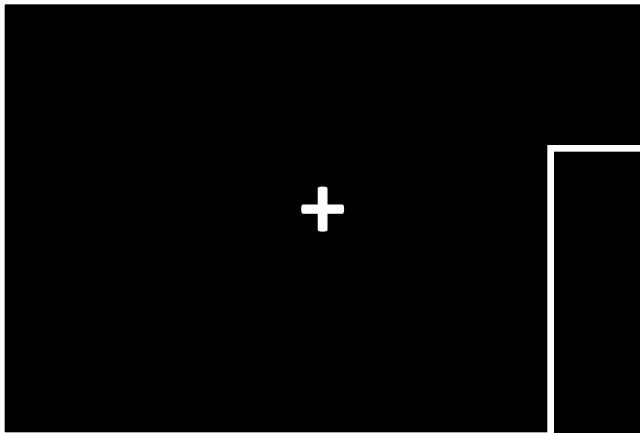
R-Leaning Ind

“Deconstructing Bias” – Details of Experimental Task

- Allocation choices, timed as follows:



- 26 matrices, $26 \times 7 = 208$ decisions per subject
- Top, bottom, green, blue, left, right: all randomized



YOU	OTHER
140 100	
120 20	

YOU	OTHER
140 100	
120 20	

← →

Choose Bottom = **Dominance-Seeking/Inequity Loving**

“Deconstructing Bias” – Basic Results - Favoritism

- Consider individual “favoritism” in allocating income
For an individual i in condition g , for a given matrix m :

YOU	OWN
140	100
120	20

YOU	OTHER
140	100
120	20

Income given to own – Income given to other

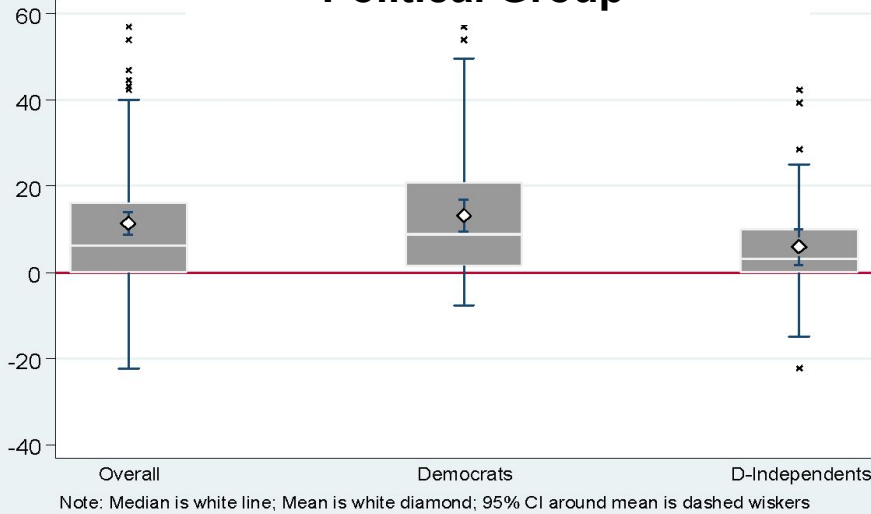
E.g., (100 – 20)

