

Process Empathy:
The Practical Guide for
Effective Bureaucrats



Ben Payne

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Process Empathy: The Practical Guide for Effective Bureaucrats. First Edition.

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Thank you to my coworkers.
Our interactions taught me
how to be a better bureaucrat.

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Preface

Bureaucracy is a consistent and pervasive challenge in our modern society. Even if you don't consider yourself a bureaucrat, you likely have direct experience with bureaucracy and are familiar with complaints about bureaucracy. Why does bureaucracy persist if the concept is commonly understood to be negative?

Reasoning about bureaucracy is an accessible topic because you have personal experiences. A commonly held view is that bureaucracies are broken: participants are harmed and there is inequality. A counterargument is that the bureaucratic behavior observed is how the system was designed to work. There is a third argument: bureaucratic systems work in a degraded mode – they are less efficient than what is possible. In this book I set aside the macro-scale questions of bureaucracy like the three arguments above and focus on the human-scale interactions that give rise to bureaucracy. Rather than complain about systemic problems, this book provides you with practical actions for situations you encounter.

The widely-held negative connotation of bureaucracy may lead you to reject the label of bureaucrat for roles you are in. Your recognition of your status as a bureaucrat matters even if you intentionally reject the label or do not recognize that you are a bureaucrat. How you behave and what you think your responsibilities are depend on how you label yourself. If you don't think of yourself as a bureaucrat, then you won't be able to distinguish what is your fault, what is the fault of your coworkers, what is the fault of management, and what is intrinsic to bureaucracy.

This book is for you if you are curious about the complex world we live in, if you are thinking about how to contribute to society, if you want your employment to have impact, or if your job is different from what you expected. This book will help you understand why and how innovation is often suffocated by bureaucratic organizations. Understanding the challenges means you can enact ideas that are more likely to succeed.

Every person in society is a participant in bureaucracy. The purpose of this book is to decrease the surprise of that experience and better prepare you emotionally and intellectually for the toil of being a bureaucrat. You can improve your skills as a bureaucrat with focused reflection and a helpful guide like this book.

The ideas in this book are intended to alter your view of bureaucracy. This book starts with an unconventional definition and then uses the definition to explain the necessity of various aspects of bureaucracy. Having identified specific challenges, the book serves as a guide for how you can be effective.

Defining Bureaucracy

Having a precise definition of bureaucracy enables a more nuanced discussion. The clarity of your thinking enables your effectiveness.

Definition: [Bureaucracy](#) is the process of enacting policies through subjective decisions, typically in the context of managing access to a shared resource. Three roles are required: policymaker, bureaucrat, and subject.

Conventional definitions¹ equate government to bureaucracy, but by the definition in this book bureaucracy is not limited to governments. Instead, government is an instance of where bureaucracy occurs. Therefore this book uses the word “organization” to encompass governments, corporations, non-profits, or any collection of people managing access to shared resources. As a consequence, many people are bureaucrats. The concepts and techniques in this book are derived from this definition. For example, in an organization comprised of bureaucrats typically no person knows everything and no person decides everything, so bureaucracy relies on distributed knowledge and distributed decision-making amongst people with distinct roles. For more exploration of this definition, see the section “[What is Bureaucracy?](#)” on page 3.

The framing of how you think about bureaucracy shapes what action you feel is relevant for changing your environment. Suppose your assumptions are wrong about how the system of bureaucracy works. Then you will be trying to change the system to meet your incorrect expectations and your actions are likely to be wasted effort tackling irrelevant aspects. An accurate understanding of bureaucracy allows you to be more effective and your changes to the system are more likely to succeed.

You can learn to skillfully navigate bureaucracy by using the techniques in this book. Your increased effectiveness enhances the organization you are a member of. Modern society is an interwoven fabric of organizations, with bureaucracy being the crucial material. Rather than ponder societal-scale concerns, this book focuses on the complicated and typical experience of a bureaucrat.

Even people who are smart (e.g., they know history, they have memorized state capitals, they can do math) can struggle when engaging with complex, large-scale distributed systems comprised of humans. Thinking about complex, large-scale systems is not part of the conventional education curriculum. This book will help you learn about bureaucracy, increase your ability to identify patterns, and apply relevant techniques. The pervasiveness of bureaucracy means the opportunities to apply the skills you learn in this book are many – at your job, at the grocery store, in negotiations with your family.

A guide for situations you haven’t been in before can decrease your anxiety by making the unfamiliar less intimidating. A guide labels patterns and provides context for your observations. Recognizing a familiar challenge can be preferable to the uncertainty of facing a novel scenario. An unfamiliar situation means not knowing how to start and not knowing the potential paths to success. In contrast, a challenge you understand can feel less burdensome. Even if you have not faced the particular challenge before, a guide can make that new challenge seem familiar and manageable. Having a guide doesn’t make your life easy – even a challenge that is understood requires creativity and effort.

Having a guide isn’t helpful if you find the topic repulsive. Negative impressions of bureaucracy are common. The word can evoke reactions of disgust, primarily driven by how individuals have experienced bureaucracy. The results of bureaucracy can appear idiotic – wasting time and resources or causing harm to people. Bureaucracy is even regarded by some as dangerous to society.² In contrast to negative impressions of bureaucracy, I claim bureaucracy is vital to society.

The difficulties of bureaucracy are central to large societies that have complicated dependencies on the interactions of many people. From foundational services like the delivery of water and removal of sewage, to advanced manufacturing that relies on long supply chains, bureaucracy is essential. The challenge of bureaucracy affects governments and companies in different societies of all scales. And bureaucracy is durable – it has existed for thousands of years. Because bureaucracy is pervasive, tackling the topic of bureaucracy is exciting and crucial. The excitement comes from the opportunities available for the many potential improvements. Being an effective bureaucrat is important because bureaucracy can be a [force multiplier](#) beyond what one person could achieve on their own.

¹[Merriam-Webster’s definition](#) focuses on government; the [Wikipedia entry](#) acknowledges non-governmental bureaucracy.

²“The only thing that saves us from the bureaucracy is inefficiency. An efficient bureaucracy is the greatest threat to liberty.” (Eugene McCarthy, 1979 [75])

Bureaucracy is pervasive because there are few alternatives to bureaucracy for a society constrained by finite resources. Gaining skills in navigating bureaucracy is helpful both for your happiness and the improved functioning of society. That may seem abstract and lofty, but the situation is difficult to escape: you are a member of society and benefit from participating in society.

The topic of bureaucracy spans academic disciplines, including [psychology](#), [sociology](#), [organizational dynamics](#), [public administration](#), [anthropology](#), economics, and [political science](#). Most bureaucrats have no formal training in any of these domains. This book is not written from an academic perspective; it is written by a practicing bureaucrat to serve as a guide to be read by bureaucrats.

As a result of reading this book, you will be better able to recognize and navigate complex human interactions within your career and outside of your professional roles. Perspectives offered in this book can benefit you directly, whether by promotion in rank or title, increase in pay, successful completion of a project, or through decreased stress derived from an improved understanding of bureaucracy. Being a more effective bureaucrat can also positively affect the causes you care about and the people you engage with.

What this Book is Not

This book is not a defense of bureaucracy, nor is it intended to disparage bureaucrats or the system of bureaucracy. Instead, this book is a guide to bureaucracy-as-it-is. There are no hacks presented for circumventing bureaucracy. Instead, this book provides advice on being an effective member of a bureaucratic organization.

Nothing in this book is domain-specific, nothing is tied to the engineering of products, and nothing applies solely to science research or policy development. However, skills associated with being an effective bureaucrat do translate into other domains.

This book doesn't focus on political [policymakers](#), government oversight (e.g., Congress at the state or federal level, Inspectors General), competing organizations, contracts, the budget of an organization, fines and other regulatory punishments resulting from bureaucracy, policy enforcement, specific policies and regulations, formal arbitration or judicial resolution of disputes. See Wilson's *Bureaucracy* [116] for observations on those topics.

This book does not focus on leadership, managing a team, being a team member, planning, time management, project management, advancing your career, how to get promoted, or self-improvement. In the process of being a better bureaucrat, some lessons may apply in those areas.

This book does not discuss work conditions, pay, benefits, or retirement plans. If you are seeking a competitive advantage that might result in improved outcomes, learning to navigate bureaucracy helps.

