

Coalition Building and Social Identity

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Objectives

Test the effect of **gender, race and ideological differences** on coalition building behaviour under the Baron and Ferejohn [3] legislative bargaining model.

Introduction

Coalitions constitute an integral part of modern politics. The game theoretic literature on the subject is abundant and typically predicts some version of minimal winning or minimal connected coalitions [1, 5, 3, 2]. However, these models typically predict many possible coalitions.

In this paper we use laboratory experiment to test if group identity can help select among multiple equilibria.

The problem with measuring this using observational data is that real political identities are created by group members in reaction to what they *observe* about others and within existing political environments [4].

Our results contribute to the behavioural understanding of coalition formation and suggest game-theory derived predictions (e.g. in parliaments) could be improved by using information on actors' social identities, particularly political self-placement.

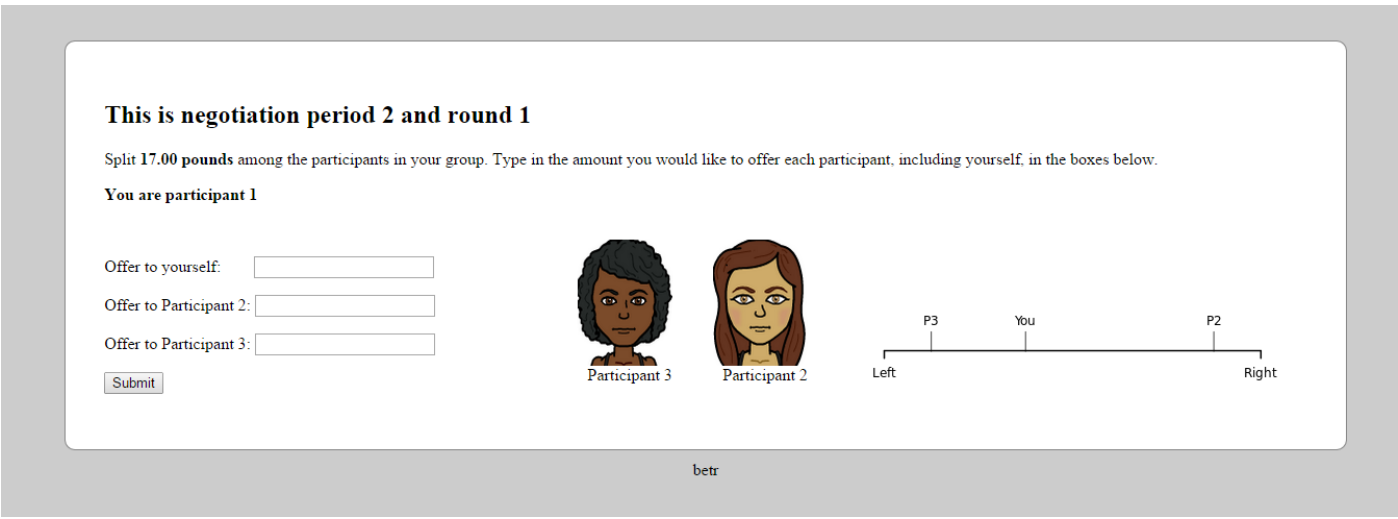


Figure: Screen Shot of Experimental Treatment

Session Type	# Sessions	Indiv Obs per session	Total Indiv Obs	Participants per session	Total Participants
Control	4	3	12	18	72
Treatment	10	3	30	18	180
Total	14		42		252

Table: Summary of Experimental Sessions, Dic 2014 and Feb 2015

Experimental Design

- The experiments start with a questionnaire on demographics and political identity.
- Then a multi-round divide-the-dollar bargaining game where subjects split a pie of £17.00 amongst 3 group members.
- The negotiations are conducted over 10 periods in stranger matching, with matching groups of 6 participants. There up to 5 rounds per period, each round the pie is discounted ($\delta = 0.7^{r-1}$).
- After, participants play a three player dictator game with a pie of £3.00.
- Payment is based on, one randomly selected negotiation period, the dictator game and a show-up fee. Mean payment £11.20.

Results

	M1 Offer	M2 Offer	M3 Partner	M4 Vote
Intercept	5.00*** (0.17)	3.89*** (0.57)	-0.07 (0.17)	-3.36*** (0.84)
Diff SP P-R	-0.18*** (0.03)	-0.51*** (0.08)	-0.31*** (0.05)	-0.00 (0.07)
Diff SP P-3rd	0.14*** (0.03)	0.45*** (0.08)	0.27*** (0.06)	
Same Gender	0.19* (0.09)	0.64 (0.33)	0.36 (0.23)	-0.26 (0.34)
Same Race	-0.15 (0.10)	-0.69* (0.34)	-0.35* (0.16)	0.06 (0.23)
Proposer-White	0.11 (0.10)	0.20 (0.39)	0.17 (0.10)	-0.13 (0.36)
Proposer-Male	0.01 (0.10)	0.50 (0.34)	0.25 (0.13)	-0.09 (0.38)
Self-Placement	-0.05* (0.02)	-0.04 (0.08)	-0.01 (0.02)	-0.03 (0.08)
Amount Offered				1.00*** (0.13)
Num. obs.	2880	576	576	960
R ²	0.03	0.10		
Adj. R ²	0.02	0.09		
L.R.	75.78	62.16	65.13	540.48

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$
All models include matching-group clustered standard errors.

