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The Paradox of Bureaucratic Collaboration

Government Bureaucracies in Robust Collaboration with the Public

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Abstract

When a government agency engages in robust public participation, it puts bureaucratic culture at risk. Yet agencies do, sometimes, engage successfully in collaboration. The Paradox of Bureaucratic Collaboration suggests that an agency will be willing to engage in robust collaboration if the temporary disruption to bureaucratic systems helps the agency to become more perfectly bureaucratic in the long run. By applying systems perspectives to bureaucracy, this paper assists collaboration designers and would-be participants to understand when bureaucracies might not—or should not—collaborate robustly, to identify the opportunities for robust collaboration that prove the exception and, where robust collaboration is viable, to minimize bureaucratic risk while maximizing overall collaboration benefits.

Keywords: collaboration, bureaucracy, public policy

1. Introduction

We approach our study by treating modern government bureaucracy as a complex adaptive system (Holland, 1995). Complex adaptive systems dynamically return to a balance among certain key characteristics. In this paper, we describe four of modern government bureaucracy's characteristics and their state of balance (Weber 1964; Beetham, 1987; Sallach, 2000; Durant, 2010). We conclude that in most cases, collaboration is a threat to those characteristics, but in some cases it is useful in restoring balance. This paper explains when, how and why this can occur.

What we call "robust collaboration" corresponds to the more intense range of the collaboration spectrum, not to routine public engagement (Arnstein, 1969; International Association for Public Participation, 2007). Robust collaboration is often characterized by its relatively high degree of power sharing. It is also more likely to be disruptive, intimate and contextual than the 'inform' or 'consult' end of the public participation spectrum. Robust collaboration disrupts bureaucratic systems because it commits the agency to at least consider different frames and options, it is usually intimate in that it brings agency representatives and others together across an even table and, with the exception of rule-making, it is often contextual because it addresses agency actions related to a particular place or particular people. As discussed below, power-sharing, disruption, intimacy, and contextual decision-making are all threats to bureaucracy's characteristics. In most instances, a bureaucratic system would not benefit from this disruption and would not be likely to make a deep commitment to it.

The unusual circumstances where robust collaboration thrives arise because bureaucratic characteristics must lie within a healthy range. Part of the complexity of adaptation is that a system must not only return to its characteristics, it must also have those characteristics in the right proportions. When bureaucratic characteristics become severely deficient or excessive, such that a given agency cannot easily regain its healthy range, collaboration may be a successful strategy for correcting the excess or deficiency. Thus, the Paradox of Bureaucratic Collaboration ("Paradox") is that collaboration is usually toxic to bureaucracy but that Bureaucracy nevertheless will sometimes engage in robust collaboration so long as that collaboration helps bureaucracy to correct its imbalance.

The Paradox is a conservative hypothesis. It suggests that opportunities for robust collaboration involving

government agencies are rare and that the shift to collaborative approaches with the public will always be temporary. Robust collaboration will not prompt an agency to make an irreversible state change: to permanently alter its culture. Instead, collaboration is an adaptive strategy that allows the agency to become more perfectly bureaucratic in the long run.

Helping an agency to "become more perfectly bureaucratic" sounds less inspiring than "transforming" it. We caution that even if transforming bureaucracy were possible (or ethical), the consequences would be more far-reaching and perhaps deleterious than expected. But we also argue that helping to shift an agency out of a deficiency/excess of bureaucracy is a great improvement for most collaboration partners. If a collaboration designer can facilitate this return to systems health, this is a worthwhile achievement.

Most other parties do not make the intense commitment to engage in robust collaboration because they want to help an agency become more perfectly bureaucratic. Of course they want to achieve the overt collaboration goals such as getting the agency to embrace new scientific methods, sensitizing bureaucrats to neglected constituencies, clarifying regulations or establishing better feedback mechanisms. These changes are all possible in different circumstances. The Paradox suggests that none of these will succeed, however, unless the agency needs help returning to its balanced state and is likely to get that help from the collaboration.

At that practical level, the Paradox serves several functions. First, it helps a designer, potential funder or collaboration participant to estimate the viability of robust collaboration. The more the agents within the system believe that their agency has drifted from its balanced characteristics, the more robust the collaboration is likely to be. The Paradox also helps the designer to appreciate the extent to which a particular collaboration design may unnecessarily put bureaucratic culture at risk, and then to minimize that risk where appropriate.

The Paradox provides a means of understanding when novel participation or collaboration approaches are likely to go awry, and why. Perhaps most importantly, the Paradox is a lens that helps move people from a position of frustration about bureaucracy to a more realistic, sometimes empowered, certainly more compassionate perspective towards system "agents"—genuine, human bureaucrats laboring in a system sometimes referred to as the "iron cage" (Baehr 2001).

