

Dynastic Cycle: A Resource Allocation Theme For Addressing Dissent In Universities

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Abstract

This paper utilizes the dynastic cycle framework proposed in (K. Saeed & Pavlov, 2008) to explain the role of dissent in universities. By combining the dissent expression framework (Kassing, 2011) and the dynastic cycle structure, we construct a generic model for dissent in organizations. The work is rooted in the literature of organizational communication, research and development, and higher education management. Using system dynamics methodology, we illustrate the dynamic interaction of composition, climate, and performance to simulate and explain how organizations evolve with regard to dissent. This model provides a platform for experimentation with different policy scenarios focusing on growth and productivity. The research suggests that as universities attempt to improve their performance through growth, despite initial short-term performance improvements, they are likely to devolve into low

performance institutions with degraded management responsiveness and organizational productivity. Regardless of having high dissent tolerance, they could become dominated by high control and silence climates. When organizations invest in cultivating a dissent aware climate, and strive to improve their dissent processing capability, we suggest that the university and its members will be more productive and engaged.

Keywords : *organizational behavior, organizational communication, voice, silence, collegial systems, higher education management, research and development, system dynamics, computer simulation, , governance.*

Introduction

The capacity for organizational management to process and respond to dissent contributes to an organization's composition, communication climate and performance. We explore this topic by looking into the dynamic interactions among key factors such as management capability to handle dissent, organizational composition, the manifestation of different dissent expression mechanisms, and organizational performance. We will also consider the role of dissent expression and processing as it affects the impact of organizational composition on communication climate and performance over time. Cooper and Burke (2013) have indicated that the volume of voice expression and perception of communication climate over time are areas worthy of research (Cooper & Burke, 2013). Kassing (2011) has also suggested that the accumulation of unprocessed dissent in organizations is an unexplored area in the organizational communications field. Both topics and their relationship to the dynamic interactions within the organization will be investigated in this paper.

What distinguishes this research is the use of system dynamics methodology to unravel the role of

accumulation processes controlled by inflows and outflows (Perlow & Repenning, 2009) responsible for accumulation and depletion of organizational dissent. The research contributes to the body of knowledge in organizational studies in general and to the dissent literature in particular by constructing a generic dynamic framework using both the dynastic cycle generic structure (K. Saeed & Pavlov, 2008) and the dissent expression mechanisms framework (Kassing, 2011) to show causal relationships among dissenters and administrators and to understand dissent expression mechanisms and their consequences for organizational performance in the context of higher education. The core structure could in the future include other envisioned influences that might add to the richness of the issue.

In the following sections we will introduce the literature on dissent in organizations followed by a brief introduction of the dynastic cycle microstructure. We then combine these two literatures to present a hypothesis of organizational dissent and the dynastic cycle. We then discuss literature on dissent in a university context and, combining these literatures, propose a model for dissent in universities using the dynastic cycle structure and dissent expression framework. From there we present several different policy scenario experiments and discuss the implications for research and practice.

Theory

Dissent Expression Mechanisms in Organizations

Dissent is ubiquitous in organizations (Kassing, 1997). It can take many forms include expressing discontent with management constraints or expectations that are not met (Kassing, 2011) or simply surfacing differences of opinion, perceptions, goals, and beliefs about issues in the

organization (Perlow & Reppenning, 2009). Dissent often challenges the status quo as well (Garner, 2013). It is an important factor for the growth of both the individual and organization and it can improve decision quality (Perlow & Reppenning, 2009) and enhance innovation by providing the opportunity for honest and mindful consideration of alternative viewpoints (Rachal, 2011). It is often times expressed by those who will either implement or be affected by management decisions (Garner, 2013). Dissent in organizations is not limited to the corporate world but extends to government agencies, non-profit organizations, healthcare providers, schools, and universities (Cooper & Burke, 2013). Lack of dissent in the organization can contribute to groupthink behavior (Janis, 1972) that may well lead to disasters in foreign policy (Bay of Pigs invasion) or high risk technical endeavors (Challenger space shuttle explosion in 1986) (Elmes & Gemmill, 1990).

Limiting dissent to conflict or adversarial actions like whistleblowing, or framing it as a source of organizational inefficiency (Landier, Sraer, & Thesmar, 2009) has the potential of creating a negative management attitude towards dissent and depriving organizations of its vital benefits.

Dissent can occur within the or outside of the organization and can be take one of three forms: Upward dissent, Latent dissent, and Displaced dissent (Kassing, 2011). Upward dissent is dissent that a party expresses directly to management with the intention that it be viewed as constructive. Latent dissent is typically antagonistic in nature and is expressed to coworkers inside the workplace to minimize the risk of punishment or embarrassment. When people fear rejection or punishment for expressing dissent to management, they are likely to withhold to their ideas (Garner, 2013) or engage in latent dissent. Displaced dissent such as whistleblowing (Kassing, 2011), is expressed outside the workplace and is typical in situations where individuals expect retaliation from management for expressions of dissent (Kassing, 2011).

Empirical research data (Kassing & Kava, 2013) suggests that the presence of a dissent-friendly environment in the organization promotes pro-social forms of expressing upward dissent. However, delays in management response may lead to the repetition of dissent which may invoke management retaliation. If people fear retaliation and withhold concerns, management may assume that the status quo is acceptable; dissent under these circumstances could lead to management suppression. Eventually, the pattern of fear of retaliation-silence-maintenance of the status quo can become the norm in a culture where dissent is absent. According to Saeed (1990) this pattern occurs in authoritative governments which allocate more resources for control and reduce peoples' civil rights through censure; ultimately this can lead to more government control to silence dissent and minimize insurgency which leads to declines in economic performance regardless to the government's commitment to economic growth. Unfair management treatment is also correlated with the threat to exit the organization (Hirschman, 1970). Both the unfair management treatment and response delay can lead to circumvention of the chain of command and the expression of displaced dissent (Kassing & Kava, 2013).

Organizational communication climate here reflects dissent expression, management's attitude towards dissent and also organization members' perception of management tolerance and responsiveness towards dissent. Receptiveness to dissent, in a school environment for instance, was reported to enhance public schools communication climate and teacher morale while creating opportunities for school administrators to monitor decisions, adjust strategic planning initiatives, and redirect ineffective practices (Burns & Wagner, 2013).

Upward dissent could be either dismissed, ignored, or processed (Kassing, 2011). Latent dissent, on the other hand, is invisible which leaves no room for managing it. Dismissal typically takes place when tolerance to dissent is low so the management could take in no complaints,

suggestions, or ideas. Ignoring dissent, however, could be either happen due to incompetency in processing or it could take place when the organization is overloaded by too much dissent to process. Processing occurs when there is action associated with dissent in the form of a follow up communication or tangible steps taken to resolve an issue or meet a request.

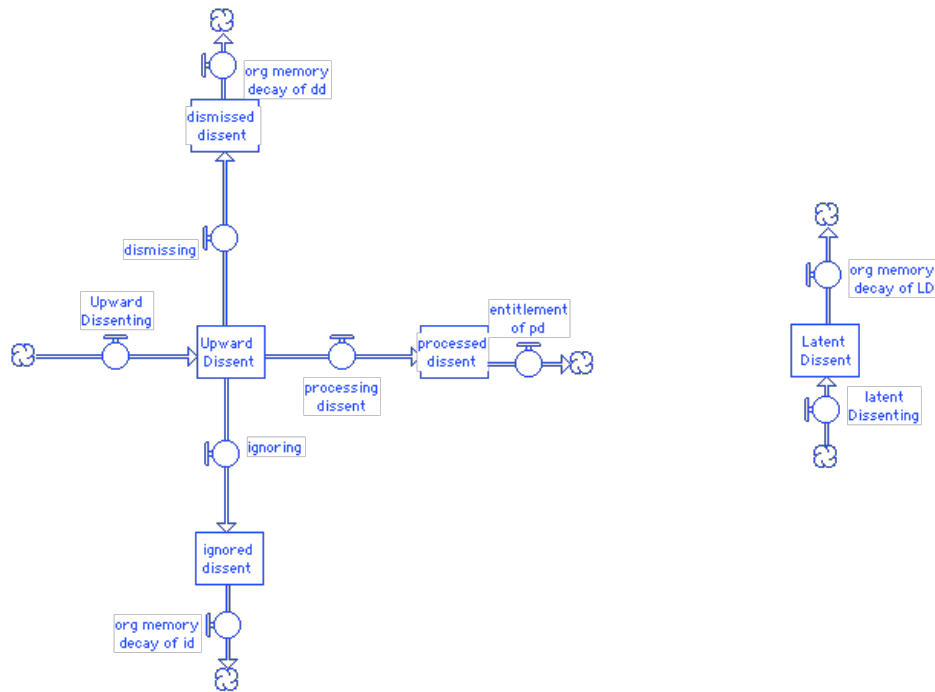


Figure 1: Stock and flow diagram representing dissent expression mechanisms

Figure 1 shows a system dynamics stock and flow representation of the dissent expression mechanisms described above. Upward Dissent and Latent Dissent are depicted as a stock that is accumulated by the act of dissenting and depleted over time by several outflows. Upward dissent grows by dissenting and depleted by three outflows; dismissing, ignoring, and processing. This representation allows for demonstrating both the accumulation and depletion of the dismissed dissent, ignored dissent, and processed dissent. Depletion occurs when people forget, move on, or simply leave the organization. Processed dissent is depleted by the sense of

entitlement once an issue is resolved or a request is fulfilled. Since there are no mechanisms to deal with latent dissent, it is left to the natural decay of organizational memory. We will elaborate further on these processes and their implications later in the paper.

Kassing (2011) suggests that organizations differ in their tolerance to dissent and the implications associated with that. He articulated three different states regarding dissent tolerance and the consequences of that. The first state is when there is high tolerance to dissent which could end up overloading the organization with dissent that need to be processed. The second is when there is low tolerance to dissent that could result in under representation of dissent, hence opportunities for useful feedback would be lost. In between these two states there is a moderate tolerance level resulting in an optimum level of dissent. The suggestion for the existence of three states raises several questions; are these the only states an organization could exist in?, are they eternal or there is opportunities for change? . What could drive that change and how? This is where system dynamics modeling and simulation methodology could be utilized to further explore these questions.

