

Micro-dynamic Disturbances in the Government Workforce as a Cause of Poor Organizational Performance

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ABSTRACT

Complex systems research has shown that localized interactions by select individuals can yield proliferated impact and hidden consequences for the total organization. This could be a poorly understood reason for why some government workforce transformation initiatives to improve motivation, management, goal identification, and know-how have not yielded consistently ideal results. This paper presents a set of complex systems analyses based on behavioral constructs for individual government workers who might use perception manipulation to falsely enhance their utility, authority, and criticality. These constructs can be used to build agents to simulate specific dynamic disturbances within a government organization. To support the analysis of such simulations, a range of potential impacts upon the organization are further formulated and presented.

Keywords: Government Workforce, Employee Behaviors, Organizational Dynamics, Complex Systems

Introduction

Current public administration research is heavily reliant upon the application of quantitative-statistical analysis techniques on organization and government-wide performance data (Raadschelders, 2011). Other avenues of research through deductive, legal, historical, and heuristic techniques have also been pursued, and many theoretical perspectives have been formulated to drive continuing research (Harmon, 1986). The results of decades of study into the organization-wide (macro-dynamic) behaviors of the government workforce have promoted major transformational initiatives in the United States and elsewhere. Yet, contending schools of thought still endure and consistent results in advancing workforce performance remain elusive.

To investigate the disconnects between transformational objectives and results, the behaviors of the government workforce can be studied as a complex system where each individual in a large human-centric organization can push and pull against policies, processes, management structures, standards, and one another. The importance of complexity research to public sector innovation has recently been explained (Goldstein, 2008). In this paper, specific complex systems analysis techniques will be used to reveal the performance of the government workforce as a challenging unbounded problem with hidden patterns, latent forces, and unforeseen consequences. Past results in complex systems research have shown that even very

simple behavioral constructs at the individual actor (agent) level can lead to incredibly complex system results at the organizational level as many agents interact with one another over time (Bossomaer, 2007). Therefore, the isolated behaviors of individuals, such as a government employees misinterpreting, self adapting to, and/or self organizing against government reform efforts, may hinder sound public administration theories from achieving anticipated results at points of application.

Unbounded complex problems typically will not have enough initial data to enable statistical analysis or enough structure to enable traditional systems modeling through nodes and links. This is because the scope and dimensionality of each problem can only be determined through a process of discovery. Computer driven agent-based models can support this discovery process by following threads of interactions between many agents that lead to complexity. Through this process, patterns of poor behavior, forces causing employees to give up on responsibilities, and proliferated impact in the organization can be projected. These projections can then be used to search for validating data as well as areas where solutions can be applied. The heart of agent-based modeling is behavioral constructs for types of individuals in the complex system. This paper seeks to define a group of behavioral constructs for those individuals who could disrupt the transformational initiatives of a government organization. When agents with these constructs are placed in a specific simulation of an organizational environment, the proposal is that researchers will be able to see how difficult it is to detect localized (micro-dynamic) behaviors that can impact the greater macro-dynamic behaviors of the total organization.

Simulating specific organizational environments through agent-based models and exploring solutions to performance problems will require the sponsorship of government leaders. Persuading government leaders to take action might be difficult because the disturbances that we are trying to isolate can be regarded as “wicked problems” (Beinecke, 2009; concept originated by C. West Churchman, 1967). The agents causing the disturbances are very adaptive, their interactions exhibit high social complexity, and their strategies are often designed to manipulate leadership perceptions. Thus, the exposing of potential agent behaviors through this research is an appeal to the vision and boldness of leadership. This appeal to take action is further supported by the formulated range of potential impact on organizations, based on the defined behavioral constructs.