Finally, the Paradox is critically important to collaboration ethics. One of the most important benefits of the Paradox is that it reminds the designer to respect bureaucracy as a culture. There is an ethical obligation to respect any culture represented in a collaboration. But respecting the culture of bureaucracy also protects other participants. In public policy collaboration, the agency often convenes the process and pays for it (Bogner, 2011). They have control of much of the information and the framing of the information. And they usually have the formal power to make the decisions in question. If the agency *system* is really not poised to collaborate, convening a process that runs counter to bureaucratic culture may result in "mere window dressing, if not outright bureaucratic suicide" (Hummel and Stivers 2010, 330; Fox and Murphy, 2012 *see also* Turnpenny 2011) This is disservice to everyone. When designers respect the culture of bureaucracy, it benefits all the parties.

In Section 2, we describe four bureaucratic characteristics and their interplay with collaboration, offering a five-step analysis. We then focus on one characteristic—hierarchy—to illustrate the application of the Paradox.

2. Method

German sociologist Max Weber was the first to analyze bureaucracy as a system, even before the term "systems analysis" had been developed (Weber, 1964). He looked for and described pervasive patterns across all modern bureaucracies. No matter which country, no matter which legislation, no matter what pressures to behave more like business or to change in some other way, bureaucracies return, over and over, to the same attractors that Weber described in the early 20th century. We have chosen four of his characteristics as sufficiently representative of his analysis and our approach. They are *hierarchy, impartiality, expertise* and *record-keeping* (Weber 1964; Beetham, 1987; Durant, 2010). (Note 1)

The Paradox applies five analytic steps: appreciate how a specific characteristic of bureaucracy serves the bureaucratic system, identify the characteristic's excesses and deficiencies within a specific agency and conflict situation, recognize the clash between collaboration and the characteristic, determine whether collaboration would help the agency to become more perfectly bureaucratic in the long run and, if so, design to minimize or mitigate the impacts collaboration will have on the agency (Table 1).

Table 1. Five steps in applying the paradox of bureaucratic collaboration

1) **Appreciate** the virtue of the bureaucratic system characteristics.
2) **Identify** how far bureaucratic system characteristics have veered from bureaucratic balance.
3) **Recognize** the clash between bureaucratic system characteristics and collaboration.
4) **Predict** whether collaboration would help return bureaucratic balance.
5) **Design** to minimize or mitigate unnecessary impacts to the bureaucratic system.

Table 2 provides examples of the virtues, excesses and deficiencies of the four characteristics, which are described more fully in the following subsections.

Table 2. Examples of virtues, excesses and deficiencies of bureaucratic system characteristics

Characteristic	Examples of Virtue	Examples of Excess	Examples of Deficiency
Hierarchy	Accountability	Rigidity	Disarray
Impartiality	Fairness	Disconnection	Bias
Expertise	Legitimacy	Tunnel vision	Poor information
Record-keeping	Transparency	Indiscriminate mass	Opaque decisions

2.1 Step One: Appreciate the Virtue of the Bureaucratic System Characteristics

Appreciating bureaucratic system characteristics is as difficult as it is important. As systems go, bureaucracy lacks charm. Understanding bureaucracy's overt rules and organization is important, but they can obscure the systems patterns underneath. Perhaps the designer's best hint that there is a systems attraction at work is the sense of frustration and exasperation bureaucracy can elicit. The successful designer will take this hint and follow it to its source. If bureaucracy is behaving oddly and that behavior seems intractable, it is highly likely that the behavior supports the overall system in an important way. By untangling the relationship between the behavior and system needs, a designer will gain important insight into the agency's state of health.

Every one of the bureaucratic characteristics contains a virtue from a bureaucratic perspective, even if the effect seems dry and frustrating at first glance (Jacobs, 1992). Hierarchy and impartiality as distance are alienating (Beetham, 1987; Taylor, 2006); the expert is seen as a specialist without spirit and the bureaucratic record-keeper is far from being a heroic figure (Kafka, 2012). Yet each of these characteristics is also tremendously valued. Hierarchy is meant to provide a predictable and efficient flow of information, decision-making, and execution (Weber, 1964; Workman, Jones & Jochim, 2010). Impartiality avoids personal bias and lends credibility and fairness to bureaucratic decisions (Beetham, 1987). One virtue of expertise is that it provides a high level of efficiency in analyzing component parts of a question; a decision based on expertise is considered to be more likely to result in benefit to the public (Weber, 1964; Beetham, 1987; Lockhart, 2001). Finally, recordkeeping is essential to government accountability (Beetham, 1987; Mashaw, 2010). These virtues make bureaucracy more efficient, consistent and accountable and give bureaucrats legitimacy (Weber, 1964).

