

# PRIVATE POLITICS<sup>1</sup>

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## I. Introduction

The problem of social order lies at the heart of human interaction. Concerned with recurring civil conflict Hobbes (1651, p. 185-6) argued that without a “common Power” society would be in a “warre, as is every man, against every man.” The result would be a life “solitary, poore, nasty, bruttish, and short.” Hobbes’s solution was the state, a Leviathan, to provide public order. In contrast, Nozick (1974) argued that people would voluntarily form associations to provide social order, and those associations would be alone in their authority to coerce people. The social order would then be privately provided and would be endogenously determined through voluntary participation in the associations. This essay is concerned with endogenous private order as a resolution of conflicts among individuals and with the private politics surrounding it.

Coase (1960) advanced the analysis of social order by observing that in the absence of transactions costs individuals would bargain to a Pareto efficient resolution of disputes and, if transfers could be made, to a welfare-maximizing outcome. Moreover, this efficiency would be achieved regardless of how initial entitlements or property rights were allocated among the parties. The role of the state, or public order, in achieving social efficiency then is simply to assign and enforce property rights. When transactions costs are high, however, bargaining among the parties to a dispute might not occur and if it did occur could be inefficient. Moreover, even if there were no transactions costs, the distributive consequences provide incentives for political competition over the assignment of entitlements.

Calabresi and Melamed (1972) took Coase’s perspective two steps further. First, they argued that in the absence of transactions costs not only can entitlements be assigned arbitrarily and efficiency attained, but those entitlements can be protected by either a property rule or a liability rule. Second, in the presence of transactions costs a liability rule

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could be more efficient than a property rule. The protection of entitlements then should depend on the relative costs associated with alternative forms of public order; e.g., reliance on the courts or regulation.

Ellickson (1991) argued that the cost of public order; i.e., government-provided social order, such as relying on the courts to resolve disputes, can be high. It is costly to establish rules, enforce them, and revise them in light of new developments. When the costs of accessing the institutions of public order are high, individuals may provide private rather than public order. Ellickson argued that norms supported by repeated interactions provide the basis for private dispute resolution, and although such norms are sustained in the shadow of the institutions of public order, those institutions need not be accessed. He referred to this set of norms as a private ordering and supported his perspective with a detailed study of how residents of Shasta County, California resolved disputes arising from wayward cattle. The resolution of those disputes, he argued, seldom depended on the applicable law. The resolution of disputes has obvious distributive consequences, and settlements depend on the status quo and the alternatives available to the individuals involved. The status quo is thus the subject of politics; i.e., ranchers and homeowners sought to define the status quo in a manner favorable to their interests.

McMillan and Woodruff (2000) identified a continuum of “order” in economic and social interactions extending from the private orderings studied by Ellickson to state-supported order through regulation and the courts. They focus on “private-order organizations,” such as trade associations, that facilitate economic exchange by providing information and coordination for their members. The law merchant (Milgrom, North, and Weingast 1990), trading companies, clearinghouses, and arbitration systems are examples of private-order organizations. These organizations typically have as members either the firms participating in an industry or trading partners. Private politics focuses instead on private orderings formed by opposing interests not all of whom participate in economic transactions.

This essay focuses on situations of conflict among individuals and the resolution of that conflict without reliance on the law. It extends the study of private orderings by both taking a step backwards and a step forwards. The step backwards is to consider the origin of the conflict and the politics associated with it, and the step forward is to consider how the private ordering addresses future as well as current disputes. This perspective

takes the Hobbesian view that social order provides benefits to individuals and the Nozick view that individuals voluntarily form private orderings to govern their own behavior. The costs associated with private versus public order are not explicitly considered here, but the situations I have in mind are often ones in which rights and entitlements are not well defined and where jurisdictions may not be clear. For example, a dispute may cross the borders of countries. The Coasean view that private bargaining can resolve disputes is central to this perspective, but transactions costs of various forms are present. More importantly, the status quo, which serves as the starting point for Coase and Calabresi and Melamed, may be endogenous to the economic and political strategies of the participants in the conflict.

Private politics encompasses the political competition over entitlements in the status quo, the direct competition for support from the public, the bargaining over the resolution of the conflict, and the maintenance of the agreed-to order. The term private means that the parties do not rely on the law or public order; i.e., neither law-making nor the courts, although the law and law-making may be possible. The term politics refers to individual and collective action in situations in which individuals attempt to further their interests by imposing their will on others. In public politics this generally involves a rule that allows a majority to impose its will on a minority. The private politics considered here does not involve voting but does involve the public. The public is not viewed as a unitary actor but instead as individuals who may or not act similarly and whose actions are voluntary. The resolution, if there is one, of the conflict is by mutual agreement, but collective action by individuals determines the threat point and hence the resolution of the conflict. The result can be a private ordering established by opponents and designed to maintain order given the continuing conflicting interests of the parties.

The use of private orderings appears to have grown over the past decade as a result of private politics. For example, privacy in electronic commerce is supported by private institutions such as TRUSTe, which certifies the privacy policies of Web sites. In the wake of protests against sweatshops in Asia, activists and footwear and apparel companies formed the Fair Labor Association to govern working conditions in suppliers' factories. A private ordering has been established for Fair Trade certified coffee, and activists and diamond companies have established certification of Conflict-Free Diamonds to stem violence in Sierra Leone financed by black market diamonds. Third-party certification has also been

established for milk from rGBH free cows, Pacific tuna is now dolphin-free, and activists and firms have formed a number of organizations to encourage voluntary efforts to address global warming. Recently, activists, backed by boycotts by Home Depot and Lowe's, reached an accord with timber companies to protect the Great Bear Rainforest in British Columbia. These private orderings resolve conflicts and govern conduct through self-regulation by mitigating commitment, coordination, information, and free-rider problems.

The examples of private politics we remember are surely the ones where the challenge has been successful, as in the cases of tuna, apparel and footwear, and coffee. If data were available on all attempts at private politics, however, most would probably be failures. An example of a likely failure is Greenpeace's attempted boycott of Coca-Cola in conjunction with the 2000 Olympics in Australia. More important than the successful or failed attempts are the proactive measures adopted by many firms to avoid a confrontation with activists. The impact of private politics is thus undoubtedly greater than the number of conflicts reported.

## II. An Example of Private Politics

Private politics pertains to a variety of goods but particularly to credence goods whose characteristics cannot be discerned even through consumption and use. A consumer may not know the working conditions in the overseas factory that produced a pair of shoes or the pollution generated in conjunction with the production of a product.<sup>2</sup> Similarly, a consumer may not know the uses to which revenue is put, as in the case of financing violence in Africa through the sale of conflict diamonds. When consumers and the public care about such unobservable characteristics, political action can arise to challenge the practices of firms.

The quintessential activist challenge centered on work practices in apparel and footwear factories in Southeast Asia. The natural target was Nike, which not only was the largest company in this market segment but was also an aggressive competitor that was in the face of the public. Beginning in the early 1990's activists and union organizers began calling attention to the working conditions in the "sweatshops" producing for the American market.<sup>3</sup> A number of widely publicized incidents of abusive practices and reports of low

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<sup>2</sup> See Feddersen and Gilligan (2001) for a signaling theory with credence goods.

<sup>3</sup> See the case *Nike in Southeast Asia* in Baron (2000, pp. 110-3).

wages, long hours, and forced overtime provided ample fuel for the fire. The motivation for the protests was not just the working conditions. The Union of Needletrades, Industrial and Textile Employees sought to raise the costs in Asian factories to protect the jobs and wages of their members in the United States.

In the early years of the protests against its work practices Nike categorically rejected the allegations of the activists. Nike owned no factories as a Nike spokeswoman explained, “We’re about sports, not manufacturing 101.” CEO Phil Knight argued that not only were the factories of its suppliers not sweatshops but that Nike provided badly needed jobs to people who were eager for them. He pointed to the experiences of Japan, South Korea, and Taiwan which transitioned from low wages and long hours to high per capita incomes. He explained, “When we started in Japan, factory labor there was making \$4 a day, which is basically what is being paid in Indonesia and being so strongly criticized today. Nobody today is saying, ‘The poor old Japanese.’ We watched it happen all over again in Taiwan and Korea, and now it’s going on in Southeast Asia.”<sup>4</sup> Nike did make some changes in its work practices, but they fell far short of the activists’ demands.

After six years of conflict, the outcome of the conflict between the activists and Nike and other apparel and footwear companies was the 1998 establishment of a private ordering, the Fair Labor Association (FLA), with many of the characteristics of a public institution. The FLA agreement specifies representation, decision rights, standards, monitoring, certification, public reporting, and amendment procedures. The FLA includes 12 companies and 21 non-governmental organizations (NGOs) with each group holding six board seats. One hundred forty-one college and university affiliates hold one board seat, and the chair has one seat. The FLA has a detailed code of work practice standards such as a 60 hour work week and no employment of children under the age of 15 unless permitted by the government. A supermajority is required to change the code of workplace standards. The FLA certifies independent third-party monitors that inspect a specified percent of the factories each year. The FLA also gives a “service mark” to participating companies that meet its standards. With majority approval the FLA can publicly release the inspection reports on factories; i.e., release information on the unobserved (by the public) characteristics of the credence goods.

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<sup>4</sup> Quoted in *Nike in Southeast Asia* in Baron (2000, p. 113).