Current Concepts Regarding the Government Workforce

Present research into improving the performance of the government workforce has largely focused on: 1) proper motivation, 2) changing the management approach, 3) setting effective goals, and 4) increasing know-how. For the past two decades, the concept that the government workforce can perform better in an environment of competition, rewards, and greater acceptance of risk taking has been preeminent in the public administration debate. Much

of the effort to empower the workforce and reduce the rigorous structures of government was initiated under the concept of New Public Management (Kapucu, 2009). Ongoing research affirms that motivation is a key factor in performance (Perry, 2010). However, the proper way to motivate is still being debated. Under the administration of President Clinton in the United States, the National Performance Review tried to increase motivation through empowerment and rewards associated with taking initiative (Thompson, 2000). Then under the administration of President Bush, competitive sourcing tried to increase motivation through federal competition with commercial providers for government positions (Snively, 2010). Neither of these attempts fully met objectives, and the U.S. Department of Defense began to in-source positions back from the commercial sector under the administration of President Obama (DoD, 2009). In-sourcing is consistent with recent research showing that perceived public service efficacy is a motivational factor beyond the idea of personal gains (Boardman, 2009).

The management approach associated with empowering government workers reduces structure and increases individual accountability. Management can then be more reactive—correcting behaviors based on performance metrics, or proactive—setting policies based on evidence of effectiveness determined through test cases (Heinrich, 2007). Regardless of how and why decisions are made, research continues to show that management is a key driver in workforce accomplishments (O’Toole, 2009). However, the decisions or requirements of management must be clearly and consistently expressed in writing to all stakeholders (DeHart-Davis, 2009). Uncertainty about what the worker must do under different circumstances is suggested as a key cause of red-tape in bureaucracy. Three natural courses have been proposed by scholars to shape management approaches in the future. First, management flexibility can be increased to respond to the needs for collaboration and integrated processes (Feldman, 2010). Second, at times there are benefits to increasing structure across the whole-of-government (Christensen, 2007). Finally, management approaches, including decisions regarding flexibility and structure, should perhaps be based on individual circumstances (Alford, 2008).

As new motivational and management techniques were applied, the ambiguity in goals was proposed as another continuing cause of performance issues (Lee, 2010). Goal ambiguity may not be strictly created by complexity in work, however. Multiple paths of accountability responding to policy requirements, professional development demands, and political sensitivities in government organizations can also yield inconsistency in goals especially if the paths are mutually competitive (Kim, 2010).

The effectiveness of setting goals and offering clear rewards to improve performance has been challenged in other research. Some statistical data seems to show that increasing access to job knowledge that grows workforce skills is far better at improving performance (Fernandez, 2011). This data suggests that some government workers want to do better if they are given know-how but cannot or will not go out of their way to get the know-how even with clear

understanding of leadership desires and personal benefits. The difficulty in firing a United States government worker has been criticized (Sherk, 2010). If hiring freezes, early retirement offers, and eliminating less senior hires remain the only ways to reduce the size of the total workforce, then there is a great deal of job security for workers who have seniority and are not grossly negligent. Job security may therefore be a contributing factor to a lack of initiative among some government workers.

The Importance of the Individual Worker

An individual worker in government is hard to measure and difficult to predict. Many current concepts therefore prefer to treat the government workforce as an integrated whole and set aside the individual until the combined effects become statistically significant. What if complex systems research is correct in that a few individuals can take difficult to detect actions that greatly impact the total performance of an organization through ripple effects? How well those individuals fit into organizational activities and interact with others then becomes a paramount area of study.

As proposed earlier, a projection of patterns, forces, and proliferated impact associated with poor individual behavior can guide empirical researchers toward new ways to search for validating data. To conduct this projection we must: 1) identify all the ways an individual can act against his or her responsibilities within an organization, 2) use the behavior constructs to develop agents representing likely individuals in a specific organization, and 3) model the effects of those agents in a simulation environment for a specific organization. While many agent-based modeling efforts have been academic studies of historical events, agile modeling tools and technologies are being proposed and developed to facilitate their application in current organizational environments (Ren, 2003).

