Explaining individual political behavior is one of the big challenges in the social sciences. The work contained in this thesis uses the tools of experimental economics, game theory and decision theory to shed light on political choices. Relaxing the neoclassical assumptions of self-interested preferences and full rationality, this work investigates whether group identity and altruism matter for political participation, what the role of reciprocity and normative appeals in the response to political mobilization is, and whether the costs of information influence the way it is incorporated in (political) decision-making. The methodology of experimental economics is crucial to obtain an answer to these questions. The evidence presented in this thesis shows that group identity has a mild effect on one’s decision to participate and that more altruistic people participate more in politics; it underscores the importance of normative appeals for the effectiveness of political mobilization; and it demonstrates that, contrary to the standard assumption, the cost of information influences the way it is incorporated in decisions.

Pedro Robalo (1984) studied Economics at Universidade Nova de Lisboa, Portugal, where he obtained the degrees of B.Sc. (2007) and M.Sc. (2008). In 2008 he started a Ph.D. at the Tinbergen Institute/University of Amsterdam, where he earned an M.Phil. degree in 2010. In the same year he joined the Center for Research on Experimental Economics and Political Decision Making of the University of Amsterdam, where he conducted research in the areas of Experimental Economics and Political Economy. He has taught courses in Microeconomics and Game Theory. Currently, he is a research fellow of the Max Planck Institute for Research on Collective Goods in Bonn, Germany.
UNDERSTANDING POLITICAL BEHAVIOR
ISBN 978 90 316 0412 8

Cover design: Crasborn Graphic Designers bno, Valkenburg a.d. Geul
Cover picture: Bram Wisman/MAI.

This book is no. 598 of the Tinbergen Institute Research Series, established through cooperation between Thela Thesis and the Tinbergen Institute. A list of books which already appeared in the series can be found in the back.
UNDERSTANDING POLITICAL BEHAVIOR
Essays in Experimental Political Economy

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. D.C. van den Boom
ten overstaan van een door het college voor promoties
ingestelde commissie,
in het openbaar te verdedigen in de Agnietenkapel
op woensdag 3 December 2014, te 10:00 uur

door

Pedro Miguel Gago Guerreiro de Brito Robalo

geboren te Faro, Portugal
PROMOTIECOMMISSIE

PROMOTOR:
Prof. dr. A.J.H.C. Schram

OVERIGE LEDEN:
Prof. dr. C. Engel
Prof. dr. R.B. Morton
Prof. dr. J.H. Sonnemans
Dr. J. van de Ven
Prof. dr. F.A.A.M. van Winden

Faculteit Economie en Bedrijfskunde
To the memory of my father
Acknowledgments

Writing a Ph.D. thesis turned out to be a much less solitary endeavor than I first thought. This thesis would not have been possible without the help and inspiration of many people.

First, I would like to thank my supervisor, Arthur Schram, for his invaluable guidance and encouragement. Arthur is a natural-born motivator, cheering you up when things don’t go as you hoped for and bringing you down to earth when necessary. He showed me the importance of working on your own ideas and communicating your research effectively. He was available at all times, yet never pushed me through - the most valuable lesson of the past five years was delivered in the process: in academia you owe it to yourself to keep pace. Arthur was also very understanding and supportive in all non-academic matters. Chapter 2 of this thesis is joint work with him.

I would also like to thank my other co-authors, Joep Sonnemans (also Chapter 2) and Rei Sayag (Chapter 4). Working with Joep has been a pleasure and I have benefited greatly from his encyclopaedic knowledge of the behavioral sciences. Rei is not only a co-author but also a good friend. We started working together on the first week of our Ph.D. and we haven’t stopped since. His energy and tenacity have been a continuous source of inspiration. I hope we will continue to work together in the future and, perhaps more importantly, to share a good laugh over beers.

I consider myself lucky for having been able to conduct the research in these pages at the Center for Research on Experimental Economics and Political Decision Making (CREED) of the University of Amsterdam (UvA). CREED is an exceptional research group thanks to a passionate, friendly and dynamic group of people. I had the privilege of often discussing my research with Frans, who gives invaluable advise to starting Ph.D.s (he once told us that trying to contribute to long-standing research topic is like jumping on a moving train - it is easier to make an impact with something new). I learnt a great deal about teaching with Theo, who also delivers comments that are always useful and to the point. Sharing an office with Marcelo and Roel was both fun and instructive, as they were equally eager to discuss experiments and
football. Above all, I am indebted to the everyday interactions with all CREED and UvA colleagues, who were warm and challenging in equal parts: Aaron, Adrian, Aliko, Aljaž, Anita, Audrey, Ben, Boris, David, Francisco, Gönül, Jeroen, Jindi, Joel, Jona, Jos, Julian, Matthijs, Matze, Max, Noemi, Thomas, Sander, Simin and Yang. The cooperative spirit of CREED persists whenever you encounter former CREED-ers. I won’t forget when Jens Großer sat down an entire afternoon in New York with me to discuss a preliminary version of what is now Chapter 2. I would also like to thank Karin Breen and Robert Helmink for making things run smoothly at UvA.