This book doesn't discuss discrimination or harassment. Differences in experience based on race, gender, or socioeconomic status are neglected. This book doesn't discuss bad coworkers, abusive bosses, psychological defects of individuals, or malicious intent. I assume no traitors, spies, or saboteurs [104]. [Dark patterns](#) like lying, bribery [3], and criminal behavior are not discussed. Those aspects happen whenever people interact, so the challenges of intentional defectors are not unique to bureaucracy.

In practice, people are imperfect in their communication and actions. Sometimes people have less than virtuous motives. The perspective taken in this book may seem naïve compared to reality. However, addressing the inadequacies of people you engage isn't specific to bureaucracy.

Focusing on the morals of organizations or bureaucrats [55] is less compelling than studying bureaucracy because norms (the expectations for individuals and organizations) shift over time, while bureaucracy is persistent. In this book I focus on culturally invariant aspects of bureaucracy.

Assumptions

As a way of limiting the complexity of this book, I assume you are honest and that other people are honest. I assume bureaucrats strive for fairness, though the definition of fairness may vary from bureaucrat to bureaucrat. The complexities of bureaucracy arise even with these simplifying assumptions and setting aside the topics listed in the previous section.

The approach in this book is to view bureaucracy from a few perspectives. The first is a conceptual view focused on the [definition of bureaucracy](#) in terms of managing shared resources. The second view is structural (e.g., hierarchy, meetings). The [essentials of bureaucracy](#) will be familiar to experienced bureaucrats. The third view is based on the experience of a practicing bureaucrat – [tips on how to be effective](#) (page 40), [dilemmas](#) (page 47), and [unavoidable hazards](#) (page 79).

Chapters 1 through 3 provide background context for bureaucracy. Chapters 4 through 7 are the guide. You can read each chapter of the guide (4-7) independently.

Reading this book front-to-back is the default option, but not required. The sequential presentation of topics hides the relations of topics in the book.

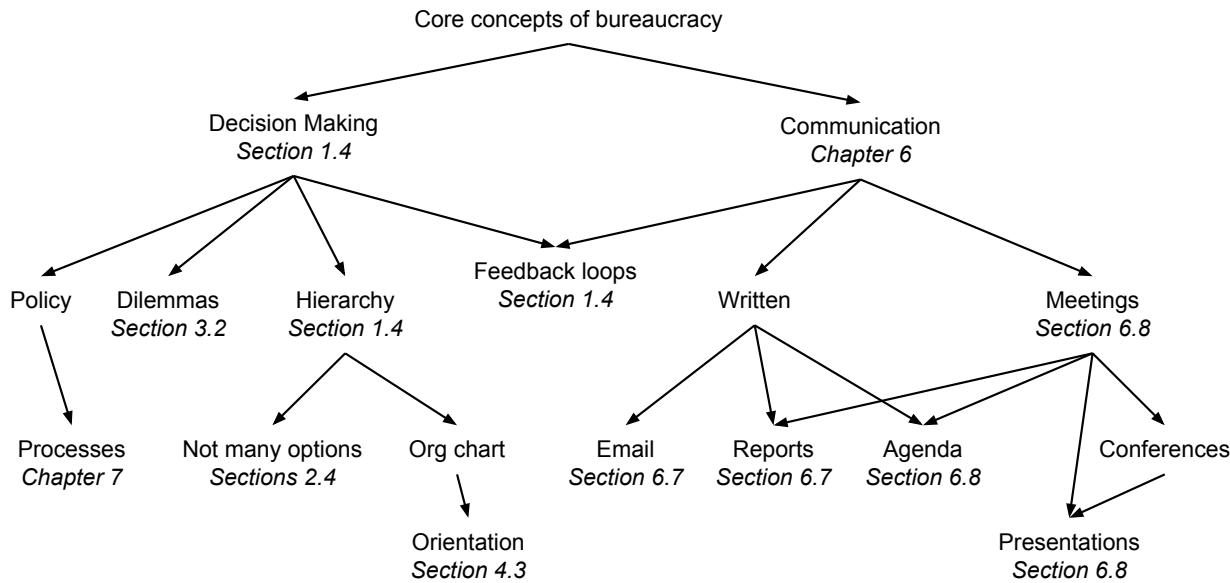


Figure 1: Relation of the concepts discussed in this book.

The freely available electronic versions of this book (including [PDF](#), [HTML](#), and [EPUB](#) formats) have hyperlinks in the text. Light-blue hyperlinks reference external resources like Wikipedia, while dark-blue links reference material within the guide such as the glossary. Whether you have an electronic or printed version of this book, I encourage you to share the book with other people.

This book is based on personal experience operating in multiple large organizations and small teams, reading published books and papers, and insight from fellow bureaucrats. Informal surveys were conducted but are not foundational for claims made in this book. No [double-blind](#) experiments were conducted.

I have tried to learn from my mistakes by reflecting on my (in)actions and the consequences. This haphazard approach has been an expensive education. My mistakes delayed progress and damaged relationships. This book provides generalizations from my experiences that might benefit you. My hope for this guide is to decrease your surprise when you encounter what would have been novel situations.

Ben Payne
August 12, 2024
United States of America
Earth

Chapter 1

Introduction

Back to the [Main Table of Contents](#)

The motivating logic for this book is a sequence of claims:

1. A community has limited resources that members desire. The members of the community respond to that constraint by sharing resources.
2. Contention amongst community members regarding access to a [shared resource](#) leads to a need to manage access. Managing access requires making and enforcing policies that apply to community members. This may start as a consensus but often a single person is nominated because the cost of consensus is high. This is not yet bureaucracy because subjects can negotiate with the person managing access to the resource.
3. Due to increased size or complexity, more than one person may be responsible for making and enforcing policies. Having multiple policymakers leads to inconsistent policies, so instead the workload is split into the roles of policymaker and policy execution by a bureaucrat.
4. [Bureaucracy](#) exists when people involved in managing access to [shared resources](#) have the roles of policymaker, bureaucrat, and subject.
5. Managing access to shared resources can involve multiple bureaucrats operating together. In a large organization the use of distributed knowledge and distributed decision-making results in [decentralized bureaucracy](#).
6. Whether you're a [bureaucrat](#) or a subject of bureaucracy, you can be more effective by applying [process empathy](#).

Once you've familiarized yourself with the concepts in this book, using what you've learned is a two-step process. First, ask yourself whether the conditions for bureaucracy are present. If they are, then you can be more effective by applying process empathy.

The definition of bureaucracy is the basis for evaluating the scenario you are in. You may already have a sense of what bureaucracy is, but a description is provided on page 3 in the section "[What is Bureaucracy?](#)" To supplement the definition, illustrations of bureaucracy provided throughout this book show how you can grow your process empathy – the focus of the next section.

1.1 Process Empathy

Process empathy is the central idea of this book. The concept extends from conventional understandings of empathy.

Empathy typically refers to understanding the emotions of another person. To detect the emotional state of another person, you rely on facial expressions (smiles for happiness, frowns for frustration), body language (arms crossed, turning away), speech (yelling in anger, singing for joy), and actions (hitting something when angry). You evaluate a person's emotional state from these signals by recalling instances where you felt similar emotions. [Emotional empathy](#) helps you understand and relate to the other person.

A distinct form of empathy is the ability to understand the reasoning another person uses. To distinguish that from emotional empathy, I use a separate label: [intellectual empathy](#). This is the concept of establishing a common understanding of an issue (even if you disagree). You can apply intellectual empathy in both a one-on-one interaction and amongst a team of people. Intellectual empathy is enacted by thinking about how another person would assess a situation and how they might respond. Another technique is to imagine what reasoning they would use when presented with a set of facts. For example, if you're shopping for food and see carrots are available, you can try to project how other people you live with would respond to having carrots in their meals. Would they value the variety in their diet, or would they wonder why you are punishing them?

See page 114.

A third form of empathy is the focus of this book: the ability to perceive why individuals working together behave in recurring patterns. What incentives do people in each role have, what information does each person have, and how does that manifest as actions by the team or organization? Applying the paradigm of [process empathy](#) helps you answer questions like "Why is this taking so long?" and "Why is this action so apparently inefficient?" even when no one participant is lazy or inept. The answers come from recognizing [unavoidable hazards](#) (see page 79) of bureaucracy. As another example, the question "Why are people inadequately trained for their role?" is resolved by recognizing the consequence of [turnover](#) (see page 176). Process empathy relies on your understanding of bureaucracy to help you distinguish which patterns are specific to the people involved versus specific to the organization you're engaging with versus generic to every organization.