To persuade leaders to sponsor this study path, this paper takes the first step of developing behavioral constructs by following an argument that individual workers can be viewed as components in a generic government system. How well each component fits is governed by the function of the component, the connectivity of the component with the control process of the system, and the importance of the component that causes the system to focus on its sustained functioning. The human component is highly governed by perceptions. If a worker feels that he or she has no utility because of poorly defined function, no authority because of perceived lack of control, and/or no criticality because of no recognition for personal accomplishments, then he or she may become weakly or incorrectly integrated with the system. In such cases, initiatives to transform the system such as new goals, new rewards, new management, and even additional training may not work with the individual. As a result, all the potential behaviors of such individuals must be separately formulated by deductive systems analysis, and those behaviors that are applicable to an individual's specific situation in a government organization should be used to develop agents as a part of the second step.

This path of investigation is not advocacy for Theory X but simply recognition that not everyone in government behaves in accordance with Theory Y as suggested by some scholars (Bobic, 2003). When even a few poorly fitted workers start to consider actions contrary to the functions of the system to advance their positions, the consequences could be dramatic. Taking risks to falsely change the perception of one's utility, authority, and criticality can proliferate in an environment of job security. Then, a sub-culture might consciously or subconsciously form where people feel that they 1) do not want to work, 2) do not know what to do, 3) cannot make a difference, 4) do not need to work, 5) are already doing enough, and/or 6) do not want to attract trouble. This sub-culture can generate a great deal of micro-dynamic disturbance in an organization of motivated workers trying to advance total performance. Even without proliferated poor behavior, a distortion in the activities of an organization by a limited few can still have many forms of proliferated impact.

Given the situation of a specific organization, only select approaches for manipulating perceptions will be effective. Agents designed to represent workers executing these approaches can be simulated through interactions with agents representing other workers in the organization and/or with the processes of the organization modeled as a whole. Designing agents that represent the full spectrum of worker types, skills, and motivations in an organization can be challenging. Levels of abstraction must be adopted to avoid the trap of overwhelming models. Instead of trying to model all the interactions in an organization, the behaviors of other agents and processes should be relevant to discovering the consequences of subtle micro-dynamic disturbances caused by individuals trying to manipulate perceptions.

The willingness of some individuals to manage impressions by ingratiation in order to gain acceptance, intimidation to gain through dominance, or supplication to gain through sympathy has been well studied empirically (Bolino, 2008). If agent-based models can show the broader hidden impact of select individuals in the organization, then the study of impression management may have to be expanded to more fully address people who seek to gain through justification. If one can claim a better fit in an organizational system through manipulating perceptions, then there may not be a need for achieving acceptance, dominance, or sympathy. Justifying one's position is not quite the same as deception, such as falsifying resumes or claiming credit for others' work. Instead, the distortion of a system's standards and processes even at a localized level has broader consequences as will be discussed later.

Identifying All the Ways to Manipulate Perceptions

Deductively, there are two sets of approaches for people in any organization who are trying to sustain their utility, authority, and criticality without improving performance. First, they could consider approaches centered on the perception of their positional relationships within the organization. Second, they could consider approaches centered on the perception of their motions within the organization. The approaches in each set can be initially formulated through the

permutation of simple human system diagrams and then explained in terms of how each relational configuration alters the perception of utility, authority, and criticality. The results of this formulation are discussed in the following two subsections.

How a worker decides to apply the perception altering approaches then determines his or her behavioral characteristics. For the advocates of classical cognition theory, a government worker would rationally deduce all the approaches relevant to his or her performance environment and select the best course of action to sustain or improve employment situation (Reed, 2006). In models, a corresponding agent will continuously seek to exploit weaknesses in the organization, such as poorly defined roles and responsibilities, lack of transparency, and internal conflicts. For the advocates of naturalistic cognition theory, a government worker will map the mental image of his or her performance environment to past experiential conditions and select approaches that have shown to be effective (Schraagen, 2008). In models, a corresponding agent will draw upon behaviors that he or she has seen with others or expand upon behaviors that he or she has tried in the past.

With each cognition and decision-making process, agents representing workers who are causing hidden micro-dynamic disturbances will adopt only a select group of approaches from all the approaches to be identified. However, the identification of all the approaches is an important first step.

