Raghvi Garg

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Education

Ph.D. Economics, Ashoka University, 2017-2023 (expected)

M.Sc. Economics, Shiv Nadar University, 2016

B.A.(H) Economics, Hansraj College, Delhi University, 2014

Research

Research Fields

Choice Theory, Decision Theory, Behavioral Economics, Experimental Economics, Economics of Discrimination, Gender, Polarization and Conflict

Published Work

Arrowian social equilibrium: Indecisiveness, influence and rational social choices under majority rule (joint with Abhinash Borah and Nitesh Singh), *B.E. Journal of Theoretical Economics*, 2022

<u>Abstract</u>: We introduce the concept of an Arrowian social equilibrium that inverts the schemata of Arrow (1950)'s famous impossibility theorem and captures the possibility of aggregating nonrational individual preferences into rational social preferences while respecting the Arrowian desiderata. Specifically, we consider individuals whose preferences may not be complete and who, accordingly, may be indecisive when faced with an issue. Breaking with tradition, we consider the possibility of such individuals drawing on their beliefs about society's preferences that result from the aggregation process to resolve their indecisiveness. Formally, individual choices are modeled as a rational shortlist method (Manzini and Mariotti, 2007), with own preferences followed by society's as the pair of ordered rationales. This results in a mutual interaction between individual and social choices. We study this interaction using majority rule as the aggregator, with an Arrowian social equilibrium specifying how individual and social choices are co-determined, while requiring the latter to be rational. Our main result identifies minimal levels of societal indecisiveness needed to guarantee the existence of such equilibrium.

Eliminate the normative worst, then choose (joint with Abhinash Borah), *Economic Bulletin*, 2021, *Volume* 41, *Issue* 4, 2348-2355

<u>Abstract</u>: We introduce the concept of an Arrowian social equilibrium that inverts the schemata of Arrow (1950)'s famous impossibility theorem and captures the possibility of aggregating nonrational individual preferences into rational social preferences while respecting the Arrowian desiderata. Specifically, we consider individuals whose preferences may not be complete and who, accordingly, may be indecisive when faced with an issue. Breaking with tradition, we consider the possibility of such individuals drawing on their beliefs about society's preferences that result from the aggregation process to resolve their indecisiveness. Formally, individual choices are modeled as a rational shortlist method (Manzini and Mariotti, 2007), with own preferences followed by society's as the pair of ordered rationales. This results in a mutual interaction between individual and social choices. We study this interaction using majority rule as the aggregator, with an Arrowian social equilibrium specifying how individual and social choices are co-determined, while requiring the latter to be rational. Our main result identifies minimal levels of societal indecisiveness needed to guarantee the existence of such equilibrium.

Under Revision

Reference-dependent self-control: Menu effects and behavioral choices (with Abhinash Borah), *Revise and resubmit, Journal of Economic Behavior and Organization*

<u>Abstract:</u> As is well-known, choices of a decision maker (DM) who attempts self-control in the face of temptation may exhibit menu effects and "non-standard" patterns. Existing models can accommodate some of these patterns but not others; e.g., they can explain self-control undermining menu effects, but not self-control enhancing ones. We introduce a model of self-control with the goal of better understanding and accounting for such effects. The basic idea underlying our model is that the DM experiences a psychological cost if she succumbs to temptation and chooses in a manner that is totally antithetical to her commitment preferences. To mitigate such costs, in any menu, her expression of self-control involves, first, eliminating a subset of alternatives that are worst according to her commitment preferences, with the elimination process being reference-dependent. Then, amongst the remaining alternatives, she chooses the best one according to her temptation preferences. Besides studying menu effects, we characterize the model behaviorally based on a novel axiom called WARP with norms. We also show that the model is well-identified.