The designer must look past the dry and alienating and appreciate that each bureaucratic characteristic is an important part of our governance system and the wider institutions of government, education, and the practice of science (Weber, 1964). To be sensitive to a culture, a designer must appreciate—not blindly support, but appreciate—what the culture will seek to protect.

2.2 Step Two: Identify How Far Bureaucratic System Characteristics have Veered from Bureaucratic Balance

Examples of potentially motivating bureaupathologies abound (Durant, 2010). Working through deficiencies in each of the four characteristics, passive resistance in the ranks is an example of deficiency. Taking bribes is a deficiency of impartiality, as is connecting with one constituency but not another. Ignorance and illogic are deficiencies of expertise. A failure of record-keeping occurs when something that should be in the record is not, or when something that is in the record is difficult to extract or understand. Record hoarding is a classic bureaupathology (Beetham, 1987).

Bureaucratic failure can also take the form of excess. Overemphasis on hierarchy can lead to rigidity. Excess of impartiality includes overweening distance that leads to public disaffection. Excess in expertise can lead to

balkanized analyses and an inability to manage the system. Encyclopedic records actually frustrate citizen access and expert understanding (Beetham, 1987).

If the bureaupathologies, or bureaucratic excesses become too extreme, the bureaucracy experiences political and public pressure, difficulty implementing its policies, failures of funding, oversight of its processes, judicial reversal and other encumbrances. But perhaps more importantly, the bureaucracy fails to meet its own cultural norms—not only the specific norms associated with each bureaucratic characteristic, but its reason for existing, its ability to serve (and control) the public. When this happens, it may turn to collaboration as a cure.

However, if the agency is or considers itself to be in a healthy balance, the Paradox predicts that no matter what the short term promises are, or what enthusiasm individuals within the agency demonstrate, robust collaboration will fail to thrive. Individual bureaucrats might genuinely favor it, but the system will not.

2.3 Step Three: Recognize the Clash between Bureaucratic System Characteristics and Collaboration

Collaboration has the potential to undermine the virtues inherent in bureaucratic characteristics and to delegitimize bureaucracy. For instance, collaboration, especially with unaligned publics, can muddle hierarchical relations and injure status relations within the bureaucracy. A clash might arise between the bureaucratic characteristic of impartiality and collaboration's tendency to bring some, but not all people into better contact with decision-makers, thus introducing bias and decreasing the appearance of fairness (Kerwin, Furlong, & West, 2010). The public's claims of separate knowledge can act as a dilution of expertise and an abrogation of the bureaucrat’s responsibility. Lastly, bureaucracy’s interest in recordkeeping collides with confidentiality provisions in collaboration.

Collaboration examples that undermine important bureaucratic and societal values include backroom deals that narrow the decision space (*American Forest Resource Council et al. v. Clarke*, 2003; Kerwin et al., 2010), agreements that provide an overlay to legitimate plans without transparency or accountability of a formal planning process (Forest Service, 1990), overemphasis on meeting designs that benefit certain constituencies (Kerwin et al., 2010) unrealistic promises (Fox & Murphy, 2012) or opaque contracting practices. When it uses the Administrative Dispute Resolution Act of 1996 in otherwise open processes to protect contracting from transparency requirements in the Federal Acquisition Regulation, the collaboration profession is vulnerable to criticism for the way it undermines record-keeping and with it, accountability (Beetham, 1987; Durant, 2010).

Understanding the clash between collaboration and bureaucratic virtues is an important part of making an assessment. It is also an important part of cultural respect. It may be that individual bureaucrats resist collaboration because they do not know how to collaborate, find it scary or overwhelming, do not have time, do not care enough or have not been infected with collaboration enthusiasm—things collaborators itch to correct. But bureaucrats may also resist collaboration because they are troubled about the ways it clashes with their values about governance, feel it may suborn their legitimate role and responsibility (which in turn implicates their self-respect and fulfillment), or suspect their agency will not be able to meet many collaboration promises. Sometimes, bureaucrats resist collaboration because, in their frame, it is wrong.

Not only do bureaucrats have valid concerns about collaboration, but the bureaucratic characteristics that define their culture are important to many of our broader culture’s systems. Bureaucracy cannot engage in collaboration for long without affecting the elected, the judicial system and current notions of the role of science in decision-making. Out of respect for the culture of bureaucracy, and for the sake of accurate assessment and effective collaboration design, a designer must respectfully consider the reasons for bureaucratic resistance to collaboration.