Process empathy is distinct from reasoning about a process. Reasoning assumes a holistic external view (exemplified by Gall in *The Systems Bible*, [42]), whereas process empathy is about the perspective of individual people operating within their local context. Reasoning about teams and the aggregate organization invariably leads to observations of illogical and absurd outcomes, whereas a view based on process empathy reveals the causes of apparent paradoxes.

Process empathy involves thinking beyond formal roles and deeper than the abstractions of team-as-entity and organization-as-entity. Because process empathy is generic across bureaucracies, the benefit of this perspective is that you can gain insight about people you don't know doing work you don't understand. Each application will have nuances specific to the people involved and the shared resource being managed, but process empathy provides a useful framework for navigating bureaucracy.

Developing your process empathy involves asking questions about your situation. For example,

- What [incentives](#) do process participants face? Consider the (lack of) [feedback loops](#).
- What unaligned goals do individual bureaucrats have that cause friction?
- What are the different paths individual bureaucrats take to work towards their goals? See the list of [dilemmas](#) bureaucrats face on page 47.
- How can you leverage the interplay between processes and professional interpersonal relationships? See [reputation management](#) on page 111.

See page 23.

Rather than asking, “What benefits the team?” or “What supports the organization?” the paradigm of process empathy focuses on people and incentives. For example, to be effective you need to identify rules (written and unwritten), determine who enforces what, consider the detection mechanics for rule-breaking, and weigh the consequences of [subversion](#) against the benefits of breaking rules.

Developing process empathy does not mean that you trust the people involved. Process empathy does not mean trusting processes. Faith in bureaucracy is certainly misplaced. Understanding bureaucracy better allows you to actively remedy the inefficiencies and deficiencies. You need to build an understanding of what the process is for a given policy managing a [shared resource](#).

The question “When is process empathy applicable?” is answered by “When bureaucracy is present.” A clear understanding of bureaucracy is necessary for building your process empathy.

1.2 What is Bureaucracy?

While you may know it when you see or experience bureaucracy,¹ for this book definitions are helpful. Throughout the book I’ll refer back to these definitions as I explain concepts needed to understand bureaucracy.

[Bureaucracy](#) involves the creation and execution of [policies](#) for managing access to shared resources. Creating and carrying out policies usually involves multiple people, each having a specialized role. Motivated by scalability (how many widgets), complexity (number of tasks per widget), or latency (time per widget), members with distinct roles form a hierarchical organization to facilitate coordination. The organization has control over the disbursement of resources relevant to the society the organization works within, or the organization administers a policy within that society. Resources managed by the organization are either tangible (e.g., water, air, land) or intangible (expertise, e.g., food inspection, teaching mathematics, painting cars; information, e.g., census results).

Enacting bureaucracy relies on a combination of [quid pro quo](#) (carrot) and coercion of subjects (stick). The coercion can be a threat of physical violence or threat of sanction – namely removal from the process. This interpretation applies even within bureaucratic organizations to the member bureaucrats, where threat of sanction can be formal (up to removal from the organization) or informal (outcast from the group of professional bureaucrats).

Bureaucracy is not limited to government. Non-profit organizations, volunteer groups, commercial companies, and even small teams of people can invoke bureaucratic tendencies. The existence of bureaucracy is independent of an organization’s purpose and independent of whether money is involved. Carrying out someone else’s subjectively defined policy will require you to make subjective decisions regarding execution and enforcement.

Roles in Bureaucracy

Distinct roles can be identified within the description of bureaucracy. [Core bureaucracy](#) involves a [policy-maker](#), a policy enforcer (the bureaucrat), and the person upon whom policy is inflicted (the [subject](#)). The policy is typically for a shared or contended resource. In the context of government, the policy creator can be either a politician or a bureaucrat. In the context of a family, the primary caretaker usually sets policies. The assignment of roles to individual people is not fixed – the assignment depends on the scenario.

A crucial aspect of bureaucracy is the separation of roles: policymaker, bureaucrat, and subject have to be separate people. This separation creates [conflicts of interest](#) that wouldn’t otherwise occur. For example, suppose you need to design a security policy for a computer, and you then want the policy reviewed. If those

¹See the Wikipedia entry for “[I know it when I see it](#).”

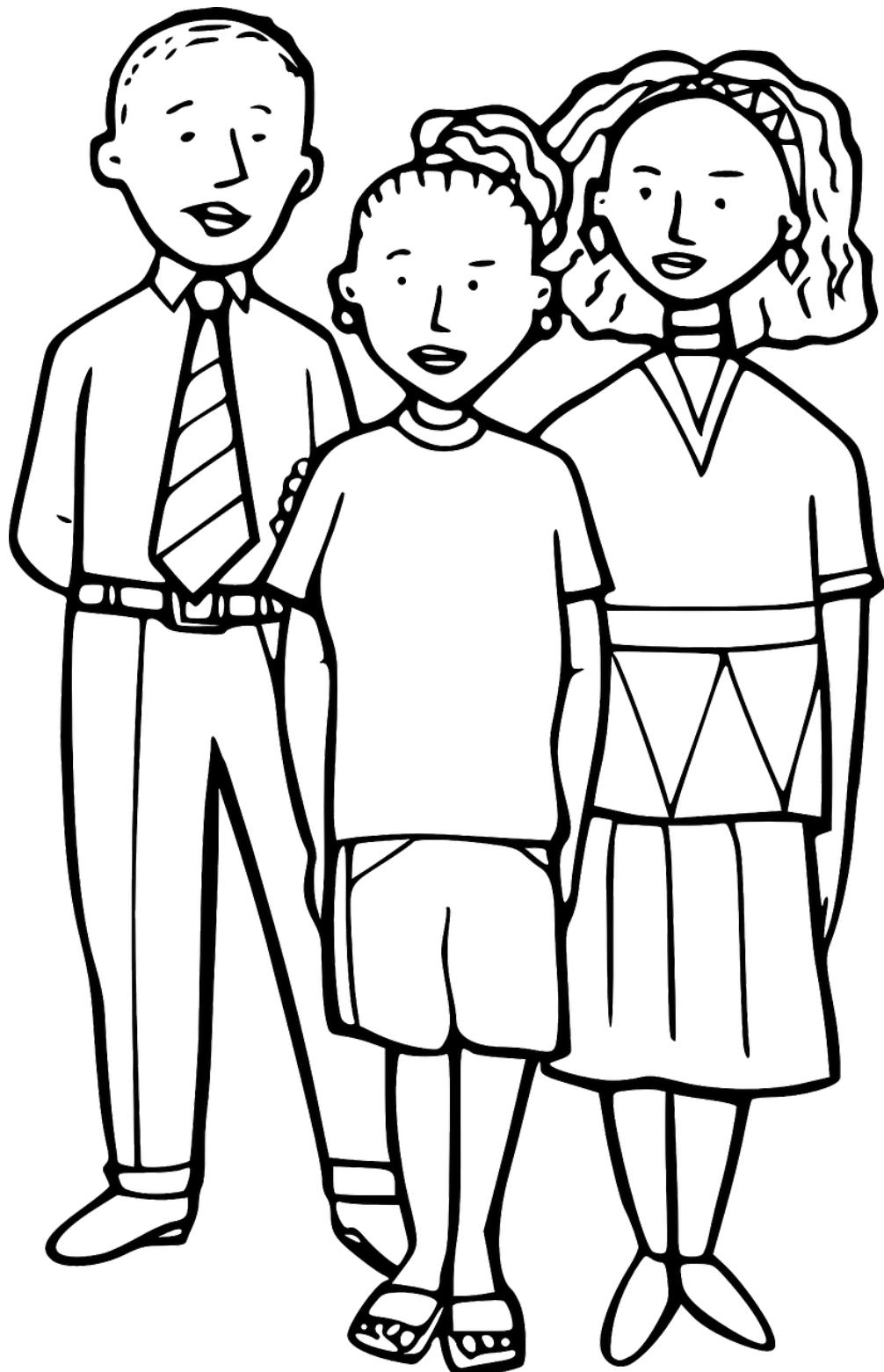


Figure 1.1: This family consists of a policymaker, a bureaucrat who enforces policies, and the subject of bureaucracy. Which person has which title depends on the situation. For example, if Mom says no dessert until after the daughter eats her peas, then Dad helps enforce that policy. The shared resource being managed is the dessert.

two roles are filled by the same person there's no conflict of interest. One person creating a policy and a different person enacting policy is necessary for bureaucracy to arise. Similarly, the person enacting policy must be separate from the person upon whom the policy is inflicted; otherwise who could complain?

