

Deconstructing Group Bias in Social Preferences

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Based on joint work with Scott Huettel, Victoria Lee, Matthew Pease, and Seth Sanders



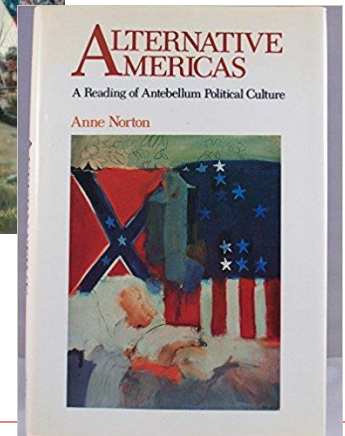
Introduction – Group Bias and Conflict

- Group conflict feature of human history
 - Groups defined on religion, “race,” nationality, culture
 - Forcibly extract labor, resources from others



- Country and regional borders, civil wars, alternative identities

- Sports rivalries (?)



Introduction – Bias in Experiments

- Experimental tradition in sociology, social psychology
 - Divide participants into groups, ingroup bias is a robust finding
 - Economic experiments on group bias, income allocation
 - Ingroup bias *on average*, more “inequity averse” towards ingroup
 - Chen & Li (1999) minimal group experiment and others
 - *Since when has the world been fair?*
-

Introduction – Bias in Experiments

- *Since when has the world been fair?*
- Findings from set of income allocation experiments:
 - Does stronger identification with group relate to bias?
No..... Rather,
 - 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 an individual trait
 -Individual correlates of groupy/not groupy ?
 - Settings/information change behavior towards others?

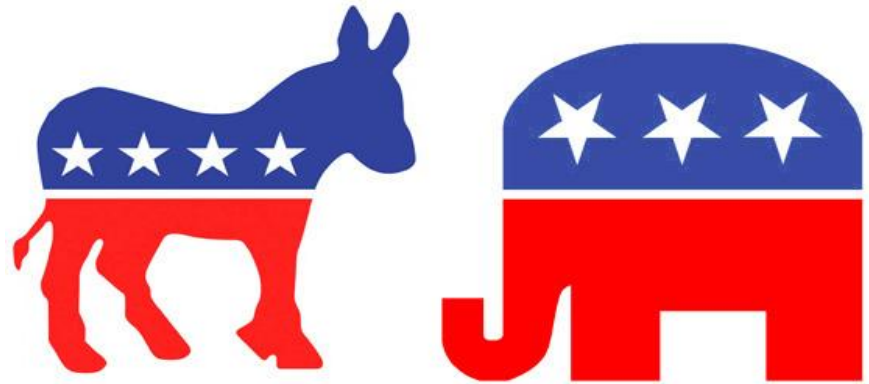
Introduction – Deconstruct Group Bias

- Kranton, Pease, Sanders & Huettel (2018) Social Preferences (first study)



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

(1) Details of First Experiment

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



minutes
minutes
treatment



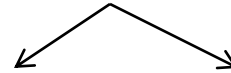
Survey	2-5 min
.....	
78 Choices	17 min
Post-experiment Survey	10 min