Working Papers

Patriarchal gender norms: A life-cycle model of education, marriage, and labor supply choice

<u>Abstract</u>: We examine the role of patriarchal gender norms in women's lifetime decisions of education, marriage, and labor supply in an equilibrium setting. In our model, patriarchal gender norms work through the institution of marriage. Specifically it manifests itself in the belief, internalized by both men and women, that a woman's labor and efforts are more central than that of a man in sustaining domestic married life, with deviations from this norm being psychologically costly for both. This norm determines household decisions like allocation of time to market and domestic labor. At the same time, it feeds through equilibrium interactions into the choice of education level that individuals make earlier in life and the subsequent structure of matches in the marriage market. In line with the empirical evidence, our model finds that a wife puts in less labor hours in the market and more at home than her husband. The model predicts that for any wage level, and patriarchal gender norm not high enough, men contribute more time to domestic hours in assortative than in non-assortative households. We find that the proportion of men with a higher level of education exceeds that of women. This proportion varies with the strength of the gender norm, leading to a change in the structure of the marriage market. In particular, we find that the proportion of non-assortative households rises as the patriarchal gender norm strengthens. For different levels of patriarchal gender norms and wages in the labor market, we characterize the structure of the marriage market and corresponding equilibrium outcomes. We empirically test for the implications of the model using a robust measure of patriarchy, and education and time use data from various national representative surveys.

Social influence within clusters and stochastic choices (with Abhinash Borah, Ojasvi Khare and Nitesh Kumar Singh)

<u>Abstract</u>: We introduce a theory of socially influenced stochastic choices. Social influence in our theory originates in the fact that individuals in society often form clusters, e.g., clusters on social media like echo chambers, political clusters formed along partisan lines, clusters in friendship networks, etc. When such clusters form, it is natural for individuals to be influenced by dominant modes of behavior within their cluster. To model this, we propose a choice procedure under which, in any menu, the probability with which a decision maker considers an alternative is influenced by how likely, on average, is this alternative to be chosen in her cluster. Her choice probabilities, in turn, are determined from these consideration probabilities according to the random consideration set rule of Manzini and Mariotti (2014). Given that influence within clusters is mutual, this procedure is an interactive one. We establish that these interactions are mutually consistent and that such choice profiles exist. We behaviorally characterize the procedure. Further, we establish that the procedure has the desirable feature that it can be uniquely identified from choice data, i.e., clusters that form in society, individual preferences, and idiosyncratic susceptibilities to influence are all uniquely identified from behavior.

Choices satisfying NC and NBC: A characterization (joint with Abhinash Borah)

<u>Abstract:</u> We consider the class of choice functions that satisfy the never chosen (NC) and no binary cycles (NBC) conditions, which are two empirically relevant choice consistency conditions weaker than WARP. The question that we ask is whether choice functions from this behavioral domain have a common structure that can be meaningfully characterized in terms of a decision criterion. We show that this is indeed the case—any such choice function can be represented as a sequential shortlisting procedure based on two linear orders that are in direct conflict. Moreover, any such procedure can be uniquely identified from choice data.

Conference Presentations

Winter School, Delhi School of Economics, University of Delhi	2022
Annual Conference on Economic Growth and Development, ISI Delhi	2022
Behavioral Research in Economics Workshop (BREW), IIM Bengaluru	2022
Asian Meeting of the Econometric Society, Indian Institute of Technology Bombay, India	2022
Annual Economics Conference, Ahmedabad University	2022
Foundations of Utility and Risk, Ghent (accepted)	2022
Bounded Rationality in Choice (BRIC) Conference, CERGE-EI (accepted)	2022
Annual Conference on Economic Growth and Development, ISI Delhi	2021
Asian Meeting of the Econometric Society, Curtin University Malaysia	2021
Foundations of Utility and Risk (FUR), Australia (accepted)	2020
Sixth Annual Workshop organized by Society for Economics Research in India (SERI)	2020
Behavioral Research in Economics Workshop (BREW), IIM Ahmedabad	2019
Winter School, Delhi School of Economics, University of Delhi	2019
Conversations on Research (CoRe) , PhD Colloquium, IGIDR, Mumbai	2019
Delhi Economic Theory Workshop, ISI Delhi	2019

Teaching Experience

Teaching Assistant	
Behavioral Economics	Spring 2020
Microeconomics I (Graduate level)	Monsoon 2019
Mathematics for Economics	Spring 2019
Financial Markets and Asset Pricing	Monsoon 2018
Mathematics for Economics	Spring 2018
Statistics for Economics	Monsoon 2017
Mathematics for Economics	Spring 2017

Computer Skills

Programming: Stata, MATLAB

References

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Abhinash Borah

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Yoram Halevy

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