Average across m gives “favoritism” for individual i in g

i 's favoritism in $g = \text{MG}$, and i 's favoritism in $g = \text{POL}$

“Deconstructing Bias” – Basic Results - Favoritism

Favoritism towards Ingroup Political Group



All

Democrats

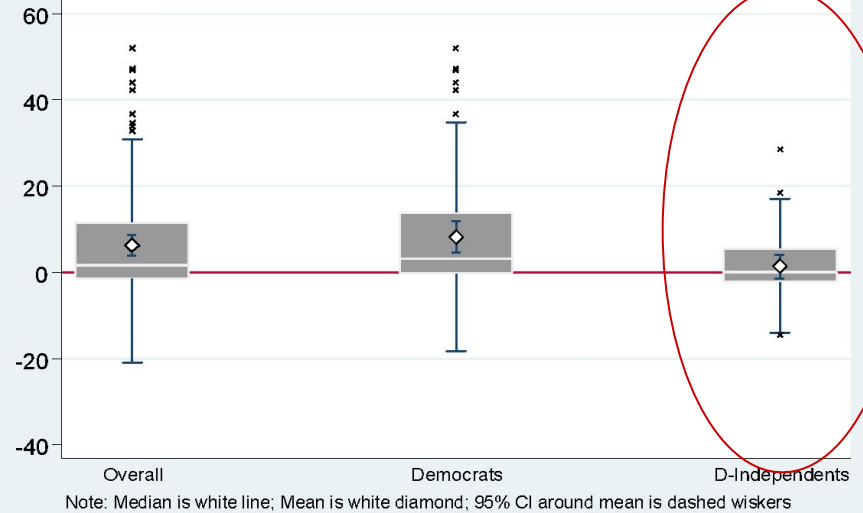
D-Indep

**13.19
(1.89)**

**5.83
(2.15)**

**Δ: 7.36
(3.08)**

Favoritism towards Ingroup Minimal Group



All

Democrats

D-Indep

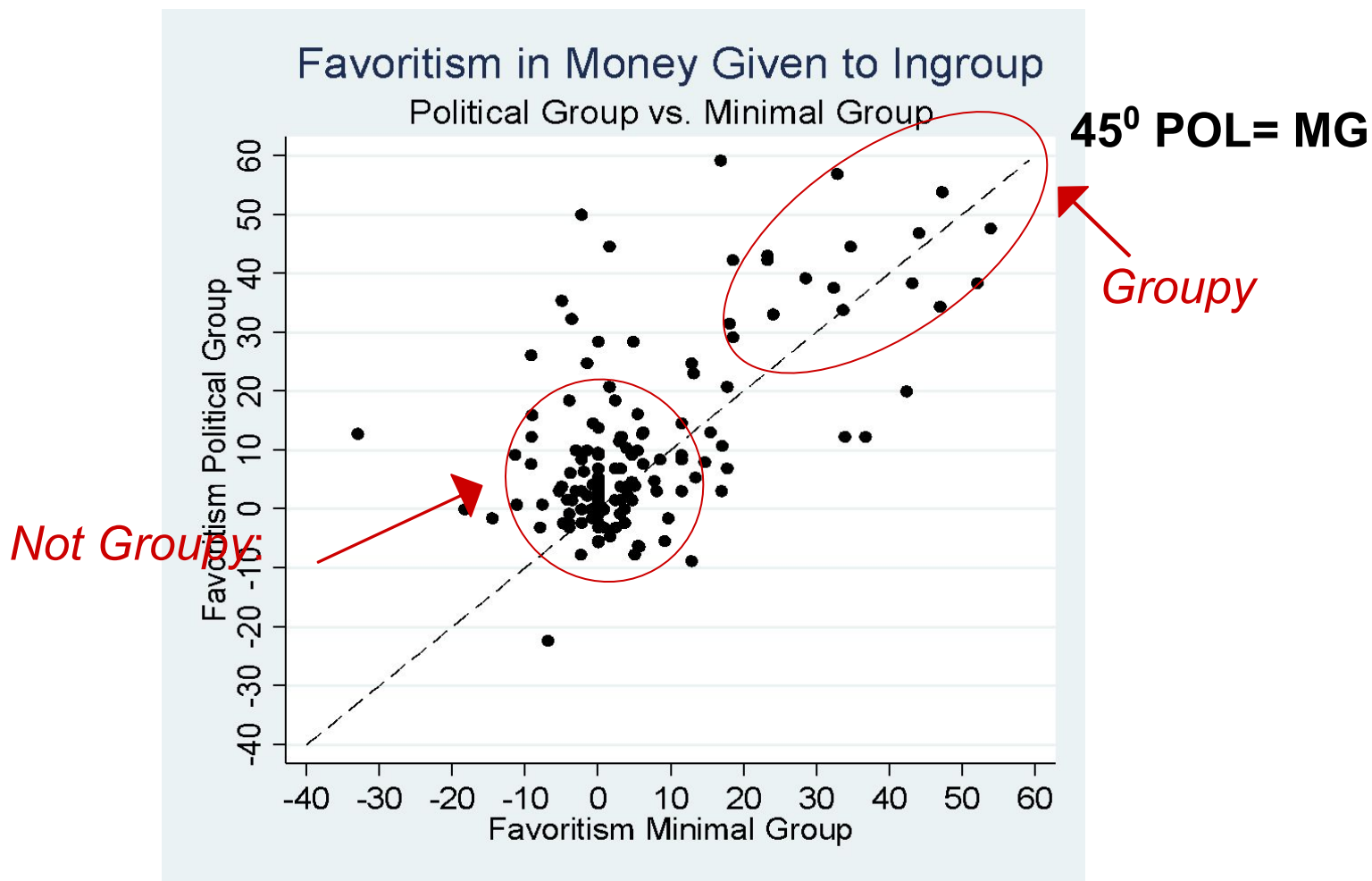
**8.14
(1.85)**

**1.38
(1.39)**

**Δ Δ : 0.6
(2.6)**

**Δ: 6.76
(2.81)**

“Deconstructing Bias” – Basic Results - Favoritism




Correlation 0.63

Linear Regression $R^2 = 0.4$

“Deconstructing Bias” – Social Preferences (replication)

- $U_i(\pi_i, \pi_j) = \beta_i \pi_i + \rho_i (\pi_i - \pi_j) r + \sigma_i (\pi_j - \pi_i) s$
- β_i weight on own income
- ρ_i weight on income difference for $\pi_i > \pi_j$ ($r = 1; s = 0$)
- σ_i weight on income difference for $\pi_i \leq \pi_j$ ($r = 0; s = 1$)

$\beta_i > 0$	$\sigma_i = 0$	$\sigma_i > 0$	$\sigma_i < 0$
$\rho_i = 0$	<i>Selfish</i>	<i>Total Income Max*</i> if $\beta_i - \sigma_i > 0$	<i>Inequity Averse/ Dominance Seeking</i>
$\rho_i < 0$	<i>Inequity Averse/ Total Income Max*</i> if $\beta_i + \rho_i > 0$	<i>Total Income Max*</i> if $\beta_i + \rho_i - \sigma_i > 0$	<i>Inequity Averse</i> 
$\rho_i > 0$	<i>Dominance-Seeking</i>	<i>Inequity Loving **</i>	<i>Dominance-Seeking</i>

“Deconstructing Bias” – Individual Social Preferences

- Individual Estimates – Mixing Model
 - estimate $(\beta_t, \rho_t, \sigma_t)$ for given number of “types” $t = 1, \dots, n$.
 - estimate for $t = 4$
 - (just enough, 5 does not give much more precision)
 - *data* gives parameters of “types” & % of pop of each type
 - Given “types,” categorize each individual as a type
 - each individual has a type in each treatment and for each pairing
- Identify groupy vs. non-groupy individuals –
 - not groupy = same utility type own v.s other
 - groupy = different utility type own vs. other