Perception Altering Approaches Based on Positional Relations: Several system configurations with associated approaches can be formulated by simply considering how one person's position can relate to the positions of others in the organization as shown in Figure 1. A person's position can be situationally connected or disconnected with others, flexibly connected through relationships, and rigidly connect through hierarchies. Some configurations are enduring and may require strategic planning to achieve. Seeking and leveraging opportunities is a key component of strategic considerations. The perceptual similarity of these artificially established positions with the legitimate positions of people trying to perform their work makes this set of approaches hard to isolate. Therefore, the artfulness of strategically aligning with the structures of the organization is a critical factor in determining the level of success in these approaches.

Approach - Join Internal Events of High Importance Regardless of One's Role: If one's job responsibilities and performance standards are vaguely defined as is sometimes the case in government, then simply being allowed to attend important meetings can enhance the perception that one is really important to the organization. One has to identify an accepted role, even if it is to flip the briefing charts, to get invited without being questioned by the key players at the meeting. The role of supporting a primary meeting attendee is often the easiest to acquire and sustain without being challenged by others. In this role, one merely has to take many notes and act attentively regardless of the true importance of one's function. When primary meeting

attendees have personal agendas and conflicting positions, a room can be filled with note takers all feeling like they are insiders and as important as the event.

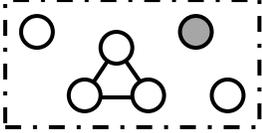
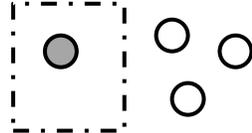
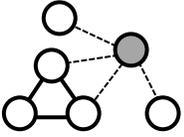
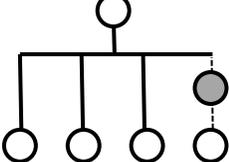
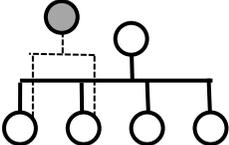
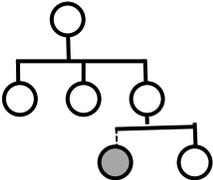
	<p>Join internal events of high importance regardless of one's role Utility: Must establish some role to join Authority: Perceived as insider by participation Criticality: Can leverage importance of event</p>
	<p>Join external events of perceived high prestige Utility: Undefined to others and unquestioned Authority: Perceived as expert Criticality: Self promotable value</p>
	<p>Establish many relations regardless of functional importance Utility: Assumed based on involvement Authority: Affirmed through alliances Criticality: Undefined to others</p>
	<p>Insert oneself into hierarchy regardless of defined role Utility: Based on supporting the hierarchy Authority: Assumed by presence in hierarchy Criticality: Affirmed by superiors</p>
	<p>Establish ambiguous chains of command and shared power Utility: Demonstrated by sustained authority Authority: Acceptance by parallel authorities Criticality: Based on acceptance by subordinates</p>
	<p>Attach oneself at lowest level of hierarchy Utility: Unquestioned due to lack of visibility Authority: Sacrificed for survival Criticality: Based on survival of hierarchy</p>

Figure 1: System Diagrams and Associated Positional Manipulation Approaches

Approach - Join External Events of Perceived High Prestige: When organizations have limited awareness of their staff's external responsibilities and professional communities, one's participation or leadership in a highly recognized external event can enhance the perception that one is an expert. If coworkers do not understand how this participation is gained, then they will not question one's utility. For example, one might be the only name on the ballot to be an officer

of a professional society, but one's government organization does not have to know the details. Similarly, external degree and certification programs can be used to enhance one's prestige even when the rigor and accreditation standards are uncertain. Using external participation and position to elevate one's internal status will, however, require a degree of self promotion.

Approach - Establish Many Relations Regardless of Functional Importance: Having many friends, acquaintances, and associated coworkers in an organization will increase the perception that one should have more authority. Existing authority can be sustained by others merely being unsure about who will rush to one's defense. The testimony of friends can cover-up deficiencies in one's criticality, and the functions of friends in the organization can serve to justify one's own function. Gathering acquaintances is an artful endeavor because one does not want to be accused of wasting too much time wandering the halls. Instead, relationships and association patterns must be tailored toward enhancing how one is perceived.