The Dynastic Cycle Structure

Saeed and Pavlov (2008) proposed a metaphorical model that fits a wide range of resource allocation problems characterized by the competition for a limited resource. It is called the dynastic cycle structure where the term , dynastic cycle , which has roots in Chinese history implies the rise and fall of governing groups over time. The three competing populations are Farmers (who represent useful production in a society or a firm), Soldiers (who exercise control like the government or administration), and Bandits (who represent looting or forbidden production in a society or who sabotage the firm by exploiting its members, customers or

stakeholders). delineates the generic feedback structure of the model where the (+) sign means that an increase in a variable leads to an increase in the linked variable and vice versa, and the (-) sign means that an increase in one variable leads to a decrease in the linked variable and vice versa.

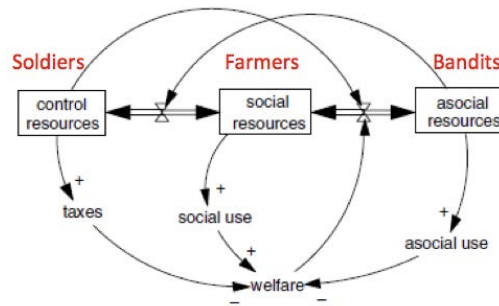


Figure 2: Generic resource allocation microstructure source: (K. Saeed & Pavlov, 2008)

The limited resource in the model is Land where farmers grow their produce and earn income according to their productivity. Tax is collected from the farmers' disposable income to support soldiers. Bandit appropriations take away from the farmers' income. Depending on the relative amount of income per farmer to income per bandit, either farmers move into banditry to improve their incomes or bandits move into farming if income from farming is higher than banditry. Soldiers enforce state control; their numbers grow depending on any threats to the society but are limited by the amount collected in taxes and the cost of hiring soldiers. State control serves the purpose of deterring farmers from becoming bandits and encouraging bandits to become farmers. No bandits can leave banditry to become soldiers. The model assumes that soldiers and bandits both come from the farmer population and vice versa.

Saeed and Pavlov (2008) suggest two performance indices for society: freedoms and economic legitimacy. The relative political power of the three populations defines the level of freedom,

whereas the relative income of farmers and bandits defines the level of economic legitimacy. They represent these indices in a state space diagram made of four quadrants (See Figure 3) to help in classifying the state of a society and describes its evolutionary path from one state to another.

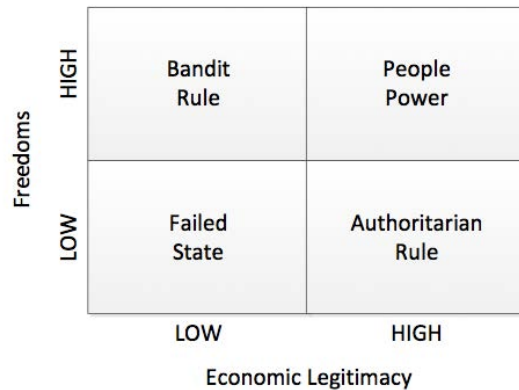


Figure 3: State space representation for the performance indices in a political system, source: (Kahlid Saeed, Pavlov, Skorinko, & Smith, 2014).

For example, a failed state is where both low economic legitimacy and freedoms exist. On the other hand, a people power state is where high economic legitimacy and freedoms are observed. For more details, the paper (K. Saeed & Pavlov, 2008) offers a thorough description of the relationships between each population and the factors affecting its growth and decline. Next, both the dissent expression mechanisms and the dynastic microstructure will be combined in a dynamic hypothesis explaining their interactions.

Dissent expression and the Dynastic Cycle

Formulating an aggregate model for the phenomena of dissent in organizations came after

exploring Kassing's (1997, 2011) framework for dissent expression in relation to Saeed and Pavlov (2008) model of dynastic cycles based on Farmers, Bandits, and Soldiers (referred to as FBS). Our focus remains within the boundary of the organization and assumes that organizational members remain within the organization and can only make status changes between the those three populations. We draw from the dynastic cycle model to identify the main actors in the organization who either exercise dissent or are influenced by dissent.

An aggregate level dynamic hypothesis for addressing dissent in organizations is shown in Figure 4.

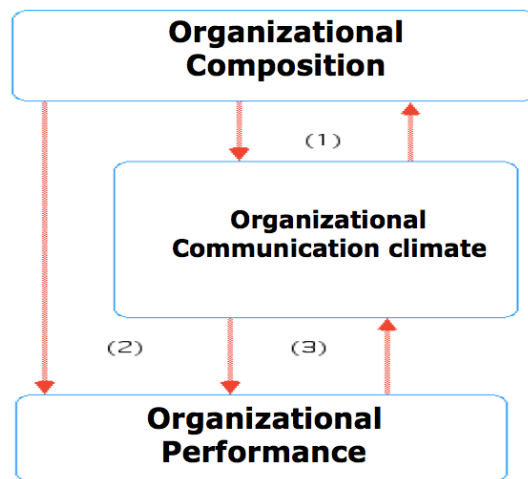


Figure 4: Aggregate dynamic hypothesis of dissent in organizations

The dynamic hypothesis suggests that the composition of members in an organization is one of the major elements that forms its communication climate while communication climate influences the composition of the organization in terms of which group tends to be dominant (loop 1). Organizational communication climate here is a function of how the organizational members express dissent, how management responds to it, and how the

members perceive that management responds to dissent. Performance is defined as what the organization accomplishes and, the model proposes, is dependent on the organizational composition and management's capacity to respond to dissent with tangible and helpful actions. Performance in turn influences the communication climate as well as the composition of the organization (loop 2). The manifestation of dissent and how much is actually processed influences the overall performance. Organizational communication climate that represents how dissent is expressed and handled impacts performance positively or negatively and in return performance influences how members (especially management) internalize and prioritize their value system in the organization through periodic evaluation of the impact of their dissent tolerance policies on the productive output of the members (loop 3). For example if the management did not find a benefit from accepting and acting on dissent, it could simply dismiss it or accept but ignore it. In this scenario, employee suggestions could either end in the office shredder bins (dismissed dissent) or remain shelved (ignored) to occupy the office shelves. This approach typically starts at the top management level and trickles down through the whole organization to shape its culture.

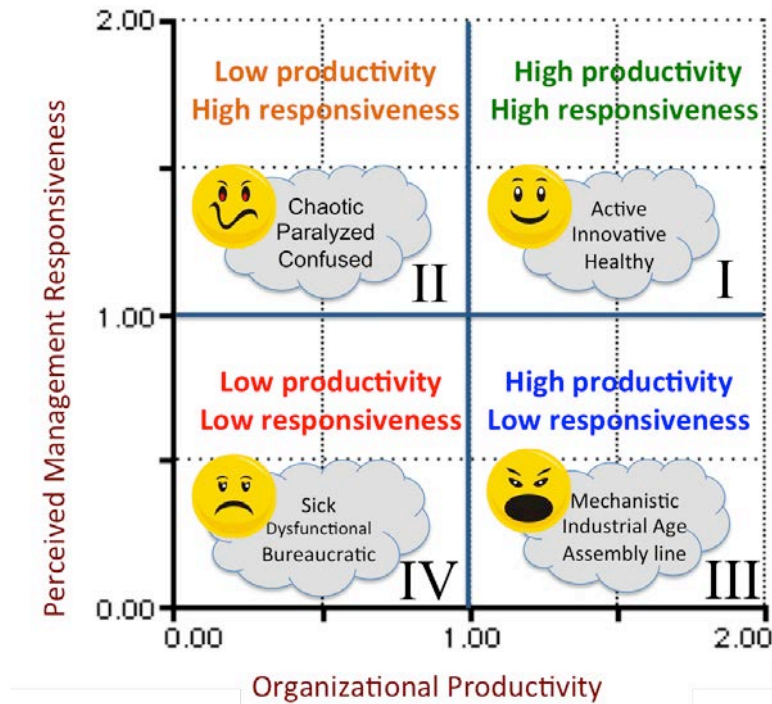


Figure 5: State space representation for the performance indices in an organization from the dissent perspective.

We similarly introduce two indicators for organizational dissent and performance. They are *perceived management responsiveness* to dissent which depicts the organization's tolerance for dissent and efficiency in handling it. The second is *organizational productivity* that is an indicator of the return on management processing of dissent as a productive output. The resulting State-Space representation is shown in the 4 quadrants of Figure 4. Quadrant I represents high organizational productivity and high management responsiveness to dissent which is the optimal state according to Kassing (2011). An organization in that quadrant might be described as active, healthy or innovative.

Quadrant II (overloaded) is characterized by low productivity and high responsiveness to

dissent and may be paralyzed by having too much dissent that it cannot process in a productive manner. Quadrant III (underrepresented) represents high productivity and low responsiveness to dissent; this organization type is similar to an industrial age, machine-like, organization where attention is focused on outcomes primarily with little attention to ideas from people not in management. Finally Quadrant IV(underrepresented) is marked by low output and low responsiveness to dissent which could be described as dysfunctional bureaucracy lacking initiatives and responsiveness to internal or external environments.

In the next section, an overview from the literature for the dissent in universities will be introduced focusing on faculty governance, the evolution of the faculty and administration relationship, and the performance measures of both the faculty and the university and how this hypothesis could relate to a university context.

Dissent in Universities

Dissent is not uncommon in the western academic life. Its roots stem from faculty academic freedom to think, inquire, express views, and control over one's time. It is a right that faculty struggled to earn and continue to protect over the years. It is very much in need where academics could have very strong views that often times contradict with their fellow scholars (Bok, 2013) or the predominant beliefs and norms in the society at large. Compromise on academic freedom turned universities to caricatures in many parts of the world (Rosovsky, 1990). Tenure is the mechanism that helps faculty exercise this

right and protects faculty from external pressures. As Henry Rosovsky, Dean of the faculty of Arts and Sciences at Harvard, puts it, the “two crown jewels possessed by any tenured professor at a top school: independence and security” (1990, p. 179) . Both tenure and freedom enhanced faculty independence (Hodgkinson & Meeth, 1976). Absence of tenure would in the long run deteriorate the quality of faculty, the foundation of university life (Rosovsky, 1990).

Faculty Governance

Faculty governance at universities is the formal mechanism through which faculty share in governing their academic institutions and express upward dissent. Shared governance is “a collaborative process that includes the input of an independent board, an administration that leads through delegated authority, and an engaged faculty” (Legon, Lombardi, & Rhoades, 2013). Good governance is a product of engaged faculty willing to debate, offer different ideas, or dissent; this provides checks and balances to the university governance system (Legon et al., 2013). Typically, faculty governance’s area of influence includes curriculum design, academic program creation, faculty appointments, and no confidence votes (Ginsberg, 2011). In addition, faculty governance has a stake in decisions that affect the academic content of the curriculum as well as the need for facilities to deliver quality education. Faculty hold the greatest power in research universities where the reputation and the quality of the institution depend on the distinction of its professors. This authority is slightly overseen by the administration including the president, the provost and the deans (Bok, 2013).