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

(1) Overview: Political Groups

- Political Group: participants self-identified as

Democrat Republican Independent None of the Above



closer to Dem closer to Rep

Democrats

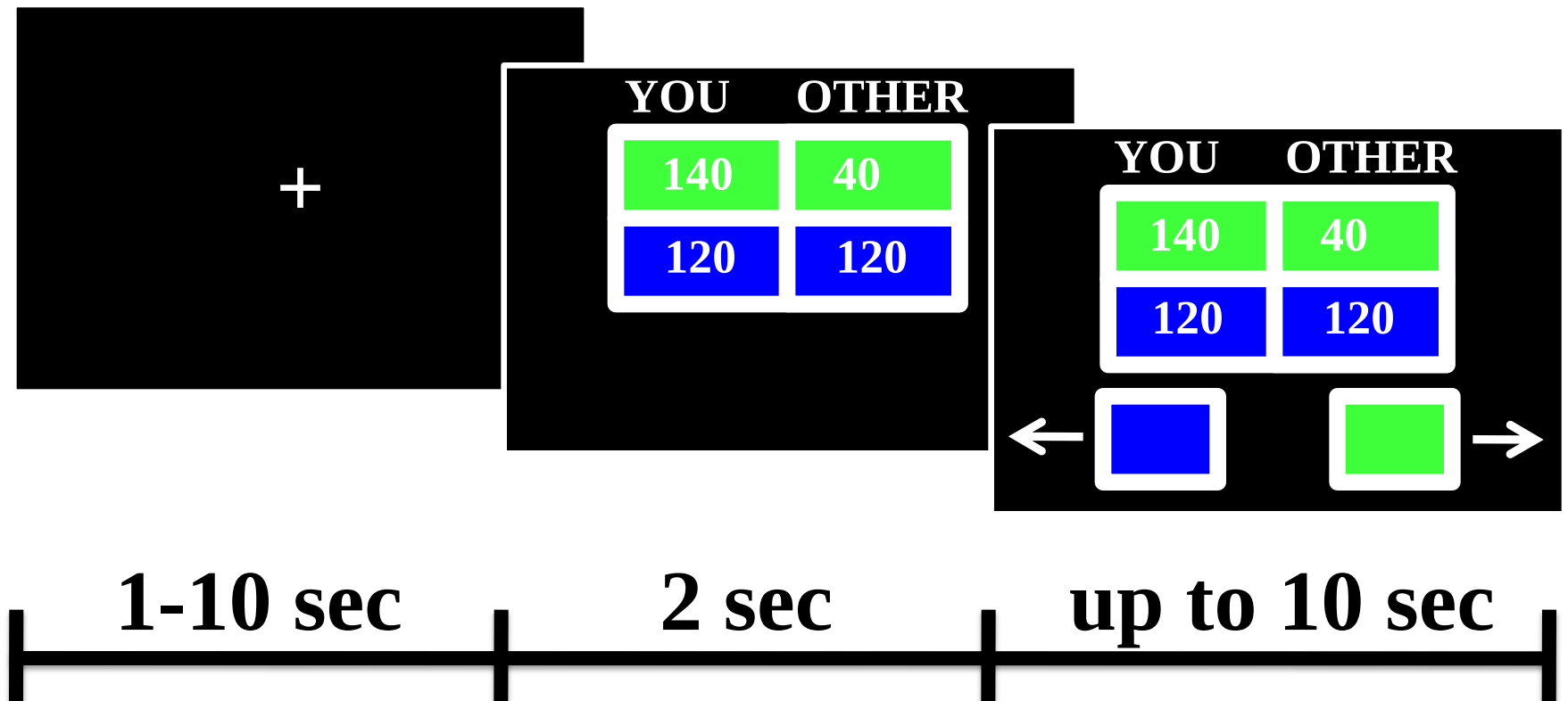
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Republicans