2.4 Step Four: Predict Whether Collaboration Would Help Return Bureaucratic Balance

Having gone through the first three steps, the collaboration designer should now have a good grasp of a particular agency’s system health and the agency’s perception thereof. The designer can consider different collaboration designs and assess the potential clash with bureaucratic culture. If the designer has proceeded this far applying the Paradox, the agency has/knows its bureaucratic characteristics are so far out-of-balance that it needs unusual strategies to return to balance. The designer has a good idea of the risks to agency culture associated with the “clash.”

Sick bureaucracy. Painful treatment. But will the treatment help the bureaucracy back to wellness? If it can, if it is the least painful of healing alternatives, then the bureaucracy will commit.

Imagine that the presenting issue might be a conflict about economic support determinations in cases of idiopathic disease. Solving that problem and achieving a relatively lasting peace among the stakeholders is attractive. But the Paradox suggests that this lure is not the source of genuine bureaucratic commitment to the

risky, painful and expensive experience of collaboration. Bureaucracies—not individuals, but bureaucratic systems—will only support collaboration if the collaboration helps fix an underlying systemic problem. If their system has gone so far out of balance that it needs a radical adaptation strategy, *and* collaboration is the least objectionable such strategy, then the bureaucracy will engage.

In this example, imagine that staff is too deeply aligned with the pharmaceutical industry, a failure of impartiality and of expertise. Certain collaboration designs could result in strengthening staff relations with other constituencies, or in making pharmaceutical inputs more transparent. Then the collaboration addresses not only the presenting problem but also the systems pathology. Perhaps the agency struggles with explaining their decisions (a failure of record-keeping). Certain collaboration designs could empower laypeople to teach bureaucrats about communication needs. The norms of agency expertise could have gone awry. The principles of expertise could have become excessive with the result that cross-disciplinary communication becomes nearly impossible, or deficient because of overwhelming confirmation bias. A collaboration could use the leverage of outside witnesses to create a theater within which agency members have to communicate more clearly, or could create interactions with carefully selected outside experts that shake the confirmation bias.

It is not a collaboration designer's job to "fix" bureaucracies. The designer may not even find the outcome of "returning bureaucracy to its perfect state" particularly appealing. However, the Paradox suggests that without a system pay-off, the bureaucracy's commitment to genuine, robust collaboration will not be sustained.

2.5 Step Five: Design to Minimize or Mitigate Unnecessary Impacts to the Bureaucratic System

Sometimes the clash between bureaucratic systems and collaboration is actually the source of the cure described above—it is necessary. Sometimes the aspects of collaboration that create the clash are necessary to the other parties. The clash between collaboration and bureaucracy can never be completely removed. However, if the designer understands the clash between bureaucracy and collaboration, then the impact can usually be minimized or mitigated as appropriate. For instance, if impartiality is threatened by face-to-face public meetings that give unbalanced access to locals, the mitigation might be to pair those meetings with nationwide surveys—to the extent the Office of Management and Budget restrictions permit (Paperwork Reduction Act of 1995). If the clash is about expertise, where collaboration with lay persons may threaten to weaken scientific standards, the minimization might be to limit participation to accredited scientists, or to clearly delineate the types of information the general public is invited to collaborate about.

Using non-reductionist approaches can clash with record-keeping because they are less linear, less tabular and therefore more difficult to enter into a traditional record (and possibly also difficult to find again and to retrieve). Thus, there is a clash with record-keeping that must be addressed. Exploring and using advanced computational techniques, such as designing for findability (Morville, 2005), community tagging (Halpin, Robu, & Shepherd, 2007) and auto-tagging (Song, Zhang, & Giles, 2011), may minimize the problem.

In each of these cases, collaboration has the potential to overstress a bureaucratic characteristic. By using minimization to reduce the clash or mitigation to compensate for the impact, the designer may choose to address some bureaucratic needs if other important design needs are not undermined.

In considering mitigation and minimization, it is important to consider the different ways that a robust open process of public participation differs from a mediation (Delli Carpini, Cook, and Jacobs, 2004). Each clashes with bureaucracy in different ways and offers different mitigation opportunities. For instance, mediation, with its intimacy, control, and mutual obligation is much easier to contain than public participation. This could be useful if a mitigation seeks to limit access to expertise to credentialed members of the public. The control and privacy of mediation can limit the loss of status a hierarch experiences—the leveled status in the room stays in the room. By contrast, impartiality is less threatened by public participation than mediation precisely because public participation generally is more inclusive and transparent than mediation.

