RULES OF ENGAGEMENT, CREDIBILITY AND THE POLITICAL ECONOMY OF ORGANIZATIONAL DISSENT

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Abstract

This paper studies how organizations can choose dissent regimes to encourage organization members to express dissent in ways that provide the organization with informational benefits, while at the same time minimizing the hazards associated with opportunistic behavior by members in the dissent process. Using a game-theoretic model, we demonstrate how logic-based and balanced rules of engagement can change the cost-benefit calculus of organizational members, and enable an organization to better balance the trade-off between capturing informational benefits from dissent and avoiding the hazards of destructive dissent. We then analyze how credibility problems faced by the leader may prevent organizations from adopting and implementing dissent regimes with rules of engagement. We also identify conditions under which an increase in the leader's reputational loss from opportunistic suppression of dissent can actually reduce the incidence of the adoption of dissent regime with rules of engagement, as well as the organization's profit. Finally, we explore implications of our analysis for the study of the role of informal leaders in organizational dissent, and for the relationship between dissent and organizational change processes.

Key words: Credibility, Information, Learning, Reputation, Organizational Dissent, Political Economy, Rules of Engagement

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1. Introduction

Strategy scholars developing a knowledge-based theory of the firm have emphasized the importance of knowledge creation and exploitation in the creation of competitive advantage (e.g., Grant 1996; Nickerson and Zenger 2004). It has also been argued that internal debate and dissent is critical for the development of organizational knowledge (Senge 1990; Nonaka 1995). By allowing its members to express dissent, a firm can gain a better understanding of its strategic environment and the merits of various strategic options. Literature about General Electric and its former CEO, Jack Welch (Tichy and Charan, 1989; Tichy and Sherman 1993; Welch 1998, 2001; Slater 1999a, 1999b), and by Andrew Grove (former CEO, now Chairman of Intel) emphasize the importance organizational dissent. Grove (1996) writes:

> Your employees' questions are usually shrewd, and in a free environment they can question you in a way that no one else can. If there is a strategic illogic in your thinking, they will sniff it out and poke at it (p. 155).

Encouraging dissent of this kind, however, can be difficult and costly for political and economic reasons. On the one hand, potential dissenters may prefer to keep silent if they fear that expressing a dissenting view could trigger reprisals by other organization members, especially superiors. Members may also lack economic incentives to expend the effort required to develop and articulate dissenting proposals that are useful to the organization. On the other hand, a liberal policy of tolerating dissent can open up opportunities for organization members to promote their own interests at the expense of the organization, by supplying false or misleading information to other members.

These observations suggest that a key challenge organizations face in managing dissent is to choose a "dissent regime" that encourages organization members to express dissent in ways that provide the organization with informational benefits, while at the same time minimizing the hazards associated with opportunistic behavior by members in the dissent process. This paper develops a game-theoretic model to analyze how organizations can choose policies to deal with this challenge. We consider a situation in which an organization has formulated a policy for a given strategic decision, for example, whether to enter a new market. The organization must decide whether to allow its members to express dissent against the prevailing policy. The organization knows that dissent can either be constructive or destructive.

Constructive dissent comes from a member who possesses useful information, so that if the dissenting proposal is accepted, the organization can increase its expected profit. Destructive dissent comes from a member who is uninformed. A dissenting proposal from such a member, if implemented, does not enable the organization to get a higher expected profit, but enables the member to capture significant private benefits.

Our main interest is in situations in which the organization does not know whether a member is informed or uninformed, and therefore cannot tell whether a particular dissenting proposal is constructive or destructive. We first demonstrate that in the absence of appropriate rules governing the dissent process, it is impossible for the organization to fully capture the benefits of constructive dissent while eliminating the risk of destructive dissent in this environment. We then demonstrate how "logic-based and balanced" rules of engagement, by changing the cost-benefit calculus of organization members, enables the organization to better balance the trade-off between the benefits and hazards from dissent.

Next, we observe that because it is difficult for an organization to rely on third parties to enforce its rules and policies governing dissent, the leader of an organization is often its *de facto* ultimate enforcer of its rules and policies concerning dissent. This raises the possibility that while an organization may find it beneficial to adopt such rules of engagement, a member may be concerned that an organizational leader will abuse his authority by suppressing a dissenting proposal that casts him in a bad light, even if the proposal was expressed in accordance with the rules. We analyze how such credibility problems may prevent organizations from implementing or adopting rules of engagement. We identify conditions under which an increase in the leader's reputational loss from opportunistic suppression of dissent increases the incidence of the adoption of dissent regime with rules of engagement. We also identify conditions, however, under which an increase in the reputational loss actually *decreases* this incidence. We conclude the paper by discussing how our analysis opens up new directions for the study of organizational dissent, highlighting the role of informal leaders in dissent and in organizational change processes.

2. Literature Related to Organizational Dissent

In this paper, we are concerned with organizational dissent that occurs when an organization member expresses disagreement with a viewpoint held by a superior or other influential members about the firm's optimal strategy for making profits. The

literatures touching on this kind of organizational dissent are large and varied. To keep our review brief, we organize them by highlighting how various streams within these literatures relate to three observations that inform our analysis regarding the organization's choice of dissent regime.

Our first observation is that organizational dissent has the potential to improve organizational performance by providing information that improves decision quality. John Stuart Mill (1986[1859]) was perhaps the first to clearly delineate the various benefits that dissent can bring to a social group, emphasizing that dissent enables questionable or illogical views to be identified, false hypotheses to be exposed, and actions predicated upon such views or hypotheses to be prevented. Open, vigorous debate helps people gain a deeper appreciation of the underlying assumptions and logical implications of accepted viewpoints, which is necessary for such viewpoints to inspire action. Fearon (1998) emphasizes that discussion can help overcome bounded rationality (Simon 1957). Because the human imagination is limited, dissent can help generate new ideas and options. Sunstein (2003) argues that dissent at the societal level can prevent herd behavior. Within the organizations literature, Hirschman (1970) emphasized the importance of "voice" as a mechanism by which employees may identify organizational problems. Banerjee and Somanathan (2001) model voice as a mechanism for aggregating conflicting beliefs or preferences.[1] The organizational literature on groupthink following Janis (1982) recognizes the benefits of organizational dissent, and has studied the social psychological pressures that limit it.

[1]Recent work in organizational economics has studied the problem of inducing agents to produce new information (e.g., Prendergast 1993; Rotemberg and Saloner 1995; Aghion and Tirole 1997; Dewatripont and Tirole 1999). Although dissent *per se* is not the focus of this literature, some of these contributions address issues that are closely related to it. For example, Rotemberg and Saloner (1995) model situations in which employees in different functional areas of an organization (e,g., marketing and production) possess different kinds of human capital, and therefore may have conflicting preferences regarding how the firm should expand its business. They show how useful information can be generated as a result of such conflicts and disagreement. These papers, however, do not address the issue of opportunistic defection by the leader to the offered governance structure, which is a key focus of this paper. Landier et al. (2005) focus more directly on dissent in the form of "passive resistance." In their model, a decision maker is responsible for selecting a project among competing options, and an implementer then exerts effort to execute the project. The decision maker and the implementer can have conflicting preferences regarding the projects, and the decision maker possesses better information regarding the profitability of projects. They consider the possibility that the implementer may engage in passive resistance by exerting insufficient effort in implementing the project chosen by the decision maker when the implementer diagrees with the choice made by the decision maker, and show how such kind of resistance can improve decision making. They do not, however, consider possible political repercussion that a dissenting subordinate may experience, nor do they consider the implications that the organizational leader who is responsible for enforcing rules governing dissent may himself defect from such rules.

The literatures on employee empowerment (e.g., Bennis and Nanus 1985; Bennis 1993); devil's advocacy (e.g., Schwenk 1990); loyalty (e.g., Dooley and Fryxell 1999) and organizational silence (Morrison and Milliken 2000) also draw on these themes. The literature on organizational demography has studied the forces that generate demographic homogeneity of management teams (e.g., Pfeffer 1983; Reuf et al. 2003), which can be detrimental to dissent.

Our second observation is that while dissent can be beneficial to an organization, it can be costly to the dissenter. These costs often come in the form of reprisals from other organization members whose careers are closely tied to the status quo. This notion is implicit in much of the literature on power and politics in organizations (Pfeffer 1981, 1992; Mintzberg 1983), and on organizational innovation and change (e.g., Kanter 1983). For example, this literature describes ways in which dominant coalitions can block change that harms their interests by stifling dissenters, even if the dissent promises to improve organizational performance (e.g., Pfeffer 1992).

Our third observation is that dissent can sometimes harm organizational performance by serving the parochial interest of the dissenter at the expense of the organization. This idea is also implicit in the power and politics literature. Milgrom and Roberts' (1988, 1990) theory of influence costs, however, is particularly suggestive of the hazards that can accompany liberal tolerance of organizational dissent. Milgrom and Roberts analyze the costs that arise when organization members have the incentive to influence organizational decisions in their favor, even if the resulting decisions are to the detriment of the organization. One way members pursue such influence is by distorting decision-relevant information. This can be costly for the organization because it may lead members to divert resources away from productive activities toward unproductive influence activities. Moreover, if such influence attempts are successful, they may cause the organization to make inefficient decisions. An organization will also incur indirect costs from influence activities if it needs to expend resources attempting to prevent or control them. Liberal tolerance of dissent, because it opens up communication channels between subordinates and superiors, can lead to increased risks of costs stemming from information distortion.

3. A Game-Theoretic Model of Organizational Dissent

While different aspects of organizational dissent have been studied by scholars in different streams of literature, to our knowledge, a synthetic treatment that simultaneously accounts for all three of the observations in the previous section does not exist in the literature. This paper is a first step toward such an analysis. In subsection 3.1, we first develop a Basic Game of Dissent to illustrate the challenges faced by an organization in the management of dissent when it cannot distinguish between constructive and destructive dissent. Subsection 3.2 uses a simple formulation to illustrate that there exist conditions under which rules of engagement can enable the organization to capture the informational benefits from constructive dissent without suffering from destructive dissent. This result and the tractable analytical framework enable us to investigate the under-explored issue of how credibility problems can prevent organizations from adopting rules of engagement in the management of dissent, which we discuss in subsection 3.3. In order to save space, we focus on conveying the intuition of our results in the text, and relegate the proofs of the propositions to the Appendix.

3.1 The Basic Challenge in the Management of Organizational Dissent

We consider a situation in which an organization has formulated a policy for a given strategic decision. The organization must now decide whether to allow members to express dissent against the prevailing strategic position. For example, a firm may promulgate a policy to compete in its current markets only, and now must decide whether to allow its employees to dissent from that policy. An employee who holds a dissenting view, such as one that favors entry into a new market, must then decide whether to express her dissent. If the employee offers a dissenting proposal, the firm must decide whether to change its policy along the lines advocated by the dissenter.

In this Basic Game of Dissent illustrated in Figure 1, there are two players: the organization (*O*), and a member (*M*). The sequence of events is as follows:

1. The organization decides whether to encourage dissent (plays *ED*) or not to allow for dissent. If it adopts the No Dissent (*ND*) regime, the game ends.

2. If the organization decides to encourage dissent, then Nature decides the type of the member, choosing between *I* (an informed type, denoted by M_I) or *U* (an uninformed type, denoted by M_U).

3. The member, who knows her type, then decides whether to express dissent (plays *D*) or not to express dissent (plays *ND*).[2]

4. If dissent is expressed, the organization decides whether to accept (plays *A*) or not to accept (plays *NA*) the dissenting proposal. When making this decision, the organization does not know whether Nature has chosen the member to be informed or uninformed.[3]

The game's payoffs are as follows. If the organization chooses not to allow for dissent, it implements its prevailing strategy. In this case, the strategy will succeed with probability α, which leads to a high profit level denoted by π_h. Correspondingly, the strategy will fail with probability $(1-\alpha)$, which leads to a low profit level represented by π_l, where $\pi_h < \pi_l$ (note that these profit levels could be positive or negative). When dissent is allowed, it matters whether dissent is offered by an informed or an uninformed member. We assume that with probability θ --where $0 < \theta < 1$ --the member is informed. An informed member possesses useful information, so that if she incurs the time and cost to develop and present a dissenting proposal that is accepted, the organization has a higher probability of achieving the high profit level. Let β denote the probability that the dissenting proposal by M_I will lead to the high profit π_h. Let c_I denote the expected cost that M_I incurs when expressing dissent. This expected cost includes the opportunity cost of time and resources invested in conducting relevant research and articulating the dissenting proposal (such as the costs incurred in developing a proposal for entering a new market in our earlier example), and the expected consequences of any political reprisals by other organization members. If her dissenting proposal is accepted, M_I reaps a private benefit P_I. For example, the dissenting proposal may give the member an opportunity to accumulate human capital useful in advancing her career. We assume that M_I gets this private benefit as long as her dissenting proposal is accepted, whether or not it succeeds in generating the high profit.

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[2] We use female pronouns when referring to the member, and male pronouns when referring to the leader in subsequent analysis.