The FLA does not provide for a “living wage,” and consequently UNITE and some other activist groups refused to participate. Instead, they formed the Workers Rights Consortium as a competing private ordering. The Consortium seeks a living wage, more extensive monitoring, and stronger standards. Participation in the private orderings is thus voluntary, and the orderings compete for support.

Nike subsequently went beyond the policies called for in the FLA agreement by adopting a set of more stringent measures such as not hiring anyone under the age of 18 in its footwear plants and meeting U.S. air quality standards in the workplace. Phil Knight stated, “The Nike product has become synonymous with slave wages, forced overtime and arbitrary abuse. I truly believe the American consumer doesn’t want to buy products made under abusive conditions.”<sup>5</sup>

### **III. A Research Agenda**

The objective of this essay is less to present results and more to identify a set of research questions and provide examples of how they might be investigated. An important component of a research program in private politics is the empirical measurement of both activist campaigns and proactive measures by firms and their impact on economic activity and on the operating policies of firms. Some firms and activists become engaged in private politics and carry it to its conclusion, whereas other firms anticipate private politics and proactively attempt to forestall it. The economic impact of private politics thus may be considerably greater than that which is evident from observation. Measurement of its impact along with empirical analysis are needed to identify both its significance and patterns in the data. In addition, data on the success and failure rates of private politics episodes are needed. Theories are then needed to explain when and where politics arises and why some attempts at private politics fail whereas others succeed. For example, a theory of reputation and positioning is needed to explain which firms become the targets of activists and how firms can position themselves to reduce the likelihood that they become targets. That is, a theory is needed to explain why and how firms avoid or attract incidents of private politics.

Another component of a research agenda is to develop models of the motivation and

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<sup>5</sup> *The New York Times*, May 13, 1998.

behavior of citizens who may be concerned, for example, about the unobservable characteristics of credence goods. These citizen consumers may be motivated by moral or normative concerns, or they may be motivated by their self-interest as in the case of UNITE. In addition to modeling the motivation and behavior of citizen consumers, models of the competition for public sentiment are needed.<sup>6</sup> In particular, theories are needed of how activists and firms communicate to the public, which often takes place through the news media.

At a broader level a research agenda should include studies of the interaction between private and public politics. That is, when does an activist or interest group use private politics to advance its cause and when does it use public politics? An environmental group can directly pressure a firm through demonstrations, lead a boycott, sue the firm under existing laws, or seek new legislation to address its concerns. One question in this line of inquiry is whether the group can mobilize citizens more effectively for private action such as a boycott or for political action directed at Congress, for example.

Other research questions at the same level focus on the interaction between private politics and markets. For example, the FLA affects the sourcing decisions of apparel and footwear companies not only by raising costs through higher workplace standards but also by affecting from which countries products are sourced. Other issues pertain to mechanisms for the certification of credence goods. Such mechanisms include reputation, activist signaling as in Feddersen and Gilligan, and participation in a private ordering. Some of these mechanisms, e.g., the Good Housekeeping Seal and Underwriters Laboratory certification, are used in the absence of private politics, so there is a selection between private politics and markets.

Finally, a research agenda should include studies of private orderings. This should include not only those with the characteristics of an institution such as the FLA but also those that involve less formal agreements. Such studies should include not only the private ordering, but also the proactive measures, if any, taken to avoid private politics.

One observation from actual episodes of private politics is that some players seem to make extreme statements in an attempt to gain public support for their side of the issue, whereas others take a more restrained approach. Some activists make accusations

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<sup>6</sup> Feddersen and Sandroni (2001) present a theory in which rule utilitarianism guides individual action.

that go beyond arguing their case, including possibly concealing information unfavorable to their case. Some firms also make strong statements, including denying the accusations and asserting that there is no problem. Others are cautious and restrained in their response. One challenge to a theory of private politics is to identify incentives that lead to extreme or restrained actions in the competition for public sentiment.

A second observation is that the activists and the firm may be intransigent. The activists that refused to join the FLA and formed the Workers Rights Consortium did so because their demands were not met. Similarly, Nike refused for years to allow the independent monitoring demanded by activists. This intransigence may be a reflection of maintaining a reputation for toughness, but it may also be that the players are ideologues or behavioral types that simply refuse to change their positions. A theory of private politics should allow for the possibility that the activists and firms may be intransigent behavioral or reputational types.<sup>7</sup>

To model this type of private politics in the simplest possible manner, consider a game involving an activist and a firm. The activist seeks good practices of the part of the firm, such as the working conditions in its overseas factories. To induce the firm to improve its practices, the activist can alert the public to the harm and lead a boycott against it. The firm does not bear the cost of the harm from the work practices, e.g., from abuses or accidents associated with those practices, so if it changes its practices as sought by the activist it will incur a cost but obtain few benefits. Moreover, improving the practices does not completely eliminate the abuses or accidents but does reduce their likelihood. The practices of the firm may not be directly observable to the activist, so there can be incomplete information.

The following sections of this essay sketch models that could be used to study this type of situation. Rather than working backwards as is the custom in economics, the exposition proceeds as does an episode in private politics, beginning with the identification of an issue and ending with the establishment of a private ordering. My hope was to capture private politics as a tightly-woven novel, but the complexity of such a task is beyond the scope of this essay. The exposition thus will focus on four short stories linked by intuition and suggestive results. Each short story corresponds to a game representing a

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<sup>7</sup> See Kreps and Wilson (1982) and Milgrom and Roberts (1982) for theories of reputation.



central component of the conflict between an activist and a firm. These games and their interactions are identified in Figure 1.

The game of politics begins with an issue on which an activist challenges a firm. The activist and the firm compete by providing information to the public through the news media. As modeled in the next section, the game of politics incorporates not only asymmetric information about the unobserved characteristics of the credence good but also the intransigence, or type, of the players. The competition is through messages directed to the public, recognizing that those messages also affect the beliefs of the opponent about one's own type.

The game of public sentiment is played among citizen consumers who decide whether to take action against the firm. If they act in a concerted manner, a boycott results. Citizen consumers base their decisions on information they receive through the news media as well as on information they infer from the actions of their neighbors. They may also bear costs of changing their purchasing behavior, and citizen consumers may choose not to bear costs and free-ride on the actions of others. They, however, may also have an incentive to act because their doing so can convey information to others about the seriousness of the issue.

The game of conflict resolution arises if a boycott attempt is successful. In that event the activist and the firm are assumed to bargain over the resolution of the conflict, where a resolution corresponds to a private ordering. The bargaining incorporates incomplete information about the types of the players, and their stakes in the bargaining depend on the magnitude of the boycott. The stake and the set of feasible private orderings are determined in the final game.

The game of private ordering is concerned with agreements that are sustainable over time given incidents that inevitably arise from the continued operations of the firm. Even when improved workplace standards are implemented, occasional incidents and accidents will occur. A private ordering should be sustainable to such events; i.e., it should be an equilibrium private institution. The game of private ordering focuses on which workplace standards are acceptable to both the activist and the firm; acceptable in the sense that the firm will not shirk on its pledge to maintain the standards and the activist will not resume the boycott when incidents occur. Monitoring of the practices of the firm is required. The set of equilibrium private institutions then determines the stake over which the parties

bargain.

#### IV. The Game of Politics: Informational Competition

The activist challenge to the firm begins with the identification of the issue, such as the work practices of firms in overseas plants. The underlying state of nature is then the actual work practices in the supplier's factories. This state is not known perfectly to either the activist or the firm, but each obtains information about it. The activist's strategy is to attempt to communicate to the public to generate a boycott of the firm which then serves as the threat point for subsequent bargaining.<sup>8</sup> The firm's strategy is to convey its information to the public to counteract the activist's strategy.

The activist and the firm may have different information because their sources are different. The activist may interview workers and examine complaints made to local government officials, whereas the firm has information from observing what takes place in its suppliers' factories. Not only can the information of each side be different, but they may offset each other. For example, the activist may have information that the supplier pays only the minimum wage for the country which is below the "living wage," whereas the firm has information that workers are eager to work for its supplier and that most workers belong to family units with several members working to support the family.

The information of the activist and the firm provides the basis for a competition for the public's sentiment. Each side attempts to communicate that information directly to the public, but it is more effective to communicate it through the news media. The news media has two roles in the model. First, since it knows that the activist and the firm have an incentive to communicate their information strategically, the media may investigate the information it receives. For example, the *San Jose Mercury News* sent reporters to Indonesia to investigate the assertions about wages by the activists and Nike.<sup>9</sup> Second, the news media covers the issue and reports information to the public. To simplify the model, the media will not be represented as a player. Instead, it will be modeled as a machine that evaluates the communication by the two sides and based on that evaluation provides reports to the public.

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<sup>8</sup> To simplify the analysis, the acquisition of information is not considered in the model.

<sup>9</sup> It concluded that the truth was somewhere in between the two assertions.

The informational competition between the activist and the firm involves two considerations. First, messages can be provided strategically to affect the likelihood and magnitude of any boycott. This form of competition directly affects the game of public sentiment. Second, the messages can affect what a player believes about the type of his opponent.