“Deconstructing Bias” – Groupy/Non-groupy Individuals

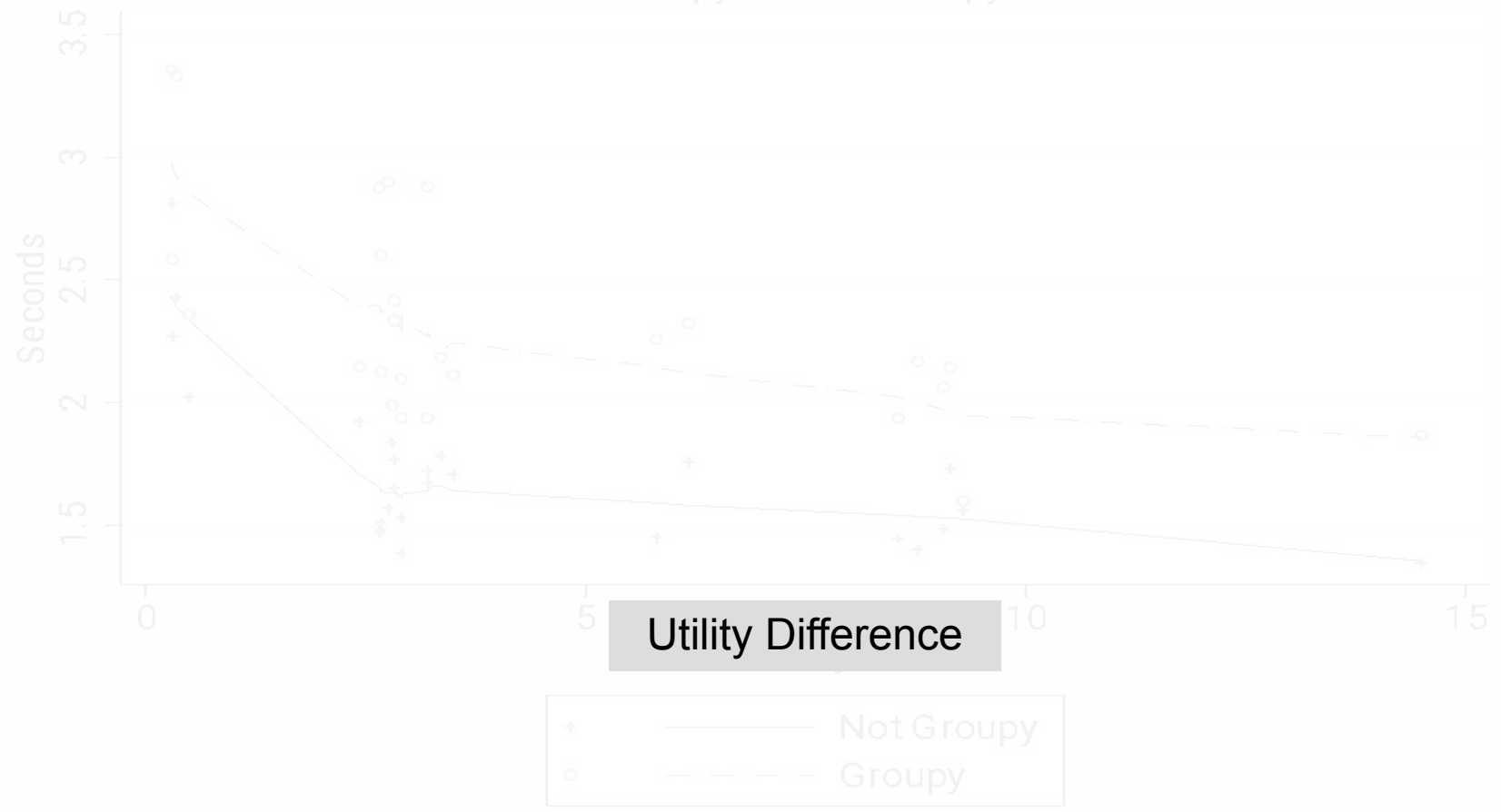
Cross Tabulations of Subjects' Types

		Minimal Group You-Other				Total
		SELFISH	TOTAL INC	INEQUI	DOMIN	
<u>Minimal</u> <u>Group</u> <u>You-Own</u>	SELFISH	34	3	1	0	38
	TOT INC MAX	3	12	8	4	27
	INEQUITY A	4	4	36	10	54
	DOMIN	0	0	0	4	4
	Total	41	19	45	18	123

- Diagonal = non-groupy – same preferences toward in and outgroup
- Off – diagonal = groupy – distinguish between in and outgroup
- Dominance seeking vis a vis Other

“Deconstructing Bias” – Groupy/Non-groupy Individuals

Figure 9: Response Time Selfish Type POL You-Other
Groupy vs. Not Groupy



“Deconstructing Bias” – Groupy/Non-groupy Correlates

	Groupy (N=85)	Not Groupy (N=48)	P-Val
Female	65%	65%	0.98
African American	19%	19%	0.99
Born in United States	85%	78%	0.32
Mostly Distrust Strangers	68%	69%	0.95
No Religious Attendance	23%	29%	0.42
Political Party			
Republican	14%	13%	0.44
Democrat	54%	40%	0.11
Political Independent *	32%	48%	0.06
Lived with Both Parents	74%	83%	0.22
Mother Advanced Degree	35%	46%	0.24
Father Advanced Degree **	48%	69%	0.02