Although some past university presidents committed to shared governance have complained about the delays and lost opportunities by having to consult with faculty committees to reach a consensus (Bok, 2013), shared participation of the faculty and academic leaders in governance matters can improve university governance rather than impede it (REF). Shared governance can also raise morale and help mobilize support for the adoption and implementation of academic programs despite the additional time and effort taken in the debate and the deliberation processes. For example, according to Bok (2013) it took about 5 years of deliberation to approve the changes in Harvard's undergraduate program initiated by Henry Rosovsky in 1973. However, it took only two years afterwards for enthusiastic faculty to generate almost 100 courses which were newly prepared or completely revised; enrollment increased by 50% above the required number for those new and revised courses. In short, the process involved the faculty deeply. In turn they came to feel that the new curriculum was their curriculum, which they had played a large part in making, rather than "the product of a small blue-ribbon committee to which they had dutifully given their assent" (p.68). While mistakes can never be eliminated, according to Bok (2013), they are less likely to occur when the decision makers are willing to listen to the people with interest and experience in the subject matter to improve the outcome. In fact, Bok (2013) suggests that disastrous outcomes like athletics scandals or costly failed ventures are often the result of unilateral decisions by university administrators without faculty input. Rosovsky (1990) notes that shared governance is a major factor in explaining the high quality of the American university as it permits leadership to be effective by making the implementation of new

ideas possible (Rosovsky, 1990).

It might be necessary to look into how governance and the exercise of academic freedom and their implications on the relationship with the university administration has evolved over time.

Faculty and administration roles and relationships over time

By training, professors, like to advocate their ideas vocally and passionately which sometimes can lead to heated conflict or confrontation (Rosovsky, 1990). Despite the tension-by-design between faculty and administration and the continued questioning by the faculty for the need for the administration function altogether, it is not uncommon to have world renowned tenured professors occupying top administrative positions in their respective institutions. The two famed physicists, Robert Oppenheimer and Oswald Veblen, are two examples of many research scientists who have led prominent research institutions like the Institute of Advanced Study (Jain, Triandis, & Weick, 2010). Some worked hard to preserve freedom on campus, as in the case of Harvard university president Derek Bok, who did not succumb to pressure to impose a code of speech tighter than the first amendment as had been done at other universities (Christensen & Eyring, 2011).

With changes in the economic landscape and the decline of public funding for universities and university education, there have been calls to replace shared systems of governance of university administration with stronger, more corporatized administrative

systems that purportedly make the university more manageable and controlled (Mills, 2012). Contrary to the view that universities cannot be run by cost accountants or as commercial enterprises responding only to changing markets (Rosovsky, 1990), the growing emphasis on the growth and marketization of universities has led some Boards of Trustees to search for and appoint university presidents from the business world with great fund raising capabilities but little or no prior academic background (Bok, 2013).

Professional managers who value efficiency, hierarchy, and high and immediate returns on investments (Mills, 2012) often are not interested in engaging collaboratively with faculty. Instead, many are inclined to make unilateral decisions without faculty involvement resulting in their failure to gain the faculty trust (Bok, 2013). Faced with tough competition and difficult economic times, many professional managers at universities want to grow revenues and cut costs in order to reach financial equilibrium (Cosenz & Bianchi, 2013). With more focus on growth, financial health, and rankings, emphasis has increasingly emphasized tangible objectives and performance measures like fund raising and the ability to attract more research grants compared to the more subtle and harder to measure indicators like education quality or the research environment. This trend has been reinforced by an increasing emphasis on ranking and accreditation whose link to the quality of education remains unclear. Such measures, however, have increasingly obsessed administrators whose performance can be judged by them. Sometimes administrators behave unethically in order to be judged positively (Bok, 2013); for example, in a recent scandal, a faculty member at Kansas university discovered that a high ranking administrator had tampered with the GPA's and test scores

of incoming students in order to improve the college ranking (Shumski, 2014).

Administrators started shaping their universities to be similar to their business organizations. Tasks were divided and assigned to different people to help them focus and be more efficient at tackling the issues at hand. This has led to the creation of new administrative positions with different levels of power and authority. Initially, some administrative positions were filled by faculty but slowly drifted towards more full time administrators as faculty have the tendency to avoid too much administrative work, which started to escalate, and would rather retreat to their academic havens doing what they love to do; teaching, advising, and conducting research. Hierarchy grew and grew with it the number of administrative staff and the organizations got more complex with many levels of hierarchy and reporting relationships. More and more tenure faculty remain in their academic sphere and more and more of their part time administrative duties were shifted to the professional managers (Ginsberg, 2011). A recent study found that administrative growth in New England colleges reached a maximum of 900% whereas top universities like Massachusetts Institute of Technology (MIT) and Harvard either put tough controls to curtail that growth (Marcus, 2013).

Cost cutting measure were enforced by filling more faculty positions by non tenure track faculty mainly comprised of part time or full time teaching faculty hired with annual contracts or an on-demand basis. Full-time tenure-track faculty in 2012 constitute no more than 30% of the faculty compared to 67% in the 1970's (Mills, 2012). Non-tenure-track faculty typically receive neither the same compensation or benefits and often do not

voice their views compared to their tenured or tenure-track counterparts. They may not have the same personal stake in the institution or concern for shaping its educational program or policies since they may be teaching at other institutions or busy doing day jobs. Many critics fear that the shift to greater reliance on non-tenure-track faculty will degrade academic values and shared governance that could potentially impede the values and functions of the university (Bok, 2013).

More recently critics have raised the questions about the role of administrative policy with regard to freedom of expression on university campuses. For example, the University of Kansas' new social media policy gives the administration the power to fire faculty or staff who improperly use social media in a way that is contrary to the best interests of the university. The change in policy was triggered by a faculty member's anti-National Rifle Association tweet that invited other faculty to call for a repeal of the policy. Rothschild (2013) framed this as an example of how universities might try to stifle the faculty's freedom of speech in response to the pressures of donors, corporate partners, political entities, or external performance measures leading. This process could lead to an erosion of academic and governance values over time (Bok, 2013; Rothschild, 2013).

Faculty governance has also had its share of issues with regard to dissent expression. Over the years faculty governance has developed its own hierarchy that, especially at the top, has become more aligned with administration policy and reduced governance participation by limiting the inclusion of faculty with dissenting voices (Hodgkinson &

Meeth, 1976) and listening to more moderate and politically-correct voices. To some extent, it became the formal channel for communication through layers of committees dealing, most of the time, with trivial issues and giving less attention to issues related to the direction of the institution. Hence, respected faculty with bold views and deep concern about important issues became less interested to join. This view was corroborated in a recent survey of the rank-and-file professors that found that the faculty have limited influence in campus issues which reflects either communication issues or lack of interest (Bok, 2013). In both cases, this could be interpreted as a decline of upward dissent – which means less dissent reaches the administration to influence their decisions and a rise of latent dissent, that is, more dissent is hidden and not accounted for.

We are proposing that the combination of an authoritarian administration, a dysfunctional faculty governance system, and silent faculty is likely to lead to declines in performance for the university. To understand this, in the next section we consider how performance is defined and measured in a university context.

Faculty and university performance

Performance measurement is an integral part of a wider strategic management activity aimed at achieving a sustainable development of the academic institution (Cosenz & Bianchi, 2013). University faculty teach, conduct research, publish papers, advise students, write research grants and student recommendations, serve on university

committees host visitors, and respond to inquiries (Jain et al., 2010). As cosmopolitans (Gouldner, 1957, 1958), academic activities extend beyond the boundaries of their local organizations to reach their academic community through participation in conferences and colloquia, journal editorial boards, and leadership positions in their respective field's societies. To assess the performance of faculty and their institutions, both the quantity and quality of their output can be used to determine their effectiveness. Quantity of work often refers to the number of reports, publications, grants, and new products while quality of the work often refers to the quality of journals that faculty publish in, the number of patents obtained, the amount of research funding, and the number of citations to faculty publications. Feeling the pride by being a part of the institution is another intangible measure. Direct profits or return on investment from implementation of research products are other factors too (Jain et al., 2010).

It is perhaps also necessary to review few organizational output measures for research and development organizations with which universities share many attributes. These measures are eloquently presented by Jain et al. (2010). Output measures could be associated with (1) *process measures*, (2) *results measures*, or (3) *strategic indicators*. *Results measures* are related to the activities carried out by the institution like the type of assistance provided to other department or to outside organizations, or the number of responses to enquires from external scientific or internal departments. It also could include the number of visitors to the institution and the number of administrative types of actions handled. *Results measures* refers to tangible, measurable outputs expressed in terms of the organization goals and objectives which would include number of published

technical reports, published refereed papers, generated patents, developed and commercialized innovations, and obtained external grants. *Strategic indicators* are related to the long term performance and would include the reputation, ability to attract to quality faculty, students, funding, and the job satisfaction of all the members.

The criteria for university output measures seem to be influenced by external entities such as national and international university ranking publications, accreditation boards, and government agencies or ministries (Cosenz & Bianchi, 2013) which tend to give more focus on short term *results measures* rather than *process or strategic* long term indicators. Such foci would define organizational productivity as the ratio of achieved output to input (Jain et al., 2010) over a short period of time where inputs can be determined by the allocated or consumed resources (Cosenz & Bianchi, 2013) which, for the purposes of this paper, includes the effort invested in processing dissent. Failure to reach a high ratio of output to input could influence the operating policies of the organization which in the long term could influence its communication climate by becoming less tolerant to dissent as described earlier in the hypothesis.

Typically faculty are evaluated in four areas: *teaching, research, impact, and service*. Teaching includes students' evaluations, syllabi, and written textbooks. Research would cover current problems, the progress, and finished or in progress papers. Impact may be based on reviewers' comments, citations of publications, and invitations to give invited lectures at universities or conferences. Service includes membership on journal editorial boards, national or international committees, and university committees. It is also

important to realize those faculty members have goals that go beyond the boundaries of the institution extending to their academic community at large. They tend to measure their performance against the professional standards of their scientific community. Accordingly, it becomes difficult to evaluate their performance based on solely internal standards (Jain et al., 2010).

In principle faculty members are free to utilize their time as guaranteed by the values of academic freedom. The focus of their research inquiry is supposed to be driven by curiosity not just be mere economic value. This is not necessarily the case nowadays. Caltech is an illustrative example of one of the few universities resisting pressure from funders to place more emphasis on the application of research for tangible economic impact, at the expense of fundamental, curiosity-driven exploration (Baty, 2014).