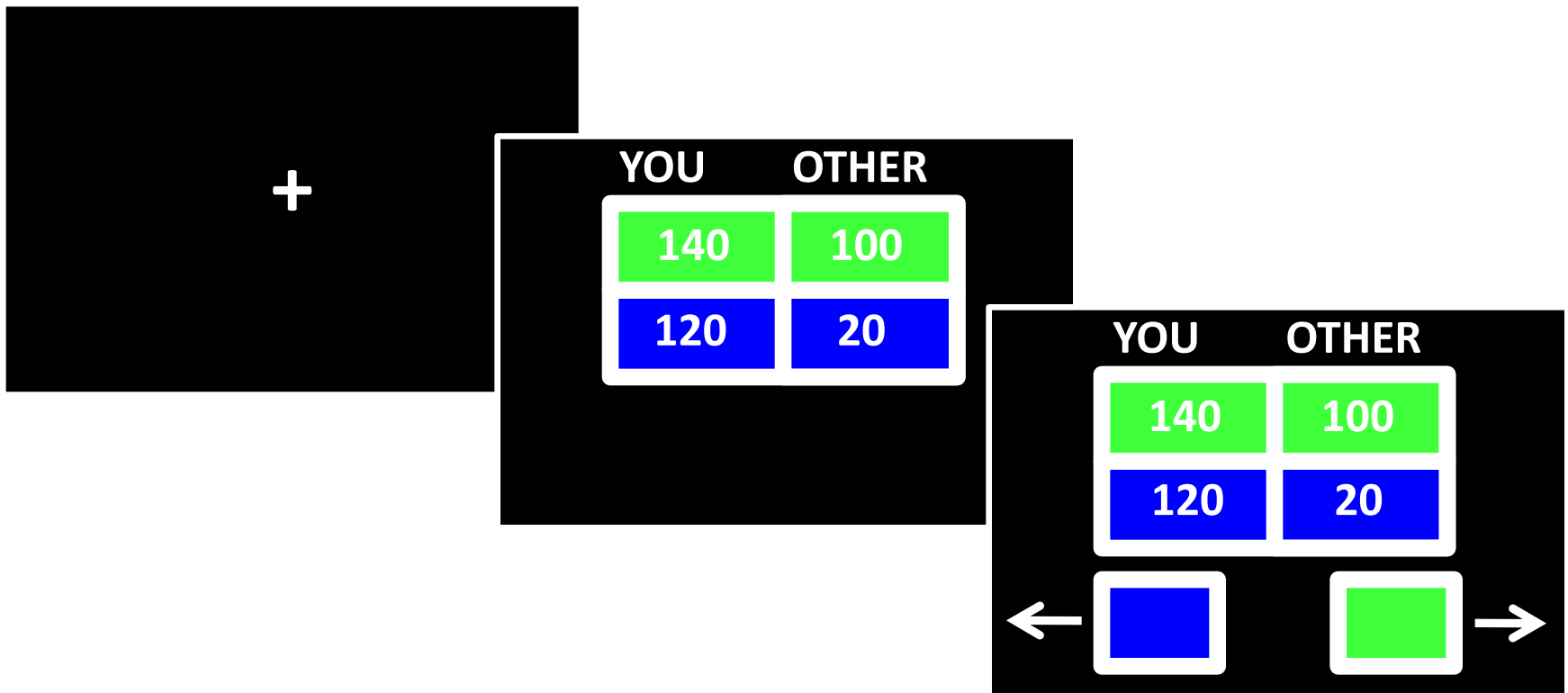
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(1) Timed Choices - Details

- Allocation choices, timed as follows:



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



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

(1) Basic Results: Individual Ingroup 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

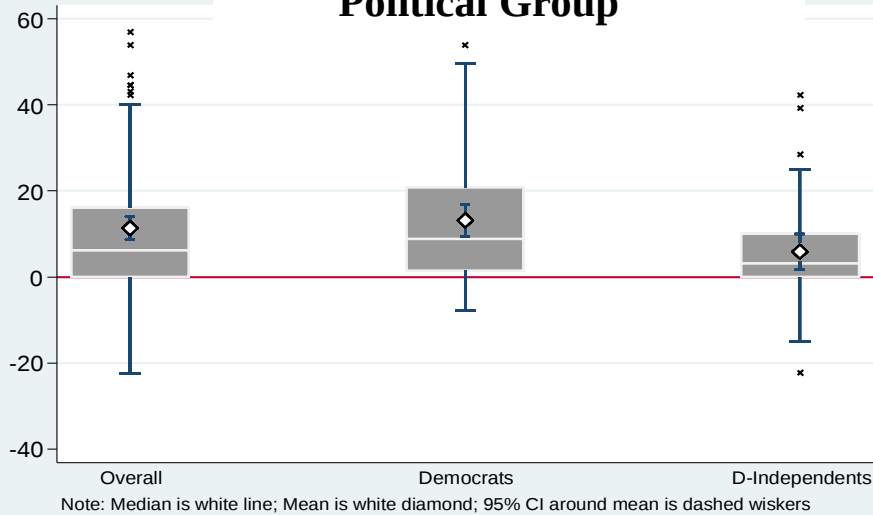
E.g., (100 – 20)