“Deconstructing Bias” – Groupy/Non-groupy Correlates

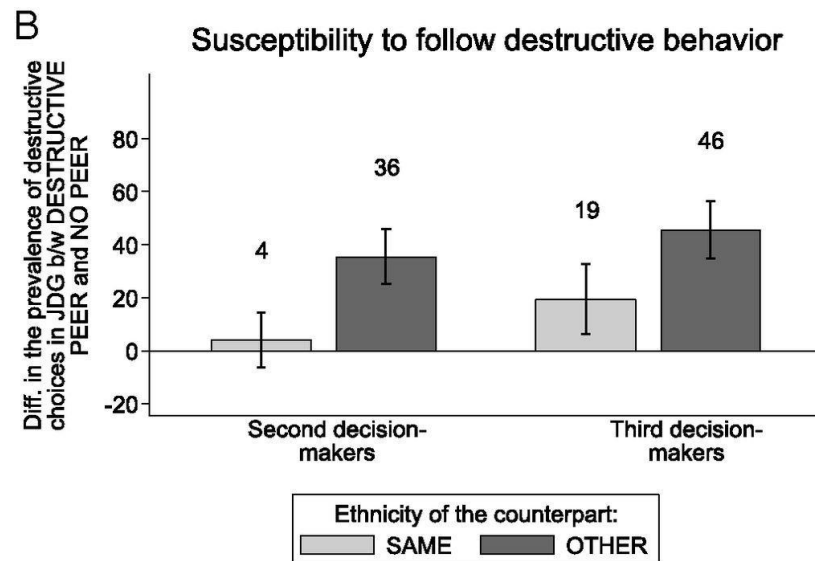
- Groupiness correlated “real-world” behavior/demog
 - Political affiliation
 - In the main study and in follow up M-Turk study
 - Regional differences (Mturk)
 - Republicans in Deep South
 - Decline in jobs from manufacturing (selection?)

“Social contagion of ethnic hostility” (PNAS, Bauer et. al. 2018)

- **PNAS, Bauer et. al. 2018**
- Study of destructive behavior “Joy of Destruction” game
 - Two counterparts each receive €2.
 - Simultaneously choose to pay €0.20 to reduce other’s income by €1.
- Comparison of behavior towards majority or minority co-ethnic counterpart
 - Slovak vs. Roma counterpart
 - Slovak high school student participants
 - Counterpart was Same (Slovak) or Other (Roma)
(distant school, last name indicator)
- Comparison of behavior when others’ choices observed or not
 - Three participants, decisions made sequentially vis à vis counterparts
 - One of three decisions was implemented

“Social contagion of ethnic hostility” (PNAS, Bauer et. al. 2018)

- Results – large influence of peers’ behavior
 - First movers Destructive or Peaceful uncorrelated with observable charact.
 - First and second movers greatly influenced later choices
 - *Influence more than double when counterpart was Roma*



Empirical work on identity

- What “identity effects” can we observe in data?
- With emphasis on inequality.....
 - Two studies – gender, ethnic/religious conflict
 - Research innovatively exploiting data sets.

Empirical work on the identity

“Gender Identity and Relative Income within Households”

Bertrand, Kamenica & Pan (2013)

- Gender norms in US = women *shouldn't* earn more than men
- US administrative data, US Census data
- Distribution of share of household income earned by wife exhibits a discontinuity at $\frac{1}{2}$.
- When a randomly chosen woman becomes more likely to earn more than a randomly chosen man, marriage rates decline.

Empirical work on the identity

“Persistent Antimarket Culture: A Legacy of the Pale of Settlement after the Holocaust” Grosfeld, Rodnyansky & Zhuravskaya (2013)

- Voting patterns, attitudes towards markets relate to pre-WWII Jewish population in area in Russia.
- People who lived in separated communities developed animosities toward each other, and opposite values.
- Region = either side of Pale of Settlement
- Jews deported/killed during WWII – no Jews left
- Difference in attitudes on different sides of the border

Summary & Directions for Future Research

- Social groupings are important features of patterns of inequality.
- Theories give different implications for policy.
 - In a model of individual choice, people from different groups face different constraints, technology. Necessarily have worse outcomes.
 - Policies- remove constraints, improve technology.
 - In a model of strategic interaction, there can be equilibria where people from different groups have worse outcomes.
 - Policies – law, collective action to change equilibrium.
 - In a model where preferences and identity norms are key, people from different groups may have different outcomes due to norms, preferences, social exclusion, social/strategic interactions.
 - Policies – change social arrangements, social meanings of action, categories and norms . .

Summary & Directions for Future Research

- Social groupings are important features of patterns of inequality.
- *Theory*: Develop deeper theory as to how norms, categories emerge and evolve.
- *Experiments*: field studies/geographic variation – how do different norms/identity play out in different places ?
- *Empirics*: use of “natural experiments” to find “exogenous” variation - also possible interplay between experiments and survey data?