Approach - Insert Oneself into Hierarchy Regardless of Defined Role: Organizational hierarchies sometimes have weak points where the non-performers can inject themselves. For example, political favors, unclear chains of command, and the willingness of others to follow one's lead could all help one make an initial claim on being in charge. Once in the hierarchy regardless of defined responsibilities, one's authority is often assumed base on the stability of the hierarchy. To sustain one's position in the hierarchy, one merely has to enthusiastically follow the directions of superiors and loyally ensure the compliance of subordinates. Even if one is not in a clear management layer, simply being the person that reliably passes guidance from an upper layer to a lower layer can sustain one's position. One's criticality can be dramatically enhanced when layers in the organization do not want to communicate with one another.

Approach - Establish Ambiguous Chains of Command and Shared Power: When layers in the organizational hierarchy are well defined, one can still enhance one's authority by promoting parallel or overlapping chains of command. An alternative structure for using and managing people can be sustained through the support of senior leaders regardless of its true utility. The performance of organizational process improvement can be used as an argument to insert one tangentially into a structured process. As leaders often believe that processes are broken or inefficient, the involvement of any number of industry favored techniques for process reengineering could solidify one's position even when one is not well versed in those techniques.

Approach - Attach Oneself at Lowest Level of Hierarchy: If one is truly worried about one's survival in the organization, one can sacrifice authority and attempt to better attach oneself to the bottom of the organizational hierarchy. The strength of the hierarchy can then be one's shield, and one will become safer without actually increasing one's utility and critically. Some hierarchies, such as unions, are specifically designed to protect all their members while others with layers and layers of management may help lower level members find places to hide. The

ability of senior leaders to see the effectiveness of lowest level workers who do not stand out can be so poor that a selective reduction in personnel is impossible.

Perception Altering Approaches Based on Motion

Several system configurations with associated approaches can be formulated by simply considering one person's pattern of motion and interactions with others in the organization as shown in Figure 2. These patterns governed by direction, velocity, and force of engagements can be highly situational, and a consistency of pattern may only be proven through observations over time. Even so, some agents may actively hide these patterns from leadership, stopping or shifting their behaviors in the presence of select people. Tactical skillfulness in executing these approaches is a critical factor in determining level of success.

Approach - Maintain Commitment to Clear but Stove-piped Path: Despite the organizational disadvantage of having stove-pipes, workers who cannot fit in well with an integrated organization with great performance transparency have personal incentives to maintain narrow non-interacting courses. As it is hard for others to see into a blocked-off job function, the stove-pipe can often be sustained by one's unwillingness to yield. Firm stove-pipes can also prevent others in the organization from integrating, thus making optimal performance even harder to measure. One way to sustain a stove-pipe is to hoard information and prevent others from understanding the importance of job activities. Another way is to create a bunch of artificial work and insist upon its importance. The risk of disrupting total operations may cause leaders to leave one alone.

Approach - Involve Many Others in Path through Coordination and Collaboration: With the information age, one can electronically include dozens of people in the coordination of work. The coordination process can be made so complex that one's entire utility will be based on coordinating small activities. Unless others are absolutely certain that they should not be involved and are willing to defend their request to be removed from the coordination list, most will yield to the participation request. Coordination not only helps one avoid real work but also distributes the blame if submitted work is wrong. This approach is more effective when one is at a higher level in the organization and has little to do with the importance of the work being coordinated. Hypothetically, workers at the front office can keep themselves busy all day while looking important in coordinating something as trivial as the size of paper clips to be used.

Approach - Follow a Complex Path of Activities that Is Very Hard to Understand: If one is not sure about what one is doing, criticism from others can sometimes be avoided by doing things in a complex way. Instead of taking a few uncertain steps, complexity can be created just by taking many steps in shifting directions. Unless an expert is observing, others in the organization will more likely let one take more time to deal with the complexity or be more forgiving of mistakes because things look complex.