I am also indebted to many people at the Tinbergen Institute (TI). TI is a unique institution, combining graduate training of the highest level with a laid-back and cooperative atmosphere. This is possible because of the utmost dedication of people like Arianne de Jong and Judith van Kronenburg, among others. I was personally involved in the Educational Board and the TI Magazine, which provided me with enriching experiences. Indelible are also the memories from the Roetersstraat times, when we graduate students would practically live at the institute. At TI or outside of it, I’m happy to have shared good moments with Agbeko, Eva, Gosia, Guillerme, Inez, Lerby, Marcin, Mark, Natalya, Olivier, Ona, Patrick, Philippe and Stan.

The late stages of this thesis were completed at the Max Planck Institute for Research on Collective Goods, to where I moved in the Spring of 2014. I would like to thank Christoph Engel for the opportunity. I would also like to leave a word of appreciation to my colleagues at the Max Planck Institute who made me feel at home right away. In particular, I would like to thank Franzi Tausch, the other ‘new arrival’ at Max Planck, for teaching me the ropes and for tips on typesetting a thesis.

Amsterdam wouldn’t have been the same without the friends that made life fun and exciting. They would often ask how I was progressing and address me the daring questions only friends can ask. Among the many people that came and went, I particularly miss some of those who happened to leave town before me. Alice was a true gezelligheid-maker and someone who could always cheer you up. Chana shook the habitual with her sharp wit and challenging ways. Liv was a ray of sunshine in our lives and is one of the most fun persons I’ve met. The list wouldn’t be complete without a word of appreciation to my Portuguese friends, the people I grew up with and to whom I always feel close despite the geographic distance. Among them, I was happy to have had Moritz and Pedro as a Portuguese presence in the Netherlands.

A big thank you goes to my ‘proxy’ Amsterdam family, Heiner and Ben. Living with economists is an exhilarating experience, contrary to what some might have you
believe. Discussions on the fixed and variable costs of lifetime coffee consumption or how to behave strategically as a tenant were part of our everyday lives. Heiner has been a friend since the day we started our Ph.D., and I cannot thank him enough for all the good times and for also being there in the not so good ones. Ben’s reliable presence and unique sense of humor made everyday life different for the better. He’s an innate economist and I benefited from our discussions. When Ben left, Mehmet took over and was also an excellent flatmate.

At last, I would like to thank the people who are dearest to me. Jozefina’s support was very important, as was her ability to bring joy and fun to everything we do. My grandparents Ru-ru and Nibinho were always interested in how I was doing. They are the example of how hard work leads not to only to success but also accomplishment. I owe a big thank you to my sister Ana, who is someone I can always depend on. My mother has been a constant guidance in my life, and I wouldn’t have finished this Ph.D. if it was not for her generosity and unwavering support. As I finished this thesis, I had to think of the family members that were so important to me and who left during its writing. My grandmother Natália’s memory shall help me never to compromise on style and manners. My uncle Pedro showed me how to be a maverick and yet be dedicated to your close ones.

More than anyone, I am thankful to my father, whose example will go unmatched for as long as I live. He was someone with a strong character and solid principles, but also a person of rare sensibility. I thank him for bringing me up in a house with books and for always nurturing my interests. He was a cultured man and a mighty debater. We would often discuss economic issues - and disagree fiercely. I thought that one day, when I got my Ph.D., perhaps I could convince him of the virtue of my arguments. That day is approaching and I realize that I would not waste a second on that; as in many other things, I share more and more of his wise views. I miss him dearly.

