Research Statement

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I am an applied microeconomic theorist whose research interests lie in political economy, information economics, and international relations. My research focuses on i) the relationship between political activism and polarization in elections, ii) information aggregation in alliances with action interdependence (strategic substitutability), and iii) the incentives for information sharing and coordination within alliances. I provide a brief summary of my work and the near term research agenda.

Summary of my work

Activism, Costly Participation and Polarization

I theoretically study the role of political activism in electoral competition. For example, recent studies have indicated that in American politics, the two political parties’ supporters hold increasingly divergent views on issues. Now, when such polarized supporters (political activists) engage in the political process, it is plausible that candidates who rely on their support may also end up taking more polarized platforms, in order to placate their interests/preferences. My analysis is aimed at explaining whether, and when, polarization among political activists translates into political polarization.

The model of political competition consists of two candidates, two activists, and a median voter. Candidates with both policy and office motivations announce platforms and elicit the support of party activists, who are ideologically motivated. Activists play a role of influence, in the sense that activism shifts voter preferences towards a candidate. I find that relative to a setting with no activism, the presence of activists actually reduces the equilibrium level of polarization. That is, the participation of activists in influence seeking activities during a campaign induces greater compromise (less polarized platforms) in the political process. My next (main) finding is that as activists on either side become more polarized, candidate platforms can converge towards each other. This crucially depends on the activists’ willingness to engage in the political process. In particular, as long as the engagement of activists in persuading voters exceeds a critical threshold, activist polarization need not lead to political polarization.

However, I show that societal welfare may deteriorate as a result of greater compromise, since excessive convergence deprives voters of choices. This result implies that in democracies where the median voter’s preferences are uncertain, constraining the choice of voters need not improve welfare. Therefore, counter-intuitively, as activists become
more polarized, introducing barriers to participation may actually improve welfare of voters by increasing political polarization and providing welfare-improving choice to voters.

Finally, my results suggest introducing public funding of elections as an important policy reform to tackle high polarization. Public funding does two things – first, it restricts the resources available to candidates thereby increasing their reliance on activists; second, the curbing of unlimited access to big money donors prevents crowding out of grass-roots activism. Given this, public funding increases the demand for activism, and increases the willingness to engage for activists. My earlier results suggests that these two changes reduce the level of polarization in candidate platforms, encouraging political compromise.

Cheap talk with Strategic Substitutability

In the classic Crawford-Sobel cheap talk game, truthful revelation of private information is never optimal. The informed Sender always partitions the state space (her private information) such that communication is noisy. I modify this setup to include two features – both players (Sender and Receiver) now take an action after the communication round, and these actions are strategic substitutes.

Contrary to the original cheap talk game, my modified game allows for perfect revelation of information. What matters for truthful communication is not only the bias difference between the sender and receiver, but also the domain of actions that are available to the two agents. The reason for this finding is the following. If the sender, after communicating the true state to the receiver, can take an action that best responds to the receiver’s action, then there is no incentive to misrepresent the state during the communication stage. I find that when the sender’s action set (call it her resource constraint) prevents her from best responding to the receiver, then only partial revelation of information occurs. In a partial revelation equilibrium, the sender reveals her information up to a cutoff state, and pools beyond this threshold. This results in some loss of information. Interestingly, I find that higher threshold equilibrium pareto dominates a lower one, meaning providing more information when possible, is welfare improving for both the sender and receiver.

This setup is applicable to a number of interesting scenarios. For example, a state government and a federal government may want to invest in a developmental project at the state level, and this requires information sharing by the state and mutual cooperation (contributing fiscal resources to the project). Or, countries may form alliances in order to achieve common foreign policy objectives (see next subsection). In such situations, my model suggests that communication is driven by the extent of resource constraints. My paper is also the first in the vast literature of cheap talk games to look at communication when actions are strategic substitutes.
Intelligence Sharing and International Alliances

In this joint project with Francesco Squintani, we extend the ideas of my earlier work to analyze a setting of intelligence sharing in alliances. We consider a scenario that encompasses four features: actions are strategic substitutes, private information is communicated (cheap talk) through a public protocol, players differ in their preferences over outcomes, and players face resource constraints.