Figure 2: System Diagrams and Associated Motion Manipulation Approaches

	<p>Maintain commitment to clear but stove-piped path Utility: Hard to question as stovepipes proliferate Authority: Sustained by commitment Criticality: Hard to determine with no integration</p>
	<p>Involve many others in path through coordination and collaboration Utility: Affirmed by all involved Authority: Based on perception as initiator Criticality: Based on justification for involvement</p>
	<p>Follow a complex path of activities that is very hard to understand Utility: Assumed by complexity of activities Authority: Expertise that no one wants to challenge Criticality: Hard to determine with no understanding</p>
	<p>Follow a fast path with no defined direction Utility: Assumed by speed of activities Authority: Hard to determine with no engagement Criticality: Promoted by commitment to speed</p>
	<p>Intensely engage others on multiple issues Utility: Based on number of engagements Authority: Demonstrated by sustaining one's views Criticality: Based perception of issues</p>
	<p>Evade engagements with others on key issues Utility: Unquestioned due to lack of visibility Authority: Sacrificed for survival Criticality: Hard to determine with undefined views</p>
	<p>Position to watch and align with winners in conflicts Utility: Based on ability to affect outcome Authority: Based on choosing the right side Criticality: Based on level of conflict</p>

Making things look complex can be a skill, but it is harmful to the organization. Beyond taking many unnecessary steps, complexity can also be achieved by using many unique terms to explain

simple concepts, dividing problems into hundreds of personal sticky notes, and asserting that no one understands.

Approach - Follow a Fast Path with No Defined Direction: Sometimes true performance can be avoided if one is willing and able to spin really fast in place. The speed of activities, even if it is doing one thing over and over again, might prevent others from figuring out what is actually being done. This approach may be uniquely effective in weak management structures where there are no authorities to interfere with the motion. For example, if someone has a schedule packed with meetings, people will be hesitant to stop that person and question how many meetings are about the same topic and what meetings are truly necessary.

Approach - Intensely Engage Others on Multiple Issues: In organizations of weaker personalities, one's intensity in engaging others can persuade others of one's authority, utility, and criticality. Perception of utility is enforced when one is perceived to be continuously intense because it is easy to assume that one's work give cause for intensity. Intensity can also force down the perception of other people's work, causing one's criticality to rise. In its most aggressive form, one can rise in an organization simply by destroying the positions of others and serving no other clear function. This approach is a subset of intimidation activities studied in impression management, but the implementation must be integrated with the other approaches of perception manipulation.

Approach - Evade Engagements with Others on Key Issues: In large organizations, those who cannot or will not meet performance expectations can pursue paths of evasion. Often, one just has to evade better than the most obvious weak performers to survive. In such cases, authority is sacrificed for reduced visibility and undefined utility. Without being engaged on one's work, lack of job knowledge and accomplishments might not be detected through broad performance monitoring mechanisms. Direct managers may also support this evasion by overlooking poor performance so that he or she will not look bad by association.

Approach - Position to Watch and Align with Winners in Conflicts: In highly competitive organizations and organizations plagued by conflicts, one may only have to ally with the winning side to succeed regardless of performance. Competitive organizations with clear performance metrics will cause teams to fight over really good performers. However, competitive organizations driven by mere spheres of control and dominance may have lower level workers exploiting the rivalries between leaders. An organization plagued by conflicts can go for many years by relying upon past accomplishments and established capabilities. As capabilities erode with no one paying attention, poor performers can hide in the erosion and even enjoy the rewards of supporting the right side and contributing to victories.

Understanding the Impact of Micro-Dynamic Disturbances

While organization specific agent and environment designs are required to execute a simulation that isolates micro-dynamic disturbances, a general range of potential impact from agents manipulating perceptions can initially be identified through a study of all the behavioral constructs. This range, as shown, can be used to help discover patterns and focal points in the simulation data. It can also be directly used by empirical researchers to identify patterns and focal points in actual organizational data. Items that may not have been statistically significant in the past could gain new meaning when viewed in the context of isolated individual activities.