Confrontations between an activist and a firm can involve players with reputations. For example, an activist may be ideologically committed to a particular outcome such as the elimination of child labor. Such an ideologue may bend corners in its confrontation with the firm and may be an intransigent bargainer. Examples of intransigents may be those who rejected the FLA and formed the Worker's Rights Consortium. UNITE refused to join the FLA primarily over the living wage issue. Similarly, the firm may be headed by an intransigent type who believes that this is none of the activist's business, as illustrated by the Nike spokeswoman.<sup>10</sup> A firm, however, is less likely to be intransigent than an activist because a firm is owned by shareholders, and at some point shareholder considerations are likely to prevail. The exception is where there are imperfections in the market for control that allow management to be intransigent.

By observing what the activist does, the firm may revise its beliefs about whether it is intransigent or a rational professional that will act optimally at each point in time. These beliefs about the other player affect the strategy the players will use in the bargaining stage. Consequently, in choosing their strategies in the informational competition, the players have one eye on how the media and the public will respond to their strategy and the other eye on what their opponent will believe if the game reaches the conflict resolution stage.

To make these concepts more explicit, let  $\theta^i$ ,  $i = A, F$ , denote the private information available to the players. That information can be offsetting; e.g., the firm may learn that the workers are quite happy to have their jobs given the alternatives available in the labor market and in the unofficial sector of the economy and the activist may learn that the wage paid is below what it views as the living wage. The aggregate information  $\theta$  about the work practices is assumed to be given by

$$\theta = \theta^A + \theta^F.$$

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<sup>10</sup> The intransigent type may be one with a reputation that is too costly to break because that reputation may be useful for issues in addition to the one of concern here.

To formalize the notion of offsetting information, the information  $\theta^A$  is assumed to take on a value  $\theta^A \in \{-1, 0\}$  and similarly  $\theta^F \in \{0, 1\}$ . The interpretation of  $\theta^A = -1$  is that the activist has information favorable to its side; i.e., the work practices are bad. If  $\theta = 0$ , the activist has both information favorable (-1) and unfavorable (+1) to its side. Similarly, if  $\theta^F = 1$ , the firm has information favorable to its side, and if  $\theta^F = 0$ , it has both favorable (+1) and unfavorable (-1) information. If  $\theta^A = -1$  and  $\theta^F = 1$ , the information is offsetting; i.e.,  $\theta = 0$ . Similarly, if  $\theta^A = 0$  and  $\theta^F = 0$ , the information of each player is offsetting and thus so is the aggregate information. The activist has information  $\theta^A = -1$  with probability  $\phi^A$ , and the firm has information  $\theta^F = 1$  with probability  $\phi^F$ .

To have an impact on beliefs, the communications by the players must have some degree of credibility. The information thus is assumed to be hard and hence can be shown to the news media; i.e., the players have something to back up what they say. The players, however, can conceal information. The activist can conceal information unfavorable to its cause, so when it has  $\theta^A = 0$ , it can conceal the (+1) and show only (-1) to the media. That is, the activist can present the information favorable to its side and conceal the unfavorable information.<sup>11</sup> To represent this, the communication by the activist to the media will be denoted by  $m^A \in \{-1, 0\}$ . Similarly,  $m^F \in \{0, 1\}$ .

The activist and the firm can either be intransigent or sequentially rational, where the latter means that the player acts optimally at every point in time at which it has a move. The intransigent type is denoted  $\ell^I, \ell = A, F$ , and the rational player by  $\ell^R, \ell = A, F$ . The probability that a player is intransigent is  $\mu^\ell, \ell = A, F$ . If the activist is intransigent, it is assumed to always send a message  $m^A = -1$ ; i.e., it always conceals unfavorable information. Similarly, if the firm is intransigent, it always sends the message  $m^F = 1$ .

It is a dominant strategy for the rational activist to send  $m^A = -1$  when its information is  $\theta^A = -1$ . The strategy of the activist thus can be represented by  $\rho^A$ , the probability that the activist sends  $m^A = -1$  when  $\theta^A = 0$ . The activist would like to conceal the (+1) with probability one, but it faces the risk that its concealment may be revealed by an investigation by the news media. Similarly, the rational firm can conceal the (-1) when  $\theta^F = 0$ , and the probability it does so (sends  $m^F = 1$ ) is denoted by  $\rho^F$ . Again, the firm may choose not to conceal the unfavorable information because of the risk of being

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<sup>11</sup> See Dewatripoint and Tirole (1999) for a model with this type of information structure.

revealed by an investigation by the media. When  $\theta^F = 1$ , the firm has a dominant strategy of sending  $m^F = 1$ .

Based on the messages from the activist and the firm, the media is assumed to investigate with probability  $\xi$  if the information is contradictory; i.e., the activist sends  $m^A = -1$  and the firm sends  $m^F = 1$ . Any other information is viewed by the media as consistent; e.g.,  $m^A = -1$  and  $m^F = 0$ , since  $m^i = 0$  means that both favorable and unfavorable information was obtained. To simplify the model, the media's investigation is assumed to be perfect, so when it investigates, it learns the true information  $\theta^A$  and  $\theta^F$  and reports it.

The news media is assumed to be interested only in the information and not about whether the activist or the firm is intransigent. Based on the information it receives and its investigation, if any, the media forms posterior beliefs about the state  $\theta$  of the work practices. Those beliefs affect the coverage given to the issue and how it is treated. That treatment is assumed to be neutral and objective when the information communicated is offsetting (either  $(m^A = -1, m^F = 1)$  or  $(m^A = 0, m^F = 0)$ ) and otherwise is sympathetic to the side indicated by the expected value of  $\theta$ . This coverage and treatment then determines (stochastically) the signals received by individual citizens. The public does not have direct access to the information presented by the activist or the firm and instead receives all its information from the news media. For example, the firm and the activist may have prohibitive costs of presenting their information to the public. Alternatively, the public may have difficulty evaluating the information presented by the two sides and thus relies on the news media to interpret it.<sup>12</sup>

The firm and the activist observe the result of any news media investigation and also observe the information the other side presents. Based on these observables each player makes a joint inference about the type and the information of its opponent. With respect to the former if the activist presents  $m^A = 0$ , the firm knows that the activist is rational and that its information is  $\theta^A = 0$ . If  $m^A = -1$  is presented by the activist and the media investigates and concludes that the activist concealed the (+1), then  $\theta^A = 0$ , but the firm does not know whether the activist is intransigent or rational. Similarly, if the firm presents  $m^F = 1$  and a media investigation reveals that the firm concealed the (-1), the activist

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<sup>12</sup> Note that in this model of informational competition citizens do not play a role. They respond instead to the media coverage and treatment of the issue as considered in the next section on the game of public sentiment.

knows that  $\theta^F = 0$ , but it does not know whether the firm is intransigent or rational.<sup>13</sup> If  $|m^A| = 1$  and the media does not investigate, the other player forms beliefs on the joint event  $(i^I, \theta^i), i = A, F$ .

The sequence of moves in the game is as follows. First, the activist and the firm receive information  $\theta^i, i = A, F$ , respectively. Second, they simultaneously send (hard) messages to the news media. Third, the news media investigates with probability  $\xi$  and reports its findings publicly. A reputational loss  $L^i$  is assumed to result if the activist or the firm is found to have misrepresented its information. The bargaining model in Section VI focuses on the case in which (1) the activist and the firm send  $m^A = -1$  and  $m^F = 1$ , respectively, and (2) the news media either does not investigate or investigates and learns that neither player concealed information. In these cases both the activist and the firm could be intransigent.<sup>14</sup>

The objective of the following analysis is not to attempt to characterize an equilibrium but instead is to specify the model sufficiently clearly that certain intuitions about the relations between the games of conflict resolution and public sentiment and the game of politics can be identified. For example, in the game of conflict resolution the bargaining strength of a rational player is increasing in its probability of its intransigent type. This then has implication for the concealment strategy in the game of politics.

To help develop the intuition, consider the state  $\theta^F = 0$ . The expected profit of the firm depends on the information and communication strategy of the activist, the investigation probability of the media, and the expected payoffs from the games of public sentiment and conflict resolution. The expected payoffs depend on the posterior beliefs on the information and type of the other player. When the media investigates, the expected payoffs will be denoted by  $\pi(\bar{\phi}, \bar{\mu} | m)$ , where  $\bar{\phi} = (\bar{\phi}^A, \bar{\phi}^F)$  represents the posterior probabilities of  $\theta^A = -1$  and  $\theta^F = 1$ ,  $\bar{\mu} = (\bar{\mu}^A, \bar{\mu}^F)$  represents the posterior probabilities of  $A^I$  and  $F^I$ , and  $m = (m^A, m^F)$ . When the media does not investigate, the expected payoffs are denoted by  $\bar{\pi}(\bar{\phi}, \bar{\mu} | m)$ .

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<sup>13</sup> Off-the-equilibrium path beliefs must be stated for the cases in which  $\theta^A = 0$  and the activist presents  $m^A = 1$  and  $\theta^F = 0$  and the firm conceals  $+1$  and presents  $m^F = -1$ . Those beliefs are assumed to put probability one on the information  $\theta^A = 0$  and  $\theta^F = 0$ , respectively, and to put probability  $\mu^i$  on the intransigent type.

<sup>14</sup> If the activist reveals itself to be rational but the firm's type is not revealed, the firm exploits that information in the bargaining and the activist concedes immediately.