Pedro

Bonn, August 2014

I acknowledge the financial support of a Doctoral Grant from Fundação para a Ciência e Tecnologia (the Portuguese National Science Foundation); all experiments have been funded or co-funded by the Research Priority Area Behavioral Economics of the University of Amsterdam, to which I am also grateful.
## Contents

1 Introduction  
   1.1 Methodology: Game Theory, Decision Theory and Laboratory Experiments  
   1.2 Overview  
   Appendix 1.A Participation Games  
   Appendix 1.B Quantal Response Equilibrium  

2 Other-regarding Preferences, Group Identity and Political Participation  
   2.1 Introduction  
   2.2 Related Literature  
   2.3 Conceptual Framework and Hypotheses  
   2.4 Experimental Design  
   2.5 Experimental Results  
      2.5.1 Subject Classification  
      2.5.2 Group Identity Induction  
      2.5.3 Other-regarding Preferences and Participation Behavior  
      2.5.4 Group Identity and Participation Behavior  
      2.5.5 Multivariate Analysis  
   2.6 Conclusion  
   Appendix 2.A Equilibria of the Participation Game  
      2.A.1 In-group Bias and Aggregate Participation  
      2.A.2 Altruism, In-group Bias and Individual Participation  
   Appendix 2.B Value Orientation Test - Ring Test  
   Appendix 2.C Auxiliary Tables  
   Appendix 2.D Other-regarding Preferences and Group Identity  
   Appendix 2.E Experiment Instructions  

3 Why Does Political Mobilization Work? The Role of Norms and
List of Figures

2.1 Sequence in the experiment ........................................ 23
2.2 Experimental treatments ........................................... 26
2.3 Typical choice in the ring test .................................... 28
2.4 Other-regarding preference types ................................. 30
2.5 Group identity induction across treatments ................... 30
2.6 Evolution of participation and other-regarding preferences .... 33
2.7 Individual participation rates and other-regarding preferences. 34
2.8 Participation across treatments ................................... 35
2.9 In-sample model predictions ....................................... 39
2.10 Other-regarding preferences and group identity .............. 51

3.1 QRE and NE predictions for Alphas ............................. 67
3.2 Sequence in one of the blocks of the experiment .......... 71
3.3 Activation decisions of Alphas through sub-blocks. ......... 77
3.4 Aggregate participation across treatments .................... 78
3.5 Participation and individual costs ............................... 79
3.6 Participation by reciprocator type ............................... 80
3.7 Participation and normative appeals ............................ 82
3.8 QRE equilibrium participation probabilities for different values of $\mu$. 95
3.9 Amount sent in the trust game. .................................. 103
3.10 Amount returned in the trust game. ............................ 103
3.11 Ratings distribution. .............................................. 105

4.1 The scoring function ............................................... 120
4.2 Outline of the experimental design. ............................ 122
4.3 Average decisions by blocks of 5 periods ...................... 126
4.4 Distributions of individual decision making. .................. 128
4.5 Average decision by subject type. .............................. 134
4.6 Implied cost levels .................................................. 138
4.7 Decisions and the effect of biases on decision making. .... 151
List of Tables

2.1 Other-regarding preference types .................................. 29
2.2 Participation and other-regarding preferences ....................... 34
2.3 Panel regression model .................................................. 38
2.4 Other-regarding preferences and individual participation .......... 46
2.5 In-group bias and individual participation ............................ 47
2.6 Ring test. ..................................................................... 48
2.7 Reported motivations in the questionnaire. ............................ 49
2.8 Participation, personal traits and other-regarding preference types .. 49
2.9 Regression of average participation on a linear trend ............... 50
2.10 Conditional distribution of types across treatments, in percentage. .. 50

3.1 Parameter values. ......................................................... 65
3.2 Point predictions .......................................................... 66
3.3 Activation decisions ...................................................... 76
3.4 Model predictions and observed results ............................... 84
3.5 Panel regression results .................................................. 87
3.6 Payoff matrix of Alphas for $\mu^{Beta=0.4}$ .......................... 94
3.7 Panel regression results .................................................. 105
3.8 Panel regression results .................................................. 106
3.9 Determinants of participation across sub-blocks .................... 108
3.10 Determinants of participation across blocks ........................ 109

4.1 Decision block: priors and lottery distributions (urns). .......... 121
4.2 Subject types. .............................................................. 123
4.3 Summary statistics ........................................................ 125
4.4 Decision averages by treatment and information condition. ...... 127
4.5 Representativeness bias and treatment effects. ....................... 132
4.6 Type distribution by treatment ......................................... 133
4.7 Regression results by ball draw. ....................................... 135
4.8 Parameterizations A and B. ............................................. 141
4.9 Values for parameterizations A and B. .......................... 142
4.10 Information acquisition rates of types across treatments. .......... 143
4.11 p-values for Kolmogorov-Smirnov tests of decision distributions ... 146
4.12 Representativeness bias and treatment effects .................. 147
4.13 Decision averages by treatment, information and type. ............ 148
4.14 Regression results by information condition (ball draw) .......... 149
4.15 Regression results by information condition (no draw) ............ 150