We find that there is full information aggregation (every player truthfully reveals her private signal) as long as the bias of every player is within a bound of the weighted average of biases of the group. This difference between an individual player’s bias and the weighted average of the group is a measure of the cohesiveness of an alliance.

This paper provides a fundamental methodological contribution - to our knowledge, this is the first work to use bounds on the action sets of players as an IC constraint for truth telling. This technique of using resource constraints as an IC constraint could be applied to a broader class of games that involve interdependency in actions.

Work in progress

One important implication of our result is that the incentive to be part of an alliance increases when there is full information aggregation. However, when full information aggregation fails, there is a trade-off for every member to either be part of the alliance, or join another alliance. Since alliances are composed of members with divergent interests, and moreover, since there may be multiple alliances tackling the same problem, the question of alliance selection becomes pertinent. Currently, we are working at endogenizing the choice of joining an alliance as a function of the (ex-ante) welfare outcomes for individual members. Further, another avenue that we are pursuing is the stability of alliances in the sense that the entry of individual members may alter – positively or negatively – the incentives for remaining in the alliance for existing members. We believe addressing these two questions of endogenous entry and stability would help provide a theoretical foundation for the emergence of alliances in international relations that is based on informational incentives.

Research Agenda

Activists vs Lobbies - The Role of Commitment

Motivation: Political activism during electoral campaigns is a pertinent feature of representative democracies. My earlier work predicts that in the presence of divergent activists, candidate platforms can be more moderate. Further, I find that the presence of big money lobbies creates a crowding out effect of activists, resulting in greater divergence. In the US, for example, big money lobbies (e.g. PACs and super PACs) are able to commit to policy-contingent implicit contracts that specify campaign money in exchange for favorable policies. The ability to commit to quid pro quo contracts (à la Grossman and Helpman (1996)) fundamentally changes the incentives of candidates.
Work in Progress

I consider a setup where instead of being price-takers in the Aldrichian (Aldrich (1983)) sense, lobbies act as Stackelberg leaders, setting contracts that specify a contribution schedule as a function of the policy platform. The candidates have two options - i) accept the contract and espouse the platform specified by the contract; or ii) reject the contract and set a policy platform (possibly) different to the one given by the lobbies. Initial analysis suggests that competition between price-setting lobbies, rather interestingly, does diverge platforms. Moreover, increased divergence between lobbies increases platform polarization of candidates. This result is in stark contrast to the case of activism, where divergence of activists, under certain parameter conditions, resulted in more convergent candidate platforms. The ability to write platform contingent contracts is, therefore, a major source of the polarization problem. Further, an interesting feature of the US system of electoral competition is the presence of both lobbies and activists. Going forward, I would like to focus my research this dual source of influence to consider a model of competition with both lobbies and activists belonging to either party. The question of polarization then becomes one of competing interests on either sides with substitutability in contributions between activists and lobbies within a party, and complementarities in contributions across parties. This strategic interdependence is an important source of mobilization in elections. My research aims to build on earlier analysis to address the issue of polarization by considering the possibility of such interdependencies.

Information and Coordination in Conflicts

Motivation: Think of a conflict situation that involves multiple entities taking actions simultaneously – e.g., the military intervention against ISIS by an international coalition of countries. There are two important components of such interventions: i) information sharing, and ii) need for coordination (of actions) among the interested parties. Information sharing enables increasing the precision of actions, while coordination incentives arise because of the nature of interdependencies in actions of players.

Work in Progress

In this project, me and Francesco Squintani study the role of information sharing and coordination in conflicts. We derive the precise nature of communication when there is a need for information sharing and coordination motives between players (strategic complementarity in actions). The equilibrium communication takes a simple form. A player reveals information truthfully as long as her bias is within a certain threshold from the mean of the players’ biases. This implies that with coordination motives, players with preferences closer to the average of the group are more likely to reveal their private information truthfully. Moreover, another important property of the equilibrium is that as the relative importance of coordination increases, players with biases further away from the average can reveal information truthfully, thereby expanding the truthful set of players. Future work will be
focused on studying the welfare properties of truthful communication equilibrium, and the relevant question of whether inclusion or exclusion of players could improve communication within the group. These questions remain substantially important as they could shed light on the nature of communication incentives in such settings, and can provide novel insights into the problem of coordination during conflicts.