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

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

(1) Favoritism: All Subjects, Dems, D-Independents

**Favoritism towards Ingroup
Political Group**



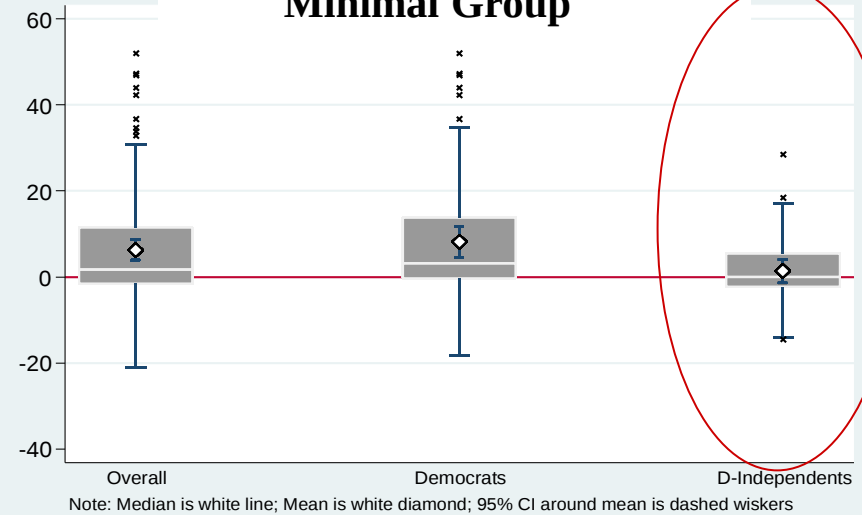
All Democrats D-Indep

**13.19
(1.89)**

**5.83
(2.15)**

**Δ : 7.36
(3.08)**

**Favoritism towards Ingroup
Minimal Group**



All Democrats D-Indep

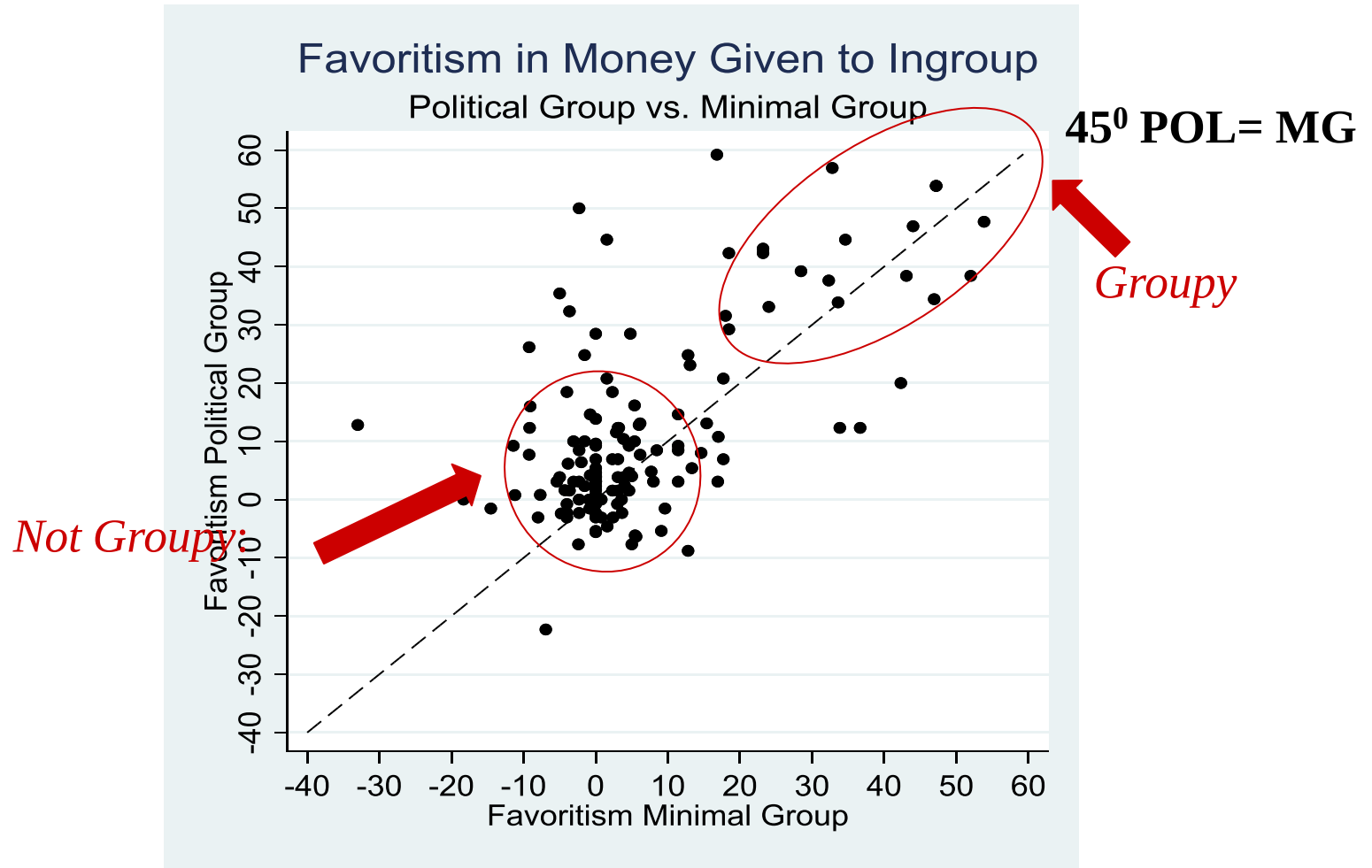
**8.14
(1.85)**

**1.38
(1.39)**

**$\Delta \Delta$: 0.6
(2.6)**

**Δ : 6.76
(2.81)**

(1) Favoritism: All Subjects – Comparing Treatments



Correlation 0.63

Linear Regression $R^2 = 0.4$

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>

(1) Social Preferences Estimations