While three people is the minimum for bureaucracy, bureaucrats often congregate. An organization comprised of bureaucrats typically has a leader – something like a Chief Executive Officer (CEO). Because the CEO doesn't know everything and can't make all the decisions a variety of management styles exist to spread the responsibility within the organization and leverage the diffuse expertise. Which management style is most effective depends on the personalities of people involved. Regardless of management style the challenges of distributed knowledge and distributed [decision-making](#) are present.

The roles of policymaker, bureaucrat, and subject apply within organizations comprised of bureaucrats. That mapping of labels can initially be confusing but aligns with the personal experience of bureaucrats. As an example, a supervisor at a state agency is a bureaucrat, but he sets policy for you and your team members regarding interactions with other teams in the state agency. In this scenario bureaucrats on other teams are the subjects of the policy you're enforcing.

The main character within a bureaucratic organization is the [bureaucrat](#) – the person who is a member of an organization and is responsible for subjectively enacting policy on someone else's behalf. The person that a bureaucrat's decisions are inflicted on is a [subject](#). Depending on context, a subject may be a student (when the bureaucrat is a teacher) or a subject may be a citizen if the bureaucrat is a police officer or government official. Sometimes a bureaucrat's decisions are inflicted on other bureaucrats-as-subjects, such as when a Chief of Police creates guidelines for police in their district, or when a senior diplomat sets policies for embassy employees.

While the roles of policymaker, bureaucrat, and subject are pervasive in a variety of contexts, bureaucrats usually avoid using the pejorative label. Typically formal titles are used that are associated with a specialization. Titles are more than just labels; titles impersonalize interactions, displacing the need for interpersonal relationships. This impersonalization is what enables the value of bureaucracy, while also causing a negative perception. As a subject engaging with a bureaucratic organization your relationships are supposed to be irrelevant – you get access (or don't) to the shared resource regardless. The rest of this book uses the label of bureaucrat in a neutral sense even though socially there is a negative connotation.

A [bureaucrat](#) subjectively interprets policies made by someone else and has discretionary enforcement. Let's break that previous sentence down piece-by-piece. First, "subjective interpretation" means a person is deciding how to do something. Subjectivity arises from different reasons one person might choose an option over a competing alternative. A [policy](#) is a set of actions regarding a shared resource in a given circumstance. Discretionary enforcement means the bureaucrat chooses how to apply the policy in specific circumstances.

Often more than one bureaucrat is inflicting a policy, in which case there's a need to facilitate coordination of stakeholders by applying specialized knowledge. Facilitating coordination means getting multiple people in different roles to accept a decision about the shared resource. The stakeholders are people who care about the application of the action in each circumstance.

The summary above is still pretty dense, so the rest of the book is spent expanding the nuances and implications of this definition.

Consequences of the Definition of Bureaucracy

Armed with the definitions and roles, let's explore the consequences of this paradigm.

Bureaucracy is neither good nor bad. Bureaucracy is not tied to politics, nor is bureaucracy specific to an institution (e.g., corporations, governments, academia). The definition of bureaucracy used in this book is independent of government. Bureaucracy is not defined to be efficient, nor does it have to be inefficient.

Bureaucracy is not restricted to paperwork, record keeping, quantification, or gathering metrics. Nothing in this definition involves paperwork or an office building. Definitions that limit the concept of bureaucracy to specific contexts result in a decreased ability to describe complex, large-scale organizations of humans. If you use a definition of bureaucracy that is limited to government then you'll be confused by similar behavior showing up in small groups of volunteers and in commercial businesses.

Bureaucracy is typically not inherently a manifestation of incompetence, laziness, or mistakes. Even with well-trained bureaucrats trying to help other people, challenges arise when people interact to manage access to a shared resource. Sources of friction in a well-run bureaucracy stem from ambiguity, conflicting incentives, finite attention, and inadequate resources. Bureaucracy is necessary because shared resources are scarce. There's not enough to satisfy the needs of the community, leading to contention. Therefore distributed decision-making and distributed knowledge are relevant for the allocation of those resources.

Bureaucracy is about delegation of control, communication, decision-making, coordination, and processes. A vital aspect of bureaucracy is that decisions are made humans.

The consequence of subjectivity is that policies are negotiable. Bureaucrats rely on negotiation to adjust to nuanced circumstances not foreseen when policies were designed. You (whether in the role of a subject or a bureaucrat) need to know who to negotiate with and how to negotiate the changes you seek.

Bureaucratic decisions are subjective, but there are actual rules that constrain humans. The mathematical physics that describe nature are not negotiable. Everything in your environment is either naturally occurring macroscopic emergent phenomena (e.g., chemistry, biology) or humans making up labels and norms. Distinguishing the two is critical to knowing what you can change and what you have to work within. See Figure 1.2 on page 7 for an illustration of the decision sequence.

The complexity of bureaucracy is due to the lack of standard, objectively quantifiable feedback mechanism for individual participants in the organization. This aspect is why governments, schools, and prisons are characterized as bureaucratic. The military doesn't rank soldiers by "number of enemies killed" and is bureaucratic. Even profit-driven commercial organizations are bureaucratic when the actions of individual employees are not coupled to the metrics of profit.

Profit-based feedback makes some roles in a business context slightly more predictable and sensible. Even in that situation there are subjective trade-offs like which costs get externalized and whether to focus on long-term profit versus short-term profit.

The concept of bureaucracy is most visible for complex recurring situations involving many people and the control of a shared resource. The friction of bureaucratic processes can be lower when there are only a few people involved ("I'm just talking to my collaborator," or "I'm just buying groceries from a clerk at the store," or "I'm using a website for a government service"), but there is a gradient to more obvious instances of bureaucracy. Bureaucratic tendencies are observable at small scale, but in that limit it becomes difficult to distinguish what is attributable to the specific participants.

Operating within an organization of bureaucrats feels different from other parts of your life because of the interdependence and loss of autonomy. Modern conveniences are designed to hide bureaucracy and create the illusion of independence. Aspects of modern life like electricity, water, sewage, safety, and entertainment all operate at a scale that makes dependence on other humans almost invisible. You probably don't know the person who wired your house, runs the electrical power plant, monitors the flow of clean water, or treats sewage. A breakdown of those services is a [leaky abstraction](#): what was hidden becomes visible.