[3] This assumption is represented by the fact that in Figure 1, there is a dotted line that connects the two decisions nodes of the organization when it decides whether to accept a dissenting proposal. This dotted line means that the organization, when deciding whether to accept dissent, does not know precisely whether the dissenting proposal is constructive (that is, it is in the decision node at which Nature has chosen the member to be the informed member) or destructive (that is, it is in the decision node at which Nature has chosen the member to be the uninformed member)

With probability $(1-\theta)$, the member is uninformed. M_U does not possess any useful information, but is capable of developing an alternative proposal that gives her a private benefit P_U if accepted. This proposal hurts the organization because it decreases *O's* probability of getting the high profit from α to γ. Like M_I, M_U gets her private benefit as long as her proposal is accepted. Let c_U denote the expected cost that M_U incurs when expressing dissent. Note that there is no conflict of interest between M_I and the organization in the sense that both M_I and the organization prefer to implement the dissenting proposal by M_I, but such a conflict does exist for the case of M_U, since the latter's attempts to capture a private benefit by dissenting come at the cost of *O's* expected profit. Thus, from the organization's perspective, the dissent expressed by M_I is *constructive* while the dissent expressed by M_U is *destructive*. Therefore, the organization would like to encourage M_I to express dissent, while deterring M_U from doing so.

We assume that M_I's private gain from expressing dissent is not sufficient to offset her cost of expressing dissent, so that in the absence of sufficient financial incentives provided by the organization, M_I will not express dissent:

$$P_I - c_I < 0 \qquad (1)$$

On the other hand, we assume that M_U's private gain from dissenting is higher than her cost of dissent, so that M_U has the incentive to express dissent even in the absence of financial incentives provided by the organization:

$$P_U - c_U > 0 \qquad (2)$$

Next, we assume that *O*'s gain from M_I's dissent exceeds M_I's net cost of dissent:

$$(\beta - \alpha)(\pi_h - \pi_l) > (c_I - P_I) \qquad (3)$$

This condition implies that if *O* could tell for certain whether a member is informed or not, or whether a specific dissenting proposal is constructive, then *O* and M_I could reach a mutually beneficial agreement that allows *O* to capture the benefits from constructive dissent without suffering from destructive dissent.

Because M_I will not express dissent without a financial incentive provided by *O*, *O* must design a compensation contract that gives M_I appropriate compensation

for dissenting (and if possible, also deters M_U from expressing dissent). We assume that the contract O offers is contingent on the profit level, which is the only contractible variable in the model (i.e., O cannot offer contracts contingent on variables such as P_I, P_U, c_I, and c_U).[4] The contract says that if the profit is π_h, a member who expresses a dissenting proposal that is accepted will get a compensation of b_h dollars, while the compensation will be b_l if the profit is π_l. We assume that the member is risk neutral and that the limited liability constraint (Sappington 1983) operates, which implies that there is a limit on the maximum loss that the member can be forced to bear as a result of entering into a contractual relationship with the organization[5] Therefore, the organization cannot impose an arbitrary low level of b_l on the member (e.g., a large negative level) if the profit is π_l. Under these assumptions, we can normalize b_l to zero and simply let b denote the "bonus" that M gets when the realized profit is π_h.

As a benchmark for comparison, it is useful to first describe the case in which O can perfectly distinguish between M_I and M_U**.** Obviously, in such an environment, O will reject any proposal presented by M_U, so any attempt at opportunistic dissent by M_U will be thwarted. O will still need, however, to offer a sufficiently high bonus b so as to induce M_I to express dissent.

Given a bonus b offered by O, M_I gets a payoff of $P_I - c_I + \beta b$ by expressing dissent.[6] If M_I does not dissent, her payoff is zero**.** In order to maximize its profit, O can simply offer the level of b that will make M_I just indifferent between expressing and not expressing dissent (as is typical in such models, we assume that in the case of a tie, M_I will express dissent). This level is $b^* = \frac{c_I - P_I}{\beta}$**,** where the asterisk denotes equilibrium. Therefore, when O can tell whether the member is informed or not, it will allow for dissent, and will offer a bonus equal to b^*.

[4] This would be the case, for example, if O cannot observe the level of private gain captured by the member and her costs incurred for expressing dissent even after a dissenting proposal was implemented. Note that because the dissenting proposal affects profit stochastically, observing the realized level of profit does not enable O to know precisely whether or not the member is informed.

[5] We assume that both O and M are risk neutral because incorporating efficient risk sharing between them detracts from our central concern regarding the challenge of managing organizational dissent.

[6] Since almost all the payoffs in the games are expected payoffs, we drop the term "expected" when referring to them, except in places where special emphasis is useful.

O will accept M_I's dissenting proposal and reject M_U's. Anticipating *O's* response, M_I expresses dissent and M_U does not.

The more interesting case, of course, is the one in which *O* cannot distinguish between an M_I and an M_U, and whether a specific dissenting proposal is constructive**.** Under this condition, the game becomes a game of incomplete information, and Perfect Bayesian Equilibrium (PBE) becomes the appropriate solution concept (see, e.g., Gibbons 1992). In this game, a PBE consists of: (1) *O's* choices regarding: whether or not to allow dissent; the level of bonus offered if dissent is allowed; and whether to accept or reject a dissenting proposal if one is presented when dissent is allowed; (2) the strategy chosen by the member, which specifies her decision regarding whether to express dissent as a function of her type; that is, the strategy of the member specifies what action is going to be taken by M_I and M_U **;** (3) the "posterior belief" held by the organization when deciding whether to accept the dissenting proposal about whether the member is informed or uninformed. Furthermore, these strategies and the posterior belief must satisfy the following requirements (where "*PBE*" stands for "Perfect Bayesian Equilibrium"): (PBE1) the organization's strategy maximizes its expected payoff given its posterior belief regarding whether the member is informed or not, and the strategy of the member; (PBE2) the strategy of the member maximizes her expected payoff given the strategy of the organization; and (PBE3) to the extent possible, the posterior belief of the organization when deciding whether to accept a dissenting proposal is obtained by updating its prior belief using its knowledge about the strategy chosen by the member in equilibrium.

It is important to distinguish between two types of equilibria— *separating equilibrium* and *pooling equilibrium*—in our analysis. In a separating equilibrium, M_I and M_U choose different strategies, so *O* can infer perfectly whether *M* is an informed or an uninformed member by observing the action chosen by *M*. For example, in an equilibrium in which M_I chooses to express dissent while M_U chooses not to do so, when dissent occurs, *O* can conclude that the dissenting member must be informed. In this case, *O's* posterior belief that the member is informed given that dissent has taken place—denoted by $\tilde{\theta}$--will be $\tilde{\theta}=1$, meaning that *O* assigns probability one to the event that the member is informed. On the other hand, in a

pooling equilibrium both M_I and M_U choose the same strategy. For example, suppose both M_I and M_U choose to express dissent. In this case, observing that dissent occurs does not enable O to learn any new information regarding the dissenter's type, and therefore whether the dissent is constructive or destructive. *O's* posterior belief will thus be the same as its prior belief, so that in a pooling equilibrium, $\tilde{\theta} = \theta$.

We now derive the best response functions of M_I and M_U. Consider first the case where M_I anticipates that if she expresses dissent, her proposal will be rejected. In this case, she incurs the cost of expressing dissent and will not get any benefit. Therefore, she will not express dissent. On the other hand, if M_I anticipates that her dissent proposal will be accepted, she expects a payoff of $P_I - c_I + \beta b$ from dissenting. If she does not dissent, she gets zero. She will thus express dissent if and only if $P_I - c_I + \beta b \geq 0$, that is, when $b \geq (c_I - P_I)/\beta$. That is, she will dissent when the bonus is sufficient to offset her net cost from expressing dissent, which depends on her economic cost of dissent and her cost from the political reprisals she expects to suffer from expressing dissent.

As for M_U, if she anticipates that her proposal will be accepted, she expects $P_U - c_U + \gamma b$ by expressing dissent. If she does not dissent, she gets zero. Because $P_U - c_U > 0$, then for any $b > 0$, $P_U - c_U + \gamma b > 0$, and M_U will always express dissent if she expects her proposal to be accepted, regardless of the value of the bonus. On the other hand, if she expects her proposal to be rejected, M_U will not express dissent because she prefers a zero payoff to a negative one.

It is straightforward to show that this game does not have a separating equilibrium. In particular, the outcome desired by O in which only M_I expresses dissent but M_U does not, and O accepts a dissenting proposal when it is presented, cannot be supported as an equilibrium. Intuitively, in order to induce M_I to express dissent, O must offer a bonus $b \geq (c_I - P_I)/\beta$. Because $P_U - c_U > 0$, M_U's private gain from dissenting is higher than her cost of dissent, so that M_U has the incentive to express dissent if she expects that her proposal to be accepted, even in the absence of financial incentives provided by the organization. Therefore, any level of b that

succeeds in inducing dissent from M_I will also attract dissent from M_U. Because the uninformed member will mimic the informed member when dissent is always accepted, the organization cannot implement the desired separating equilibrium when it cannot distinguish between constructive dissent and destructive dissent.

> **Proposition 1**: The Basic Game of Dissent does not have a separating equilibrium. That is, in this game, when the organization cannot distinguish between constructive dissent and destructive dissent, it is impossible for the organization to fully capture the benefits of constructive dissent while eliminating the risk of destructive dissent.

Proof: See Appendix.

The next step is to derive the conditions under which *O* will allow for dissent despite its inability to implement the desired separating equilibrium. Because the uninformed member always has the incentive to mimic the informed member, when dissent is allowed, the unqiue equilibrium is the pooling equilibrium in which *O* offers a bonus $b^* = (c_I - P_I)/\beta$, and both M_I and M_U express dissent. This implies that by adopting the regime that allows for dissent (the *D regime*), *O* gets a payoff of $\Pi^D = \theta\left[\beta\pi_h + (1-\beta)\pi_l - \beta b^*\right] + (1-\theta)\left[\gamma\pi_h + (1-\gamma)\pi_l - \gamma b^*\right]$. If *O* chooses the regime that does not allow for dissent (the *ND regime*), it gets a payoff of $\alpha\pi_h + (1-\alpha)\pi_l$. Assuming that *O* will not allow for dissent if it is indifferent between allowing for and not allowing for dissent, *O* will choose to allow dissent if it gets a higher payoff by doing so, which requires that

$$\theta\left[(\beta-\alpha)(\pi_h-\pi_l)\right] > (1-\theta)\left[(\alpha-\gamma)(\pi_h-\pi_l)\right] + \left[(1-\theta)\gamma b^* + \theta\beta b^*\right] \qquad (4)$$

This equation can be rewritten as

$$\theta > \frac{(\alpha-\gamma)(\pi_h-\pi_l) + \frac{\gamma}{\beta}(c_I-P_I)}{(\beta-\gamma)(\pi_h-\pi_l) - \left(1-\frac{\gamma}{\beta}\right)(c_I-P_I)} \qquad (5)$$

after substituting $b^* = (c_I - P_I)/\beta$ into (4).The L.H.S. of (4) is *O*'s expected benefit by allowing dissent, which equals the gain due to constructive dissent. In a pooling equilibrium, constructive dissent occurs with probability θ. Such dissent leads to an increase in profit by the amount of $(\beta-\alpha)(\pi_h-\pi_l)$ because it increases the probability of getting π_h from α to β. The R.H.S. of (4) is *O*'s expected cost from

allowing for dissent, which equals the expected loss due to destructive dissent plus the expected bonus payment. Destructive dissent reduces the probability of getting π_h from α to γ. In addition, *O* needs to pay a bonus b^* when the realized profit is π_h (which occurs with probability β when the dissenting member is M_I, and with probability γ when the dissenting member is M_U). Inequality (5) states, in terms of the primitives of the model, the condition under which *O* will implement the regime with dissent in equilibrium.

> **Proposition 2.** If (5) holds, then *O* will implement the regime with dissent in equilibrium in the Basic Game of Dissent. That is, if the expected gain from constructive dissent is larger than the sum of the expected loss due to destructive dissent and the expected bonus payment when the realized profit is high, *O* will allow for dissent, knowing that doing so means that it always has a chance of suffering from destructive dissent. If (5) does not hold, then *O* will choose the regime that does not allow for dissent, and no dissent takes place in equilibrium.
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> Proof: See Appendix.

3.2 Rules of Engagement

Our analysis above highlights the idea that when organizations cannot distinguish between constructive and destructive dissent, and the organizational environment is such that the uninformed member has a much stronger incentive to express dissent than the informed member, then the organization cannot capture the benefits of constructive dissent without suffering from the possibility of destructive dissent. One way to mitigate this problem is to design policies that change the cost-benefit calculus faced by different types of organization members. General Electric offers an example of a firm that has pursued such policies. During the period in which Jack Welch was CEO, GE appears to have maintained relatively well-articulated rules that required rigorous argument and counter-argument in organizational debates. Moreover, these rules were meant to apply to all organization members, regardless of organizational status. Much of the literature about GE attributes the firm's success in this period to these policies and practices.