In general, the activities of an organization can be either disrupted or degraded from the perspective of system dynamics. For organizations that are the targets of external attacks, their activities can further be exploited through infiltration and usurpation. However, the study of government workers acting intentionally or unintentionally for the benefit of external powers is beyond the scope of this paper. Therefore, our identification of potential impact will be categorized as either disruptive or degrading with recognition that some impact could shift between the two outcomes.

Types of Disruptive Impact

Disruption is when the processes of an organization are circumvented from proper execution. A disruption can be in one process stretching across the organization, a group of processes stretching across the organization, a group of processes at select areas, or one process at select areas. The reason why one process is so different from a group of processes being affected is that interconnectivities within the group make effects harder to isolate. At the highest level of disruption, organizational activities can be brought to a complete halt. However, even disruptions that require extensive organizational energy to correct or manage can dramatically compromise performance.

It has been noted earlier that perception manipulation behaviors can proliferate among workers. However, this proliferation is not a disruption until the execution of processes is affected. If one committed worker can keep organizational processes going while four other workers are spinning in place, for example, then the four other workers are only degrading efficiency and output capacity.

Potential Impact – Underperformance of Critical Functions: The success of falsely increasing utility could lead to unmerited promotions in the workplace. If a promotion has associated critical job functions, then the underperformance of those functions by an unqualified worker could disrupt processes across the organization. The further concealment of underperformance, to include mistakes and incompleteness in execution, would exacerbate the disruption. Beyond being mistakenly promoted into a critical role, anyone with an existing critical responsibility could drift towards underperformance when he or she starts to adopt perception manipulation approaches.

Potential Impact – Confusion in the Management Process: The success of falsely increasing authority could lead to confusion about who is in charge of processes. Even when there is just one ambiguous person in the chain of command or one extra layer of command, the inconsistency or dilution of authority could cause many others to reduce their commitment or to make execution mistakes. Management confusion could be exacerbated when falsely fitted managers start to issue conflicting, erroneous, and / or incomplete guidance. However, the mere presence of these managers effects the motivation of other managers in the proper hierarchy.

Potential Impact – Validation of Ability to Abandon Responsibilities: The success of falsely increasing criticality could cause others in truly critical roles to lose their sense of responsibility. If there are similar critical people to takeover or share the workload, then the committed workers might conclude that they could back away or even leave the organization. The disruption comes when the workload cannot be sustained by those who have falsely achieved their criticality. Even when falsely achieved criticality is in a different area, dilution in the general sense of criticality could cause others to abandon some responsibilities.

Potential Impact – Communication Barriers: Numerous motion-based approaches for manipulating perceptions could have the collateral impact of interfering with communications across the organization. Stovepipes might block other important processes from integrating activities. Artificially complex paths might cause confusion about who should communicate with whom. People spinning in place might hinder other people from establishing connections. And, people intensely engaging others to manipulate perception might reduce the effectiveness of needed communications. All these communication barriers could then led to disruption in the execution of processes.

Potential Impact – Wrong Conflict Results: Conflicts in the execution of processes might be unavoidable in highly intensity organizations. If so, then the proper resolution of conflicts will determine processes success. If people who should get involved in resolving issues decide to evade associated conflicts to sustain perceptions, processes could be delayed or misdirected. If people get involved in conflicts for personal gains in perception, wrong decisions could emerge to derail processes.

Potential Impact – Competing or Altered Processes: The act of manipulating motion could inadvertently create competing processes or alter the effectiveness of existing processes. For example, when a process that only requires three coordination steps is stretched out to include ten coordination steps, there is a disruption regardless of the simplicity of the process. If a complex set of activities artificially designed to increase perception weaves into key processes, then the execution of key processes could be hindered. People involved in key processes might lose sight of what is and is not important.

Types of Degrading Impact

Degradation is when the outputs of organizational processes have been lowered from optimal results. Output timeliness, quality, quantity, effectiveness and efficiency can all be degraded. The degradation can be from one entire process, several processes, or portions of a process. As with disruption, multiple processes can make determining the causes and effects of degradations more difficult. At the highest level of degradation, organizational output can be brought to a complete state of uselessness even as the processes are moving forward. However, slight degradations across multiple processes could also have dramatic cumulative effects.