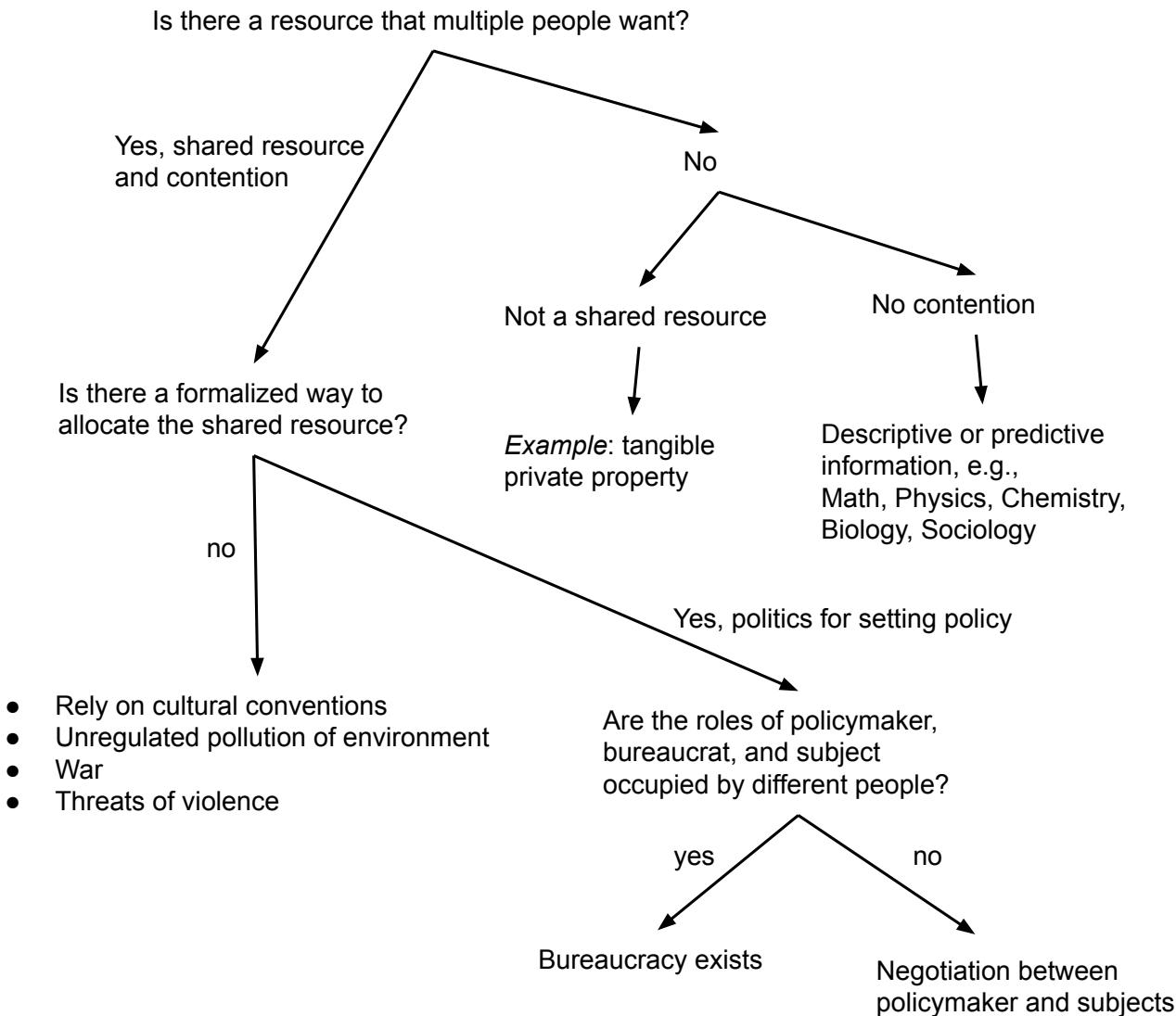


Figure 1.2: This book focuses on bureaucracy but there are ways to manage access to shared resources that are not bureaucratic. This decision tree shows ways that are and are not bureaucratic. Start from the top, then evaluate the sequence of questions to determine which label applies to your situation. One endpoint on the bottom left (unregulated pollution) is an instance of the [tragedy of the commons](#) – the case of a shared resource with no constraints on use. In that situation someone will try to get away with behavior that is harmful to the community of users.

Decentralized Bureaucracy is Complicated

Decentralized bureaucracy is the use of distributed knowledge² and distributed decision-making. That is in contrast to easier-to-understand concepts like centralized knowledge and centralized decision-making. A government run by dictatorship is easier to conceptualize than democracy because there is a central character around which a narrative can be formed. Similarly, stories about the CEO of a company are easier than capturing the thousands of interactions conducted by the many employees of that company. The vast majority of the work done in an organization is coordinated and carried out by people other than the CEO. Most of what is known within an organization is known by people other than the CEO. Linear storytelling with a small number of main characters does not map well to the complexities of bureaucracy.

If you think bureaucracy sucks and should be removed or replaced, consider the parable of [Chesterton's fence](#) [21].

“There exists ... a fence or gate erected across a road. The more modern type of reformer goes gaily up to it and says, ‘I don’t see the use of this; let us clear it away.’ To which the more intelligent type of reformer will do well to answer: ‘If you don’t see the use of it, I certainly won’t let you clear it away. Go away and think. Then, when you can come back and tell me that you do see the use of it, I may allow you to destroy it.’”

You need to learn the historical evolution of processes that your organization relies on to understand the bureaucracy local to your environment.

1.3 The Scope of Bureaucracy

Bureaucracy is widespread and therefore worth learning about so you can be effective. When you recognize bureaucracy specific to your environment, you will be better able to respond appropriately. If you recognize the systemic incentives driving a person’s behavior, you are less likely to see the person as malicious or incompetent. You are also more likely to be able to negotiate with them and enact the changes that you seek.

The definition of bureaucracy in this book (managing access to [shared resources](#)) is consistent with conventional perceptions of bureaucratic organizations. That resource can be external to the organization or internal to the organization. Examples of external shared resources include:

- The [Environmental Protection Agency](#) (EPA) manages access to bureaucrats who have expertise with environmental regulations governing water, air, workplace safety, etc.
- Mail delivery by the [United States Postal Service](#) (USPS).
- Public safety for the [Federal Bureau of Investigation](#) (FBI).
- The [United States Intelligence Community](#) manages access to bureaucrats who have expertise in collecting foreign intelligence.
- Bureaucrats in the [Food and Drug Administration](#) (FDA) use their expertise to regulate food safety to serve their community.

² “[Bureaucracy] is designed to take in and digest different pieces of information in far greater quantity than the human head alone can hold and produce from this mass of differentiated data, a useful synthesis.” [81]

- Bureaucrats of the [Federal Aviation Administration](#) (FAA) have expertise on flight safety to protect their community.
- The information technology department in a large organization manages staff with expertise in repairing computers.
- Bureaucrats in the [Food and Drug Administration](#) use their expertise to regulate food safety to serve their community.
- Bureaucrats of the [Federal Aviation Administration](#) have expertise on flight safety to protect their community.
- The military manages the shared resource of bureaucrats with expertise in war-making.

There are also resources internal to an organization like attention, skill, and expertise. Those shared internal resources get quantified as time, money, and staffing. While talking about trade-offs of time, money, and staffing are easy, keep in mind they are proxy measures for the central intangible resources like attention and expertise. The bureaucracy of managing access to shared resources is descriptive but doesn't provide actionable insight to you, whether you are a practicing bureaucrat or subject. Bureaucracy is not a distant, faceless concept. Bureaucracy permeates your environment and is the basis for many interactions you have with other people. Actionable concepts are highlighted throughout this book in the margins.

Who is a Bureaucrat?

A variety of roles and interactions provide conditions for inflicting subjective policy regarding shared resources.

A cashier in a gas station is a bureaucrat. The shared resource is the gas and other items for sale. The “policy” might be “take money from customer in exchange for items sold in the store and gas from the pumps,” but the subjective application of that policy leaves a lot of room for the cashier to shape the customer’s experience. Does the cashier greet the customer when the customer enters the store? Does the cashier look at the customer to acknowledge the customer? Smile? How quickly does the cashier engage the customer? Minor nuances left to the cashier in the execution of the store policy mean there is room for subjective application of the policy.

A bank teller, a loan officer, and a bank’s [technical support](#) are all bureaucrats. The shared resource includes money the bank manages and the expertise associated with managing money. Each employee subjectively enforces policies on behalf of the organization. Each role has a different amount of influence on the bank’s finances. Of these three roles, the loan officer’s interactions with bank customers provide the most straightforward route for feedback based on profit. The loan officer doesn’t act alone though – the customer’s interactions with tellers and the bank’s technical systems also matter to the customer’s decision about how and where to manage money.

This same discretionary application of policy applies to commercial bureaucrats like sandwich makers, car salespeople, oil well drillers, grocery clerks, retail clerks, and plumbers. Public school teachers, state and federal police, military members, tax collectors, and other state workers are government bureaucrats.

Factory line workers subjectively apply policies, with the assembly line and factory being the shared resource. Enforcement of quality standards is a subjective policy. The pacing of work is a negotiation with management that directly influences productivity and profits. The feedback loop for factory workers from profit generated by the product is typically weak and diffuse.

Structured environments like sports featuring well-defined rules do not eliminate bureaucracy. Teammates use subjective policies on who to work with, how to best leverage their strengths, and when to exploit the

opponent's weaknesses. The policies are set in part by the coach. Referees make subjective determinations about rules.