One of Welch's main objectives in "revolutionizing GE" was to foster a "boundaryless" environment in which superiors and subordinates conduct candid exchanges on an equal basis (Tichy and Sherman 1993; Slater 1999a; Welch 2001). According to Welch, this required, "exposing people—without the protection of title or position—to ideas from everywhere. Judging ideas on their merits" (Tichy and

Sherman 1993, p. 299). The Work-Out program initiated by Welch in 1988 was important in helping create this kind of environment, and offers an illustration of the kinds of rules of engagement with which we are concerned in this paper. In a typical Work-Out session, small teams of employees met to develop analyses and recommendations concerning changes in corporate practices and policies (Tichy and Charan 1989; Stewart 1991; Quinn 1994; Slater 1999a). Teams were especially encouraged to scrutinize practices in other units or divisions in the spirit of "constructive conflict" (Tichy and Sherman, 1993). Teams were expected to present thoroughly documented and justified proposals to the relevant divisional or business-unit general manager in the presence of that manager's immediate superior. The general manager was required to listen to the proposals, and for each proposal, to make an on-the-spot decision about whether to accept it, reject it, or immediately commission a team to gather more information by an immediately-agreed-upon date (Stewart 1991; Tichy and Sherman 1993).

A second example of Welch's attempt to create rules of engagement that foster a boundaryless organization is provided by the way in which the Corporate Executive Council (CEC) was managed. The CEC consisted of the leaders of GE's major business areas and other top staff. In CEC meetings, participants were expected to share ideas and information in an open manner -- including information about failed programs. Members reviewed each others' quarterly financial reports and were encouraged to candidly discuss others' operations (Tichy and Sherman, 1993; pp. 196-7). Welch says that in CEC discussions,

> We strive for the antithesis of blind obedience. We want people to have the self-confidence to express opposing views, get all the facts on the table, and respect differing opinions. It is our preferred mode of learning; it's how we form balanced judgement (Tichy and Sherman, 1993: p. 192).

Welch suggests that this process fosters a common understanding of the business environments faced by the various businesses and generates insights that are crucial in improving strategic decision-making (Tichy and Charan, 1989; Tichy and Sherman 1993). Importantly, the "public" nature of forums such as GE's Work-Out and the CEC limited the ability of participants to make self-serving statements because each participant knew that her remarks were subject to the scrutiny and even objection by others in the audience. As Tichy and Sherman (1993) point out in regard to the CEC, "When you're stuck in a room where everyone knows everything…you

have to face reality…if you're avoiding a major strategic challenge, you won't be able to hide it" (p. 197-8).

In designing its dissent policies, GE under Welch was sensitive to the needs of maintaining well-articulated rules that encouraged intensive scrutiny of the logical and empirical basis of the viewpoints expressed in internal debate. The rules also emphasized the importance of applying such requirements to all members, including top-level executives. Thus, while Welch's overall legacy at GE has become more controversial recently, the weight of the evidence suggests that under Welch the company paid an extraordinary amount of attention to articulate processes by which internal debate and dissent could occur.

Accounts of the history of Apple Computer in the 1980's, on the other hand, indicate that while strategic debates were common (Kawasaki 1990; Malone 1999; Linzmayer 1999), the company lacked processes for governing them. Some of these accounts suggest that this absence contributed to the firm's failure to establish its computer system as the *de facto* standard for personal computers. Carlton (1997), for example, explains how managers who presented various proposals for helping establish such a standard were "shot down" by opposing managers and shunted into less important management positions. Usually, these opposing managers were not asked to bear a similar burden of proof during the strategic debates as those proposing strategies for establishing a standard. A more balanced process would have required these opposing executives to provide comparable evidence and reasoning to support their positions, and to be subjected to the scrutiny of the other side.

The importance of rules of engagement can be illustrated by considering how the quality of a strategic debate is affected by the absence of rules of engagement that are based on logic, empirical data, and are *balanced* in the sense that they are expected to apply to all members regardless of organizational position in the hierarchy. For example, in making her decision regarding whether and how to participate in such a debate, a member may expect that other members will present self-serving arguments that make use of distorted information in order to influence the relevant organizational decisions. Without well-established logic-based rules that allow her to challenge the logical and factual basis of such arguments, the focal member may be reluctant to advance counter-arguments or proposals, even if they are based on careful research and genuine information. The member will be reluctant to offer dissent because it may be difficult for her arguments to attract attention when the

debate is "crowded" with self-serving arguments based on distorted information, against which it is difficult to argue if there are no rules that give him her the opportunity to do so. This will be especially true if the rules of engagement are unbalanced in that they apply with less force to members who are higher in hierarchy. In this case, while he would need to provide clear logical and empirical bases for her arguments, other potentially influential members of the organization—especially her superiors—could dismiss them without bearing a comparable burden of proof. Moreover, if the original self-serving arguments were advanced by influential members of the organization—again, especially her superiors—she may be more reluctant to express dissent out of fear of reprisals. These considerations together suggest that, in the absence of *logic-based and balanced* rules of engagement, self-serving arguments made by influence-seeking members are more likely to succeed in negatively affecting organizational decisions. On the other hand, when an organization member's arguments or counter-arguments are subject to challenge by other members, the probability that a member can succeed in distorting information to influence the organization's decision in her favor at the expense of the organization is reduced.

The GE experience also suggests, however, that establishing a dissent regime based on logic-based and balanced rules of engagement can be quite costly. In implementing its Work-Out and other programs related to organizational dissent, GE found that it was necessary to rely heavily on subjective performance measures in order to evaluate the extent to which managers were adhering to the values underlying Welch's notion of boundarylessness. GE's evaluation system was quite elaborate, and was based on multiple interviews with and about a given manager, and multiple reports from different committees about that manager's performance. Welch himself was reported to have spent one month per year reviewing the evaluations of the top several hundred managers, and discussing them with the appropriate business leader. Because each of the thirteen business leaders was rated on his/her ability to develop subordinates, these leaders spent considerable time preparing for their meetings with Welch (Tichy and Charan, 1989; Tichy and Sherman 1993; and Slater 1999a)

We account for the costs of setting up a dissent regime with rules of engagement in our model by assuming that the organization can, at a sunk cost of K dollars, adopt a regime that requires its members to follow logic-based and balanced rules of engagement when expressing dissent. For simplicity, we model the effects of

rules of engagement in terms of changes in the payoffs to both types of members from dissenting. We assume that M_I's private gain from expressing dissent is now P_I^R, while her dissent cost becomes c_I^R, where the superscript "*R*" represents "rules of engagement". Similarly, M_U's private gain and cost of expressing dissent become P_U^R and c_U^R, respectively. We assume that:

$$P_I^R - c_I^R < P_U^R - c_U^R < 0 \tag{6}$$

$$c_I^R - P_I^R < c_I - P_I \tag{7}$$

These assumptions capture the ideas that rules of engagement can serve to (a) limit the political reprisals that a member suffers from expressing dissent; and (b) increase the effort that a member must incur when trying to make a purely self-serving proposal sound like it was motivated by concern for the organization's overall performance. A third effect is to (c) cause the members to be more restrained when selecting a dissent proposal that yields private benefit to her. Because of effect (a), the introduction of rules of engagement reduces the cost of expressing dissent for M_I (that is, $c_I^R < c_I$). Effects (a) and (b) together imply that the introduction of rules of engagement has conflicting effects on M_U's dissent cost. We assume that effect (b) dominates so that $c_U < c_U^R$. Effect (c) implies that $P_U^R < P_U$, with the possibility that P_I^R may be smaller than P_I.

The inequality $P_U^R - c_U^R < 0$ in (6) says that rules of engagement increase M_U's dissent cost and reduce her private gain from dissent so much that she now incurs a net *cost* when dissenting (instead of capturing a net benefit as she did in the absence of rules of engagement). M_U will therefore not express dissent unless *b* is sufficiently high. The inequality $P_I^R - c_I^R < 0$ in (6) says that while rules of engagement reduce her dissent cost (and may reduce her private gain when her proposal is accepted), M_I still incurs a net cost of expressing dissent. The inequality $P_I^R - c_I^R < P_U^R - c_U^R$ in (6) says that even in the presence of rules of engagement, M_U still has a stronger incentive to dissent than M_I in the sense that she incurs a lower net cost from expressing dissent than M_I. Finally, condition (7) says that for M_I, the effect of rules of engagement in reducing the cost of expressing dissent is significant

enough so that the net cost of dissent with rules of engagement is lower than without such rules.

The Game of Dissent with Rules of Engagement is illustrated in Figure 2.[7] To characterize the equilibrium, we first determine M_I's best response function. Consider first the case in which M_I expects her dissenting proposal to be accepted. By expressing dissent M_I gets $P_I^R - c_I^R + \beta b$. As in the Basic Game of Dissent, M_I's payoff in this case equals the sum of her private gain from the implementation of the dissenting proposal and the expected bonus, minus the cost from expressing dissent. The main difference is that the adoption of rules of engagement changes the private gain and the cost of dissent. We use the superscript "*R*" (which stands for "rules of engagement") to capture this fact. If M_I does not express dissent, she gets zero. Therefore, when expecting acceptance, M_I will express dissent if and only if $P_I^R - c_I^R + \beta b \geq 0$; that is, if and only if $b \geq (c_I^R - P_I^R)/\beta$. If M_I expects rejection, she will not express dissent since doing so involves a cost and no benefit. As for M_U, when she expects her dissenting proposal to be accepted she expects to get $P_U^R - c_U^R + \gamma b$ by expressing dissent. If she does not express dissent, she gets zero. Therefore, when anticipating acceptance, M_U will express dissent if and only if if $b \geq (c_U^R - P_U^R)/\gamma$.

Now consider *O's* strategy in light of *M's* decision rules. Recall that *O* wishes to implement a separating equilibrium so as to encourage constructive dissent while preventing destructive dissent. Note that if $(c_U^R - p_U^R)/\gamma \leq (c_I^R - p_I^R)/\beta$, that is, if the critical bonus needed to induce M_U to express dissent is less than or equal to the critical bonus needed to induce M_I to express dissent, then whenever *O* offers a bonus that is sufficiently attractive to induce M_I to express dissent, it will induce M_U to mimic the behavior of M_I by expressing dissent. In this case, even though *O* invests in establishing rules of engagement, *O* will not be able to eliminate the threat of destructive dissent by an uninformed member. On the other hand, if

[7] For space considerations, we only consider the case in which *O* chooses between not allowing for dissent (the *ND* regime) and a dissent regime with rules of engagement (the *DR* regime). In the Appendix, we identify conditions under which *O* will prefer to adopt the *DR* regime instead of the dissent regime without rules of engagement analysed in subsection 3.1

$$(c_I^R - p_I^R)/\beta < (c_U^R - p_U^R)/\gamma \qquad (8)$$

then we know that if the organization adopts the dissent regime with rules of engagement (hereafter the "*DR regime")*, it will choose a bonus $b^{DR*} = (c_I^R - P_I^R)/\beta$ to induce the separating equilibrium in which M_I expresses dissent but M_U does not.

This result says that when rules of engagement change the cost-benefit calculus faced by both the informed and uninformed members in the way captured by (6) and (7), and when (8) holds, then by incurring the cost *K* to establish rules of engagement, *O* can find a bonus that will be sufficiently high to induce dissent from M_I but will still be sufficiently low to make dissent unattractive for M_U. Thus, our model crystallizes the idea that there exist conditions under which by incurring the cost to establish a *DR* regime, *O* can capture the benefit of constructive dissent without exposing itself to destructive dissent.[8]

If *O* incurs the cost *K* to establish rules of engagement, it will get a profit of

$$\Pi^{DR} = \theta\left[\beta\pi_h + (1-\beta)\pi_l - \beta b^{DR*}\right] + (1-\theta)\left[\alpha\pi_h + (1-\alpha)\pi_l\right] - K \qquad (9)$$

If *O* chooses the *ND* regime, it will get $\alpha\pi_h + (1-\alpha)\pi_l = \pi_O$. *O* will prefer the *DR* regime to the *ND* regime when $\Pi^{DR} > \pi_O$. Noting that $b^{DR*} = (c_I^R - P_I^R)/\beta$, this implies that *O* will adopt such rules of engagement if:

$$K < \theta(\beta - \alpha)(\pi_h - \pi_l) - \theta\left(c_I^R - P_I^R\right) \qquad (10)$$

The first term on the R.H.S. of condition (10) is the increase in expected profit from constructive dissent. Note that because $b^{DR*} = (c_I^R - P_I^R)/\beta$, the second term on the R.H.S. of (10) equals $\theta\beta b^{DR*}$, which is the expected bonus that the organization needs to pay in a separating equilibrium under the *DR* regime in which only the informed member expresses dissent. Condition (10) says that by adopting the *DR* regime, the organization can implement a separating equilibrium in which M_I expresses dissent but M_U does not. This enables *O* to capture the benefit of constructive dissent without exposing himself to destructive dissent. The organization,

[8] At a general level, this result resembles the finding in the literature on lobbying and information transmission (Potters and van Winden 1992; Austen-Smith 1995; Lohmann 1995), which shows that decision makers can make lobbying costly by charging "fees" for access, so as to ensure that only interest groups that possess useful private information will lobby. Our analysis, however, sheds light on the different issue of how such separation can be achieved by adopting rules of engagement in the context of organizational dissent.

however, needs to pay a bonus when dissent is expressed (by M_1) and leads to a high profit, which occurs with probability $\theta\beta$. Because it costs *K* to establish rules of engagement, *O* will prefer the *DR* regime to the *ND* regime if and only if the benefit that it can capture from establishing the regime (which equals the informational benefit from constructive dissent minus the expected bonus payment under the *DR* regime) is larger than the cost of establishing the rules of engagement.