With many universities designing clear-cut, results-focused, performance measures for faculty performance that stem from criteria set for the institution performance, faculty and administrators may have different perceptions of what performance means and this can be a source of significant tension. Nonetheless, distinguished universities like Caltech have not succumbed to such measures like the number of published papers or the numbers in citation indices to look for what is new and different. Paying less attention to external judgment takes a certain level of self confidence (Baty, 2014).

As shown before, output can also be subjective or objective, qualitative or quantitative and can include a measure for quality. In R&D organizations and universities in particular, due to their multiple objectives, their outputs are typically subjective and

qualitative where the units of measure resist accurate comparison between different outputs. Therefore, combining a suite of multidimensional indicators into an aggregate might create general trends and patterns for both the individual and organizational output measures (Jain et al., 2010). Therefore, we will adopt an aggregate measure for faculty productivity as measured by the administration who have direct influence of the organizational policies.

In the next section, we will unfold the model structure that combines the dynastic cycle and dissent expression framework in the university context, explain the causal relationships, show the driving factors and their mathematical formulations, and select the organizational performance indicators that would help us draw some insights from the modeling effort.

A model for dissent in universities

The stock and flow representation of dissent expression mechanisms shown in Figure 1 indicates the need for organizational members to express and manage dissent. With the clear distinction between the administrative and academic roles, and the pressure to establish tangible, short-term results based on performance measures for both faculty and university performance as described earlier, the structure for Farmers, Bandits, Soldiers (See Figure 6) becomes relevant for representing the organizational composition of a generic academic institution. To do so, we have used a new terminology below and shown how they are connected. Admins represent administrators, and Upward Dissenters

(UD) or Latent Dissenters (LD) represent the faculty . Upward dissenters can become latent dissenters and vice versa. At the same time, upward dissenters can also become administrators and vice versa. The flow between these different states and the impact of the composition on dissent expression and performance will follow.

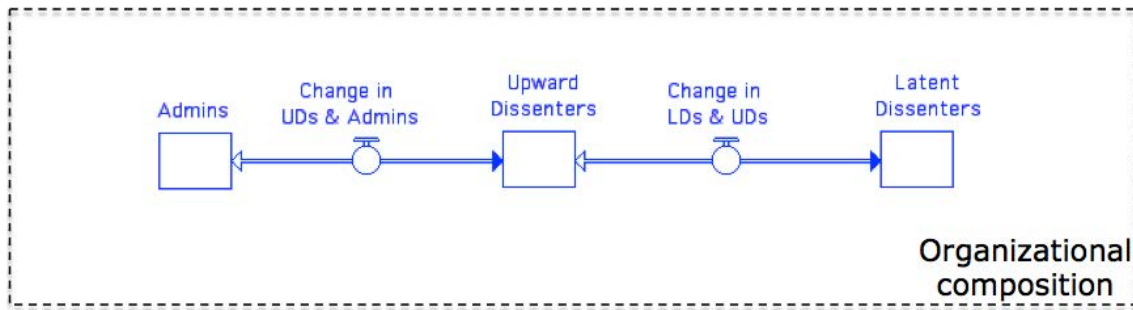


Figure 6: Organizational composition representation analogous to the dynastic cycle structure

As mentioned earlier, the focus of our model remains within the boundaries of the organization; thus, we assume that organizational members remain within the organization and can only make status changes. The possibility of exiting the organization is not modeled here as it calls for adding displaced dissent or whistleblowing which raises questions like loyalty (Hirschman, 1970) and adds greater complexity to the model than we would like for this paper. Another point to clarify here is how our organizational composition framework differs from the cosmopolitans and locals (Gouldner, 1957, 1958) view of the organizational members where faculty are not expected to be engaged in local issues within the university and only those who are dependent on the institution for meaning and security are expected to be engaged in its internal affairs. We also depart from the clear-cut classification of faculty to tenure-track,

non-tenure, or adjunct faculty that is mostly known in the United States higher education system. Hence, Upward dissenters and Latent Dissenters categories here do not pertain to one type of faculty versus another. For example, tenured or tenure-tenure track faculty are expected to be in the upward dissenters group, however, when disgruntled they could move to the latent dissenters group. The same goes for non-tenure track and adjuncts. They are initially expected to be in the latent dissenters category but they can move to the upward dissenters category when encouraged or when their fear of losing their jobs are mitigated.

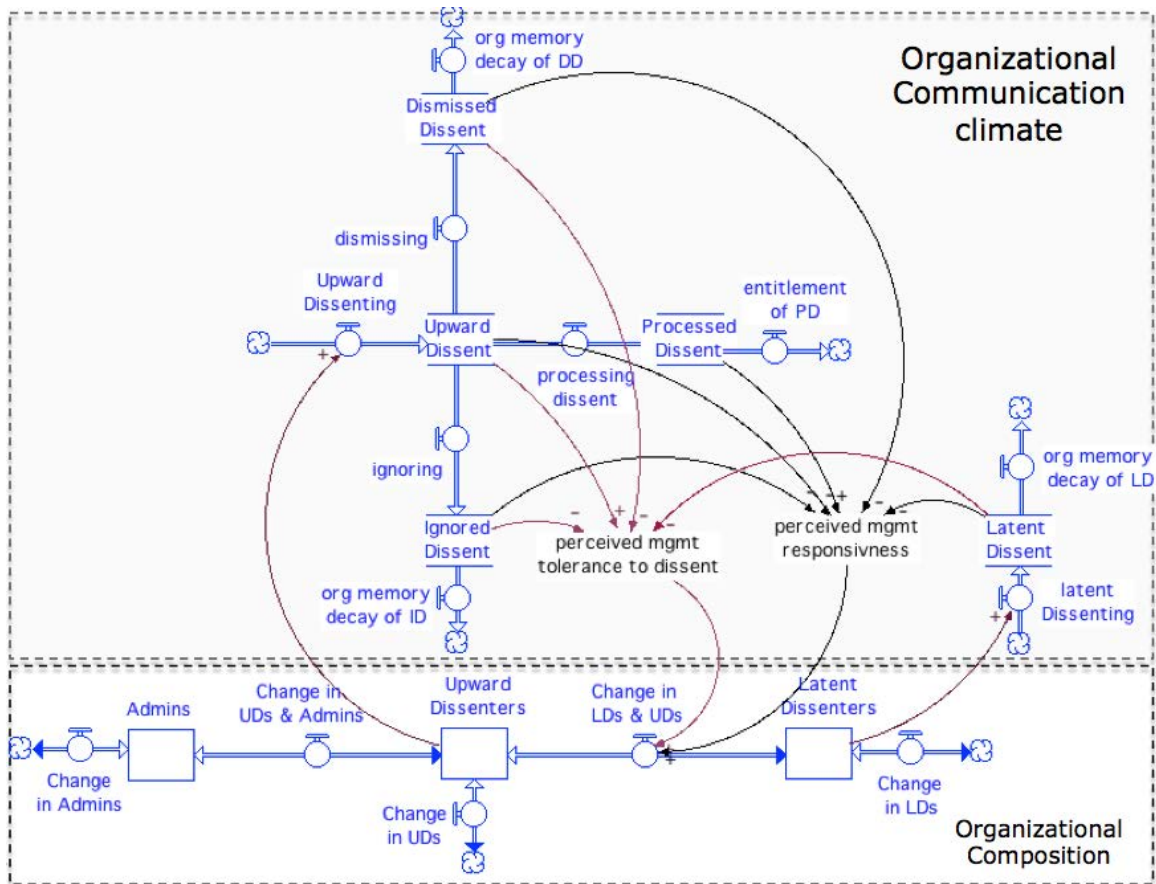


Figure 7: Combining the dissent expression mechanisms and the organizational composition and the associated feedback structure

Figure 7 shows the combination of dissent expression mechanisms and the organizational composition. The feedback structure indicates the causal link between Upward Dissenters and Upward Dissent and the same goes for Latent Dissenters and Latent Dissent. The flow between the two stocks of Upward Dissenters and Latent Dissenters is influenced by the feedback coming from the dissent expression structure. In this model there are two major factors that control organizational composition and in particular the flow of latent dissenters to becoming upward dissenters and vice versa. They are the *perceived management tolerance to dissent* and the *perceived management responsiveness* shown in Figure 7. High management tolerance and responsiveness encourage latent dissenters to voice their concerns and low management tolerance and responsiveness to dissent fosters fear or cynicism to encourages people to express dissent laterally. To define them, we need to elaborate more on the dissent expression structure introduced earlier in the paper. As can be seen in Figure 7, upward dissent is expressed in vocally to the management by upward dissenters and latent dissent is expressed laterally by latent dissenters. Management's response to upward dissent expression may include processing it effectively by, for instance, engaging in dialogue or revising policies and procedures; we refer to this as processed dissent. Management could also consider dissent as a low priority issue and ignore it resulting in a stock of ignored dissent. They could also dismiss dissent entirely creating a stock of dismissed dissent. Sometimes it is the content of dissent that is dismissed; other times it is the people who are dismissed as when an administrator might reply to the suggestion of a faculty member, "Who are you any way?" (Örtenblad & Koris, 2014).

Some organizations have long memories especially when turnover is low (Perlow & Repenning, 2009) as is true for tenured faculty in universities. Many long term organizational members, perhaps including some members of the administration, would keep track of all the dissent in the organization be it upward, dismissed, ignored, or even the latent dissent leading to what Perlow and Repenning (2009) call high “issue permanence” that increases dysfunctional silence. *Perceived management tolerance* for dissent is quantified as the ratio of upward dissent to the ignored, dismissed, and latent dissent.

$$\textit{perceived management tolerance to dissent} = \frac{\textit{Upward Dissent}}{\textit{Dismissed Dissent} + \textit{Ignored Dissent} + \textit{Latent Dissent}}$$

Low perceived management tolerance suggests greater levels of ignored, dismissed, and latent dissent and drives upward dissenters to become latent dissenters as shown in Figure 7. Management’s perception of its tolerance for dissent considers only what they received and dismissed, not what they ignored or what was processed covertly. Thus, administrators often underestimate how much dissent they actually perceive.