The only strategy of the firm is which message to send when its information is  $\theta^F = 0$ . The expected profit  $E\pi^F(\rho^F | \theta^F = 0)$  is given by, using the dominant strategies for  $A^I$  and for  $A^R$  when  $\theta^A = -1$ ,

$$\begin{aligned}
E\pi^F(\rho^F | \theta^F = 0) = & \rho^F \left[ Pr(\theta^A = -1) Pr(m^A = -1 | \theta^A = -1) \{ \xi(-L^F + \pi((1, 0), \bar{\mu} | (-1, 1))) \right. \\
& + (1 - \xi) \bar{\pi}(\bar{\phi}, \bar{\mu} | (-1, 1)) \} + Pr(\theta^A = 0) [ Pr(m^A = -1 | \theta^A = 0) \\
& \cdot \{ \xi(-L^F + \pi((0, 0), \bar{\mu} | (-1, 1))) + (1 - \xi) \bar{\pi}(\bar{\phi}, \bar{\mu} | (-1, 1)) \} \\
& + Pr(m^A = 0 | \theta^A = 0) \bar{\pi}((0, \bar{\phi}^F), (0, \bar{\mu}^F) | (0, 1)) ] \\
& + (1 - \rho^F) \left[ Pr(\theta^A = -1) Pr(m^A = -1 | \theta^A = -1) \bar{\pi}((\bar{\phi}^A, 0), (\bar{\mu}^A, 0) | (-1, 0)) \right. \\
& + Pr(\theta^A = 0) [ Pr(m^A = -1 | \theta^A = 0) \bar{\pi}((\bar{\phi}^A, 0), (\bar{\mu}^A, 0) | (-1, 0)) \\
& + Pr(m^A = 0 | \theta^A = 0) \bar{\pi}((0, 0), (0, 0) | (0, 0)) ] \left. \right].
\end{aligned}$$

Substituting for the probabilities with  $Pr(m^A = -1 | \theta^A = 0) = \mu^A + (1 - \mu^A)\rho^A$ ,  $Pr(m^A = 0 | \theta^A) = (1 - \mu^A)(1 - \rho^A)$ , and  $Pr(m^A = -1 | \theta^A = -1) = 1$  yields

$$\begin{aligned}
E\pi^F(\rho^F | \theta^F = 0) = & \rho^F \left[ \phi^A \{ \xi(-L^F + \pi((1, 0), \bar{\mu} | (-1, 1))) + (1 - \xi) \bar{\pi}(\bar{\phi}, \bar{\mu} | (-1, 1)) \} \right. \\
& + (1 - \phi^A) [ (\mu^A + (1 - \mu^A)\rho^A) \{ \xi(-L^F + \pi((0, 0), \bar{\mu} | (-1, 1))) \\
& + (1 - \xi) \bar{\pi}(\bar{\phi}, \bar{\mu} | (-1, 1)) \} + (1 - \mu^A)(1 - \rho^A) \bar{\pi}((0, \bar{\phi}^F), (0, \bar{\mu}^F) | (0, 1)) ] \\
& + (1 - \rho^F) \left[ \phi^A \bar{\pi}((\bar{\phi}^A, 0), (\bar{\mu}^A, 0) | (-1, 0)) \right. \\
& + (1 - \phi^A) [ (\mu^A + (1 - \mu^A)\rho^A) \bar{\pi}((\bar{\phi}^A, 0), (\bar{\mu}^A, 0) | (-1, 0)) \\
& + (1 - \mu^A)(1 - \rho^A) \bar{\pi}((0, 0), (0, 0) | (0, 0)) ] \left. \right].
\end{aligned} \tag{1}$$

If the reputational loss  $L^F$  from being caught misrepresenting its information and the probability  $\xi$  of an investigation are sufficiently high, the firm will choose  $\rho^A = 0$ . If the reputational loss is less severe or the probability of investigation is smaller, there could exist a  $\rho^F \in (0, 1)$  that maximizes (1). Optimality conditions will not be presented here, since the beliefs on the type of the activist and on  $\theta$  depend on the strategies in a complicated manner. In addition, the condition analogous to (1) for the activist will not be presented.

If the parameters of the game are such that a mixed strategy equilibrium  $(\hat{\rho}^A, \hat{\rho}^F)$  exists, the players do not learn perfectly the type of the other player when the message

that player sends is favorable to its side. For example, the posterior probability  $\bar{\mu}^A = Pr(A^I | m^A = -1)$  that the activist is intransigent given the favorable message is

$$\begin{aligned} \bar{\mu}^A &= Pr(A^I | m^A = -1) = Pr(A^I, \theta^A = -1 | m^A = -1) + Pr(A^I, \theta^A = 0 | m^A = -1) \\ &= \frac{\mu^A \phi^A}{1 - (1 - \mu^A)(1 - \phi^A)(1 - \hat{\rho}^A)} + \frac{\mu^A(1 - \phi^A)}{1 - (1 - \mu^A)(1 - \phi^A)(1 - \hat{\rho}^A)} \\ &= \frac{\mu^A}{1 - (1 - \mu^A)(1 - \phi^A)(1 - \hat{\rho}^A)}. \end{aligned} \tag{2}$$

Since  $\bar{\mu}^A$  is strictly decreasing in  $\hat{\rho}^A$ , a higher probability of concealment results in a lower probability that the activist is intransigent. As noted above, the posterior probability  $Pr(A^I | m^A = 0) = 0$ . Similarly, the posterior probability  $\bar{\mu}^F = Pr(F^I | m^F = 1)$  that the firm is intransigent when the message favorable to its side is sent is

$$\bar{\mu}^F = Pr(F^I | m^F = 1) = \frac{\mu^F}{1 - (1 - \mu^F)(1 - \phi^F)(1 - \rho^F)}.$$

The posterior probability  $Pr(F^I | m^F = 0) = 0$ .

The expression in (1) is complicated because the expected payoffs  $\pi(\cdot, \cdot | m^A)$  depend on  $\rho^F$  through both the posterior probability  $\bar{\mu}^F$  that the firm is intransigent and the posterior probability  $\bar{\phi}^F$  that  $\theta^F = 1$ . As will be indicated in the analysis of the game of public sentiment, the expected payoffs are increasing in the probability  $\bar{\phi}^F$  that the firm saw favorable information. This provides an incentive for the rational type to mimic the intransigent type by concealing unfavorable information when  $\theta^F = 0$ . The expected payoffs in the game of conflict resolution depend on the magnitude of the boycott, which depends on  $\bar{\phi}^F$ , and on the probability  $\bar{\mu}^A$ . As indicated in (2)  $\bar{\mu}^A$  is decreasing in the probability  $\rho^A$  of concealment, so the anticipated bargaining reduces the incentive to conceal unfavorable information.

## V. The Game of Public Sentiment: Boycotts

The overall strategy of the activist is to generate a boycott to force the firm to bargain over an improvement in its practices. A boycott is the result of individual actions taken by citizens in their roles as consumers. Some citizens may be concerned about abusive practices, but each has limited information about whether the practices are indeed abusive. The objective of this section is not to explain why citizens might boycott a firm that is



a target of an activist campaign but instead is to explore why there might be concerted effort against the firm even if there is no jointly-chosen action. The explanation should be consistent with the informational competition between the activist and the firm. A natural model is one in which each person receives a signal about the seriousness of the issue from the media's coverage and treatment, which in turn results from the informational competition and the media investigation, if any, in the game of politics. This information is costless to the citizen; i.e., the cost of providing the information is borne by the activist, the firm, and the media.

The informational cascades literature addresses this type of situation and posits that individuals infer information from the observed actions of others and use that information in choosing among a discrete set of alternatives. A cascade arises when individuals act independently of their own signal. Lee (1993), however, showed that this cascade effect disappears if there are sufficiently many alternatives.

The model presented here has individuals acting based on their own signal and any information inferred from the behavior of others. In the equilibrium an individual need not make a complicated application of Bayes' rule, but instead infers that if someone; e.g., a neighbor, acts quickly after the issue becomes public the signal the neighbor received must have been that the issue is quite serious. And, if she does not act for some considerable time, the issue cannot be that serious. Combining that information with his own, the first citizen decides when to act and how strong an action to take. Consequently, a citizen is more likely to boycott the firm if she sees others boycott the firm, and if others are not boycotting the firm, she may infer that the practices are not very serious. Each citizen is thus interested in what others do.

This interest has two components. The first is that the boycott actions of others may do some good by causing the firm to change its practices. The second is that another citizen's action can provide information. Consequently, when a citizen receives her signal, she has an incentive to wait before acting to see what she can learn from the actions of others. She also has an incentive to act early so as to provide information to others that may lead them to act. Since one citizen's action may result in others acting as a result of the information provided, the boycott actions of citizen consumers can cluster. A boycott

then is the clustering of the individual actions of citizen consumers.<sup>15</sup> Clustering resembles coordinated action, but it is individual actions that are timed strategically.

A citizen has two considerations in deciding when and how much to boycott the firm. The first is that the longer she delays acting the longer the current situation continues. This delay is costly and that cost is higher the more serious are the workplace standards. Second, by delaying action she can make a better decision. Since a citizen does not want to make a mistake by boycotting too much when the situation is not serious or boycotting too little when it is serious, she has an incentive to wait and watch what her neighbors do. Each citizen has the same considerations so they play a timing game. Each citizen must also decide how much to boycott the firm, and the level of a citizen's boycott depends on both her own information and the information inferred from observing the actions of other citizens. The timing and the magnitude of the boycott are thus endogenous. This type of model can explain a seemingly spontaneous boycott. In addition, it can explain why some boycotts break out quickly after the initial informational competition and why others break out only after some passage of time. The model predicts that boycotts that take considerable time to develop are likely to have little impact.