> **Proposition 3**. If (8) and (10) hold, then in the Game of Dissent with Rules of Engagement, *O* will adopt the *DR* regime, which will then induce the separating equilibrium in which the informed member offers dissent, and the uninformed member does not. That is, when the benefit that the organization can capture from establishing rules of engagement (which equals the informational benefit from constructive dissent minus the expected bonus payment under the regime with rules of engagement) is larger than the cost of establishing the rules of engagement, the organization will invest to establish rules of engagement to govern organizational dissent.

Proof: See Appendix.

3.3. Credibility Problems

If logic-based and balanced rules of engagement can help an organization to capture the informational benefits from constructive dissent while minimizing the costs associated with destructive dissent, why don't we observe such dissent regimes in profit-seeking firms more often? While systematic empirical evidence regarding the rarity of such regimes is not available, casual empiricism suggests that few firms establish and enforce such rules of engagement. There may be many reasons for this, including the obvious one that the costs involved in establishing such regimes may be higher than the benefits we characeterized above (for example, condition (10) does not hold). We suggest, however, that a prominent reason is that while an organization may promise to reward appropriate dissenting behavior and protect dissenters from reprisals, members may be skeptical about the credibility of such promises. Andrew Grove (1996), the former CEO of Intel, advocated "constructive confrontation" within organizations, and emphasized the importance of this kind of credibility issue:

> Fear that might keep you from voicing your real thoughts is poison. Almost nothing could be more detrimental to the well-being of the company. If you are a senior manager…under no circumstances should you ever "shoot the messenger," nor should you allow any manager who works for you to do so…I can't stress this issue strongly enough. It takes years of consistent conduct to eliminate fear of punishment as an inhibitor of strategic discussion. It takes

only one incident to introduce it. News of this incident will spread through the organization like wildfire and shut everyone up (p. 119).

Even if a dissenter behaves according to the rules of engagement, if the dissent in question casts the leader in an unfavorable light, the leader may be tempted to label the dissenter as a violator of these rules and suppress her dissent. This problem of potential defection by the organizational leader is exacerbated by the fact that the leader is the *de facto* ultimate enforcer of the organization's rules of engagement. Because it is often difficult for third parties outside of the organization to determine whether the rules of engagement have been violated in a particular act of dissent, this creates an *unverifiability* problem (Grossman and Hart 1986; Hart and Moore 1990). This problem implies that organizations cannot rely on third parties to enforce their rules of engagement, therefore making the organizational leader the *ultimate* enforcer. (While Boards of Directors are of course charged with monitoring major decisions by the CEO, they are generally removed from detailed management process decisions, such as whether a particular act of dissent has violated the organization's rules of engagement.) The fact that rules of engagement regarding organizational dissent are usually informal, as suggested by the GE example above, exacerbates the unverifiability problem.

The problem that the ultimate enforcer of an organization's rules of engagement may himself violate these rules is a manifestation of the classic question in political economy, "Who monitors the monitor?" (Miller 1992; Weingast 1995).[9] We now extend our model to include the possibility of leader opportunism. To capture this divergence of interest between the organization and its leader, we analyze the game illustrated in Figure 3, in which the equilibrium choice of dissent regime and incidence of dissent are determined by the interaction between the organizational leader (denoted as *L*) and the member. This game allows for both rules of engagement and leader opportunism.

To keep the analysis to a reasonable length, we again only consider the case in which the leader is choosing between the *ND* regime and the *DR* regime. We capture

[9] The fact that the organizational leader who is responsible for enforcing rules of engagement may himself violate such rules to engage in opportunistic suppression of dissent can be thought as an organizational analog of what Weingast describes as "the fundamental political dilemma of an economic system." As Weingast (1991) observes, "A government strong enough to protect property rights and enforce contracts is also strong enough to confiscate the wealth of its citizens. Thriving markets require not only the appropriate system of property rights and a law of contracts, but a secure political foundation that limits the ability of the state to confiscate wealth" (p. 1).

the possibility of leader opportunism in the following simple manner. If the member expresses dissent, with probability λ the dissenting proposal will cast unfavorable light on L and cause him to suffer a private loss $F > 0$. This loss may be due to a deterioration in the leader's following or support among organization members, perhaps including the Board of Directors, or may include a deterioration in the managerial labor market's perception of his competence. We hereafter refer to this kind of loss as a "support loss." When this loss is in prospect, L has an incentive to opportunistically suppress dissent and prevent it from being publicized and considered by the organization even when the member expressed it in accordance with the organization's rules of engagement under the *DR* regime. Such a defection by the leader, however, will cause him to suffer from a different kind of expected loss, namely, a loss to his reputation for honesty and integrity. We hereafter refer to this type of loss as a "reputational loss," denoted by $R > 0$. The sequence of events is now as follows:

1. The leader chooses between the *ND* regime and the *DR* regime.

2. If the leader chooses the *DR* regime, then Nature decides whether the member is informed or not.

3. The member, who knows her type, decides whether or not to express dissent.

4. If dissent is expressed, Nature determines whether or not the dissenting proposal will cast unfavorable light on *L*. That is, Nature determines whether $F > 0$ or $F = 0$.

5. Knowing the value of *F*, that is, knowing whether allowing the dissenting proposal to "see the light" will cause him a support loss, the leader decides whether to suppress (choose *S*) or not suppress dissent (choose *NS*). When making this decision, the leader does not know whether the member is informed or not.

6. If the leader chooses not to suppress dissent, the dissent proposal is disseminated and the leader then decides whether to accept the proposal.

The payoffs to the member under different outcomes are determined in the same manner as in the Game of Dissent with Rules of Engagement. We shall assume that (8) and (10) hold so that in the absence of leader opportunism, the organization will adopt the *DR* regime and will be able to induce separation. The leader's payoffs, on the other hand, depend on the financial compensation he gets from the

organization, as well as whether he incurs any personal loss in this new dissent game, either in the form of a support loss F or a reputational loss R. For simplicity, we assume that the financial compensation that L gets is a linear function of the organization's profit given by $S_0 + s\Pi$, where $0 < s < 1$ is the share parameter that determines the percentage of profit that L gets in the form of incentive payments. Without loss of generality, we normalize the "base line" compensation S_0 to zero. These specifications are the basis for the payoffs for the Organizational Dissent Game with Rules of Engagement and Scope for Opportunistic Behavior by the Leader illustrated in Figure 3. Note that because L gets a share of the profit, he is to some extent motivated to maximize the organization's profit. The incentive alignment is not perfect, however, because the leader will not follow a profit-maximizing course of action if it causes him to suffer from a large enough personal loss in the form of F or R. To simplify notation, we adopt the notation

$$\pi_O = \alpha\pi_h + (1-\alpha)\pi_l \tag{11}$$

and

$$\pi_I = \beta\pi_h + (1-\beta)\pi_l \tag{12}$$

in the Figure.

As in the earlier analysis, the financial benefit for L to adopt the *DR* regime is that it allows the organization to implement the desirable separating equilibrium, which can in turn increase the organization's profit and hence the leader's financial compensation. Therefore, one focus of our interest will be whether in the new game L can still implement such an equilibrium by adopting the *DR* regime and offering a bonus $b^{DR*} = \left(c_I^R - P_I^R\right)/\beta$, even though L and the member both know that in this new game circumstances can arise under which L will have the incentive to suppress dissent opportunistically.

Allowing for leader opportunism raises two questions: (1) If a leader adopts a regime that allows for dissent, will he opportunistically suppress dissent when the temptation arises (that is, when $F > 0$)? (2) How does the possibility of such leader opportunism affect the leader's decision regarding whether to adopt the *DR* regime in the first place? Note that the first question corresponds to the choice faced by the leader (at the information set η_8 in Figure 3) at the *later* "temptation stage" of the game, when the temptation for suppression arises (that is, when $F > 0$) and L must

decide whether to suppress dissent without knowing whether the dissenting proposal is constructive or destructive. The second question corresponds to the choice faced by the leader at the *beginning* of the game, when *L* is choosing whether to adopt rules of engagement. In determining the equilibrium behavior of the players we consider the later temptation stage of the game first and the regime adoption stage second. We proceed this way because in order to determine whether or not *L* will adopt the *DR* regime, we must first determine *L*'s expected payoff when he adopts this regime, which in turn requires that we determine whether *L* will suppress dissent when the temptation arises. This is because *L*'s expected payoff when adopting the *DR* regime will differ according to whether his commitment to not suppress dissent when the temptation arises is credible.

The temptation stage is analyzed as follows. *L* suffers from a reputational loss *R* when suppressing dissent so that if this loss is high enough, *L* will not suppress dissent even when $F > 0$. Suppose that *L* continues to offer the bonus that achieved a separating equilibrium in the previous game we analyzed (Section 3.2's Game of Dissent with Rules of Engagement in which there was no scope for leader opportunism). This bonus is $b^{DR*} = \left(c_I^R - P_I^R\right)/\beta$. Now that we are allowing for leader opportunism, we must determine the critical level of reputational loss from opportunistically suppressing dissent at or above which the leader will prefer no suppression to suppression given an offered bonus $b^{DR*} = \left(c_I^R - P_I^R\right)/\beta$, and at which this offered bonus still succeeds in inducing the desired separating equilibrium (or simply, "separation"). Intuitively, if a bonus $\left(c_I^R - P_I^R\right)/\beta$ induces separation, then if *L* suppresses dissent, he will suffer the reputational loss *R*, and a financial loss given by $s\left\{\left[\left(\beta-\alpha\right)\left(\pi_h-\pi_l\right)\right]-\left(c_I^R - P_I^R\right)\right\}$. This financial loss reflects the fact that suppression of dissent causes the organization to suffer from a loss of profit equal to the informational benefit from constructive dissent minus the expected bonus, which in turn decreases *L*'s financial compensation. On the other hand, suppression of dissent has the benefit of enabling *L* to avoid suffering the support loss that arises when the dissenting proposal casts him in an unfavorable light. Therefore, the level of reputational loss from opportunistically suppressing dissent that will make the leader

indifferent between suppressing and not suppressing must satisfy

$$F = R + s\left\{\left[\left(\beta-\alpha\right)\left(\pi_h-\pi_l\right)\right]-\left(c_I^R-P_I^R\right)\right\}. \qquad (13)$$

Let R_{NS} denote the critical level of reputational loss from opportunistically suppressing dissent at or above which the leader will prefer no suppression to suppression (where the subscript "*NS*" denotes "no suppression"), we have:

$$R_{NS} = F - s\left\{\left[\left(\beta-\alpha\right)\left(\pi_h-\pi_l\right)\right]-\left(c_I^R-P_I^R\right)\right\} \qquad (14)$$

We shall hereafter refer to R_{NS} as the *critical reputational loss from dissent suppression.* In the Appendix, we show that if the reputational loss from suppressing dissent is greater than or equal to R_{NS}, then if *L* chooses the *DR* regime, *L* can in fact implement the desired separating equilibrium by offering a bonus $b_{NS}^* = b^{DR*} = \left(c_I^R - P_I^R\right)/\beta$ (where the subscript "*NS*" again denotes "no suppression"). This will ensure that in equilibrium M_I expresses dissent and M_U does not. That is, when $R \geq R_{NS}$, so that organizational members know that the threat of leader defection is not an issue, the leader can induce the desired separating equilibrium by offering the same bonus as when the possibility of leader opportunism is not taken into consideration (as in the game analyzed in section 3.2).

On the other hand, if $R < R_{NS}$, then both the leader and the member expect that if *L* continues to offer a bonus $\left(c_I^R - P_I^R\right)/\beta$, then when the dissenting proposal causes the leader to suffer from a support loss, he will suppress dissent. In this case, *L*, if he desires, can still implement a separating equilibrium in which only the informed member will express dissent. But this requires that he offer a *higher* bonus to compensate the member for the risk of he (*L*) will defect. The minimum bonus b_S^* (where the subscript "*S*" denotes "suppression") that will induce M_I to dissent when $R < R_{NS}$ is given by:

$$\left(1-\lambda\right)\left(\beta b_S^* + P_I^R\right) = c_I^R \Rightarrow b_S^* = \frac{c_I^R}{\left(1-\lambda\right)\beta} - \frac{P_I^R}{\beta} \qquad (15)$$

Equation (15) reflects the fact that M_I now expects that if the support loss turns out to be $F > 0$, then her dissenting proposal will be suppressed. Therefore, by dissenting M_I now gets the expected benefit of $\beta b_S^* + P_I^R$ only with

probability $(1-\lambda)$. To induce M_I to dissent, the bonus b_S^* must therefore be large enough to offset the $(1-\lambda)$ multiplier. Furthermore, recall that (8) says that $(c_I^R - p_I^R)/\beta < (c_U^R - p_U^R)/\gamma$. This implies that $c_U^R - \frac{\gamma}{\beta}c_I^R > p_U^R - \frac{\gamma}{\beta}p_I^R \Rightarrow c_U^R - \frac{\gamma}{\beta}c_I^R > (1-\lambda)\left(p_U^R - \frac{\gamma}{\beta}p_I^R\right)$, which implies that

$$c_U^R > (1-\lambda)\left(\gamma b_S^* + P_U^R\right) \qquad (16)$$

Condition (16) in turn implies that when $R < R_{NS}$, M_U anticipates that L will suppress dissent when $F > 0$, and a bonus of $b_S^* = \frac{c_I^R}{(1-\lambda)\beta} - \frac{P_I^R}{\beta}$ will not be sufficient to induce M_U to express dissent, In the Appendix, we show that when $R < R_{NS}$, by offering a bonus $b_S^* = \frac{c_I^R}{(1-\lambda)\beta} - \frac{P_I^R}{\beta}$, L can still ensure that M_I dissents and M_U does not.