2.6 The Five-Step Analysis Gives Rise to Design

Thoughtful collaboration design is impossible without clarity of purpose (Seddon, 2008; Fox & Murphy, 2012). Collaboration purposes do not only relate to the presenting problem: a hydroelectric relicensing or developing a new pesticide rule. Once a designer understands a bureaucracy's dysfunction, the type of correction it seeks, and the way that public collaboration might help it make that correction, another set of purposes becomes clear. The collaboration might correct for bottlenecks in the hierarchy by providing a conduit for novel communication, or correct for a deficiency in expertise among technicians by exposing them to new scientific thinking. It might reduce an alienating impartiality by fostering personal relations among the leadership in the bureaucracy and the community, or provide more rigor in the way information is entered into the record. Each of these subtexts

suggests different design elements.

The overt purpose of the collaboration may be to arrive at a decision about hydroelectric relicensing. But that purpose alone will not result in genuine collaboration on the part of bureaucracy. It will not justify departure from bureaucratic norms. Among all the myriad purposes among all the parties, the successful designer must find the bureaucracy's motivator: how will this collaboration, this departure from bureaucratic norms, help the bureaucracy to become more perfectly bureaucratic in the long run? From that answer, much of the design flows—contingent, of course, on the needs of the other parties. If it does not help the bureaucracy return to its system characteristics, then the collaboration is unlikely to thrive. Minimalist public participation would be a better choice.

3. Application: A Deeper Look at Hierarchy

The discussion in Section 2 gave an overview of four bureaucratic system characteristics and the five steps in applying the Paradox. This section looks more closely at one characteristic, hierarchy, and applies the five steps in more detail. We provide practical examples of the relationship between the Paradox, collaboration assessment and collaboration design.

3.1 Hierarchy Virtues

Hierarchy's chief virtue may be its ability to contain power and to direct its flow: overt power from above, subversive power from below, the balance of power among different branches of a single agency and the power an agency wields against/for the public. Hierarchy defines the chain of command and responsibility in relation to the rule of law. Like all the bureaucratic characteristics, hierarchy supports interchangeability (in this case, of personnel), but above all, hierarchy is essential to accountability.

Just as hierarchy is about power, it is about the flow of information vertically and horizontally. Problems are broken into their component parts and analyzed by people in separate departments. This expert information is meant to be integrated with other departments' expertise, sent up the chain of command, synthesized, abbreviated, sent further up the chain and presented to the decision maker. A decision is made. Once made, the decision follows a similar path down, orders are followed, and the decision is implemented (Beetham, 1987). These are some of the virtues of hierarchy.

3.2 Hierarchy Dysfunctions/Motive

After understanding how the behaviors of a particular agency support the strengths of hierarchy, the next step is to look for the bureaucratic dysfunction that might motivate an agency to permit a further, curative disruption. Dysfunction in hierarchy is seen when information does not flow up, is not properly synthesized across silos, or is not heard by the leadership. Alternatively, it is seen when decisions are slow to be made, are not communicated downward, or are actively or passively resisted. The symptoms of hierarchical dysfunction include infighting, poor morale, and paralysis (Beetham, 1987).

Internal conflict avoidance and infighting are symptoms of hierarchy's bureaupathologies. Looked at from a systems perspective, they are also reflections of the system's slow feedback and response when it comes to adaptation: issues that might provoke radical change are best put off by avoidance or by inconclusive skirmishes. Eventually, however, this pattern of avoidance may become too burdensome. It is time for deeper conversations, and perhaps for profound change in certain operations.

Is the agency aware that its hierarchical character has become excessive or deficient? And if so, is there reason to believe that collaboration is likely to provide the cure? The first question can best be answered by interviews and careful, often informal observation. The second question is answered in the design. (Note 2)

This is one of the great benefits of the Paradox. Without the Paradox, collaboration design is often made in terms of the presenting issue; beyond that, there seems to be little logic for choosing one design over another. The Paradox provides a useful design parameter: for the sake of the sustainability of the process and the needs of all the parties, where bureaucracy is unhealthy, design to help it regain health. Where it is healthy, minimize disruption. Because the designer will have identified the exact systems imbalance, such as hierarchy excesses or deficiencies and the exact presentation of the problem—loss of accountability; slow, poorly integrated decisions, and so forth—design strategies quickly become obvious.

3.3 The Hierarchy-Collaboration Clash

Collaboration clashes with bureaucracy when it blurs the hierarch's ultimate decision-making power, sharing or seeming to share some of the hierarch's authority with others. Collaboration clashes with bureaucracy when it impinges on status. And it threatens the hierarch's power when it moves from top-down information to a more

integrative, mutual learning approach that involves lower-level staff in nonhierarchical ways.

Mediation is, by its very nature, a status disrupter. Part of the reason a mediation works is that the mediator takes a position that is simultaneously highest status (in control of the process) and lowest (servant of the parties). When the mediator preserves her neutrality, she confers no special status on any participant. All the parties are in second (or first) place, in contravention of humans' normal impulse to establish a hierarchy (Johnstone, 1979; see also Beetham, 1987).