Sometimes bureaucrats do not work directly with customers, citizens, or products. Then the bureaucratic process is inflicted on fellow bureaucrats. In that scenario, a bureaucrat is subjectively applying a policy to other bureaucrats.

Self-administered exam: Am I a Bureaucrat?

Answer Yes or No for each of the following descriptions:

- I administer access to a **shared resource** for other people.
- Someone else creates the policies governing disbursement of that shared resource.

If both of these are true for you in a specific context, then you are a bureaucrat. In situations where these conditions are not applicable, you are not a bureaucrat.

See Figure 1.2 for a more detailed evaluation.

Identifying yourself as a bureaucrat matters because the label informs the responsibilities of your role. The risk of not self-identifying as a bureaucrat is that you won't grasp how much control you have in enacting and enforcing policy. If you think of yourself as having to blindly follow rules, you will harm the people you are applying the rules to and the organization you are applying the rules for. The value of having capacity for judgment is so you can adapt policies to circumstances. Power is merely decisions that alter the opportunities of other people. Your perception of what decisions are available determines how much power you have.

In a similar sense from the consumer's or citizen's perspective, if you don't think you are interacting with a bureaucracy, you won't perceive the opportunity to negotiate. If you view rules as unchanging and inflexible, you will harm your ability to make progress. If a human made a rule, then that rule is flexible. Who made the rule? Who enforces the rule? If you can talk to them, could they be convinced to make a modification or an exception? Sometimes the answer is yes.

If you don't think about the bureaucratic framing, you might think the store clerk is enforcing a policy because they don't like you. Assigning personality conflict as the cause might lead to a different conversation with their manager (the person who created the policy).

If you don't think of yourself as a bureaucrat, you may behave passively in your job. The paradigm of "just tell me what to do" is the default (learned in school) and you won't know how to engage with coworkers and bosses since their role is distinct from that of a friend, family member, or teacher. You will be less likely to understand how to leverage members of your organization. Thinking from a bureaucrat's perspective explains why communicating within your organization is critical to your success and the organization's success.

If you think of yourself as merely a cog in a machine, you are less likely to notice that you exert influence in the process and you are less likely to recognize the autonomy available to you. If you think "I have a real job (e.g., nurse, cashier, teacher); therefore I'm not a bureaucrat," you are less likely to recognize the subjective power you have in interactions with the public. If you think, "I'm at the bottom of my organization's hierarchy; therefore I do not have power," you are less likely to notice autonomy when it is available.

If you don't consider yourself to be part of a bureaucratic process, you'll behave differently in interactions with bureaucrats. You won't perceive opportunities to negotiate because processes seem fixed instead of subjective. You won't recognize the motives and incentives of bureaucrats, so their activities will seem incom-

prehensible. Once you identify as a contributor to the bureaucratic process, you will be able to effectively engage, negotiate, and make meaningful changes happen.

Factors Influencing Bureaucracy

The size of an organization and the complexity of managing access to shared resources drive the challenges of bureaucracy.

Although bureaucracy can be present for as few as three people, and bureaucracy is often apparent in teams (e.g., 3 to 20 people), this book focuses on the situation of multiple teams comprising an organization. The size of an organization ranges from tens of people up to millions of people. Examples of companies that employ more than a million people³ include Walmart, Amazon, and McDonald's. Size isn't a requirement for bureaucracy. Small companies with a few people incur bureaucracy because of the need to coordinate subjective policies governing access to shared resources.

There are three distinct sizes of bureaucracy.

- The smallest instance of bureaucracy is when the minimum of the three roles (policymaker, bureaucrat, subject) exist. At this size dysfunction is due to the bureaucrat interpreting policy.
- A medium-sized bureaucracy has more than one bureaucrat interpreting the same policy. Dysfunction is caused by different interpretations of the policy having different consequences for subjects. This results in the feeling of unfairness attributed to bureaucracy.
- A large bureaucracy is distinguished by different bureaucrats working in opposition because they are referencing different policies. The subject of bureaucracy is burdened with resolution but doesn't have the authority to resolve the dissonance. Processes can appear nonsensical from the holistic perspective. The label of [decentralized bureaucracy](#) is used in this book to indicate reliance on distributed knowledge and distributed decision-making. At this size the unaligned incentives for different bureaucrats create dissonance.

The amount of bureaucracy typically scales with the complexity associated with a shared resource. For example, if participants in a society only used hand tools they could make themselves, then there is less need for bureaucracy. Mining and producing small amounts of metal is feasible for an individual, though the relevance of specialization becomes clearer. A society large enough to support the technology of writing (beyond the use of clay tablets) seems to coincide with the bureaucratic need for writing. Getting to technology like the telegraph and radio requires a society that supports complex processes and specialization – key features of bureaucratic systems. While decreasing accidental bureaucracy is feasible, there is some essential bureaucracy⁴ necessary for maintaining the current level of technological sophistication.

In addition to essential task complexity, the size of bureaucracy depends on accidental factors like how old the bureaucracy is, how big the community being supported is, and how diverse the community is.

Money is uncorrelated with bureaucracy. Bureaucracy occurs in commercial companies, government, and non-profit organizations. Money can help align incentives and provide feedback loops to inform behavior, but money can also be the source of administrivia and policies.

Bureaucracy emerges in small organizations, has scale-invariant patterns, and is generic across sectors. The complexity of the tasks may differ, but the same scale-independent patterns emerge because of a common factor: human behavior.

The scale-independent patterns and underlying human behavior are the focus of the next section. The Fundamentals of Bureaucracy maps the formal definition of bureaucracy used in this book to commonly

³See Wikipedia's [list of largest employers](#).

⁴The distinction of accidental and essential complexity is from Brook's "[No Silver Bullet](#)" [15].

observed features of bureaucracy: decision-making, hierarchy, communication, and feedback loops. Understanding these fundamental aspects helps develop your process empathy by knowing why these features exist.

1.4 Fundamentals of Bureaucracy

There are four essential elements of bureaucracy: a shared resource and three roles (policymaker, bureaucrat, subject) inhabited by different people. These elements give rise to observable features that are commonly cited as being bureaucratic, but these aspects are referred to here as Fundamentals of Bureaucracy. This section outlines the critical roles of decision-making, hierarchy, communication in bureaucracy, and feedback loops. The list presented here is smaller than Max Weber's [114].

Decision-making is central to bureaucracy. Every other aspect of bureaucracy derives from decision-making. The decision-making in bureaucracy is for the management of access to shared resources. In the definition of bureaucracy used in this book, "shared resources" refers to information, expertise, and tangible goods.

See page 12.

When there are multiple people present coordination of decision-making is crucial to the management of shared resources. Who gets to make which decision is managed using a hierarchy of roles? While coordination can occur without hierarchy when there are a small number of people, typically an organization of people leads to both formal and informal hierarchies.

See page 17.

Meetings and written communication help with consensus among bureaucrats, though agreement isn't necessarily the outcome. Once a decision is made, the choice selected by a bureaucrat propagates throughout the organization to achieve some level of consistency.

See page 21.

A less prominent feature of bureaucracy is the weak feedback loop. This distinguishes bureaucracy from a market-based system where the consequences of decisions manifest as profits and losses. If you sell shoes, you can evaluate decisions you've made by measuring how much money you make. In contrast, the decisions of a bureaucrat are often barely felt by the bureaucrat. That weak feedback loop (few consequences for the decision-maker) means learning from mistakes is harder and positive reinforcement for good outcomes is negligible. A weak feedback loop does not mean there are no consequences. The actions of a bureaucrat create ripples that other people feel. This is described in more detail in the section on feedback loops and ripples.

See page 23.

If you're not an academic researcher of bureaucracy, you might not want to think about hierarchy, collaboration, or coordination. Meetings and email are not your goal; you just want to do the tasks you are trained for. This attitude is consistent with your experience in school where you progressed by being graded as an individual student. Now that you are employed your job has pay, promotion, hiring/firing, and a title. School, and now employment, may seem focused on your abilities (instead of on the class you're in or the team you're a member of). While this attitude is common, it is not effective.

The following sections explain why the individualist mentality is ineffective when you are part of a system of distributed knowledge and distributed decision-making.