The second factor in the model is the *perceived management responsiveness to dissent*, which comes from comparing processed dissent to upward, dismissed, ignored, and latent dissent. The perception of management’s responsiveness could be used as an indicator of the organizational performance with respect to dissent acceptance and processing given in the equation below:

perceived management responsiveness

$$= \frac{\textit{Processed Dissent}}{\textit{Upward Dissent} + \textit{Ignored Dissent} + \textit{Dismissed Dissent} + \textit{Latent Dissent}}$$

Higher levels of processed dissent when compared to the total dissent perceived by the employees improves perceived management responsiveness. However, processed dissent stock decays over time since it is considered as a sort of entitlement. For example when the faculty advocate for a better healthcare plan and the administration approves it, it is considered as a processed dissent; over time, however, it can be seen as an earned right that is rarely recognized by the new faculty as a product of management's responsiveness to dissent. Part of the challenge for improving perceived management's responsiveness to dissent is that processing dissent takes time, patience, and recourses (Kassing, 1997) and not every organization is able or willing to make those investments. Few organizations recognize the impact of responsiveness to dissent on their organizations by replying to any sort of voice action in a maximum of 10 days (Ferguson & Sypher, 1998, p. 259).

Perceived management responsiveness, therefore, indicates whether the organization is serious about both accepting and processing dissent by responding and acting in a timely manner. For example, the presence of open communication channels that encourages upward dissent, *perceived management tolerance for dissent* would improve. However, if major decisions concerning the faculty well being or the direction of the institution continue to be made without their consultation or if their concerns were not respectfully addressed, this will impact the *perceived management responsiveness to dissent*

negatively. Accordingly, some faculty will remain quiet and more faculty might disengage and join the latent dissenters leaving the floor for administrators to act unilaterally. This could weaken the commitment and productivity of the faculty as they might engage in cynical peer to peer dialogue or direct their energies towards job hunting or resisting other administrative policies. This would ultimately impact both the short term and long term performance of the institution.

Management are likely to assess the situation differently, however, because they judge their responsiveness by how much dissent they processed with respect to how much dissent they received only. Thus they are blind to dissent that is expressed but which they do not perceive. It is interesting to know that a recent survey that Bok (2013) reported found that 97% of administrators characterized their relationship with the faculty as “cooperative” and “mostly collegial” while the remaining 3% thought it is “suspicious and adversarial” (p.75). On the other hand, only 47% of faculty representatives thought the relationship was collegial and the remaining thought it is either “suspicious and adversarial” or “conflictual but mostly collegial”. The difference between the views of administrators and faculty was explained by the fact that as universities grew and so does the number of faculty with a shrinking percentage of faculty being involved in governance. Another explanation might be due to the difference in perception of management responsiveness to dissent as viewed by the administrators and by the faculty.

It is also important to consider how the composition of organizational members

influences the change of status between the composition groups which ultimately influences the communication climate of the organization which reflects back on the composition as shown by loop 1 in Figure 4. We suggest three influence parameters; the upward dissenters influence defined as the ratio of upward dissenters to the admins and latent dissenters, the admin influence defined as the ratio of admins to the upward and the latent dissenters, and lastly, the latent dissenters influence defined as the ratio of the latent dissenters to the admins and the upward dissenters. These constructs are consistent with the thinking of Saeed (2008) and Pavlov in representing freedoms, threat to society, and state control. Influence on the flows between the different population categories by their mere ratios is shown in Figure 8.

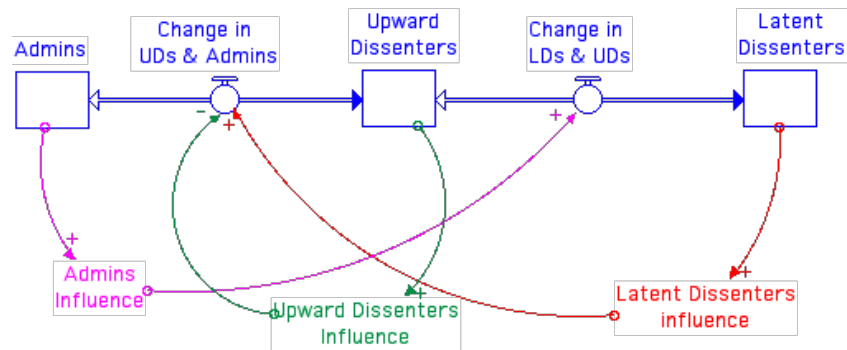


Figure 8: Organizational composition indicators and their influence on organizational composition

Administrative influence through division of tasks, and the exercise of control could, to some degree, help administrators devise better ways to meet with, listen to and attend to the concerns of faculty as they are encouraged to speak up and participate (Jain et al., 2010) (latent dissenters become upward dissenters, Figure 8) to improve decision quality

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(Bok, 2013) and organizational performance. Over time greater administrative attention to faculty might also lead to a decline in latent dissenters influence and a growth in upward dissenters influence, which reduces the need for more administrative roles and help admin allocate time for academic activities (net flow goes from admins to upward dissenters) thus contributing to greater productivity. This view is corroborated by an empirical study for 1300 scientists in different research organizations including 7 major university departments, where it was found that the most effective scientists are those who pursued their own ideas, valued their freedom, and influenced decision makers (Jain et al., 2010).

Administrators can pursue a host of formal or informal dissent encouragement ideas (Kassing, 2011) to help latent dissenters become upward dissenters. They can directly consult with their organizational members (Uhl-Bien, Riggio, Lowe, & Carsten, 2014) or create opportunities for dialogue such as town hall meetings, roundtable discussions, or focus groups that solicit feedback about different topics (Burns & Wagner, 2013). The efficacy of such programs depends highly on the administration's commitment to protect the safety and confidentiality of the employees (Kassing, 2011) and to devote the necessary time and resources to make them successful. Other ethical approaches to encourage upward dissent and dialogue include, for example, moderated and non-moderated online discussion forums that allow faculty to raise and talk about sensitive issues. This approach falters, however, if they are perceived as censored platforms even if the moderation is intended to avoid hate speech or the eruption of uncontrolled conflict (Postma & Blignaut, 2013). Whatever method is chosen, it will take time and effort from

those who are responsible for developing, implementing, operating, and maintaining the necessary information technology systems for them to be effective. At the same time, administrative influence would have a negative impact on the processing of dissent. It may introduce many delays in processing, as the issue has to go through much red tape for checking and approval which could ultimately reduce the *perceived management responsiveness* and hence increase latent dissenters (See Figure 9).

The remaining part in this model is performance. In a university context, faculty members are the productive work force fulfilling its mission of “education and research”. Through multitude of engagements with others in the university, they are expected to voice their opinions either formally (e.g., to faculty governance committees) or informally (e.g., through everyday conversations with department heads, deans, and other administrators in the echelon). Their influence in the organization tends to enhance productivity (Kassing, 2011) and becomes the norm for behavior. When the communication climate is associated with collegiality through shared governance, for example, it does not require additional administration (See Figure 9). Non-tenure track faculty, on the other hand, are expected to focus on doing their jobs which involve teaching and advising mostly. Because they cannot express dissent openly however, they might choose to exercise latent dissent and voice their discontent to their peers, which may or may not reach administrators for processing. This would lead to a rise in stock of latent dissent influence. This in turn contribute negatively to productivity (See Figure 9) through distractions and waste of time (Senor & Singer, 2011).

Administrators actively monitor the performance of the institution through many dashboard indicators and actively controlling resources to meet the institution's goals. While attempting to improve their institution's performance through growth or compliance to external demands, many activities are likely to be generated that requires more administrators and the relative rise of administrative influence. For example, the quest for obtaining accreditation for programs has lead to the need for more time and effort devoted to compliance to the requirements of the accreditation boards. This can occupy faculty time with more administrative tasks and distract them from performing their main function of teaching and research (see reduction in productivity, Figure 9) , or offering the faculty more supervisory roles leading to more hierarchical layers (UD become admins flow in Figure 9). Another approach to the problem, which is not modeled here, is to hire more professional administrators from the business world. Administrative growth could lead to a rise in the administrative influence and the organizational complexity which, in turn, overburdens the organization with more administrative tasks (Baty, 2014).

defined by best practice standards implemented by the administrators for faculty performance and the organizational performance as a whole. These would call for more stringent control that would need to be administered by departments heads and deans. As the load on department heads and deans increased, more assistant administrative positions might be created through the initiation of academic leadership programs that would cut from the faculty teaching and research time by as much as 25%¹.

The advantage of such initiatives, though, is creating leadership from within. On the other hands, it shows where the institution focus is as a result of the growth attitude. On the ground, this is a decline in upward dissenters influence because it was found that people who go into higher positions of power are less inclined to dissent (Cooper & Burke, 2013) and become more aligned to the administration views (Hodgkinson & Meeth, 1976). It is worth noting that world renowned research universities like Caltech have been successful for many years by remaining small; they have flat and flexible management systems which have enabled the administration to respond quickly to innovative initiatives from faculty (Baty, 2014). For many of these schools, this structure is a competitive advantage in that their small size reduces internal complexity and minimizes administrative growth and bureaucracy. At Caltech administrators remain active researchers to maintain their status relative to their peers and faculty and to keep them from getting loaded with administrative tasks that might divert their attention from

¹ Academic leadership programs in some universities provide a mechanism for members of the faculty to serve in supportive roles to the deans as assistant or associate deans on a part time basis. Academic year appointments may require up to 25% time commitment, and are renewable based on need and performance.

their primary mission of promoting outstanding education and research.

To close the loop, we need to look at how organizational productivity, as defined earlier, impacts policies regarding tolerance to dissent. Figure 10 shows a top-level representation of the model showing its key stocks, flows, and the feedback loops indicating the dynamic interaction between the organizational composition, communication climate, and performance. Since most of the major feedback loops go through multiple stocks and end up influencing different parameters, it is rather difficult to label and describe all the active loops but they will be introduced as needed during the simulation experiments.

Since performance is a priority, management carefully assesses the efficacy of the dissent tolerant policy. Administrators would likely view their processing of dissent as an input that needs to bring higher output to justify the tolerance and the resources invested in processing dissent. Accordingly, organizational productivity would be defined as the ratio of producing desired outcomes to processing dissent. Hence, when producing outcomes, for instance, the number of papers per faculty per year (Cosenz & Bianchi, 2013), goes lower than processing of dissent, this would indicate a failure of the dissent tolerance policy leading to a reduced tolerance and higher dismissing rates which leads to less voice and more silence and control. It is known from the literature that when the organization is more focused on short term performance it will be more prone to developing intolerance to dissent that reinforces silence norms that are difficult to change in the future (Perlow & Repenning, 2009).