Losing status is not only an unattractive outcome for an individual hierarch but it may make the entire mediation less viable. If the agency representative loses power within her own organization by connecting outside the bureaucratic status queue, then she lessens her ability to back the mediation within her own organization, decreasing the likelihood of sustained agency participation.

Ordinary public participation is typically handled in such a way that it does not threaten status. The high-ranking person talks from a virtual or literal podium; the field staff have (mostly) unrecorded conversations at level status with individual members of the public where each conversation takes place in separate areas of the room, divided by category of expertise. These designs preserve hierarchy (the high-level person usually "talks at" rather than "with"), impartiality (keeping the decision-maker distant), expertise (keeping the topics separate) and record-keeping (maintaining the purity of the record).

Hierarchy is not only threatened when a high-status bureaucrat mingles with people who have no status in the system. It is also threatened by "needless" information sharing. It is not natural for a hierarchy to give up information—to give up power. Usually, bureaucracies share enough information to support accountability, and they share it in a top-down manner. Hierarchy is preserved when agencies present information within their intellectual frame and according to their priorities (Michael, 2012). This contrasts with an adult-education model, where the learner has more choice over the order in which information is acquired, grafts the information onto her existing and evolving knowledge base, and explores through self-directed juxtaposition (Bates, 1989; Falk & Dierking, 2002).

Government agencies are criticized for their tendency to use a "justify and critique" approach to public dialogs. But justification is a virtue in the bureaucratic context, for it supports accountability and legitimacy (Kerwin et al., 2010; Mashaw, 2010). The public cannot hold a bureaucrat accountable for wisdom—that is too context-dependent. But citizens can hold a bureaucrat accountable for consistency within a predictable and well-defined rule set. The "justify and critique" approach is a good fit for bureaucracy. It accomplishes accountability goals by declaring the frame and inviting the public to spot flaws at the same time as it allows the hierarch to command the podium.

When an agency engages in deeper education, allowing discussions outside of their frame, they invite a greater threat to hierarchy as well as muddling accountability. Collaboration designs that foster deeper public learning are not only disruptive to hierarchy but also to expertise. If they involve mutual learning, they threaten impartiality as well. Collaboration designs that purport to go beyond "justify and critique" must be very careful to take these impacts into consideration. In some cases the disruption is exactly the effect necessary for a bureaucratic return to systems health. In other cases the disruption of collaboration is a potentially unnecessary burden and should be avoided by using a more thoughtful design.

3.4 Hierarchy: Is the Design Curative?

If curing its hierarchical ails is the agency's motive, how does this speak to collaboration design?

Perhaps a desired adaptation concerns the bureaucracy's expertise, but the adaptation is stymied by rigid, hierarchical information flow. In this case, what the bureaucracy may need is an opportunity to communicate internally in ways that are normally not accepted. The frame of mediation creates permission for those conversations, both in internal preparation for formal meetings and in the mediation sessions themselves. Mediation creates an acceptable frame because it is not normal, it is not setting a precedent, and it is bounded, much as a game is bounded with starting and ending points and agreed-upon rules (Klabbers, 2009). If an intimate, controlled, confidential structure is created, then bureaucrats within an agency may have the luxury to engage inside the mediation in ways they would not be able to do (or feel free to do) within their normal bureaucratic operations. Thus, ironically, the Sierra Club and the Trucker's Association may be there to bear witness to, and create a context for, discussions the agency members rarely have among themselves. If boosting agency adaptation is also in the interest of the Sierra Club or the Trucker's Association, well and good. The collaboration has its leverage points, its several purposes and a reasonable life span.

This adds complexity to the notion that mediation is about getting parties to loosen their grip on their positions

and engage at the level of interests (Fisher & Ury, 1981). As a practical matter, a dysfunctional agency may have difficulty even articulating its positions, let alone its interests. If the witness effect borne by the other parties can bring an agency to the point of understanding its own interests and coming to a unified and well-considered position, that is often progress. Then the negotiations (or the unusually clear and crisp lawsuits) can proceed.

Another design approach for working with agency bureaupathologies is to use upcoming meetings, mediation sessions or public events as a way to galvanize difficult but necessary *internal* preparations that, in turn, help the agency move from infighting to clarity to resolution. The more robust the external collaboration design, the deeper the internal conversations will need to be. To use looming public events as a way to leverage internal discussions, establishing a series of events is effective. This gives the bureaucracy several opportunities to rise to the challenge of robust participation's quite different internal demands and consequences. If the events are designed in such a way that the agency will neither be humiliated nor be able to glide over difficult issues, then, maybe, the public affairs officers and the interdisciplinary team will go below the surface in their preparatory discussions. Now, in preparation for the meeting, the fire expert and the ecosystem expert talk about what they really mean when they use the term "catastrophic fire" or the head of the agency will sit still long enough to hear the recreation experts say, "Yes, actually, ma'am, we think we might have a problem answering that question if it comes up tomorrow night."