Note that

$$b_S^* - b_{NS}^* = b_S^* - b^{DR*} = \frac{c_I^R}{\beta}\left(\frac{1}{1-\lambda} - 1\right) > 0 \qquad (17)$$

Equation (17) reflects the earlier observation that when there exists a possibility of opportunistic suppression by L, a higher bonus is required to induce the desired separation. It also says that the higher the value of λ--that is, the higher the probability that that the temptation for suppression of dissent will arise--the greater the increase in bonus that is necessary to induce the separating equilibrium. Note that if λ is "too" large, the necessary bonus can actually be larger than the increase in profit due to the informational benefit of constructive dissent, which makes it unprofitable for the organization to stimulate constructive dissent. This can be ruled out if $(1-\lambda)\left\{\left[\beta\pi_h + (1-\beta)\pi_l\right] - \beta b_S^*\right\} + \lambda\left[\alpha\pi_h + (1-\alpha)\pi_l\right] > \alpha\pi_h + (1-\alpha)\pi_l$, which implies:

$$\lambda < 1 - \frac{C_I^R}{(\beta-\alpha)(\pi_h - \pi_l) + P_I^R} \qquad (18)$$

Note that (3) and (7) imply that $\frac{C_I^R}{(\beta-\alpha)(\pi_h - \pi_l) + P_I^R} < 1$, so that (18) is consistent with the assumption that $0 < \lambda < 1$.

Having analyzed the first question regarding when *L* will suppress dissent when the temptation arises, we can now analyze question (2) described above, namely, what determines whether *L* will let the organization incur the cost *K* to adopt the *DR* regime instead of the *ND* regime? Consider first the simpler case in which $R \geq R_{NS}$. In this case, because *L* will not suppress dissent when the temptation arises, if *L* adopts the *DR* regime, by adopting the *DR* regime, the organization's profit will be:

$$\Pi_{NS} = \Pi^{DR} = \theta\left\{\left[\beta\pi_h + (1-\beta)\pi_l\right] - \beta b^{DR*}\right\} + (1-\theta)\left[\alpha\pi_h + (1-\alpha)\pi_l\right] - K \qquad (19)$$

This is identical to the profit that the organization will get if the organization adopts the *DR* regime in the Game of Dissent with Rules of Engagement and no leader opportunism. Furthermore, when $R \geq R_{NS}$, the leader gets a payoff:

$$W_{NS} = s\Pi^{DR} - \theta\lambda F = s\left\{\theta\left\{\left[\beta\pi_h + (1-\beta)\pi_l\right] - \beta b^{DR*}\right\} + (1-\theta)\left[\alpha\pi_h + (1-\alpha)\pi_l\right] - K\right\} - \theta\lambda F \quad (20)$$

If he adopts the *ND* regime, *L*'s payoff will be $W^{ND} = s\Pi^{ND} = s\pi_0$. *L* will adopt the *DR* regime if and only if $W_{NS} > W^{ND}$. Noting that $b^*_{NS} = b^{DR*} = \left(c_I^R - P_I^R\right)/\beta$, this implies that:

$$K < \theta(\beta-\alpha)(\pi_h - \pi_l) - \theta\left(c_I^R - P_I^R\right) - \frac{\theta\lambda F}{s} \qquad (21)$$

A comparison of (21) and (10) shows one mechanism through which the possibility of leader opportunism can prevent the adoption of the *DR* regime even when it is profitable for the organization. From *O*'s perspective, whenever (10) holds so that the cost of establishing the *DR* regime is less than or equal to the benefit that it can capture from establishing the regime, the *DR* regime should be adopted. However, when $R \geq R_{NS}$, *L* expects that if the *DR* regime is adopted and if the dissenting proposal casts him in an unfavorable light, he will not suppress dissent because $R \geq R_{NS}$, but will then suffer a support loss $F > 0$. *L* therefore expects that when the *DR* regime is established, he will suffer an expected support loss given by $\theta\lambda F$ that appears in the last term on the R.H.S. of (20). In particular, if $\theta(\beta-\alpha)(\pi_h - \pi_l) - \theta\left(c_I^R - P_I^R\right) - \frac{\theta\lambda F}{s} \leq K < \theta(\beta-\alpha)(\pi_h - \pi_l) - \theta\left(c_I^R - P_I^R\right)$, then the prospect of suffering from this expected support loss will deter *L* from adopting

the *DR* regime in the first place even though it would be profitable to do so from *O*'s perspective.

For space considerations, we now assume that (21) holds and focus on how differences in the value of *R*, the reputational loss from dissent suppression, affects *L*'s behavior. Consider now the case in which $R < R_{NS}$. Our objective is to determine the condition under which *L* will still adopt the *DR* regime even though both he and the member know that because $R < R_{NS}$, when the temptation arises *L* will suppress dissent so that a higher bonus is necessary to induce the desired separating equilibrium. If *L* adopts the *DR* regime, he will suppress dissent when $F > 0$, and *O*'s profit will be:

$$\Pi_S = \theta(1-\lambda)\left\{\left[\beta\pi_h + (1-\beta)\pi_l\right] - \beta b_S^* - K\right\} + \theta\lambda(\pi_O - K) + (1-\theta)(\pi_O - K) \quad (22)$$

where recall that $\pi_O = \alpha\pi_h + (1-\alpha)\pi_l$. Recall also that when $R < R_{NS}$, if *L* adopts the *DR* regime, he will offer a bonus b_S^*, and M_I expresses dissent while M_U does not. Because the bonus b_S^* will induce the desired separation in which only M_I expresses dissent, suppression of dissent by *L* will prevent the organization from capturing the informational benefit of constructive dissent and will reduce its profit. The first term on the R.H.S. of (22) is *O*'s profit when the member is informed and when $F = 0$ so that *L* does not suppress dissent. The second term on the R.H.S. of (22) is *O*'s profit when the member is informed and when $F > 0$ so that *L* will suppress dissent. The third term is *O*'s profit when the member is uninformed. If the leader adopts the *DR* regime, he gets a payoff of:

$$W_S = \theta(1-\lambda)s\left\{\left[\beta\pi_h + (1-\beta)\pi_l\right] - \beta b_S^*\right\} + \theta\lambda\left[s\pi_0 - R\right] + (1-\theta)s\pi_O - sK \quad (23)$$

The leader will adopt the *DR* regime if and only if $W_S > s\pi_0$, which implies that:

$$\theta(1-\lambda)s\left\{\left[(\beta-\alpha)(\pi_h - \pi_l)\right] - \beta b_S^*\right\} > sK + \theta\lambda R \quad (24)$$

That is,

$$sK + \theta\lambda R < s\theta(1-\lambda)\left\{\left[(\beta-\alpha)(\pi_h - \pi_l)\right] - \left(\frac{c_I^R}{(1-\lambda)} - P_I^R\right)\right\} \quad (25)$$

Condition (25) highlights the leader's *private* cost-benefit calclulation when he decides whether to adopt the *DR* regime when $R < R_{NS}$, so that he knows that he will suppress dissent when $F > 0$. From *L*'s perspective, the costs of establishing the

DR regime include the decrease in his financial compensation due to the organization's costs of establishing the *DR* regime (the *sK* term on the L.H.S. of (25)) plus the expected reputational losses from dissent suppression under a *DR* regime (the term $\theta\lambda R$ on the L.H.S. of (25)). This expected reputational loss occurs because *L* expects that after he adopts the *DR* regime, if the member turns out to be informed and therefore expresses dissent, and the dissenting proposal causes him to suffer a support loss $F > 0$, *L* will suppress dissent and accept the reputational loss $R > 0$. This sequence of events occurs with probability $\theta\lambda$. On the other hand, from *L*'s perspective, the benefit of establishing the *DR* regime is that it will increase the organization's profit (which is equal to the expected informational benefit from constructive dissent minus the expected bonus payment) which in turn will increase *L*'s financial compensation by the amount given by the R.H.S. of (25).

Define R_A^{DR} as the critical value of reputational loss from opportunistic suppression of dissent that makes *L* indifferent between adopting the *DR* regime and adopting the *ND* regime even when he knows that he will opportunistically suppress dissent in equilibrium when $F > 0$ and will suffer a reputational loss $R > 0$. R_A^{DR} is thus the *critical reputational loss from dissent adoption*, where the subscript "*A*" denotes "adoption." Condition (25) implies that R_A^{DR} must satisfy

$$sK + \theta\lambda R_A^{DR} = s\theta(1-\lambda)\left\{\left[(\beta-\alpha)(\pi_h-\pi_l)\right]-\left(\frac{c_I^R}{(1-\lambda)}-P_I^R\right)\right\} \qquad (26)$$

which implies that :

$$R_A^{DR} = \frac{(1-\lambda)}{\lambda}s\left\{\left[(\beta-\alpha)(\pi_h-\pi_l)\right]-\left[\frac{c_I^R}{(1-\lambda)}-P_I^R\right]\right\}-\frac{sK}{\theta\lambda} \qquad (27)$$

Proposition 4. If (18) and (21) hold, then (i) If $R \geq R_{NS}$, then *L* will not suppress dissent even when $F > 0$, and he will adopt the *DR* regime. That is, if the leader's reputational loss from dissent repression is greater than or equal to the critical reputational loss from dissent suppression defined by (14), he will not suppress dissent even when the temptation arises, and he will adopt the *DR* regime (ii) If $R < R_{NS}$, then if the *DR* regime is adopted, *L* will suppress dissent when $F > 0$. In this case, whether *L* will adopt the *DR* regime depends on whether $R \geq R_A^{DR}$. If $R < R_A^{DR}$, then *L* will still adopt the *DR* regime. If $R \geq R_A^{DR}$, then *L* will not adopt the *DR* regime. That is, if the leader's reputational loss from dissent repression is not sufficient to deter him from suppressing dissent when the temptation arises, then if the reputational loss is less than the critical reputational loss from dissent adoption defined by

equation (27), *L* will still adopt the *DR* regime even though he knows that he will suppress dissent when the temptation arises and will therefore suffer a reputational loss.

Proof: See Appendix.

This proposition highlights the fact that *R*, the leader's reputational loss from opportunistic suppression of dissent, affects *both* his decision about whether to suppress dissent given that he has adopted the *DR* regime and the temptation arises, and also whether or not he will adopt the *DR* regime in the first place. Given that the *DR* regime has been adopted, an increase in *R* helps to deter opportunistic suppression of dissent by the leader. However, when $R < R_{NS}$, that is, when *L*'s reputational loss from dissent suppression is not strong enough to deter suppression when the temptation arises, then a higher value of *R* can actually discourage the leader from adopting the dissent regime with rules of engagement in the first place. This is because the leader now expects that when the temptation arises, he will suppress dissent, and the expected reputational loss that he will suffer becomes part of the cost that he takes into account when determining whether to adopt the dissent regime initially.[10]

Ignoring the knife-edge condition of $R_{NS} = R_A^{DR}$, the following corollary summarizes how an increase in *R* can have different effects on *L*'s behavior.

Corollary. If (18) and (21) hold, then (i) If $R_{NS} < R_A^{DR}$, then *L* will always adopt the *DR* regime regardless of the value of *R*, and an increase in the reputational loss to *L* from dissent suppression will always (weakly) increase the organization's profit (ii) If $R_A^{DR} < R_{NS}$, then an increase in the leader's

[10] Our model in this section consists of three hierarchical levels: the organization, the leader and the member. The model could be extended to accomodate additional levels, and our analysis suggests mechanisms through which an increase in the number of levels can further decrease the incidence of the adoption of the *DR* regime. For example, consider a structure consisting of an organization (the shareholder), the leader (the CEO), a division manager, and a (divisional) member. Similar to the leader's situation, assume that the division manager's compensation is only partly affected by the organization's profit, that dissent by members can cast unfavorable light on her, and that suppression of dissent can cause her a reputational loss. As our analysis ion this section suggests, these conditions can cause a divergence of interest between the division manager and the organization regarding the adoption of the *DR* regime. More interestingly however, suppose that the division manager nevertheless prefers the organization to adopt the *DR* regime because it can enable her division to capture informational benefits from constructive dissent. Suppose further that the division manager expects that the leader prefers not to adopt the *DR* regime for the reasons explicated in our analysis. In this case, the division manager may refrain from incurring the costs to promote the establishment of the *DR* regime in the organization and her division, since she anticipates that her efforts will be overturned by the leader.

reputational loss from dissent suppression does not always increase the incidence of *DR* regime adoption and the organization's profit. Furthermore, when, $R_A^{DR} < R < R_{NS}$, the leader will not adopt the *DR* regime even though it would be optimal for the organization to do so in the absence of leader opportunism.