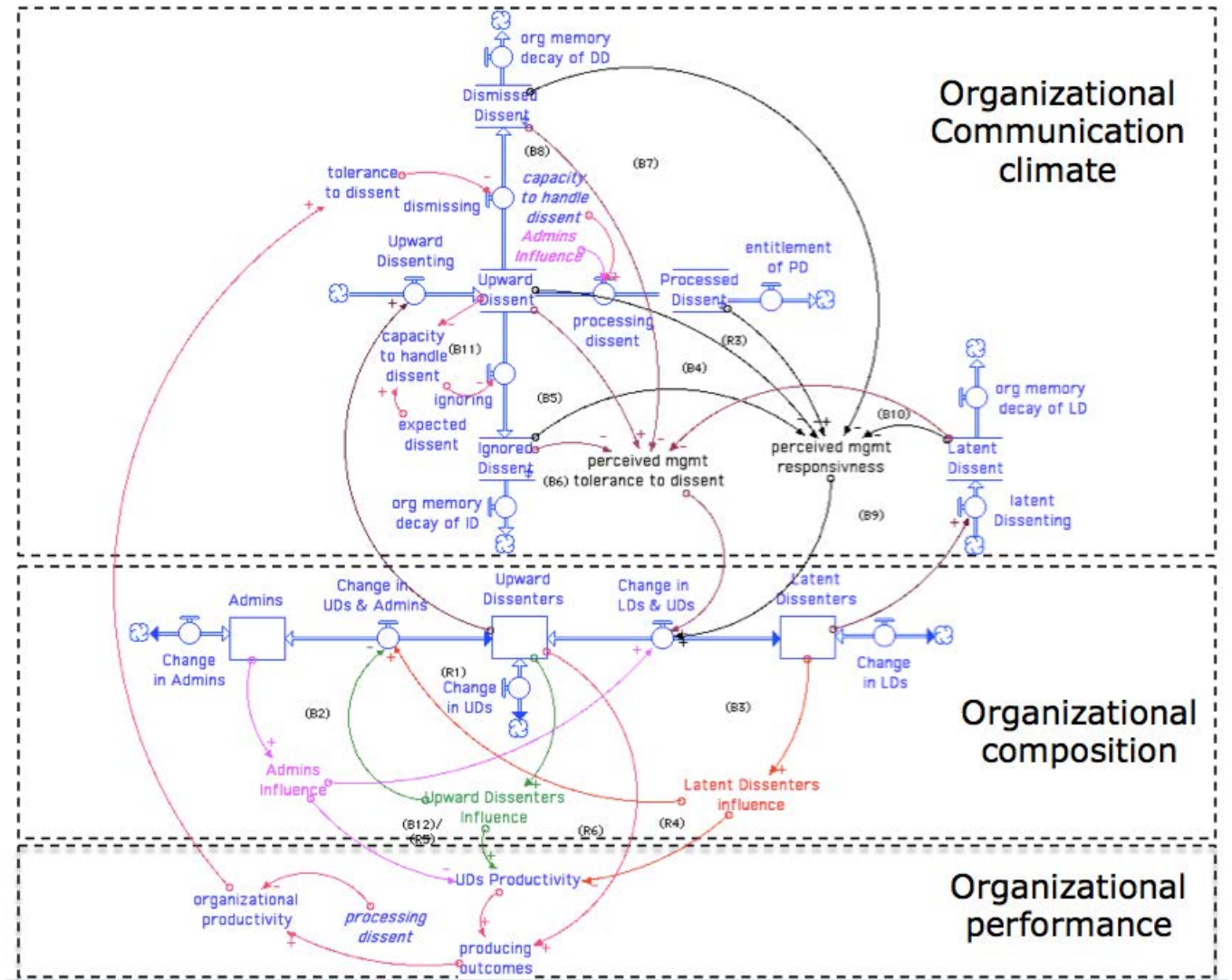


Figure 10: An aggregate level model showing keys stocks and flows and feedback loops between the organizational composition, communication climate, and performance

What happens when there is too much upward dissent? If it exceeds the dissent expected by the organization, processing capacity drops leading to higher rate of ignoring dissent and a lower rate of processing dissent (loop B11 in Figure 10).

The issue in all the above accumulation and depletion processes in the key stocks is that

they take time to occur. Some happen at higher rates than others. For instance, dissenting and its dismissal may happen quickly but processing dissent takes longer and often requires patience from both the faculty and the administrators. The change in perception of management's tolerance for dissent may happen more quickly than changes to the *perceived management responsiveness* since it involves dissent processing. The difference could contribute to oscillations in organizational composition, climate, and performance over time. These oscillations could be exacerbated when there is a close monitoring of performance driven by short-term focus and fast action in changing management's policies towards dissent. What this study offers is the ability to observe how organizational communication climate and performance change over time moving from more favorable to less favorable states or vice versa. We see this demonstrated in policy experiments in the next section.

The complete model with its equations is provided as an appendix in an attached file.

Model calibration

Our generic model pertains to theory development. Accordingly, it does not represent a particular case in a particular academic institution. It does suggest certain outcomes under particular conditions that could take place at different higher education institutions. We present a number of these scenarios in this section.

The model is initialized in hypothetical equilibrium to provide a reference point from which to begin exploring different what-if scenarios. Figure 11 shows the two

organizational performance indicators in equilibrium represented as a dot in the cross section of the four quadrants in the state space representation diagram.

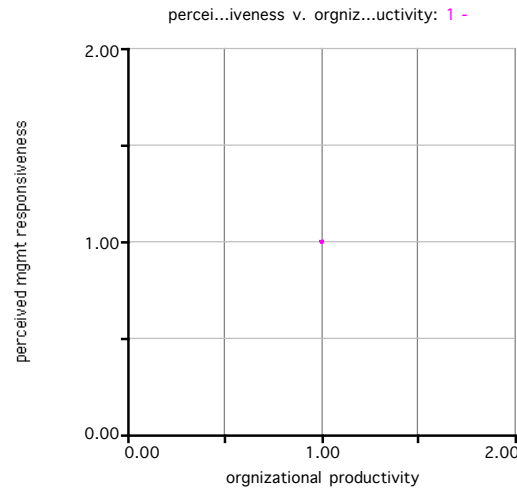
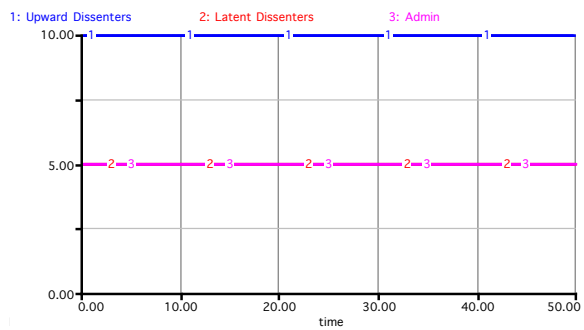
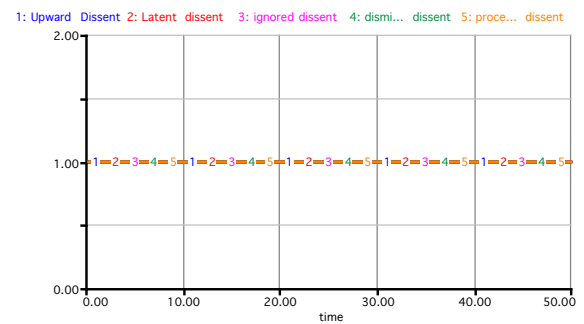


Figure 11: Phase plot showing the two indicators (perceived management responsiveness) and (organizational productivity) in equilibrium at the cross section of the four quadrants.

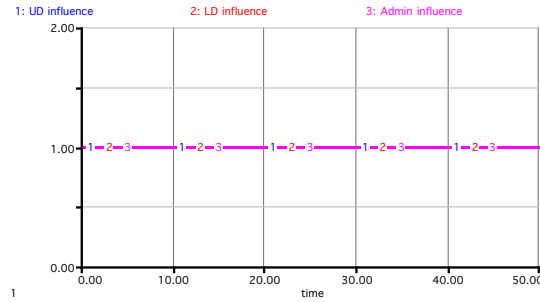
Figure 12 shows the major stocks in the model representing the organizational composition, organizational communication climate, and composition influence indicators in equilibrium.



(a)



(b)



(C)

Figure 12: (a)Organizational composition, dissent, and composition influence indicators in equilibrium

Equilibrium values are provided in Table 1

Table 1: Equilibrium values

Parameters and variables	Values
Upward dissenters	10
Latent dissenters	5
Administrators	5
Upward dissenter productivity	0.05
Tolerance to dissent	0.25
Processing of dissent	0.5
Fraction ignored	0.25
Upward dissent	1
Ignored dissent	1
Dismissed dissent	1
Processed dissent	1
Latent dissent	1
Dissent per dissenter	0.1

The two indices of organizational performance (*organizational productivity* and *perceived management responsiveness*) in a state space representation introduced earlier

will be used to assess the effectiveness of intervention policies in the next section with references to time series plots.

Policy experiments

Disturbing the model from equilibrium to simulate the resulting dynamics can be accomplished either by population growth scenarios, changing single organizational capabilities related to dissent handling policies and productivities, or a combination of different interventions seeking the improvement of both performance indicators. The growth simulations are primarily intended for understanding the internal dynamics of the combined resource allocation system with the dissent expression framework, the latter providing insights into the key interventions for change.

I. Growth scenarios

Three growth scenarios will be explored. An infusion with administrators resembles an effort by the organization to put more order and efficiency through proper distribution and supervision of tasks to improve performance. An infusion with upward dissenters resembles growth in the institution's productive force (the tenured faculty) with long term commitment. An infusion of latent dissenters takes place when the university hires more non-tenure track or temporary faculty with no voice or voting rights and with fewer privileges than tenured and tenure-track faculty. The initial growth in each group equals 20% of its initial units. The phase plot of the performance indicators and behavior over time graphs simulating the infusion of each populations is shown in Figure 13 below.