- 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

(1) Groupy vs. Non-Groupy - Cross-Tabs

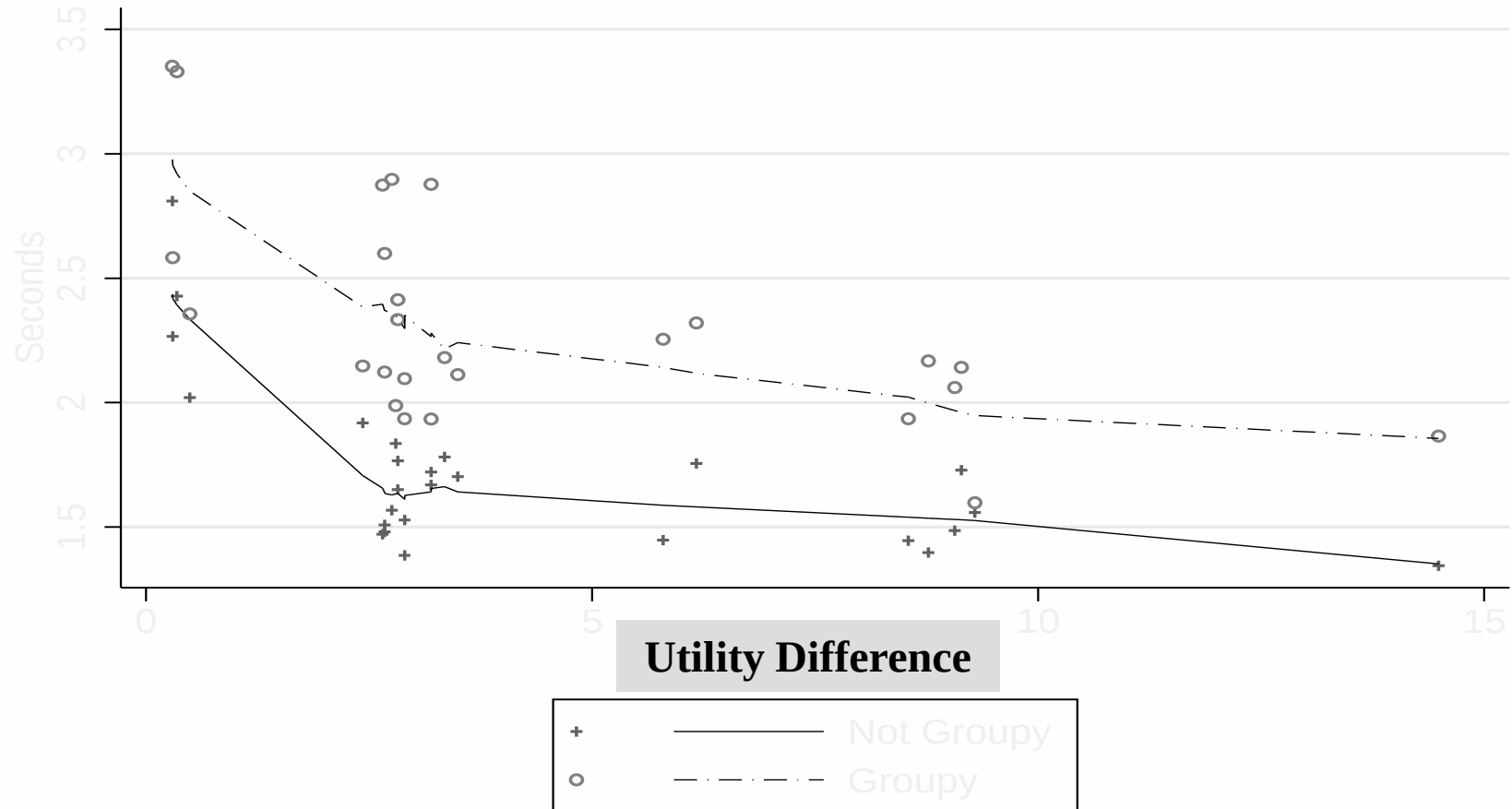
Cross Tabulations of Subjects' Types

		Minimal Group You-Other				
		SELFISH	TOTAL INC	INEQUI	DOMIN	Total
<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

Groupy vs. Not Groupy: Response Times

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



(1) Groupy vs. Non-Groupy: Demographics

	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

Conclusion – What have we learned?

- Heterogeneity in group settings – groupy vs. not groupy
 - Robust finding experimentally (historically observed?)
 - Subset of groupy adopt particularly destructive behavior
- Not groupiness correlated “real-world” behavior/demog
 - No 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?)

Conclusion: What next?

- Groupiness stable individual trait – across settings?
 - Independent measure of individual groupiness
 - Correlates of groupiness (in different settings/tasks)
 - Region: economic conditions, ethnic/political conflict,
 - Family: upbringing, relative income
 - Values/Culture
 - Creation of settings that foster “groupiness” ?
 - Self-selection by groupiness
 - Do people self-select into activities?
 - Do people self-select into firms/jobs based on wage policy?
 - Policies would need to consider this self-selection (theory)
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