This corollary follows from Proposition 4. Figure 4 illustrates part (i) of this corollary when $R_{NS} < R_A^{DR}$. As illustrated in the Figure, there are two subcases to consider. First, when $R \geq R_{NS}$, from Proposition 4, we know that L will not suppress dissent even when the temptation arises, and he will adopt the dissent regime. The organization's profit will be Π^{DR} and the leader gets an expected payoff of $s\Pi^{DR} - \theta\lambda F$. The second case is when $R < R_{NS}$. Because $R < R_{NS}$, L will suppress dissent when the temptation arises. However, because $R_{NS} < R_A^{DR}$, $R < R_{NS}$ implies that $R < R_A^{DR}$. From Proposition 4, even though L knows that he will suppress dissent when $F > 0$, L will still adopt the dissent regime in this case because the reptuational loss from dissent suppression is less than the critical reputational loss from dissent adoption defined by (27). The organization's profit will be $\Pi_S < \Pi^{DR}$, which reflects the fact that a higher bonus is now necessary to induce dissent by the informed member, and that the organization will not be able to capture the informational benefit from constructive dissent when $F > 0$ since the leader will suppress dissent in this case. Furthermore, L will get a payoff of $W_S(R)$ defined by (23), which equals his expected financial compensation as a function of the organization's profit minus the expected reputational loss due to opportunistic suppression. From (23), it follows that $W_S(R)$ is decreasing in R.

Figure 5 illustrates part (ii) of the corollary in which $R_A^{DR} < R_{NS}$. As illustrated in the Figure, there are three subcases to consider. First, when $R \geq R_{NS}$, Proposition 4 again implies that L will not suppress dissent even when the temptation arises, and he will adopt the *DR* regime. The organization's profit will be Π^{DR} and the leader gets an expected payoff $s\Pi^{DR} - \theta\lambda F$. We now consider what happens when $R < R_{NS}$. Importantly, because $R_A^{DR} < R_{NS}$, if $R < R_{NS}$, we can have either $R_A^{DR} \leq R < R_{NS}$ or $R < R_A^{DR} < R_{NS}$. Consider first the subcase in which $R_A^{DR} \leq R < R_{NS}$. Because $R < R_{NS}$, Proposition 4 implies that L will suppress dissent when the

temptation arises. Furthermore, because $R_A^{DR} \leq R$, L's reputational loss due to opportunistic suppression of dissent is greater than or equal to the critical reputational loss from dissent adoption defined by (27), and he will therefore refrain from adopting the dissent regime with rules of engagement. L knows that if he adopts the *DR* regime, when the temptation for opportunistic suppression of dissent arises he will suppress. Anticipating this, he realizes that the expected reputational loss from suppression is too high compared to the potential gain from adopting the *DR* regime, and he prefers to adopt the *ND* regime instead. In this case, we have the unfortunate situation in which the repercussions from opportunistic suppression are not high enough to deter suppression if the *DR* regime is adopted, but are sufficiently high that it makes the adoption of the *DR* regime contrary to the leader's private interest. This result appears because it is common knowledge to both the leader and the member that if the leader adopts the *DR* regime, the leader's commitment that he will not suppress dissent when the temptation arises is not credible. In this case, the existence of scope for leader opportunism prevents the establishment of the *DR* regime, even though it is profitable for the organization to adopt it. The organization gets an expected profit π_0 in this case, while the leader gets an expected payoff of $s\pi_0$.

Finally, consider the subcase $R < R_A^{DR} < R_{NS}$. Because $R < R_A^{DR}$, L will still adopt the *DR* regime although he expects that he will suppress dissent opportunistically when the temptation arises. The organization's profit will be Π_S while the leader gets a payoff $W_S(R)$.

In summary, when $R_A^{DR} < R_{NS}$, then if R is either in the "low" range of $R < R_A^{DR} < R_{NS}$ or the "high" range of $R \geq R_{NS}$, then despite the fact that temptation for opportunistic suppression exists, the *DR* regime will still be adopted by the leader. However, if R happens to be in the intermediate range $R_A^{DR} \leq R < R_{NS}$, the potential divergence of interest between the leader and the organization will distort the leader's decision regarding whether to adopt the *DR* regime. Put differently, the incidence of the adoption of the *DR* regime is *not* monotonically increasing in the level of L's reputational loss from dissent suppression. Similarly, the organization's profit and L's payoff are also not monotonically increasing in the level of R suffered by the leader. This implies that when $R_A^{DR} < R_{NS}$, if R is low (that is, $R < R_A^{DR} < R_{NS}$), a significant

increase of R from a low level to a high level (so that $R \geq R_{NS}$) will increase the organization's profit and the leader's payoff. This is because such an increase makes credible the leader's commitment to refrain from opportunistically suppressing dissent. It thus increases the probability that the organization can benefit from constructive dissent and reduces the bonus that the organization needs to offer to induce (constructive) dissent in equilibirum. On the other hand, an "insufficient" increase in R from a low level to an intermediate level (that is, $R_A^{DR} \leq R < R_{NS}$) can cause the leader not to adopt the *DR* regime and hence reduce the organization's profit.

4. Informal Leaders, Organizational Change, and other Directions for Future Research

In this paper, we study how informational and credibility problems affect an organization's ability to capture informational and learing benefits from organizational dissent. Our analysis highlights the fact that dissent is inherently a *political* process: an organization member may be concerned that dissenting against her superior may cost her to suffer from politcal reprisals. More importantly, because an organizational leader is ultimately responsible for enforcing rules governing dissent, the possibility that he will not be able to resist the temptation to suppress dissent opportunistically when it casts him in an unfavorable light can prevent an organization from adopting a regime in which dissent is tolerated. Our analysis shows how financial bonuses can stimulate dissent from members if they compensate for the economic and political costs dissenters incur, as well as the risk that the leader may opportunistically suppress their dissent. While our analysis is only a first step toward a complete analysis of this important issue of organizational dissent, we believe that it suggests that taking both economic and political considerations into account can be a promising way to study how dissent can contribute to organizational knowledge development.

Our analysis opens up several avenues for further research. First, the political economy perspective we developed here suggests that a leader may have the incentive to cultivate countervailing forces within the organization that can mitigate his incentive to engage in opportunistic suppression of internal dissent. Our analysis has identified conditions under which only a large increase in the reputational loss from

opportunistically suppression of dissent (for example, an increase of R from low to the high—instead of to the intermediate—level when $R_A^{DR} < R_{NS}$) can increase both the organization's profit and the leader's payoff. One way in which the leader could achieve a substantial increase in his reputational loss from opportunistic suppression of dissent is to encourage the emergence of *reputable informal leaders* (e.g., Scott 1981; Morrill 1995) who have the reputation of upholding logic-based and balanced rules of engagement. Thus, if the CEO suppresses dissent, organization members may naturally turn to such informal leaders (if they exist) for assistance, including the dissemination of information that increases other members' awareness of such opportunistic suppression by the leader.

Organization theory has long recognized the importance of informal organization in explaining organizational outcomes. Sociologists such as Whyte (1948), Homans (1950), Gouldner (1954), and Dalton (1959) described the formation of organizational cliques and their effects on workers' output. Analogously, political philosophers and political scientists have emphasized the role of informal political organizations in determining how well societies function. Tocqueville (1990 [1840]), for example, emphasized the role of "civic associations" – citizen groups independent of the state--as critical supports for American democracy. The recent literature on "social capital" has generated renewed interest in such associations (e.g., Fukuyama 1995; Putnam 2000).

Our analysis suggests another important role played by informal leaders, namely, they can potentially contribute to mitgating credibility problems in the management of organizational dissent. This suggests that organizations will capture greater benefits from dissent if they cultivate mechanisms to facilitate the emergence of such leaders. Such mechanisms might include publicizing instances in which members incurred significant costs to uphold the organization's rules of engagement. The importance of reputable informal leaders in mitgating credibility problems also implies that organizations should value such leaders for this role, above and beyond their value in terms of sheer competence in the job. Retaining such leaders will be especially important when dissent is critical for the performance, or even survival, of the organization, such as at what Grove (1996) called "strategic inflection points" or other times of organizational crisis. This implies that organizations that are more

proactive in retaining reputable informal leaders will benefit more from internal dissent, especially in times of crisis.

While reputable informal leaders can play an important role in the dissent process, organizations need to be concerned that such leaders may *themselves* behave opportunistically in some critical dissent processes. For example, suppose the organizational leader decides to suppress dissent that was expressed in accordance with the rules of engagement. What prevents an informal leader from being co-opted by the organizational leader and opportunistically endorsing the suppression? That is, what prevents a reputable informal leader from essentially "selling" his reputational capital to the organizational leader? Without some disincentive for these informal leaders to "sell-out", the system by which they help to monitor the organizational leader is not self-enforcing.

This concern provides an additional reason for creating an environment that facilitates the emergence of reputable informal leaders. Such an environment will allow *multiple* reputable informal leaders to *emerge* within the organization. When multiple reputable informal leaders exist, any individual leader contemplating "selling out" will realize that if he does so, non-defecting reputable informal leaders could sanction him. At the very least, the existence of multiple reputable informal leaders increases the number of organizational members that the organizational leader may need to 'bribe" in order to successfully defect from his commitment to protect and foster dissent that follows the rules of engagement. This makes it more costly for the organizational leader to defect and he will therefore be less likely to do so. Future theoretical and field studies should further investigate how organizations cultivate mechanisms that enable the emergence and retainment of reputable informal leaders, and how these leaders can help mitigate credibility problems in the management of organizational dissent. Such research should also shed light on how organizations can develop policies and cultivate environments to deter reputable informal leaders from behaving opportunistically at critical junctures of the dissent process.[11]

[11] We have focused on environments in which labor unions do not play a significant role in the governance of the firm, as suggested by the GE, Intel and Apple examples. An interesting extension of our analysis would be to consider environments in which labor unions and labor representatives do play significant such roles, as in some European countries (Gooderham et al. 1999, also see Freeman and Medoff 1984). This kind of extension could examine the ways in which labor organizations, through their effects on the leader's reputational loss from dissent suppression and the processes that affect the emergence of informal leaders, can affect the organization's ability to overcome the credibility problem emphasized in our analysis.

A related set of implications of our analyses regard organizational change processes. It is well recognized that a fundamental problem faced by organizations is adaptation and change. For example, an organization may need to contemplate a major change in strategic orientation in response to changes in its environment. In addition, organizations may occasionally find it necessary to consider more fundamental changes, such as changes in the rules that govern important interactions between members. Organizational scholars have explored how cognitive and social psychological considerations can cause members to resist these kinds of changes (e.g., Katz and Kahn 1966; Argyris and Schon 1978; Bartunek 1984; Schein 1985; Labianca, Gray and Bass 2000). Others have emphasized political barriers to change (Kanter 1983; Pfeffer 1992; Buchanan and Badham 1999). While both literatures recognize the importance of dissent and informal leaders in organizational change, there has been little systematic study of how the presence or absence of rules of engagement, and the characteristics of informal leaders, *jointly* affect the organization's ability to implement change. Our analysis provides several insights about this issue.

As many scholars have emphasized, a change in strategic orientation may have significant negative impacts on particular segments of the organization, and representatives of those segments may therefore be tempted to undertake influence activity, including distorting information, to forestall this change (e.g., Pfeffer 1981, 1992). Our analysis suggests, however, that when the organization maintains logic-based and balanced rules of engagement, self-serving statements aimed at blocking change that are not based on accurate facts and reasoning can be challenged and discredited, making blocking tactics more difficult to carry out. Moreover, the possibility of fact- and logic-based challenges to self-serving statements may reduce members' incentives to engage in influence activity in the first place. In addition, the presence of logic-based and balanced rules of engagement may enable the organizational leader and other members to gain a clearer understanding of the nature and magnitude of the negative impacts created by the change in question. This can help the organization to better offset these impacts through the design of, for example, appropriate compensation or retraining programs.

The absence of logic-based and balanced rules of engagement, on the other hand, can hinder organizational change. For example, organizations without such rules may possess informal leaders who gained their following by having successfully

pursued the parochial interests of certain segments. These *parochial informal leaders* may be able to prevail on the basis of claims that escape the scrutiny of other members, thus preventing the organization from carrying out a thorough debate about the change at hand. For example, according to Carlton (1997), Apple's Engineering Chief, Jean-Louis Gassée, had such a loyal following among Apple engineers that he was able to avoid responding to the mounting evidence and arguments questioning the viability of the high price/low market share/beautiful computer strategy he advocated.