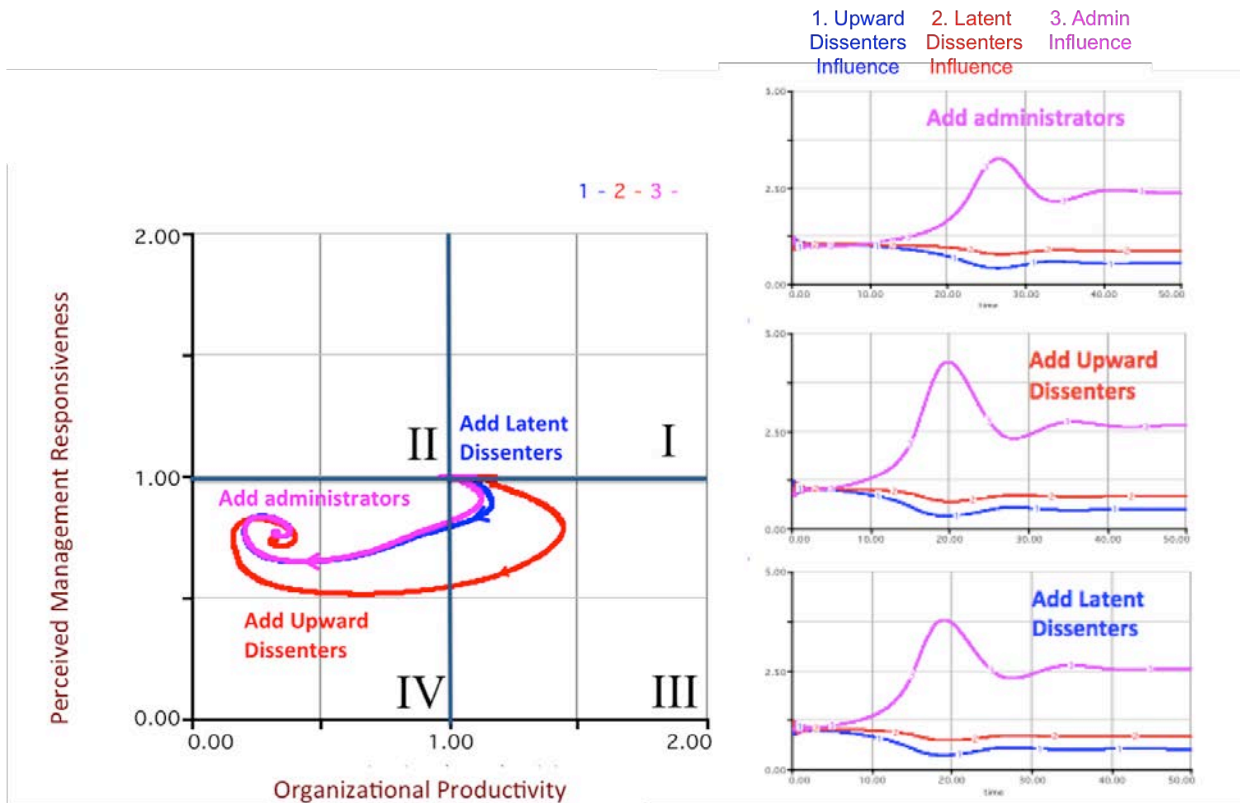


Figure 13: Growth scenarios simulation results showing the state space plot of each policy and the corresponding time series graphs for the composition influence indicators on the side

Adding administrators, upward dissenters, or latent dissenters results in a final equilibrium at lower organizational productivity and *perceived management responsiveness* despite an initial improvement in organizational productivity. For example when administrators are added their influence grows leading to fewer latent dissenters and an increase in upward dissenters. Latent dissent influence can be reduced by having more latent dissenters become upward dissenters leading to an improvement in upward dissenters influence and a reduction in administration growth rate and their influence (loop B3) which improves the productive output and organizational

productivity. However, more upward dissenters increases the amount of upward dissent which accumulates because of a drop in dissent processing as the organization reaches its capacity to handle dissent (loop B11) leading to higher dismissal and ignoring rates, and less processing of dissent influenced also by the initial increase in admin influence. This will reduce both the perceived management tolerance (loops B5,6,8) and *perceived management responsiveness* (loop B4,7 and R3) leading to an increase in latent dissenters and a decrease in upward dissenters. The increase in latent dissenters will lead to an increase in their influence compared to the upward dissenters influence that fosters the growth of administrators and their influence. This, in turn, reduces the influence of both the upward and latent dissenters (loop B2). The fluctuation in the influence of each group affects Upward Dissenters productivity both positively and negatively.

Another contributor to reaching this state is the increase in latent dissenters and latent dissent that will also reduce both the perceived management tolerance (loop B9) and responsiveness (loop B10) which both increase the latent dissenters influence ,causing a drop in productivity, that leads to calls for greater administrative influence. When organizational productivity drops as a result of a higher admin influence and latent dissenters influence , tolerance for dissent declines leading to a higher dissent dismissal rate. This then decreases the accumulation of upward dissent but increases dismissed dissent which, together, reduces both the perceived management tolerance for dissent and *perceived management responsiveness*, which, in turn, increases latent dissenters and calls for more administrators (loop R12). The cyclic behavior continues until it equilibrates at a composition comprised of high admin influence followed by latent and

upward dissenters influence (see time series charts in Figure 13) leading to an organizational state in quadrant IV at low levels of *organizational productivity* and *perceived management responsiveness*. The remaining two scenarios reach the same result as the organization will always hit its capacity to handle dissent and get trapped in an efficiency mode trying to control every aspect of its environment.

The summary of the growth policies and their equilibrium quadrant in the phase plot is given in Table 2 below.

Table 2: Simulations summary of population growth scenarios.

Simulation (figure)	Policy instrument (curve)	Change (value)	Organizational productivity (quadrant)	Perceived management responsiveness (quadrant)
Growth of population by external infusion (Figure 13)	Administrators population (curve 1)	+20% (1)	IV	IV
	Upward Dissenters (UD) population (curve 2)	+20% (2)	IV	IV
	Latent Dissenters (LD) population (curve 3)	+20% (1)	IV	IV

II. Changes in single organizational capabilities

Another set of simulations comprises changes to a number of organizational capabilities intended to improve the two performance indicators. They include changing the organization's tolerance for dissent either by becoming a more dissent-accepting organization or less dissent-accepting organization. Along this line, the organization

might have a high or low volume of dissent issues raised by its members. A high dissent volume might reflect a tendency for personally-centered dissent while a lower dissent volume might reflect a more principled type focused on important issues (Kassing, 2011). Among other capability improvements, the institution might also try to improve the productivity of its members by concentrating on training to improve their teaching and research related skills (Cosenz & Bianchi, 2013). The institution could also try to become more efficient at processing of dissent hence reducing red tape that might cause unnecessary time delays in acting on dissent.

This type of policies is implemented by changing the relevant model parameters by a certain percentage which we select here to be $\pm 20\%$. The simulations for the above parameters are shown in Figure 14.

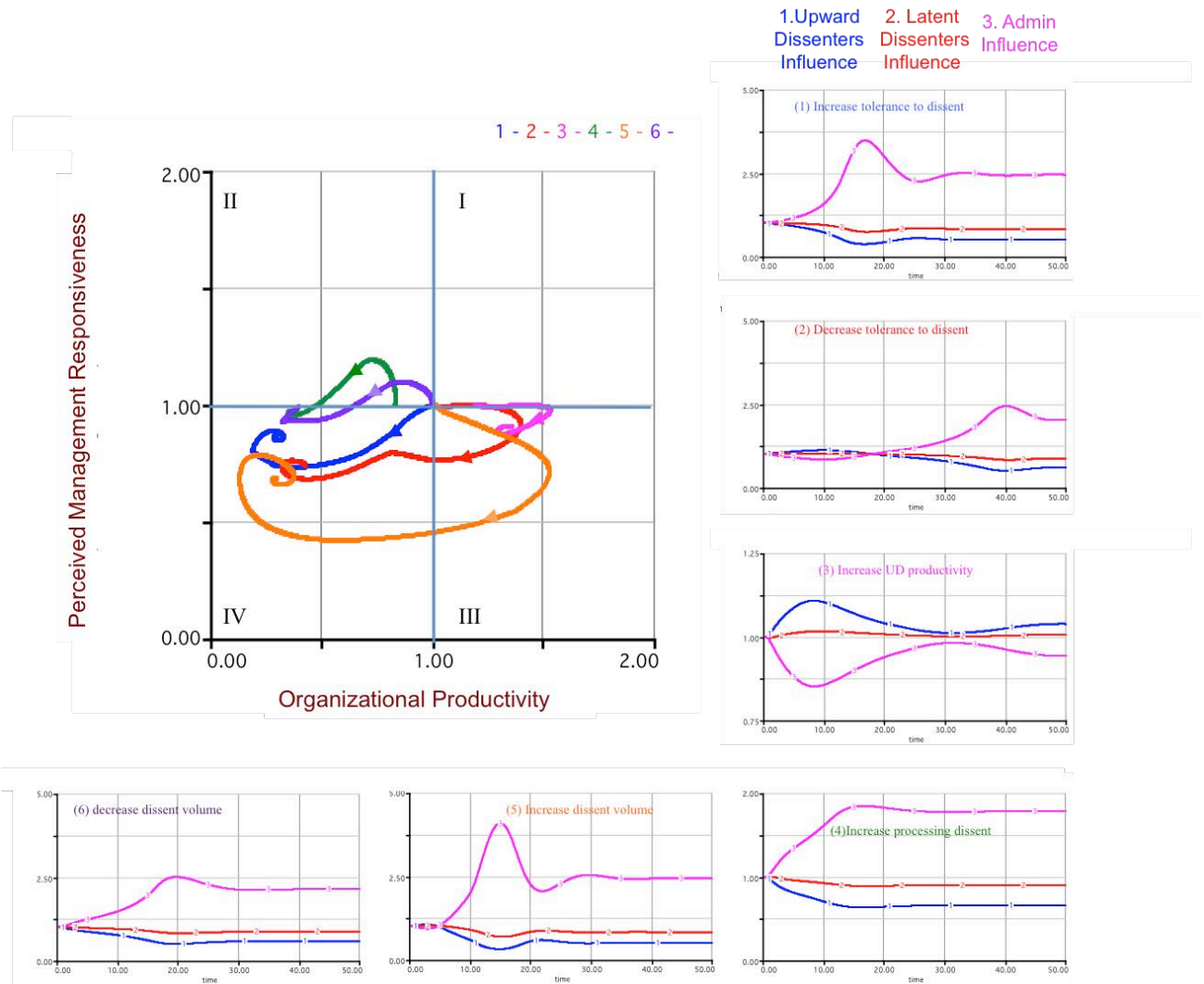


Figure 14: Changes in single capabilities simulation results showing the phase plot of each policy and the corresponding time series for the composition influence indicators on the side

All 6 policies lead to similar final states in quadrant IV (low *organizational productivity* and *perceived management responsiveness*) despite their different paths towards reaching that final quadrant. Only the Upward Dissenters (UD) productivity improvement policy (curve 3) showed a different outcome by finishing in quadrant 3 (improved #ISDC14 Zaini et al

organizational productivity and low *perceived management responsiveness*). Initially the UD productivity improvement policy showed an increase in productivity while the responsiveness remained unchanged. This improvement in organizational productivity makes the organization more tolerant to dissent and hence improves the communication climate in general and the upward dissenters influence in particular (Loop R6). However, as more upward dissenters express their dissent, processing it hits a limit leading to a decline in both the organizational productivity and responsiveness to dissent and the communication climate suffers (Loop B5). As can also be seen from the time series charts in Figure 14, administrative influence dominates the equilibrium state except for the productivity improvement policy where the upward dissenters influence is at a slightly higher level than both the latent dissenters and administrative influence. This may explain the relative improvement in organizational productivity. A summary of the results is given in Table 3.