Table: Statistical models on Proposal and Voting Behaviour

Important Result

Our results suggest there is a strong and robust negative effect of the distance in ideological self-placement on who is selected and how much is offered to group-members. Substantively, this implies that in the context of coalition-building, which is intrinsically discontinuous and all-or-nothing, small biases can lead to large changes in equilibrium outcomes.

Treatments

- Control or Baseline:** Uses the basic structure as defined before, with each subject identified by a randomly assigned number between 1–3.
- Treatment:** Participants are shown avatars that reflect the stated gender, race and ideological position of the group-members.

Results

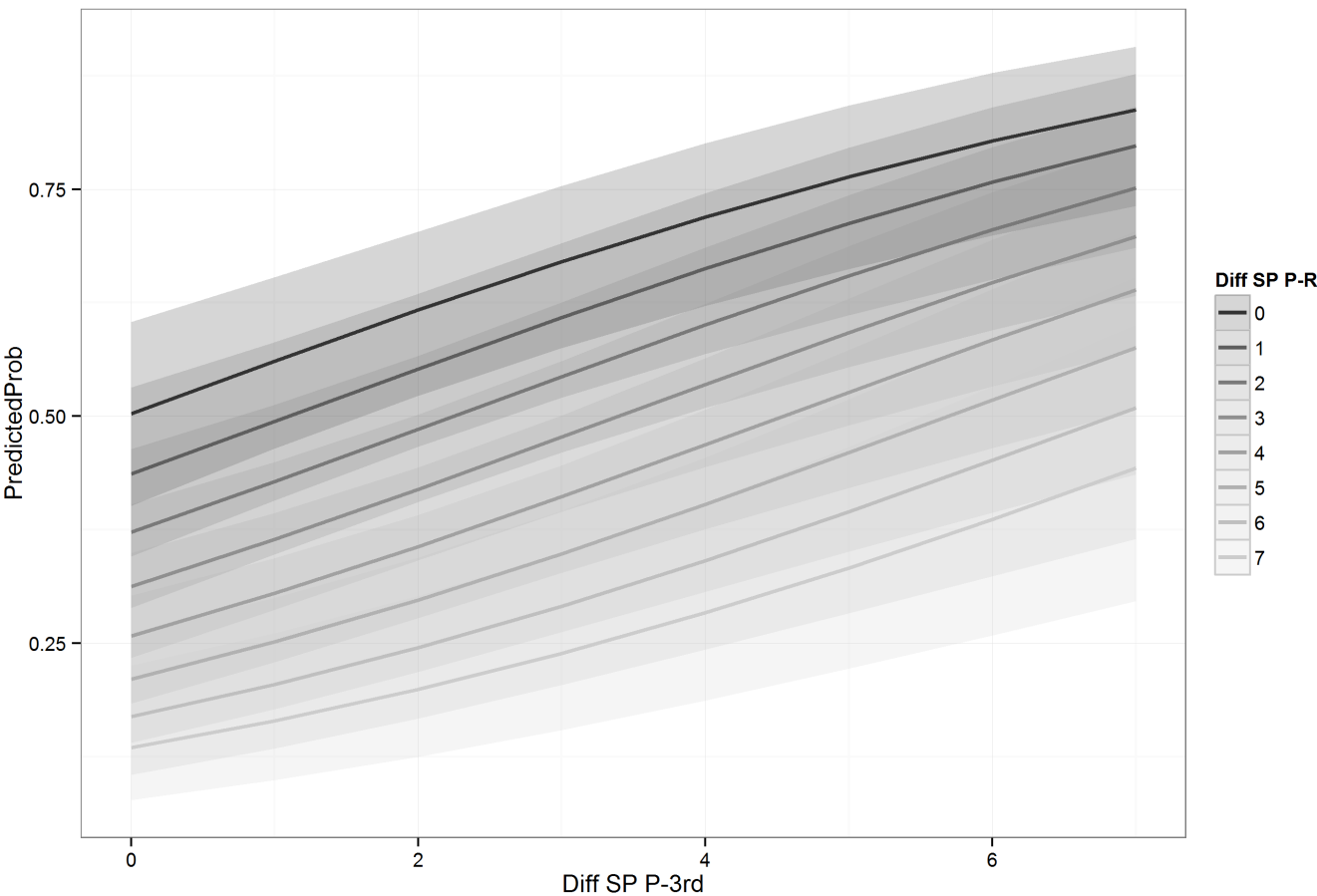


Figure: Predicted prob. of partner selection by ideological distance

Conclusion

Our results lead us to believe that ideological in-group bias can help select among office-seeking equilibria. The experiment provides empirical evidences to suggest that coalition behaviour is affected by the ideological distance of the potential partners. Proposer's select as partner more often (and offered more to) people that are closer to them on the ideological scale. Furthermore, this effect is independent of the outputs of the coalition or the inequality of proposals.

Acknowledgements

Thank you to the University of Essex ESSEXLab seedcorn grants Num. FY00324, FY00333 and FY00344. for funding this experiment.

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