When a robust collaboration event is planned, the designer alters the incentives for, and nature of internal preparation, and in doing so she at least temporarily affects internal communication. Yes, better relations with the public are the overt goal, but the bureaucracy may very well have used its tension with the public in order to address its internal hierarchical dysfunction. Perhaps the real payoff to robust public participation is that it helps a leader drag her staff into adapting to new scientific information, or helps staff maneuver the leadership into a more realistic understanding of their own legislative mandate. Either way, the process is used as a means to help the bureaucracy circumvent its normal hierarchical avenues of communication and to adapt to that which had not been previously been communicated or acted upon within that hierarchy. Robust public participation and mediation clash with hierarchy, but in some cases, in doing so they also provide a cure for some of hierarchy's excesses and failures. If this is so, the collaboration has potential.

Even without the Paradox, designers often assess collaboration potential by using an informal index of desperation. But there are numerous dispute resolution options for a healthy, self-confident agency faced with a difficult impasse; most of them are less disruptive to bureaucratic culture (and much less time-consuming for the public). If desperation about the presenting issue is the sole motivator, the agency's commitment to robust collaboration may well be superficial. It is not enough. What the Paradox looks for is a more complex form of misery, one where the agency feels its bureaucratic culture is at risk—where it recognizes that it needs help to address its presenting issue *and* needs help adapting.

3.5 Hierarchy: Minimizing and Mitigating the Clash

One way to minimize the clash between hierarchy and collaboration is to convene people of like status. The hierarchy of two different entities can be massively different, but if a director is talking with a director, as when the director of the National Park Service talks with the director of the Sierra Club, it is much less disruptive than if a director sits down with a field person. However, if other design considerations suggest status should be (temporarily) disrupted, then confidentiality can minimize the impacts, or the designer can use shuttle diplomacy instead of face-to-face meetings. Convening people who respect protocols, even if they are not all of equal status, is helpful.

Unavoidable status impacts may be mitigated by attaching a certain level of pomp to the collaboration events or by fostering favorable press and legislative attention. In this way, if all goes well, the participating bureaucrat's status may actually be strengthened within and outside of her own organization even if she has engaged with people of lower status.

Bureaucratic hierarchies can resolve engagement protocols with other hierarchies even when there are massive differences in scale, but have difficulty docking with nonhierarchical organizations or the undifferentiated public. Compared with a lobbyist or other representative, an individual citizen is not part of an organized system with its own structure, hierarchy, and protocols. The individual citizen not only lacks status in the bureaucracy's hierarchy but also lacks a means of claiming some parallel status through another organization (Weber, 1964).

These mitigation and minimization strategies tend processes towards confidentiality, vertical homogeneity, participation among people who are members or representatives of hierarchical organizations, and confidential, controlled processes based on mutual obligation. Mediation supports these tactics because it is clearly bounded at beginning and end and has carefully chosen actors; it has a formal agreement and it can invoke confidentiality.

Addressing hierarchical sensibilities may run afoul of other collaboration purposes. For instance, if one of the goals of a mediation is to promote creative problem solving, a good design would probably include diversity, which may in turn require mixing status levels within the agency. The designer has to balance the hierarch's comfort with horizontal relationships against the possible design need for vertical disruption and creativity.

Applying the Paradox to hierarchy in this way helps the designer to determine whether the agency is likely to follow through on a commitment to a robust collaboration. It also tells the designer exactly why: some particular aspect of hierarchy will be so out of balance, so excessive or deficient that the system needs a dose of something to return to its balanced state and it believes robust collaboration may be part of that "something." Knowing where the clash of collaboration is acceptable to the agency immediately suggests pragmatic and effective design options. And knowing where the clash of collaboration is not acceptable helps the designer to avoid design elements that will create constant and fruitless struggle. Clearly, this information alone is not enough. Other bureaucratic characteristics must also be considered and, of course, the needs of the other parties have to be considered equally.

4. Conclusion

The single most important issue a collaboration designer can consider in assessing an agency's collaboration potential is to recognize bureaucracy as a culture and to accord that culture the same respect given to any other culture. Once having appreciated the bureaucratic virtues potentially at risk, the designer should reflect on the way that a specific collaboration design might pose a threat or an opportunity to the culture: what bureaucratic virtues are impacted and how? How might that threat be minimized and mitigated? Under what circumstances does the disruption of collaboration actually help the bureaucracy to cure its bureaupathologies?