Table 3: Simulations summary of single capabilities changes.

Simulation (figure)	Policy instrument (curve)	Change (value)	Organizational productivity (quadrant)	Perceived management responsiveness (quadrant)
Changes in capabilities (Figure 14)	Increase tolerance to dissent (curve 1)	+20% (0.3)	IV	IV
	Decrease tolerance to dissent (curve 2)	-20% (0.2)	IV	IV
	Increase productivity of UD (curve 3)	+20% (0.06)	III	III

	Increase processing of dissent (curve4)	+ 20% (0.6)	IV	IV
	Increase dissent per dissenter (curve 5)	+20% (0.12)	IV	IV
	Reduce dissent per dissenter (curve 6)	-20% (0.08)	IV	IV

III. Changes in multiple organizational capabilities

The policies here aim at changing a combination of organizational capabilities to improve performance and land in quadrant I (high *organizational productivity* and *perceived management responsiveness*). The simulation results are shown in Figure 15 and in Table 4. In general they all improve both indicators to different degrees.

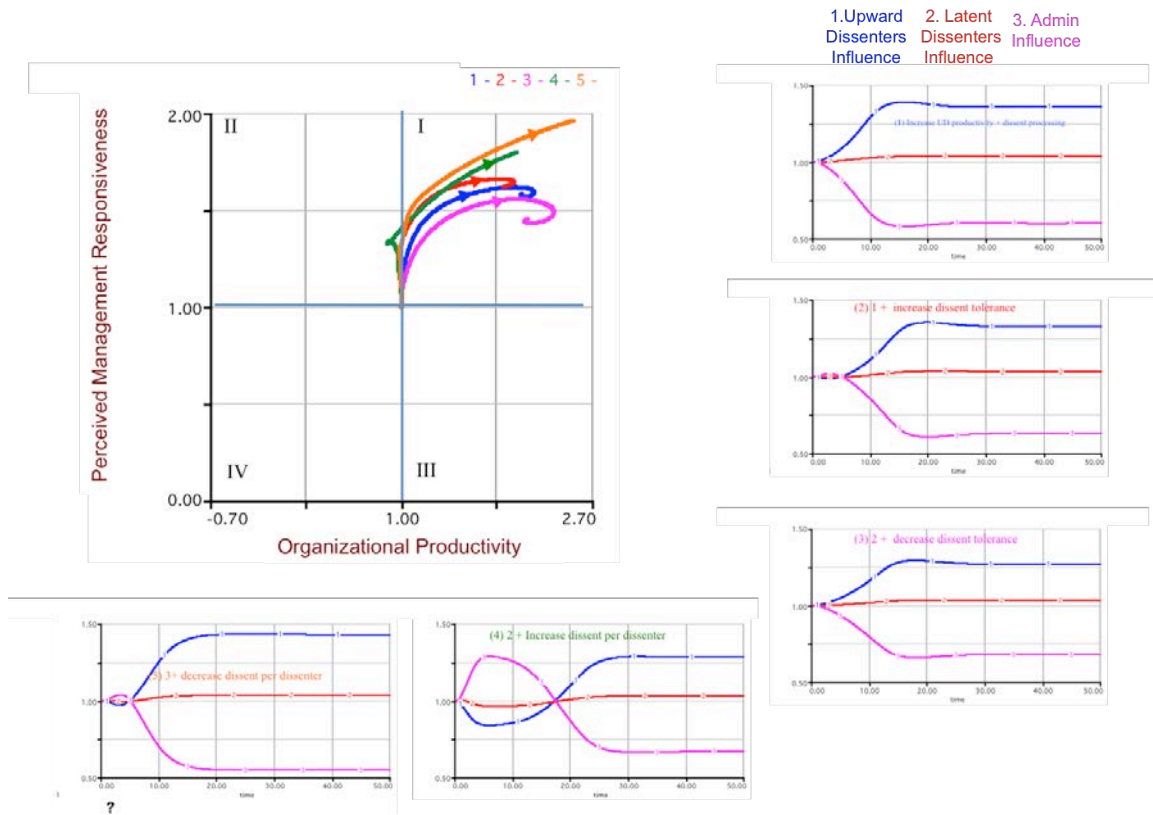


Figure 15: Simulation results for changes in multiple organizational capabilities showing the phase plot of each policy and the corresponding time series for the composition influence indicators on the side

Curve 1 illustrates the increase of upward dissenters productivity and the processing of dissent which indicates that the institution is working on both fronts of skill building and maintenance plus the capability to process dissent. This would lead to less accumulated upward dissent that helps maintain a productive upward dissenters. A second policy (curve 2) adds to the first one by increasing the tolerance to dissent which shows a slight improvement in responsiveness due to the decline of dismissed dissent (Loop B7 and 8) and slight reduction in productivity as more effort is put into processing of dissent

relative to the production of outcomes. A variation to the second policy is to decrease dissent tolerance; this might occur at an institution serious about dissent quality . This could be accomplished through collegial prioritization of issues leading to a focus on critical matters which enables proactive processing of upward dissent. This may result in a slight decline in perceived management tolerance but higher gains in *perceived management responsiveness* and in *organizational productivity*. The fourth policy adds to the second policy the element of increasing dissent volume (dissent per dissenter) which could take place when the organization encourages its members to speak up about any issue in their mind and make it easy to do so. Curve 4 shows an improvement in both indicators with a slight decline in productivity early on which could deter the organization from following through on this policy. The fifth policy (curve 5) combines the third policy with reduced dissent volume, which might take place when the organization has high dissent quality expectations and could decrease the volume of dissent in the presence of high productivity and high dissent processing. It results in even better performance than the 4th policy as the accumulation of dissent is reduced which creates a favorable condition for the improvement of *perceived management responsiveness* leading to higher upward dissenters influence and higher *organizational productivity*.

The outcomes from the above policies show that not a single but a host of dissent management policies can lead to improvements in the preferable performance quadrant (I) which may suit one organization but not another. In addition, across all these scenarios, at the beginning of the implementation, productivity does not instantaneously

improve and sometime even slightly declines (policy 3, curve 3); however, over the long term, it pays dividends. This makes it more challenging to maintain focus on implementing such policies especially when the focus is on short-term results or when the institution goes through a leadership change.

Table 4: Summary of policies for changing in multiple organizational capabilities

Simulation (figure)	Policy instrument (curve)	Change (value)	Organizational productivity (quadrant)	Perceived management responsiveness (quadrant)
Combined policies (Figure 15)	Increase UD productivity + dissent processing (curve 1)	+20% (0.06,0.6)	I	I
	1 + increase dissent tolerance (curve 2)	+20% (0.3)	I	I
	1+ decrease dissent tolerance (curve 3)	+20% (0.2)	I	I
	2+ decrease dissent per dissenter (curve 4)	-20% (0.08)	I	I
	3 + decrease dissent per dissenter (curve 5)	-20% (0.08)	I	I

Conclusion

We successfully explored the utility of combining the dynastic cycle generic structure and the dissent expression framework to understand the effect of management handling of dissent and the organizational composition on communication climate and performance. We built a generic model that represents the organizational composition using the dynastic cycle resource allocation structure proposed by Saeed and Pavlov

(2008) in firms and the dissent expression and handling framework suggested by (Kassing, 2011). We tied their interactions by factors representing the organizational communication climate and performance. We introduced two performance indices, namely, the *perceived management responsiveness* to dissent and the *organizational productivity*. They are presented in a state space representation with quadrants that reflect different organizational performance states. We then argued then that the changes taking place in the American higher education institutions make our generic dissent model applicable to a university context.

We have simulated the model with different policy sets. The first set relates to the growth of each organizational group under the same dissent tolerance and processing conditions. They all exhibited different degrees of initial improvements in organizational productivity only and the same long term steady state performance at low *perceived management responsiveness* and *organizational productivity* (quadrant IV) and dominated by administrative influence . Then we changed single model parameters that corresponded to different organizational capabilities. They showed a mix of performance profiles in quadrant IV with a leaning towards a greater prevalence of administrative influence. Finally, we changed a combination of capabilities resulting in a policy suite that brings performance to quadrant I (high *perceived management responsiveness* and *organizational productivity*) with a prevalent voice climate.

The simulations with successful outcomes suggest that performance improves when the university invests in improving its dissent processing capability and at the same time

enhances its faculty productivity. When combined with higher standards for accepting dissent and a lower volume of dissent by focusing collegially on critical issues, performance is further improved. However, the simulation showed that these investments take time and effort and fast returns are not to be expected. Failure to recognize these lags might result in abandoning such policies just before their favorable outcomes are realized. With the short term focus on performance improvement in universities driven by external measures like national and international ranking and accreditation, implementing such policies could be very challenging.

The generic model contribution to the dissent literature in the organization communication field comes from showing the impact of dissent accumulation and depletion in different forms on the organizational communication climate and productivity that change continuously at different rates over the organization's life time. It also shows that a certain set of policies will not generate the espoused outcome instantaneously and, contrary to expectations, may even result in unintended consequences. We have also demonstrated the three states: overloaded - QII, underrepresented - QIII and IV, and optimum- QI suggested by Kassing (Kassing, 2011) in addition to the possibility to move from one state to another. However, we have also shown that a host of policies to manage dissent, not a single one, could result in a space of favorable communication climate and performance. The path between the different states could pass through favorable and not so favorable states. This dynamic phenomena is best studied using the capability of system dynamics methodology. The insights from this work have a practical side to research and development and higher education

management professionals. They provide a platform for experimentation with different policy tools available to the administrators in these institutions.

The model of theoretical findings could be further supported by exploring empirical cases for higher education institutions and how they evolved over time from the dissent perspective. Additionally, if applying this framework at the organizational level is successful, it has the potential to open inquiry into a third type of dissent manifestation, displaced dissent, and its impact on organizational performance. Displaced dissent may serve to endogenize the growth and decline of both the faculty and administrators through recruitment and attrition.

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