Fundamental: Decision-making in a Bureaucracy

Decisions are central to a bureaucratic organization. This book explores the topic of decisions, but decisions are not the only source of change in an organization. Occasionally events unfold without decisions being made either because the decision-makers are not informed or there is intentional neglect. This book focuses on situations where bureaucrats recognize the need for a decision and want to make the best decision.

There are multiple types of decisions. A [simple decision](#) has one correct or beneficial choice and one or more wrong or harmful choices. The work of decision-making is then to gather information that identifies the correct or beneficial choice and select that option.

The best case scenario for any decision-making is one person making a well-informed, simple decision that has immediate consequence and the consequence is to the decision-maker. Examples from elementary school include arithmetic math problems, multiple-choice quizzes, spelling tests, and memorization tests. A bureaucrat's [moral injury](#) (feelings of guilt, inadequacy, frustration) comes from decision-making that involves multiple people, weak feedback loops with high latency, and complex decisions with multiple objectives. This last feature is the focus of the next section.

Example Decision Method: Pareto Frontier

A complex decision may have many choices, and there may not be a best option. As examples from your life where there isn't a right outcome, consider questions like the following. Which car should I buy? What food should I eat? Where should I live? What job should I have? For the complexity of these questions there are techniques for navigating the process to arrive at a result. One approach for describing the situation is a [Pareto frontier](#). The purpose of describing this technique is to illustrate the shortcomings of quantitative modeling.

The concept of a Pareto frontier is relevant when there are multiple possible solutions, no one of which is best. The set of adequate and not equivalent solutions is called the frontier. Some solutions are inadequate and are not part of the frontier. If multiple solutions on a Pareto frontier exist then you can evaluate trade-offs.

As an example of a complex decision made by one person with immediate consequence and direct relevance to the decision-maker, suppose you want to buy a car. You care about primarily about two aspects: fuel efficiency and cost. See Figure 1.3 for an example of the Pareto frontier.

Visualizing a Pareto frontier for two quantitative variables is easy, but typically decisions involve more factors. For example, evaluating the trade-off of three quantitative variables like passenger capacity, cost, and fuel efficiency creates a surface. With more than three variables visualization is less useful, though the analysis technique still applies.

Another constraint on using Pareto frontier analysis is that it works well when there are many options relative to the number of variables you are optimizing for. The assessment does not work well when there are few choices relative to the number of variables. For example, suppose there are five choices of car and you want high fuel efficiency, enough cargo capacity, maximum number of passengers, stylish, low cost, low maintenance, good durability, and high resale value. Then defining a Pareto frontier is less effective.

For a set of quantitative variables, a Pareto frontier does not account for the relative importance of different variables. Assigning weights to each of these factors merely stretches one axis relative to the other axes.

There are many possible frameworks besides Pareto frontiers, but in practice a typical bureaucratic decision is under-informed, has diffuse consequences, delayed impact, and does not affect the decision-maker. In bureaucratic processes there is rarely a formal assessment of options. Decisions are rarely recorded. Even afterward a decision can be difficult to evaluate for correctness because there are multiple stakeholders.

Tip: If the people you want to convince are not swayed by data, then you can augment the [analysis of costs and benefits](#) with emotionally-impactful stories.

>> Actionable Advice

Risks of Using Decision Frameworks

Frameworks from decisions can be attractive to bureaucrats intending to formalize [processes](#) and encourage

See page 158.

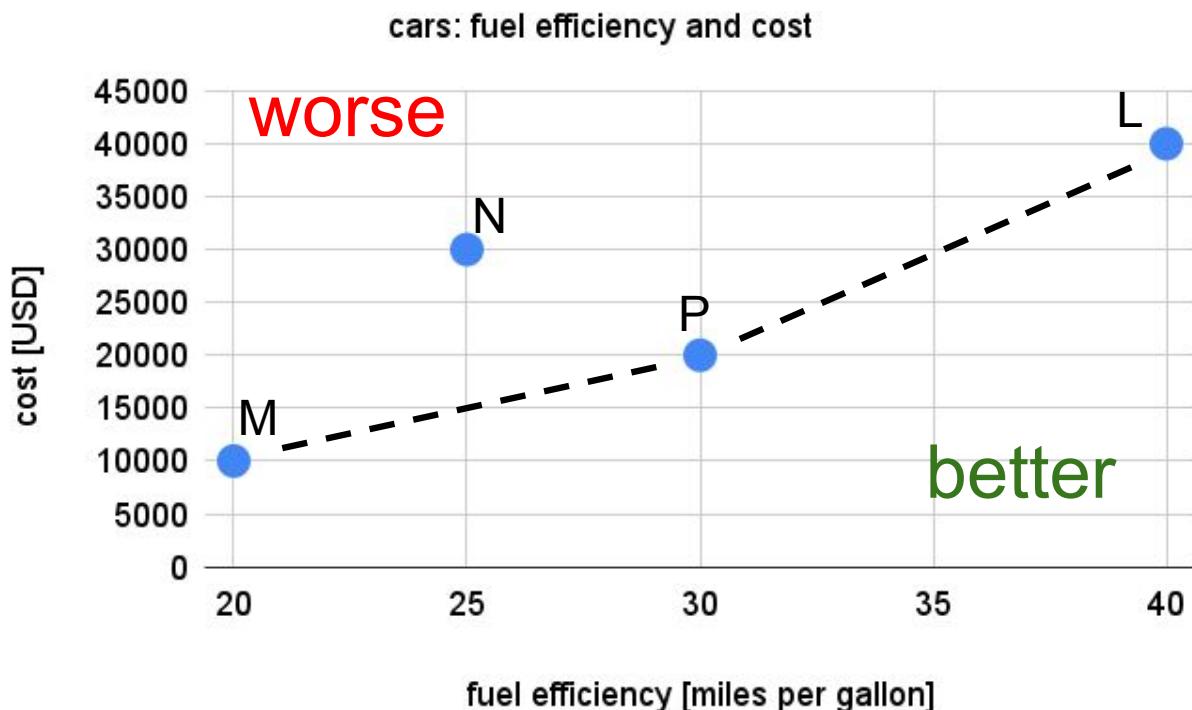


Figure 1.3: Four cars: L, M, N, and P. The buyer's goal is to spend less money (lower on the vertical axis) and get better fuel efficiency (right on the horizontal axis). Choices not on the frontier should be avoided, but that doesn't yield a single result.

predictability, but there are potential risks to be aware of. For example, analysis of costs and benefits can decrease the apparent responsibility of the decision-maker. Another risk is that cost-benefit analysis can be used to deflect criticism for an action.

A good approach for data-driven quantitative analysis involves coming up with a testable hypothesis, pre-registering what actions are to be taken after assessing the results, then performing experiments and collecting data to evaluate the hypothesis. A decision can be characterized as quantitative when based on measurements. For example, before going into a store I set a threshold: I'm willing to spend up to \$30 on a pair of pants. If no pants that I want are available at or below that price then I don't buy pants.

>> Actionable Advice

More commonly, a decision is made, then data is gathered that supports the desired outcome. Forming an opinion and then looking for evidence to back the outcome yields suboptimal results for the organization but may be motivated by maintenance of the decision-maker's relationships. The value to the person using that suboptimal approach is extracted from other members of the organization or subjects of the bureaucracy.

To distinguish good data-driven decisions from the more common experiences let's be precise about the other ways decisions get made. A decision is political when the basis is historical relationships, maintenance or creation of a relationship, or to enable future relationships. A decision is subjective when someone else faced with the same scenario would have come to a different conclusion. To avoid the appearance of subjective decision-making or political decision-making, a bureaucrat may frame a decision as "data-driven." To evaluate which label is relevant, look for measurements and pre-registered actions.

Even when a bureaucrat is not intentionally biased towards an outcome, there are many ways to gather evidence – informal conversations with stakeholders, formal surveys, measuring aspects of the problem. The choice of information gathering is constrained by cost and time, producing an incomplete picture of the options. Poor data collection with biased sampling produces biased results.



Figure 1.4: Magic 8 ball for decision-making. The least effective method of selecting an option.

Even with valid and representative data measurement, decision-makers can be led astray by poor modeling. A model may use inapplicable techniques or may have implementation bugs.

For all the dangers described above, there are worse approaches that do not rely on measurement. People rely on history (if they are aware of it) and perpetuate bad ideas, or take action based on what is best for their career, or decide based on how to accumulate more power, or choose based on what someone else says to do.