A third consideration is free-riding. The free-rider problem is present when a citizen bears a cost of boycotting and has preferences that are increasing in the actions of the other citizens. In this model there is a cost of boycotting, and there is an externality between the action of one citizen consumer and the actions of others. This does not lead to a free-rider problem, however. Instead, it leads to what will be referred to as a "leadership effect."

To represent the citizens' boycott decisions, the clustering model of Gul and Lundholm (1995) will be used. Some citizens are assumed to be concerned about the issue in question, and at time 0 citizen  $i$  receives a private signal  $s_i$  about how serious it is.<sup>16</sup> The citizens are also assumed to be unable to show credibly their information to each other; e.g., the information is soft, and they are unable to convey their information credibly through cheap

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<sup>15</sup> If citizens acted at random times, the firm would have difficulty distinguishing between an adverse demand shock and individuals refusing to purchase because of concerns about the firm's practices.

<sup>16</sup> Citizens may see some of the same information, and the signals are intended to represent noncommon information. This may include common information that is interpreted differently by the citizens as a result of their past experiences, knowledge, and background. It may also represent information received from different sources.

talk.<sup>17</sup> The seriousness  $S$  of the issue is the sum of the signals received by the citizens; i.e.,  $S = \sum_{i=1}^n s_i$ , where  $n$  is the number of citizens. The signals are assumed to be independent and to be uniformly distributed on  $[0, z]$ , where, for example,  $z = -2E(\theta \mid m^A = -1, m^F = 1)$ ; i.e., the mean of the distribution of the signal is the media's expected value of  $\theta$  given the messages received by the media.

Citizen  $i$  would like to act in response to  $S$ , but she only observes  $s_i$  and not the signals observed by the other citizens. Citizen  $i$ , however, can observe whether the other citizens act, and if their strategies are strictly monotone,  $i$  can infer their information. To do so citizen  $i$ , however, must wait for them to act, and waiting is costly because the work practices remain.

To provide a tractable model, the citizens are assumed to be identical except for the information they receive.<sup>18</sup> Each citizen is assumed to have only one neighbor whom she can observe. Being a neighbor is symmetric, so  $i$  and  $j$  are each other's neighbor. The model will be presented for only two citizens 1 and 2. The citizens are assumed to believe that their actions can reduce the perceived harm done by the practices, and that harm is represented as a function of the seriousness  $S$  of the issue and the actions taken by the neighbors. The disutility  $H_1$  from the harm as perceived by citizen 1 is represented as

$$H_1 = -hS(\gamma - b_1 - \eta b_2), \quad (3)$$

where  $h$  and  $\gamma$  are positive constants,  $\eta$  is a nonnegative constant, and  $b_i$  is the individual boycott of  $i = 1, 2$ . The boycott may be thought of as the reduction in  $i$ 's purchases from the firm. As reflected in (3) the boycott  $b_1$  reduces the perceived harm.

The parameter  $\eta$  represents the extent to which  $i$  takes into account her neighbor's action in planning her own boycott activity. A citizen consumer can value her neighbor's boycott activity because it could help reduce the harm from the practices of the firm. The parameter  $\eta$  indexes that value. If  $\eta > 0$ , the neighbor's action gives rise to an externality, but one that is quite different from free-riding. The effect of  $\eta$  is not on the boycott, which is where a free-rider problem would manifest itself, but instead affects  $i$ 's timing of her

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<sup>17</sup> Alternatively, the information received by a citizen includes whatever information is obtained through cheap talk messages.

<sup>18</sup> It would be desirable in a more general model to introduce heterogeneity of the citizens.

action. As would be expected, the greater is  $\eta$  the stronger is a person's incentive to act early, since acting early will lead her neighbor to act earlier.

Boycotting the firm is assumed to be costly with the cost given by the function  $\frac{\beta}{2}b_i^2$ . The parameter  $\beta$  depends on factors such as whether there are close substitutes for the firm's products. If there are close substitutes, it is less costly to stop purchasing from the firm than if there are no substitutes.

The perceived harm from the practices of the firm continues when there is no boycott. Delaying action is assumed to have a linear cost to  $i$ , and that cost is denoted  $\alpha St$  where  $t$  is the time at which  $i$  acts.<sup>19</sup> The parameter  $\alpha, \alpha > 0$ , could be related to  $h$  and  $\gamma$ ; i.e., the greater the harm the greater the cost of delaying action. The utility  $W_i$  of citizen  $i$  is thus<sup>20</sup>

$$U_i = -hS(\gamma - b_i - \eta b_j) - \frac{\beta}{2}b_i^2 - \alpha St, \quad i = 1, 2, \quad j \neq i.$$

A strategy for citizen  $i$  is a boycott level  $b_i$  and a time  $t_i$  at which she acts, and both are functions of the information  $s_i$  observed by  $i$  and any information obtained from observing the action of  $j$ . If the strategy  $t_i(s_i)$  is strictly increasing or decreasing in  $s_i$ , a neighbor observing that  $i$  took a boycott action at time  $\tau$  can invert the strategy and infer the signal  $s_i$ . The neighbor  $j$  thus can base his action on both his own signal and what he infers from his neighbor's action. This, of course, is only possible if  $i$  moves before  $j$ , so the neighbors find themselves in a game of timing. The hypothesis is that  $t_i(s_i), i = 1, 2$ , is strictly decreasing, so the more serious is the issue based on  $i$ 's signal the sooner  $i$  will begin her boycott. The assumption that a citizen can observe when her neighbor acts is sufficient, so she need not observe how much the neighbor boycotts. A symmetric equilibrium is studied, which implies that both neighbors use the same timing strategy  $t(\cdot) = t_1(\cdot) = t_2(\cdot)$  and the same boycott strategies.

Suppose that citizen 2 were to act first. Since  $t(s_2)$  is strictly decreasing in  $s_2$ , neighbor 1 learns  $s_2$  from her neighbor's action. Together with her own signal neighbor 1 is as informed about the seriousness of the issue as is possible. Citizen 1 thus acts immediately

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<sup>19</sup> There is no discounting here.

<sup>20</sup> This specification may be interpreted as harm  $\alpha S \equiv h\gamma S$  continuing until the boycott begins at time  $t$  with the future consequences of the boycott summarized by  $hS(\gamma - b_1 - \eta b_2)$ . The particular functional form is chosen to allow a closed-form characterization of the equilibrium.

after 2 acts and chooses  $\hat{b}_1$  as

$$\hat{b}_1 \in \arg \max_{b_1} -hS(\gamma - b_1 - \eta b_2) - \frac{\beta}{2} b_1^2,$$

so

$$\hat{b}_1 = \frac{hS}{\beta}.$$

This is strictly increasing in  $S$ , so the more serious the issue the greater is the boycott by the second mover. Note that this is independent of  $b_2$ , so there is no free-rider problem. Citizen 1's utility is then

$$\hat{W}_1 = -hS\left(\gamma - \frac{S}{\beta} - \eta b_2\right) - \frac{h^2 S^2}{2\beta} - \alpha St(s_2),$$

where  $t(s_2)$  is the time at which 2 acted based on his signal.

Suppose next that citizen 1 acts first at time  $t(s)$ , where  $s$  is a choice variable. She does not know  $s_2$ , but she knows that if she acts first at time  $t(s)$  then her neighbor must have seen an  $s_2$  such that  $s_2 < s$ . The boycott  $\bar{b}_1$  of citizen 1 when she moves first at time  $t(s)$  is thus

$$\bar{b}_1 = \frac{h(s_1 + \frac{s}{2})}{\beta},$$

where  $\frac{s}{2}$  is the conditional expectation of  $s_2$  given that 2 did not act first.<sup>21</sup> When 1 acts at time  $t(s)$ , her neighbor acts immediately thereafter, and  $\hat{b}_2 = \frac{h}{\beta}(s + s_2)$ . The utility of 1 is then

$$\bar{W}_1 = -hS\left(\gamma - \frac{h(s_1 + \frac{s}{2})}{\beta} - \eta \frac{h(s + s_2)}{\beta}\right) - \frac{h^2 (s_1 + \frac{s}{2})^2}{2\beta} - \alpha St(s).$$

The expected utility  $EW_1$  of citizen 1 when she acts at time  $t$ , or equivalently given a signal  $s$  such that  $t(s) \equiv t$ , is

$$\begin{aligned} EW_1 &= \int_s^z \left[ -hS\left(\gamma - \frac{hS}{\beta} - \eta \frac{h(s_2 + \frac{s_2}{2})}{\beta}\right) - \frac{h^2 S^2}{2\beta} - \alpha St(s_2) \right] \frac{ds_2}{z} \\ &\quad + \int_0^s \left[ -hS\left(\gamma - \frac{h(s_1 + \frac{s}{2})}{\beta} - \eta \frac{h(s + s_2)}{\beta}\right) - \frac{h^2 (s_1 + \frac{s}{2})^2}{2\beta} - \alpha St(s) \right] \frac{ds_2}{z}. \end{aligned}$$

The first integral represents those events in which her neighbor acts before she acts, and the second integral represents those events in which she acts before her neighbor. The