These observations suggest that rules of engagement can help determine the nature of informal leaders because they can *discipline* the process by which they emerge. An organization that has a long history of maintaining logic-based and balanced rules of engagement is likely to have informal leaders who have the reputation for upholding them. Such an organization will be better able to capture the desired information and learning benefits from dissent, while at the same time reducing the hazards caused by opportunistic behavior in the dissent process. This will in turn help the organization to sustain logic-based and balanced rules of engagement, even when it is engaged in heated strategic debates.

A second, more fundamental type of organizational change involves changes in the rules governing important interactions between members. For example, consider an organization that is attempting to establish logic-based and balanced rules of engagement, when such rules have historically been absent. One difficulty such an organization may face is that it may be populated with prominent parochial informal leaders. Because logic-based and balanced rules of engagement constrain their ability to continue to pursue parochial interests, these leaders may engage in individual or collective efforts to resist the establishment of such rules. Moreover, although the organizational leader may proclaim that he is committed to establishing and enforcing a new set of rules of engagement, members may be skeptical about the credibility of such claims.

One approach to dealing with these problems is for the organization to cultivate mechanisms that help speed up the emergence of reputable informal leaders. For example, the organization could strategically re-assign or promote emergent reputable informal leaders to units of the organization most in need of them. If necessary, the organization could hire new members with *external* reputations for upholding rules of engagement similar to those that the organization is attempting to establish. The organization could then create opportunities for these new members to

interact with existing members in settings in which contentious strategic debates are expected. This would help existing members to test whether these new members are in fact willing to uphold the rules of engagement, and could help some of the new members to establish *internal* reputations as reputable informal leaders.[12] These new reputable informal leaders may help overcome the resistance to change presented by parochial informal leaders, and may even contribute to their demise. Future theoretical and field research should investigate how organizations can stimulate these kinds of mechanisms in the pursuit of organizational change.

As a first step toward an analysis of the under-explored topic of organizational dissent, our analytical framework abstracts from some important issues so as to focus on how considerations such as informational and credibility problems affect the governance of dissent. For example, in our analysis, we simply assumed that the organization incurs a cost to establish rules of engagement. We did not investigate what determines this cost, nor did we discuss how other costs such as the "operating" and "maintenance" costs of a dissent regime with rules of engagement affect the governance of dissent. An important cost of allowing for dissent, however is that it can delay important strategic decisions. An important avenue for future research is to extend our analytic framework to incorporate the costs of delay that encouragement of organizational dissent may introduce. To investigate the issue of delay, one can consider a multi-period extension of our model in which *L* decides whether to adopt the *DR* regime in each period. If the regime is adopted in a particular period, then in each subsequent period both the informed member and the uninformed member decide whether to express dissent, *L* decides whether to suppress dissent, and then whether to accept the dissenting proposal if no suppression takes place. Delay can be costly in such settings because in each period there is a probability that certain strategic options under debate may become unavailable. For example, while strategic debates regarding whether to enter into a particular market may generate informational benefits, prolonged debate before an entry decision is reached may allow time for a rival to take pre-emptive action.

In an extended model of this kind, one could investigate not only whether each type of member will express dissent, but also *when* dissent by each type will take

[12] An (extreme) example would be for the organization to hire a new CEO who has a reputation for upholding the kinds of rules of engagement that the organization wants to implement, and then to facilitate opportunities for members to discern whether this reputation is in fact justified.

place. One can also study whether the timing of dissent may provide useful information for the organization regarding whether the dissent expressed is constructive or destructive, as well as whether the leader has an incentive to engage in *strategic delay* in either the adoption of the *DR* regime, or in responding to dissenting proposals once such regimes are adopted. Just as the incidence of dissent is determined as a function of the primitives in our current model, the duration of delay can be determined as a function of the primitives in this extended model, including variables that capture the likelihood that particular strategic options may disappear in each period.

This approach can endogenize the cost of delay in equilibrium, thereby going beyond our current reduced form formulation of the cost of establishing the *DR* regime. The approach would allow us to investigate new questions regarding the design of dissent regimes, such as the conditions under which the organization can benefit from committing to a pre-specified *time limit* when adopting a dissent regime with rules of engagement, and the conditions under which the organization, the leader, and the member have conflicting preferences regarding the duration of such time limits. It might also generate new insights regarding how differences in organizations' environments may affect their optimal choice of dissent regime. The organization learning literature beginning from March (1991) emphasizes that firms must balance exploration of new knowledge with exploitation of existing knowledge. In some environments of exploitation, strategic options may disappear with a high probability, while the informational benefits of dissent may be particularly significant in an environment of exploration. This suggests that the *DR* regime may be more likely to be attractive in an environment of exploration than in an environment of exploitation. A generalization of the current framework to a multi-period setting can help determine the conditions under which this conjecture may be true, and may generate implications regarding how the environment faced by organizations affect their choice of dissent regimes.

Another approach to explore in future research is to endogenize the firm's choice of compensation scheme for the leader. In our analysis, we take as given the percentage of the organization's profit that the leader gets in the form of incentive payments (*s*, the "share parameter"*)*. This abstraction enables us to focus on the under-explored question of how changes in the leader's reputational loss from dissent suppression affect the governance of dissent, and also reflects the view that a

complete analysis of the organization's choice of compensation scheme must take into account its incentive effects on *L*'s behavior in other arenas.[13] For example, such a scheme must provide the appropriate incentives for the leader to allocate his limited time among competing tasks of varying measureability (Holmstrom and Milgrom 1991). An important direction for future research is to construct a richer model that includes these latter kinds of incentives along with the dissent-related incentives highlighted in our analysis here.

Finally, we should emphasize that our analysis in this paper abstracts from the effects of fairness or justice notions upon dissent processes. In our model, when an organization member offers dissent, it is simply from a desire to improve her economic well being. When dissent is withheld, it is out of fear from political and economic reprisals. This simplification enables us to focus on how economic and political considerations and strategic interactions between the organization and its members affect the organization's choice of dissent regime, and how leader opportunism may make it difficult for the organization to adopt rules of engagement. However, as the literatures on "whistle blowing" (e.g., Miceli and Near 1992), and "principled organizational dissent" (Graham 1986) have emphasized, conscientious objection by employees to violations of laws or social norms are important organizational phenomena. Future research should investigate how concerns for fairness or justice by organization members interact with the economic and political considerations analyzed in this paper. Bringing these considerations together will produce a more complete theory of organizational dissent.

[13] Note that (13) in section 3 can be used to determine the minimum level of this share parameter necessary to deter the leader from suppressing dissent for a given level of *R* and other parameters of the model, which is given by $\tilde{s} = \frac{F - R}{\left[(\beta - \alpha)(\pi_h - \pi_l)\right] - \left(c_l^R - P_l^R\right)}$.

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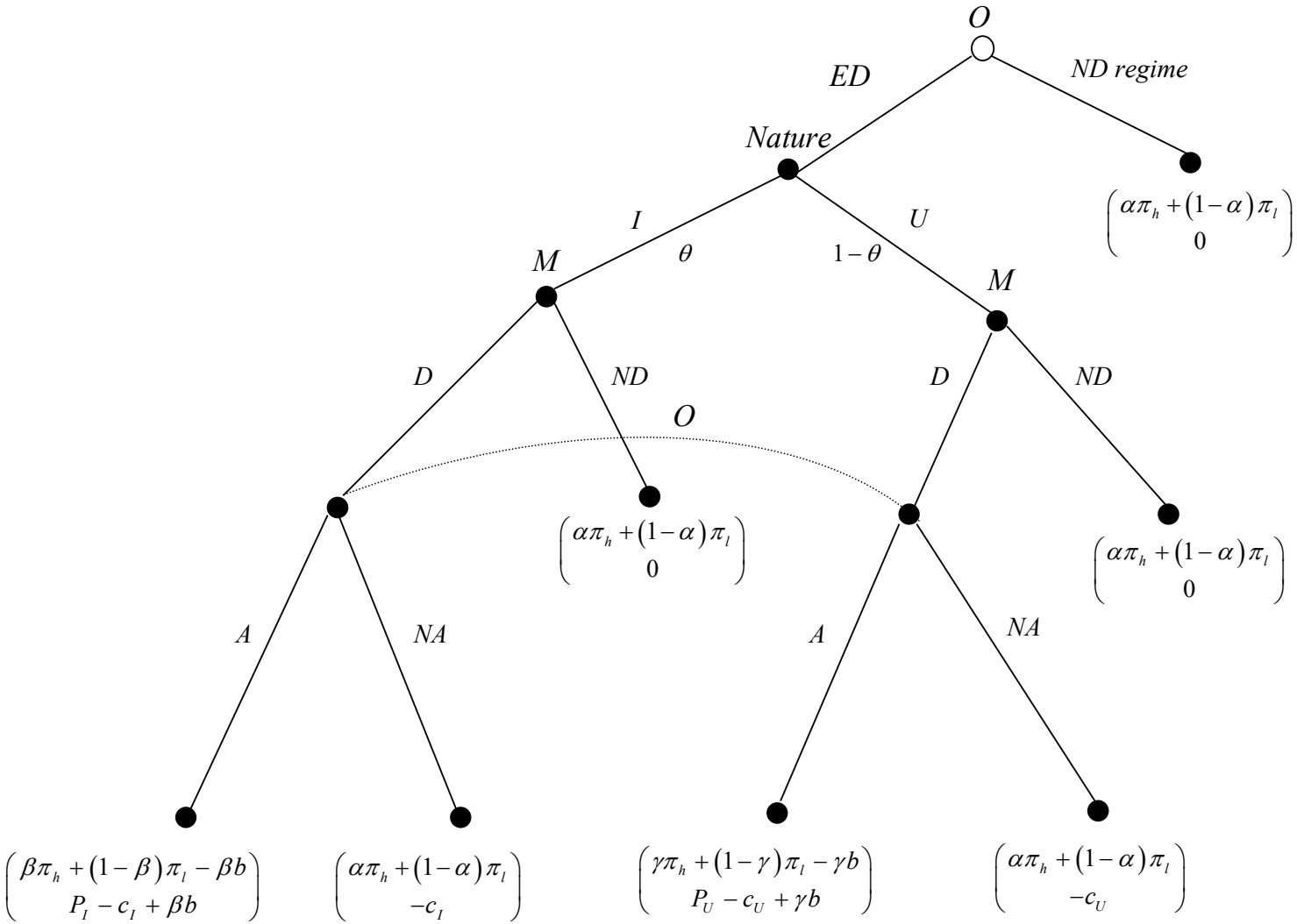