Degraded output could cause or be caused by process disruptions. However, a disrupted process may also have undegraded output once the disruption has been corrected. Degradation is often hard to initially detect, but the effects will be more persistent once a root cause has spread and the impact has grown. The identification of impact types below shows that root causes can be associated with both the spread of perception manipulation behaviors and the spread of reactions to such behaviors. In the latter case, even a few workers consistently gaming organizational processes can cause an ever growing level of negative reaction that degrades the processes.

Potential Impact – Proliferation of Behaviors: There are two ways for manipulation behaviors to proliferate that are traceable to the cognition theories discussed earlier. First, coworkers can see the benefits of manipulation and embark upon adopting their own sets of manipulation approaches tailored to individual situations. Second, coworkers can see the success of the exact manipulation approaches being used and decide to model their behaviors to match. The proliferation will then occur with all sides either quietly supporting one another or denying the behaviors of one another. Either way, the drop in worker effectiveness will degrade outputs.

Potential Impact – Distrust among Coworkers: Regardless of whether coworkers realize how perceptions are being manipulated, the inability of coworkers to understand and align with those applying manipulation approaches can create distrust. Distrust hinders the effectiveness of teams and will proliferate especially when people whose false justification for utility, authority, and criticality cannot be easily delineated from others with credible claims. When everyone is distrusting everyone else because of a few people manipulating perceptions, output conditions will suffer.

Potential Impact – Cynicism about the Merit Process: An alternative reaction to distrusting other coworkers who are getting ahead by unclear approaches is the questioning of organizational processes. The most obvious process to question is that of merit rewards, promotions, and assignments. However, the importance of all processes can come under debate. This erodes worker commitment which is most obviously reflected in the quality of output.

Potential Impact – Wasted Effort by Others: Coworkers trying to figure out stovepiped activities, complex paths, and confusing motion caused by people manipulating perceptions could waste a great deal of energy. Also, coworkers involved in unnecessary coordination and engagements will expend energy. In the case of conflicts, extra energy will be expended if coworkers try to get evading people involved or if coworkers are persuaded to stretch out the conflict. All this loss of energy will impact processes to reduce output timeliness, quantity, and efficiency. In fact, the total organizational capacity will be degraded.

Potential Impact – Unnecessary Consumption of Resources: Energy in the form of human capacity is not the only resource that can be unnecessarily consumed as a result of a few people manipulating perceptions. Financial resources can be wasted in sending people to unnecessary external events, paying for competing or altered processes, and / or correcting for the consequences of process mistakes. Facility and equipment resources can also be overly consumed by bloated meeting sizes, increased frequency of meetings, higher demand for larger offices based on authority, and increased material use in coordination activities. This unnecessary consumption of resources will decrease output efficiency and could decrease output quality and quantity if some resources are constrained.

Continuing Research

The results presented are hopefully persuasive to government leaders and public administration researchers. If we accept that isolated behaviors could have organization-wide impact, then the next step is to apply specific information from sponsoring organizations to set up test scenarios and simulations. Information such as meeting/coordination/communication procedures, management hierarchies and responsibilities, employee evaluation processes, organization vision and goals, specific functional activities, and employee categorization can all contribute to the definition of agents and the simulation environment. Initially, the agent-based models can be light and agile, testing a broad range of scenarios to identify patterns, forces, and effects of interest. Then, the agents and environments can be brought to higher levels of fidelity with additional empirical research.

Agent-based models can point to new areas of investigation, but they cannot predict the future. The actual government environment will behave in a very contingent manner where the mere act of studying the organization will cause worker behaviors to change. We can use simulation results to test corrective solutions and identify implementation risks. However, the outcomes will still greatly depend on the insight, commitment, and skills of leaders. Leaders willing to tackle “wicked problems” must guide the implementation of solutions while micro-dynamic disturbances are shifting against the implementation effort. When empirical data cannot demonstrate incremental success, perseverance in isolating the causes of disturbances is critical. When other leaders are doubtful that there is a problem, insight into the nature of complex systems is essential.

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