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<sup>21</sup> Consequently, the action of player 2 when he goes first is  $\bar{b}_2 = \frac{h}{\beta}(s_2 + \frac{\sigma}{2})$ , where  $\sigma$  is the signal at which 2 acts. In equilibrium  $\sigma = s_2$ .

optimal timing strategy of player 1 is determined by maximizing  $EW_1$  with respect to  $s$  and evaluating the first-order condition at  $s = s_1$ . The first-order condition is independent of  $s$ , so the derivative  $t'(s_1)$  is constant and given by

$$t'(s_1) = \frac{h^2(20\eta - 1)}{12\alpha\beta}.$$

To interpret this condition, consider first the case in which  $\eta < \frac{1}{20}$ . Then,  $t'(s)$  is negative, so the more serious is the signal  $s_1$  the sooner 1 will boycott. The time to action is thus decreasing in the seriousness of the citizen's own signal. The most serious signal  $s_1 = z$  leads to immediate action, so  $t(z) = 0$ , which pins down the equilibrium time to act<sup>22</sup>

$$t^*(s_i) = \frac{h^2(1 - 20\eta)}{12\alpha\beta}(z - s_i), i = 1, 2, \eta < \frac{1}{20}.$$

Note that as  $\eta$  increases the time at which citizen  $i$  acts given a signal  $s_i < z$  decreases. This is the opposite of a free-rider effect. A citizen acts sooner when she values her neighbor's action because she wants to reveal her information to her neighbor. This leadership incentive results because a citizen wants other citizens to act and knows that some may do so when she does. In addition, she knows that they will boycott more the more serious her own signal. The leadership incentive thus mitigates the timing dilemma. This synergy is increasing in the signal  $s_i$ . This does not affect 1's boycott intensity, but it does affect when 1 acts. If  $\eta$  is greater than one-twentieth the leadership incentive is overwhelming, and each player prefers to act immediately regardless of the signal.<sup>23</sup>

### The Magnitude and Timing of Boycotts

The magnitude  $B(s_1, s_2)$  of a boycott is the sum of  $\hat{b}_1$  and  $\hat{b}_2$ , and the subsequent game of conflict resolution depends on  $B$ . The expected boycott  $E_{s_2}\hat{b}_1$  by citizen 1 is

$$E_{s_2}\hat{b}_1 = \frac{h}{\beta}\left(\frac{z}{2} + s_1\right).$$

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<sup>22</sup> The citizen consumer acts earlier the greater is the cost  $\alpha$  of delay and also the greater is the marginal cost  $\beta$ . The latter results because a higher marginal cost decreases the boycott activity. Consequently, the gain from waiting is smaller, and the citizen acts earlier. The citizen consumer acts later the greater is  $h$  because delaying improves the quality of the decision.

<sup>23</sup> This leaves a technical issue of whether both players can act at time zero and reveal their information to each other.

The boycott  $b^I(s_1)$  if citizen 1 acted independently at time 0 is the same, so the expected boycott when the citizens play a timing game is the same as the boycott that would be taken in the absence of information. The timing game thus results in the same level of boycott activity as if the citizens did not consider the information transmitted by their actions.

The boycott activity in the timing game is more responsive to the signals, however. That is, the utility of a citizen is improved by timing his boycott activity with his own information and the information obtained from the action of others. This, however, generates a negative externality that results in delay in an equilibrium. This externality is a decreasing function of  $\eta$ , since the greater is  $\eta$  the more one citizen values the action of his neighbor. This reduces the externality and leads the citizen to delay less.

The equilibrium of the timing and boycott game yields a relation between the size of the boycott and its timing. The time at which the boycott breaks out is  $t^*(\max\{s_1, s_2\})$  and the magnitude of the boycott is  $B(s_1, s_2)$ . The former is a decreasing function and the latter an increasing function of the seriousness of the signals, so there is a negative correlation between the timing of a boycott and its magnitude. A more serious issue thus results in a larger boycott, and it occurs earlier. Stated differently, larger boycotts occur soon after the informational competition, and those boycotts that take more time to develop are smaller. The latter explains why some issues generate little activity. Conversely, the citizens get it more or less correct; i.e., if a substantial boycott breaks out, it is because the issue is serious. Moreover, the citizens react quickly rather than slowly when the issue is serious. Less serious information results in less and later action.

## VI. The Game of Conflict Resolution

If the boycott is successful, the activist and the firm have an opportunity to bargain to resolve the conflict. Empirical evidence on the duration and settlement of boycotts is scant and anecdotal at best. Although many attempted boycotts fail to gather sufficient momentum to have an effect, others are successful and last a long time. The boycott of tuna caught with purse string nets that trap dolphins lasted several years. The Rainforest Action Network boycott of Mitsubishi Electric and Mitsubishi Motor Sales lasted 8 years. The dispute over working conditions and employment practices in Asian apparel and footwear

factories continued for six years before the FLA was established, and the conflict continues to date in some quarters.

Bargaining could take many forms, so a model of conflict resolution should have a degree of robustness to variations in that process. Moreover, the model should be sufficiently general that it can yield a variety of predictions; e.g., the model should be able to predict delay in reaching an agreement or even the failure to agree. In addition, the model should be capable of predicting the distributive consequences of an agreement and not simply whether and when an agreement is reached. A game of conflict resolution should also focus on the bargaining outcome and thus can reasonably abstract away from ongoing competition for public sentiment. The bargaining model also should allow for intransigence. That is, there should be incomplete information about the type of the player on the other side of the table or at least about the player's intent; i.e., to allow for the activist and/or the firm to be intransigent.

The bargaining model introduced by Abreu and Gul (2000) satisfies these criteria.<sup>24</sup> It incorporates incomplete information about the types of players, and this incomplete information helps pin down the distributive consequences. It can generate equilibria in which the bargaining ends immediately, continues indefinitely, or ends at a finite time. The equilibrium is unique, so it is possible to identify the comparative statics of the exogenous parameters. The equilibrium is also robust to variations in the bargaining process provided that the players can make offers sufficiently frequently.

The bargaining model seeks to explain the outcome of the conflict between the activist and the firm. The parameters of the model are the types of each player, the corresponding probabilities of those types, time preferences, and the magnitude of the boycott. As considered in the game of private ordering, the bargaining outcome is to be interpreted as corresponding to an equilibrium private ordering. More specifically, the qualitative aspects of the equilibrium are intended to correspond to workplace standards that are sustainable in the sense that the firm does not shirk on those standards and the activist does not resume the boycott even when faced with workplace incidents.

The firm does not know whether the activist is intransigent or is rational and will act optimally at every point in time. Similarly, the activist does not know whether the

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<sup>24</sup> See Kambe (1999) for a related model.



firm is intransigent or maximizes its expected long-term profit at every point in time. The probabilities that the activists and firm are intransigent are determined by the concealment strategies in the game of politics, and the focus in this section is on the case in which neither the type of the activist nor the firm has been revealed through the game of politics. The incomplete information about the types of players is not about their preferences or about any feature of the game observed only by one player. Instead, the incomplete information is about the intent of a player. That is, the firm does not know whether the activist will never concede if its initial demand continues to be rejected. From the game of politics each player has only one intransigent type, but a more general model would have a number of possible nonstrategic types.<sup>25</sup>

The basic intuition of the equilibrium is that the “strength” of the players depends on three factors. The first is the usual notion of strength in a war of attrition; i.e., the more patient player is stronger. The second is the probability that a player is intransigent. The greater is that probability the stronger is the rational type of that player. The third is how extreme is a player’s intransigent type. A more extreme type is weaker than a less extreme type. Consequently, although this consideration was not incorporated into the informational competition stage of the game of private politics, each player has an incentive to try to position itself so as to place itself in a stronger bargaining position.

To simplify the analysis, only a stylized version of the bargaining model is considered. The time aspect of the boycott resolution stage will be summarized by a discount rate  $r^i \in (0, 1), i = A, F$ . This is intended to reflect the firm’s interest in ending the boycott as soon as possible and the activist’s interest in changing the practices of the firm as quickly as possible. The model does not explicitly include the harm perceived by the activist nor the profit lost by the firm while the bargaining is taking place.

The stake in the bargaining is denoted by  $R$ , and the bargaining is over the share of the stake captured by the two parties. The stake represents the potential redistribution from the firm to the activist and those whom it represents and is identified in the game of private ordering. The share demanded by an intransigent activist is denoted by  $x^A$ , and the share

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<sup>25</sup> The assumption of only one intransigent type is consequential in the bargaining model, since the offers at time zero are in the set of types. The intransigent types are thus to be interpreted as extremists; i.e., an activist that makes extreme demands and a firm that will not make any significant concessions to the activist.

demanded by an intransigent firm is  $x^F$ . A higher  $x^A$  corresponds to higher standards, and a higher  $x^F$  corresponds to lower standards. If the firm accepts the activist's demand, the activist receives  $x^A R$  and the firm receives  $(1 - x^A)R$ , and the private ordering corresponds to the stake  $x^A R$ . Similarly, if the activist accepts the firm's demand, the firm receives  $x^F R$  and the activist receives  $(1 - x^F)R$ . If neither side concedes, the status quo continues with the boycott continuing and the work practices remaining in effect. For the game to be interesting, the types will be assumed to be such that  $x^A + x^F > 1$ .