Figure 1: The Basic Game of Dissent

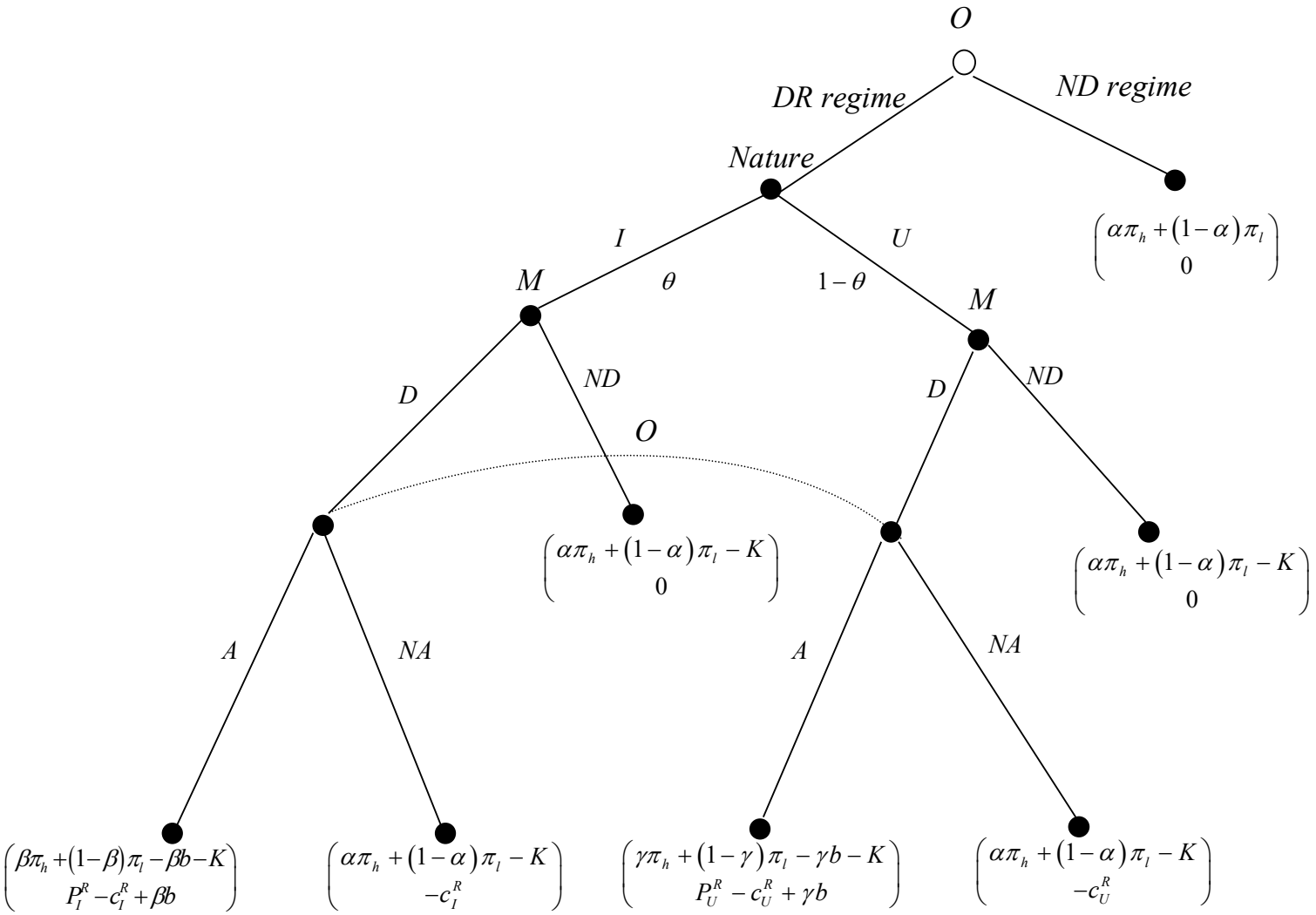

Figure 2: The Game of Dissent with Rules of Engagement

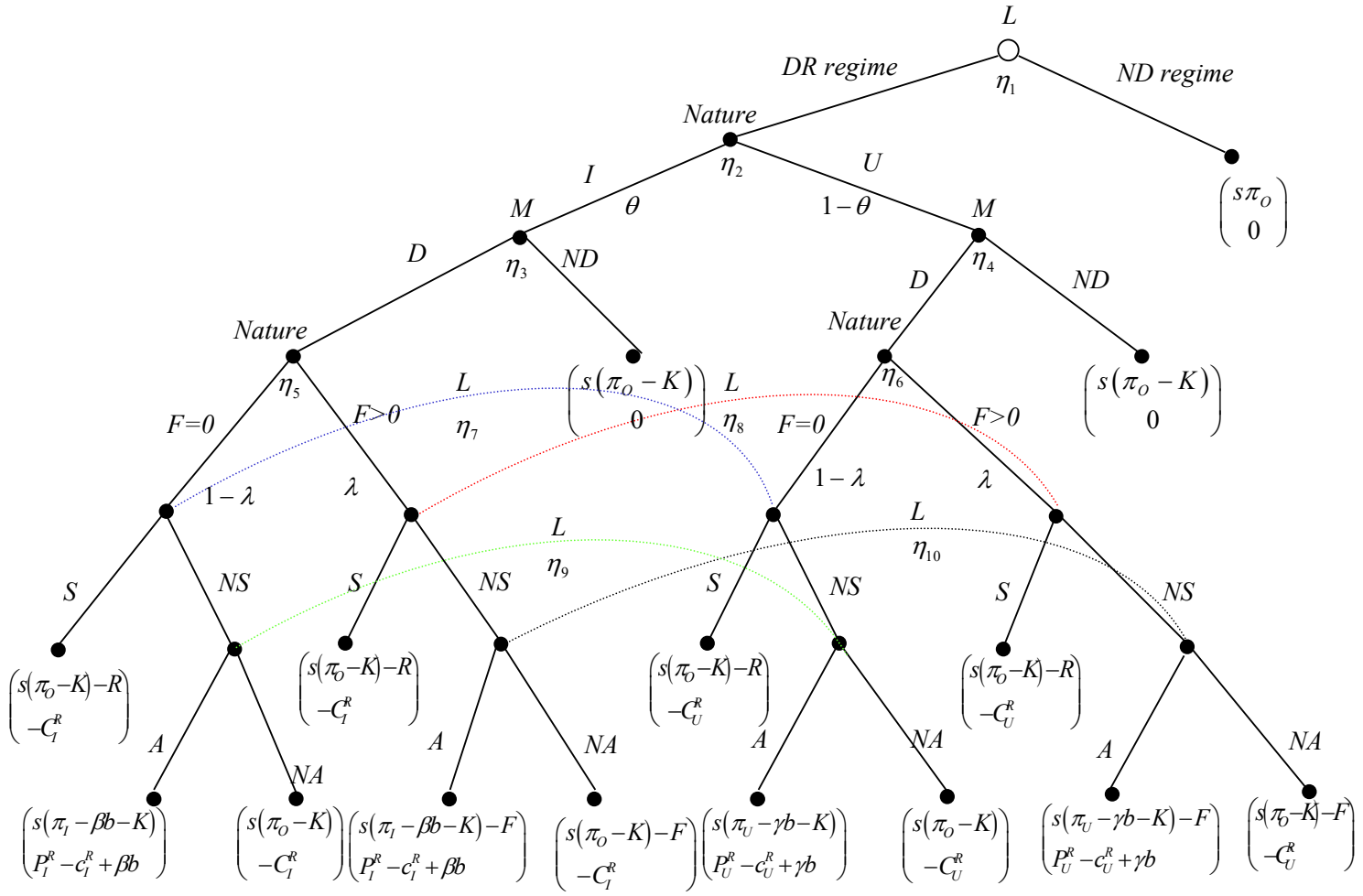

Figure 3: The Organizational Dissent Game with Rules of Engagement and Scope for Opportunistic Behavior by the Leader

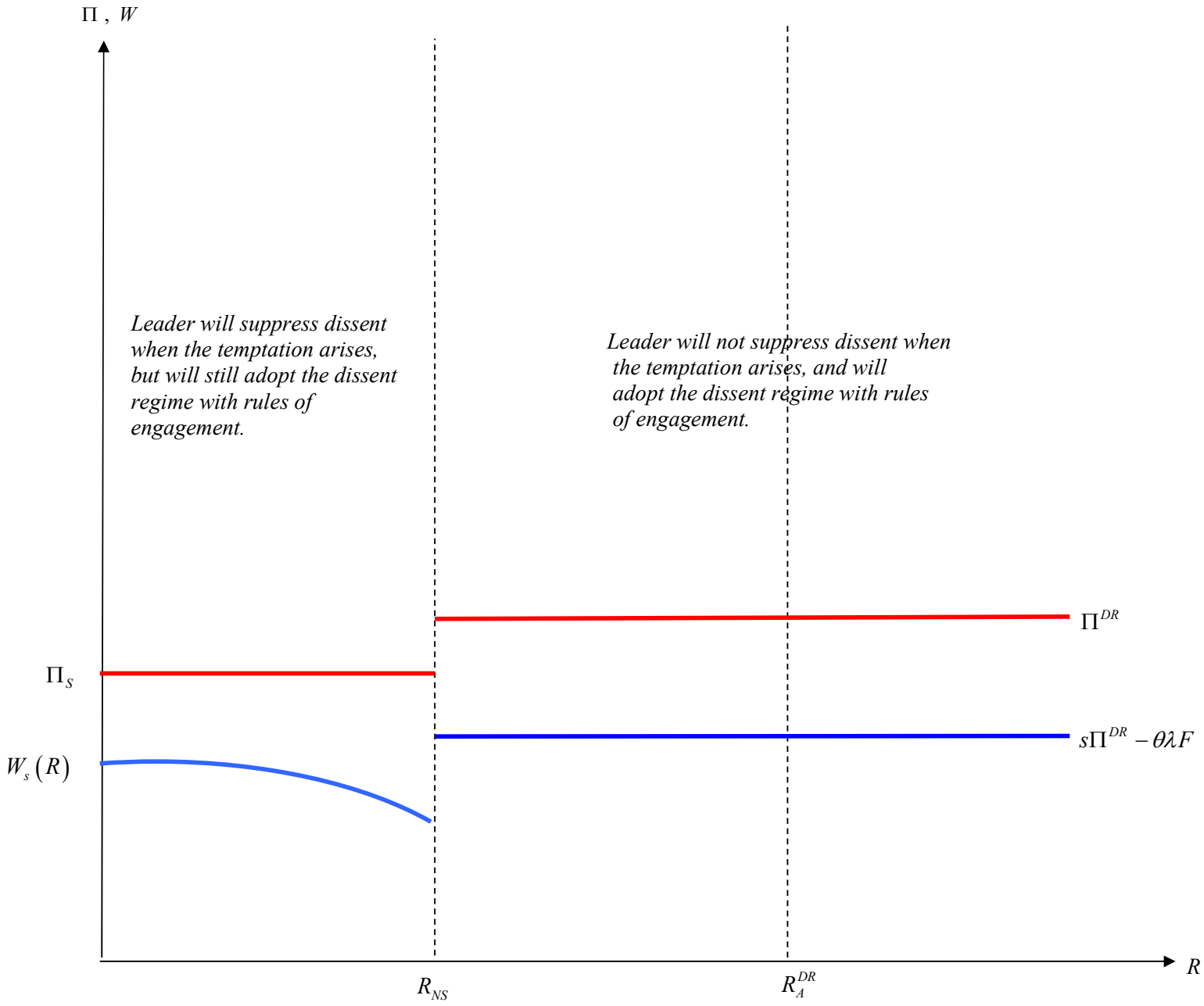

Figure 4 : Equilibriun Choice of Dissent Regime by the Leader When $R_{NS} < R_A^{DR}$

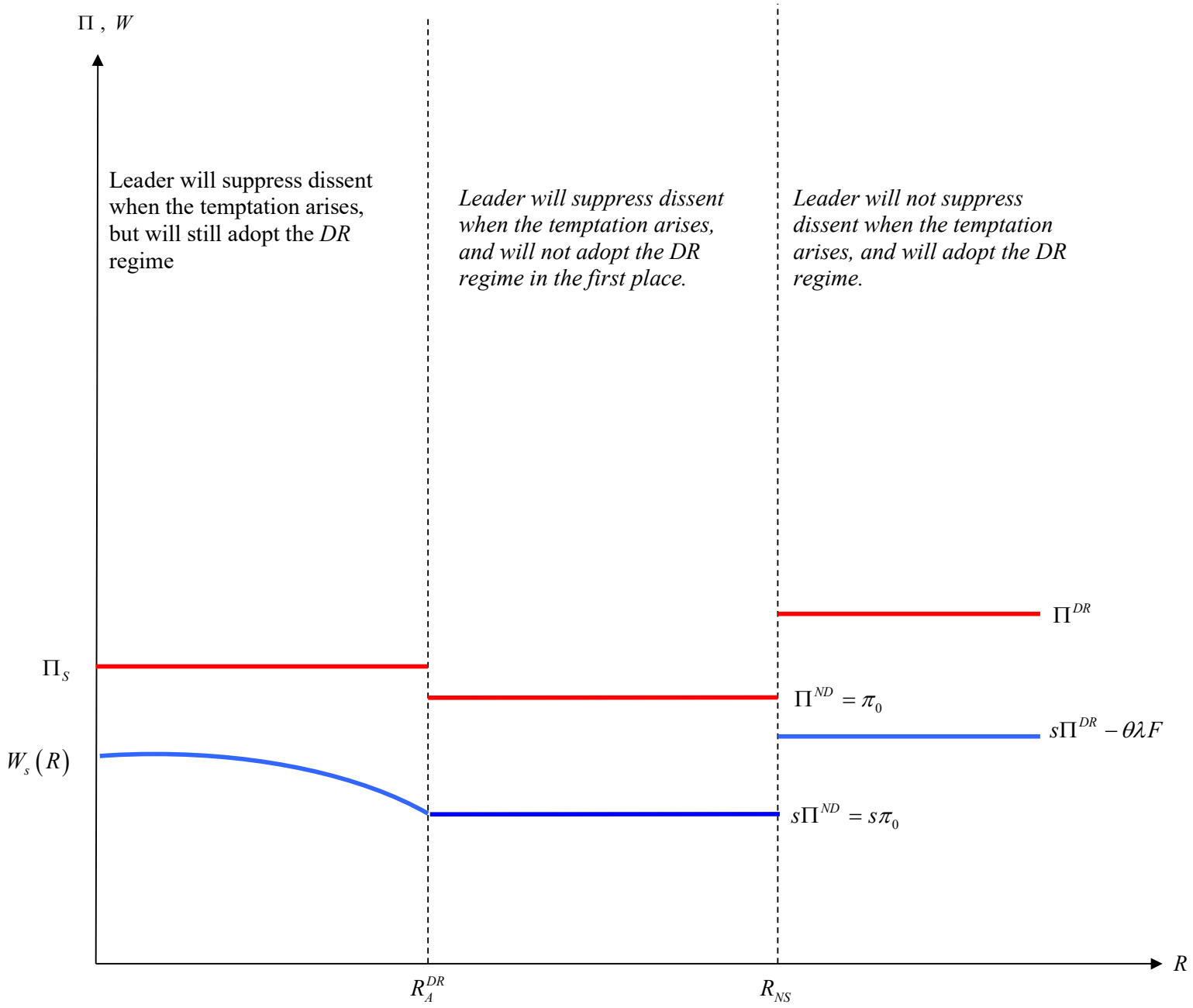

Figure 5 : Equilibriun Choice of Dissent Regime by the Leader When $R_A^{DR} < R_{NS}$