The Paradox of Bureaucratic Collaboration, states that bureaucratic systems only tolerate the inherent threat of collaboration if (a) the bureaucracy is drifting from one or more of its bureaucratic characteristics; and (b) it believes the collaboration may, in the long run, help the bureaucrats to adapt their culture and return the bureaucracy to a healthier system balance. Though our approach is skeptical about robust collaboration, especially long-term collaboration, we are also hopeful in that our model provides a strong basis for assessment and design. The genuine opportunities may be few, yet with our approach a designer knows how to identify those opportunities, how to leverage them, and how to design with great power and practicality.

In this paper, we explored hierarchy in some detail in order to demonstrate the relationship between the Paradox, collaboration assessment and collaboration design. Hierarchy is arguably the least rich of all the bureaucratic characteristics, yet even here our model prompts useful insights about bureaucracy. We urge the reader to apply this same analysis for the bureaucratic characteristics of expertise, impartiality and record-keeping.

A future area of analysis might be to look at the few areas where Weberian analysis of modern bureaucracy was incorrect. In the realm of hierarchy, the ideal that policy is made top-down is important. But the proposition that in actuality, much policy is made at the street level (Maynard-Moody & Portillo, 2010; see also Turnpenny, Jones & Lorenzoni, 2011) adds some interesting wrinkles to collaboration design. If dealing with culture is difficult, dealing with the disjunction between cultural norms and cultural reality within bureaucracy can be explosive. But at the same time, if the real policy is made at the street level, then the designer will have to address this issue, even if only in his own internal deliberations, in convening collaboration and in the structure of formal collaboration agreements.

We take a bleak view that bureaucratic collaboration occurs as a set of isolated, temporary opportunities rather than as frequent, long-lasting transformations. Modern government bureaucracy is a highly resilient system, inextricably related to governance and modern notions of justice and accountability (Hummel and Stivers, 2010). It has not changed since the analysis Weber made a century ago, and its character had been long-entrenched even then. To balance our skepticism about deep change we offer an analytic approach that helps the designer find and exploit such opportunities as do exist—and steer clear of the purported collaborations that are fated to be window-dressing. What is lost in collaborative rhetoric is gained in analytic power.

No system is immortal. As Weber (1964) described, the system attractor "medieval bureaucracy," as stable as it was, underwent a phase change to become "modern bureaucracy," trading the characteristics of interconnectedness and patronage for impartiality and expertise. This phase change became possible when the entire culture made a corresponding shift in belief, in scientific method, in art and in political philosophy. Will post-modernism bring another phase change to bureaucracy? It is interesting to consider what bureaucratic expertise might look like in a post-modern world, how impartiality and compassion might emerge in a different balance, how power might be shared within an agency or how information made findable, even to people with different frames of reference. Until such time, a collaboration, under the right circumstances, might temporarily

bring glimpses of post-modern change. That in itself is a powerful, albeit limited accomplishment. But to go beyond a "glimpse," now, working with one or even a few agencies, is as radically disruptive as it is unlikely. (Note 3)

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Notes

Note 1. "Hierarchy" is an ironic feature of a system, because systems are not supposed to be top-down. But this irony comes from conflation. How hierarchy emerges as a characteristic of bureaucracy is separate from how it operates once it emerges. Birds flock—that is an emergent property. If later someone writes a rule that says "all birds must fly beside and slightly behind the other bird" or if the head bird starts wearing a special insignia and being called "boss," then flocking is still an emergent property.

Note 2. Unfortunately, many of the symptoms that might drive a bureaucracy to engage in collaboration also weaken it as a negotiation partner. If there is infighting it is hard to know whom to seat at the negotiation table. If morale is low the agency will have a hard time believing in, and rallying around, a collaboration agreement. But if the bureaucrats believe that the collaboration might provide them a means to resolve their internal tensions constructively, then—and for so long—their commitment will be deep.

Note 3. The system "medieval bureaucracy," as described by Max Weber (1964), is an attractor. For centuries, whatever the perturbation, internal or external, it returned to a set of characteristics in a certain range of balance. Part of its remarkable resilience came from its character as a complex adaptive system; the system itself works to return to its attractor. Medieval bureaucracy's strength also came from the way it nested within larger systems, such as governance and religion.

The attraction of medieval bureaucracy is huge, but eventually the system, and the larger systems within which it was nested, failed to return to their attractors (Sallach, 2000). Medieval bureaucracy underwent a phase change. A new attractor, with a different set of characteristics, emerged—modern bureaucracy.

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