The activist's induced preferences are assumed to be over the workplace standards. Let that (instantaneous) welfare be denoted by  $u^A(\hat{x})$ , where  $\hat{x}$  denotes a resolution reached at time  $\hat{t}$ ; i.e.,  $x^A = x^A$  and  $\hat{x} = 1 - x^F$ . If there is no settlement, the welfare is  $u^A(0)$ . To simplify the analysis, the utility  $U^A(\hat{x}, t)$  is then specified as

$$U^A(\hat{x}, t) = u^A(0) + \begin{cases} 0 & \text{if } t < \hat{t} \\ \hat{x}R & \text{if } t \geq \hat{t}, \end{cases}$$

The expected profit  $\Pi(\hat{x}, t)$  of the firm is assumed to be given by

$$\Pi(\hat{x}, t) = \pi(B) + \begin{cases} 0 & \text{if } t < \hat{t} \\ \hat{x}R & \text{if } t \geq \hat{t}, \end{cases}$$

where  $\pi(\cdot)$  is the instantaneous profit of the firm,  $B$  is the magnitude of the boycott and  $\hat{x} = x^F$  if the activist accepts the firm's offer or  $\hat{x} = 1 - x^A$  if the firm accepts the activist's demand.

The utility  $U^A(t, x^A, x^F)$  of the activist at time  $t$  is

$$U^A(t, x^A, x^F) = \begin{cases} x^A R e^{-r^A t} & \text{if } F \text{ concedes before } A \\ \frac{1}{2}(x^A - x^F + 1)R(e^{-r^A t} - e^{-r^A(t' - \epsilon)}) & \text{if } F \text{ and } A \text{ concede simultaneously} \\ (1 - x^F)R e^{-r^A t} & \text{if } A \text{ concedes before } F, \end{cases}$$

where  $\epsilon > 0$  is arbitrarily small. Similarly, the expected profit  $\Pi^F(t, x^A, x^F)$  of the firm is

$$\Pi^F(t, x^A, x^F) = \begin{cases} (1 - x^A)R e^{-r^F t} & \text{if } F \text{ concedes before } A \\ \frac{1}{2}(x^F - x^A + 1)R(e^{-r^F t} - e^{-r^F(t' - \epsilon)}) & \text{if } F \text{ and } A \text{ concede simultaneously} \\ x^F R e^{-r^F t} & \text{if } A \text{ concedes before } F. \end{cases}$$

In the bargaining game if a player  $i$  reveals that it is rational rather than possibility intransigent; e.g., by demanding  $x \neq x^i$ , the other player immediately has all the bargaining

power. That is, the logic of the Coase conjecture implies that the activist is driven to its reservation value.<sup>26</sup> The rational type of each player thus must demand the same as the intransigent type.

The bargaining game begins with the activist making the demand  $x^A$ . The firm then accepts or rejects that demand. If it is intransigent, it rejects and demands  $x^F$ . If it is rational, it rejects  $x^A$  and offers  $x^F$ , since otherwise it reveals that it is rational. After the offer  $x^F$ , the activist can either accept or reject. All this occurs prior to time zero, and if either player accepts the other's offer, the game ends. If the activist rejects the firm's offer, no further offers are made and bargaining in the form of a war of attrition commences. The game of conflict resolution results in an agreement only if either the activist or the firm is rational.

A strategy for the activist depends on its type. If it is intransigent, it demands  $x^A$ , accepts any  $x \geq x^A$ , and never concedes to  $x^F$ . A strategy for a rational activist is a probability distribution  $G^A(t)$  that it concedes to the firm by time  $t$ , where  $G^A(0)$  is the probability that it concedes at time zero. Similarly, a strategy of the rational firm consists of a probability distribution  $G^F(t)$  that it concedes by time  $t$ , where  $G^F(0)$  is the probability it accepts the activist's demand at  $t = 0$ . The distribution functions  $G^i(t)$ ,  $i = A, F$ , thus include the probabilities that the players concede at time zero.

At  $t = 0$  the beliefs of the players about their opponent are the same as the initial probabilities  $\bar{\mu}^i$  from the game of politics. During the bargaining the players update their beliefs based on their opponent not conceding. The posterior probability of the intransigent type given that the other player has not conceded eventually equals 1, and the time  $T^i$  at which this occurs is

$$T^i = -\frac{\ln(\bar{\mu}^i)}{\lambda^i}, i = A, F,$$

where  $\bar{\mu}^i$  is the posterior probability of the intransigent type of player  $i$  and the (constant) hazard rate  $\lambda^i$  is given by

$$\lambda^i = \frac{r^j(1-x^i)}{x^i - (1-x^j)}, i = A, F, j = A, F, j \neq i.$$

The equilibrium probability that player  $i$  concedes at time  $t$  is

$$G^i(t) = 1 - \kappa^i \exp^{-\lambda^i t}, \tag{4}$$

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<sup>26</sup> See Gul, Sonnenschein, and Wilson (1986).

where  $\kappa^i \in [0, 1]$ ,  $i = A, F$ , are constants satisfying

$$(1 - \kappa^A)(1 - \kappa^F) = 0.$$

The constants depend on which player is in the weaker bargaining position in the war of attrition. Bargaining strength is determined by the hazard rate and the initial probability of the intransigent type, and the stronger type is the one with the smaller  $T^i$ . Thus, define  $T^0$  by

$$T^0 = \min\{T^A, T^F\}.$$

At time  $T^0$  both posterior probabilities of the intransigent types must equal 1, and the stronger player is the one for which its  $T^i$  equals  $T^0$ . For  $t > T^0$  there is no resolution and the boycott continues. The probability that the activist and the firm never reach an agreement thus is the product of the initial probabilities that the players are intransigent; i.e.,  $\bar{\mu}^A \bar{\mu}^F = Pr(A^I | m^A = -1) Pr(F^I | m^F = 1)$ .

The final equilibrium condition is

$$1 - \bar{\mu}^i = G^i(T^0), i = A, F, \quad (5)$$

which determines the constants  $\kappa^i$ . If, for example,  $T^0 = T^A < T^F$ , the constant  $\kappa^A = 1 > \kappa^F$ , where  $\kappa^F$  is given by (4) and (5). The firm, which is the weaker player, thus concedes at time  $t = 0$  with positive probability  $G^F(0) = 1 - \kappa^F$ . Note that the probability that the firm concedes at  $t = 0$  depends on  $x^F$ , the initial probability  $\bar{\mu}^F$ , and the firm's hazard rate. Only one player concedes at time 0, so in this case the activist has  $G^A(0) = 1 - \kappa^A = 0$ . Consequently, in equilibrium there is delay and hence inefficiency in the resolution of the conflict.

### Comparative Statics

To determine the effect of extremism (i.e., the  $x^i$ ) on the equilibrium, note first that the hazard rate  $\lambda^i$  is decreasing in both  $x^i$  and the  $x^j$ . The time  $T^i$  until the posterior probability of  $i$ 's intransigent type equals one is decreasing in the hazard rate, so greater extremism (higher  $x^i$ ) by either type results in a greater  $T^i$ . To identify the magnitude of the effects, compute

$$\frac{dT^A}{dx^A} - \frac{dT^F}{dx^A} = -\frac{x^F \ln \bar{\mu}^A}{r^F(1 - x^A)^2} + \frac{\ln \bar{\mu}^F}{r^A(1 - x^F)}.$$

Evaluating this at  $x^A = x^F = x$ ,  $r^A = r^F = r$ , and  $\bar{\mu}^A = \bar{\mu}^F = \bar{\mu}$  yields

$$\left( \frac{dT^A}{dx^A} - \frac{dT^F}{dx^A} \right) |_{(x,r,\bar{\mu})} = \frac{(1-2x)\ln(\bar{\mu})}{r(1-x)^2} > 0,$$

since by assumption  $x^A + x^F > 1$ . Evaluated at  $(x, r, \bar{\mu})$ ,  $T^A = T^F$ , and as  $x^A$  increases above  $x$ ,  $T^A$  increases more than does  $T^F$ . Greater extremism thus results in a weaker bargaining position. The activist then concedes with positive probability at time 0.

The strengths of the players also depend on the initial probabilities  $\bar{\mu}^i$  of their intransigent types. The time  $T^A$  is independent of the probability  $\bar{\mu}^F$  of the intransigent type of the firm and is decreasing in the probability of its own intransigent type. Since a smaller  $T^A$  corresponds to a stronger bargaining position, a higher probability of its intransigent type increases the strength of the activist.

An increase in the discount rate  $r^i$  does not affect the time  $T^i$  but decreases  $T^k$ ,  $k \neq i$ . An increase in the activist's patience (lower  $r^i$ ) thus increases its bargaining strength.

The games of public sentiment and conflict resolution structure the incentives for the informational competition in the game of politics. The bargaining to resolve a boycott provides incentives for moderation in the positions taken by the activist and the firm because establishing a reputation for moderate demands for an intransigent type increases the bargaining strength of the player. The incentive for concealment of unfavorable information in the game of politics comes from the bargaining strength resulting from intransigence. The higher the probability that a player is intransigent the greater is its bargaining strength, and that probability is decreasing in the probability of concealment. Consequently, the game of conflict resolution diminishes the incentive for concealment that results from the game of public sentiment. That is, in the game of public sentiment concealment increases the favorable information presented to the news media about one's side of the issue, and that affects the signals received by citizen consumers. For example, the boycott is thus greater the more the firm is able to conceal unfavorable information. The incentives for concealment provided by the games of public sentiment and conflict resolution thus point in opposite directions.

## VII. The Game of Private Ordering

A resolution of the conflict corresponds to a private ordering or a private institution with a particular workplace standard. Despite the resolution of the boycott the activist

may remain distrustful of the firm, since the firm has an incentive to shirk on the agreement and shirking is unobservable to the activist. As indicated in Section II one role of private institutions is to provide information about unobservable aspects of credence goods. This often involves monitoring of the practices of firms either by the institution or by third parties. One role of monitoring is to assure the activist that despite an incident or accident the firm's practices meet the standards as specified in the resolution of the conflict. The activist then can desist from taking action, such as resuming the boycott. For a private ordering to be sustainable given future incidents, it must be an equilibrium private institution. That is, both the activist and the firm must continue to participate even when the available information suggests that the standard might have been violated. The private institution thus is subject to a continuing participation test. Since the institution allows a standard to be supportable by the two sides, it is the standard itself that must be sustainable.

Let the inverse demand function of the firm be denoted by  $p(q)$ , where  $q$  denotes quantity and  $p(\cdot)$  gives the corresponding price. If the activist resumes a boycott against the firm, the inverse demand function is assumed to shift downward by  $\chi$ . The change in the workplace practices is denoted by  $r$ , which has a marginal cost  $kr$ . Given practices  $r$ , the profit  $\pi(\chi, r)$  of the firm is

$$\pi(\chi, r) = (p(q) - \chi)q^*(\chi, r) - (c + kr)q^*(\chi, r),$$

where  $q^*(\chi, r)$  is the optimal output of the firm given  $\chi$  and  $r$  and  $c$  is the marginal cost of production. The profit is strictly decreasing in  $r$ , since meeting workplace standards is costly, so the firm has an incentive to shirk on the agreement.

The stage game corresponding to a period proceeds as follows. The activist first decides whether to resume the boycott, and in the initial period the activist does not do so. Then the firm chooses  $q$  and its practices  $r$  for the period. Those practices result in incidents  $y$  which are public information. Finally, the private institution monitors the supplier's factories and reports the firm's practices to the activist.

The incidents could be the number of accidents, arbitrary firings, hours of excessive overtime, false complaints by malcontents, exaggerated allegations by union organizers, etc. The firm is assumed not to bear the cost of the incidents.<sup>27</sup> The density function

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<sup>27</sup> For example, the country may have an excess supply of labor, so the wage rate is the

$f(y | r)$  will be used to represent the incidents, where an increase in  $r$  results in a first-order stochastic dominance shift in the corresponding distribution function. Given  $y$  the activist could resume the boycott and shift downward the inverse demand by  $\chi = \chi(y)$ , which could depend on  $y$ .<sup>28</sup>

The private institution enables the activist to observe the practices  $r$  chosen by the firm. For example, the institution can employ monitors or certify independent monitors as in the case of the FLA. The monitors inspect the practices of the firm's suppliers to determine if they meet the standard embodied in the private institution. Thus, in the case of good practices but a bad draw (high  $y$ ) the activist can be assured. Similarly, if practices do not meet the standard (low  $r$ ) but the draw is good (low  $y$ ), the activist can resume the boycott. In the absence of a private institution the activist can observe only  $y$  and not the practices  $r$  of the firm. The institution thus provides a refinement of the history of play.<sup>29</sup> The effect of the institution is to allow an equilibrium in which the firm meets the standard and the activist does not resume the boycott even when the evidence (high  $y$ ) suggests shirking.

Only a partial characterization of the equilibrium will be presented here. The equilibrium path considered is for the activist not to resume a boycott if the practices satisfy  $r \geq r^*$ , where  $r^*$  is the standard incorporated into the private institution as a result of the resolution of the conflict. The expected utility  $W^O$  of the firm along a path with  $r$  in every period satisfies the recursion relation

$$W^O(r) = \pi(0, r) + \delta W^O(r),$$

where  $\delta \in [0, 1)$  is a discount factor and  $^O$  denotes the private ordering. The value function then is

$$W^O(r) = \frac{1}{1 - \delta} \pi(0, r).$$

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same regardless of the practices of the firm.

<sup>28</sup> Utility is assumed not to be transferable, since the enforcement of transfer agreements between an activist and the firm could be problematic.

<sup>29</sup> The firm is assumed to be unable to show credibly its practices to the activist, since, for example, workers may be reluctant to talk in front of representatives of the firm or the supplier. The monitors certified by the institution are assumed to have the expertise and independence to verify those practices to the satisfaction of the activist.

A private institution must be an equilibrium institution in the sense that neither the firm nor the activist will deviate from the agreement. The firm could deviate by choosing practices  $r < r^*$ , and the monitoring would report the deviation to the activist. One subgame equilibrium in the event of a deviation corresponds to the activist leading a boycott in every period and the firm choosing  $r^d$  in every period, where the practices  $r^d$  are given by

$$r^d \in \arg \max_r \frac{1}{1-\delta} \int \pi(\chi(y), r) f(y | r) dy.$$

The resulting expected utility  $W^d$  is

$$W^d = \frac{1}{1-\delta} \int \pi(\chi(y), r^d) f(y | r^d) dy,$$

The firm will not deviate from a standard  $r$  if and only if

$$\pi(0, r) + \delta W^O(r) \geq \pi(0, 0) + \delta W^d. \quad (6)$$

The highest sustainable standard  $r^M$  thus is the  $r$  such that (6) holds as an equality.

The activist is assumed to have preferences over the incidents  $y$  as represented by an indirect utility function  $v(y)$  that is decreasing in  $y$ . Resuming and continuing the boycott are assumed to be costly with the activist bearing a cost  $\Upsilon(\chi(y^o))$  in each period, which includes the costs borne by the boycotters, and where  $y^o$  is the incidents in the period prior to the resumption of a boycott. In the equilibrium the activist does not boycott given the  $r$  reported by the institution. The minimal acceptable standard  $r^m$  is then the smallest  $r$  satisfying

$$\frac{1}{1-\delta} \int v(y) f(y | r) dy \geq \frac{1}{1-\delta} \int (v(y) - \Upsilon(\chi(y))) f(y | r^d) dy, \quad (7)$$

where the right side represents a boycott in every period. The activist will participate in a private institution with standard  $r \geq r^m$ .

An equilibrium institution thus exists if there is a standard  $r$  satisfying (1)  $r \geq r^m$  so the activist will not boycott given the  $y$  that resulted in the previous period and (2)  $r \leq r^M$ , so that the firm will not shirk on the standard. The resolution arrived at in the game of conflict resolution thus must specify an  $r^*$  such that

$$r^* \in [r^m, r^M]. \quad (8)$$



A private ordering that provides for monitoring of the practices of the firm thus is an equilibrium institution if (8) is satisfied.

If no agreement is reached in the game of conflict resolution, the activist cannot observe the practices of the firm, so the original boycott continues. Let  $W^N$  denote the expected, discounted future profits with a continuing boycott. The stake  $R$  in the game of conflict resolution is then

$$R = W^O(r^m) - W^N,$$

which is the difference between the expected profits of the firm with a private ordering and the lowest sustainable practices  $r^m$  and the expected profit in the absence of a private ordering.

### **VIII. Conclusions**

This essay offers an introduction to the subject of private politics. Private politics includes the direct action by one party against another without recourse to public institutions. Those conflicts that muster sufficient public support may be resolved by a private ordering agreed to as a result of bargaining. The private ordering must be sustainable as an equilibrium institution in the sense that it must govern ongoing activity without either side withdrawing from it.

Private politics can take place independently of public politics and public institutions, but it can also occur in conjunction with the institutions and politics of public order. Players in the games of private politics then have a broader set of strategies than modeled here, since they may have access to the instruments of both private and public politics. For example, an environmental interest group may conduct demonstrations, communicate with the public, and lead a boycott, and at the same time file lawsuits against its target. Private politics also interacts with markets and can affect their efficiency. For example, UNITE has been a major actor in the campaign to improve work practices in overseas factories, and that campaign may strengthen its bargaining position relative to the firms whose U.S. workers it has organized.

The significance of private politics remains to be established, but there is considerable anecdotal evidence that some firms and industries have significantly changed their behavior in response to private politics. Perhaps more importantly, the threat of private politics has

led firms to be proactive with the hope that doing so will decrease the likelihood that they will become embroiled in private politics. Other firms have adopted perspectives under which they accept a degree of responsibility for the external consequences of their practices and thus voluntarily change their practices in light of those consequences.<sup>30</sup> Such a perspective can be represented by altruistic preferences, where the firm's preferences are over profits and the harm. One research question is whether activists exploit altruistic preferences or accept the practices of the altruist so as to encourage other firms to adopt similar practices.

How private politics might most fruitfully be studied remains an open question. To focus thinking and to offer first thoughts on research approaches, this essay has presented four models of aspects of private politics. The principal research challenges are to represent in a convincing manner the preferences of activists and members of the public, to capture the direct competition between interests, and to represent how and when the public responds to that competition. Conflict resolution presents the usual challenges associated with bargaining theory but also presents the challenge of how opposing sides design a private ordering to govern their ongoing interactions. The study of actual private orderings may be a useful guide to the development of a theory of private orderings which are both sustainable as equilibrium institutions and are the result of bargaining among players with conflicting interests.

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<sup>30</sup> See Baron (2001).

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