Alternative Approaches

Identifying the spectrum of ways bureaucrats make decisions can decrease the surprise when you encounter the approaches in practice. Listing the choices of how to make a decision allows for conversation about the pros and cons of each. The spectrum below is ordered from least effective to most effective and is not exhaustive.

1. Random selection from the options (e.g., roll of the dice, shake the Magic 8 ball shown in Figure 1.4).
The decision-maker is minimizing their involvement.
2. Rely on a hunch. The decision-maker is involved with the options but doesn't rely on data.
3. Rely on experience, whether yours or someone else's.
4. Use a [cost-benefit model](#) that identifies relevant factors and relates them to determine possible outcomes, then gather data, and analyze to inform the decision.
5. Make a hypothesis, design an experiment, carry out a test, collect data, and analyze.

Brainstorming aspects of bureaucracy like “How do decisions get made?” improves your emotional resilience when you encounter instances in your life. Building your Process Empathy involves thinking about how someone else might accomplish an activity. Consider what are all the possible ways, rather than merely identifying what is the best way.

Why cost-benefit analysis models are not used

Applying quantitative models to decision-making may seem to be a valuable path to optimal outcomes. Improved decision-making that helps stakeholders seems attractive, but there are various reasons this

approach is not taken. The reasoning is outlined here not out of cynicism, but so that you can appropriately respond when confronted with arguments against [modeling costs and benefits](#). Decreasing your surprise through the inoculation of exposure enables you to develop counterarguments.

One reason to avoid cost-benefit modeling is that there is a lot of work to do, so coming up with a model is an [opportunity cost](#) – you have less time available to do “real work.” Modeling every decision in detail is unrealistic, so triage is needed – which decisions warrant what degree of investment in analysis? Practice designing models and getting feedback on them is expensive. A person inexperienced in modeling decisions will take longer and is more likely to create a bad model. Identifying relevant parameters for inclusion in a model is a learnable skill.

If a person has a bad experience with cost-benefit modeling, they may be less likely to try again with other decisions. Bad experiences can come from using incorrect data, missing a critical variable, picking the wrong scope for a question, implementing the right model with the wrong math, misinterpreting the result, using a model that is too in-depth or not sufficiently deep, or failing to sell the result of an analysis to stakeholders. There are many sources of risk, and any one is sufficient to cause failure.

Another challenge for quantitative cost-benefit modeling is the difficulty of accounting for personalities or organizational politics. Quantifying idiosyncratic and unpredictable relationships is impractical.

Another challenge of using models is that the best option identified by a model may decrease the decision-maker’s power or prestige, or harm relationships. A model result that aligns with the interests of stakeholders is more likely to be used.

A last reason why cost-benefit models are underutilized is the need for measurements. Designing good data collection and then collecting data is costly in terms of time and attention. Because the measurements involve people the data can get perverted by an undesired feedback loop. That concept is called [Campbell’s law](#).

>> Folk Wisdom

Decision-Making Delay

Decisions are critical to bureaucracy, but that does not mean decisions are made quickly. From an outsider’s view, what appears as “organizational inertia” is the delay of internal decision-making and the delay of dissemination. Delay comes from:

- Time used by each decision-maker to gather information, arrive at a decision, change processes, share their choice, and justify their choice.
- Processes designed to detect and counter cheaters and people with malicious intent, whether that means a malicious bureaucrat or malicious subject.
- [Analysis paralysis](#) due to insufficient information or too much information. Another source of paralysis is a lack of clarity about which framing is applicable.
- When stakeholders push back, either in disagreement or seeking clarification.

Regardless of the source, delays for decisions are frustrating for both decision-makers and subjects. Your Process Empathy is built on understanding the reason for why delays are expected.

A Bureaucratic Decision involves many Decisions

What may appear a straightforward choice invokes related opportunities and constraints.

A decision regarding shared resources is a collection of interdependent choices. After recognizing the need for a decision, follow-on decisions include identifying the stakeholders (who to include in an analysis) and identifying options. Who is a stakeholder and what options are available are interrelated. Involving

more people expands the number of options and the complexity of coordination. Other choices associated with reducing uncertainty are how much time to spend on the decision, how much information to gather for the decision (see Dilemma 3.18), whether to make the decision or push the decision to someone with more expertise (see Dilemma 3.40), or whether to push the decision to someone with more exposure to the consequences.

See page 60.

Most decisions you make as a bureaucrat do not have hard deadlines. Instead, there are [trade-offs](#) in the allocation of your attention. Sooner is preferable since the consequence of the decision helps the organization and allows you to focus on other tasks, but delaying allows you to gather more information for a better-informed decision; see Dilemma 3.18.

See page 60.

If a bureaucrat relies on consulting an [expert](#), the decision-maker needs to be confident the expert is not straying outside their area of expertise. For example, don't rely on a botanist to explain how to change the oil in your car. Besides knowing their limitations, the expert should be clear about whether their input is a factual summary, a predictive assessment, or a value judgment. This complicates what you as a bureaucrat are interested in when deciding what's the best choice.

See page 115.

Transparency of Decision-Making

A decision about decision-making is about what level of accessibility the decision should have before, during, and after the decision.

Your process might change if made visible to stakeholders. You may provide more precise justifications or spend more time gathering evidence to support a claim. Strengthening the arguments is beneficial but takes time and resources.

Frank conversations and exploratory brainstorming need protections to allow participants to be vulnerable. This is the motive for the [Chatham House Rule](#) – meeting participants can use information from the discussion, but revealing who made a comment is not allowed. The concept of transparency can apply before a decision is issued, while a policy is in effect, or after the consequence (as part of a review). Making decisions as part of a transparent process can make participants more risk-averse because of the potential for failure.

People affected by the decisions benefit from understanding how the decisions were made – this is the reasoning behind [Sunshine laws](#) and the [Freedom of Information Act \(FOIA\)](#). Even the symbolism of surveillance changes behavior [49, 16].

Fundamental: Hierarchy of Roles

Inclusion of hierarchy in the section on Fundamentals of Bureaucracy does not imply that hierarchy is a required feature of bureaucracy. Hierarchies of bureaucrats are a conventional [organizational structure](#) and are worth studying even if not essential to bureaucracy. Understanding hierarchy is relevant to identifying recurring behavior and patterns to leverage. Organizations of bureaucrats can intentionally work against the use of hierarchy for decisions, but the amount of effort needed to enable alternatives results in hierarchy being a common approach.

Hierarchical decision-making is one option for coordination among alternatives (like consensus, voting, or dictatorship), so why is hierarchy so common? Members of an organization gravitate towards hierarchy because it helps define task scope, assigns responsibility, and obviates a need for building consensus. Reaching consensus or taking a vote for every decision would take time and be more burdensome than appointing a person as the decision-maker. At the other extreme, relying on a dictator decreases the value other stakeholders can contribute. There is a Pareto frontier of imperfect decision-making techniques when multiple stakeholders are involved. Some approaches require more time for the information to be gathered to inform a

decision, others take time due to consensus, while other approaches take less time by involving fewer people but have poorer results from the decision.

The benefits of formal hierarchy include improved capacity for the number of policy decisions made, enabling consistency of decisions, and leveraging specialization of knowledge. Hierarchical decision-making has costs: higher latency (compared to a single decider), inconsistency among bureaucrats (dissemination isn't perfect), waste due to inefficiency, and others like enabling strategic ignorance. Bureaucrats in positions of power can deny knowing of improper activity [78, 77]. Whether that is a problem or benefit depends on your role.

See page 79.

Why does Hierarchical Structure Arise in Organizations?

In an ideal situation for managing access to a shared resource, one person would have sufficient depth of knowledge and breadth of information for decision-making. That might not be possible in every situation. One way to resolve this is to identify distinct scopes of responsibility and then assign different members of an organization separate scopes for decision-making. Within a decision-making scope there may be more work than one person can handle, so a team is formed. That team may have some members focused on tactical work and other members focused on coordination. Hierarchy within an organization is the formalization of separate decision-making scopes and associated specialization.

Partitioning knowledge and decision-making enable complex work beyond what one person can do and causes friction among members. An expert reporting to a manager knows things the manager does not, and the manager may have context that the expert lacks. Both bureaucrats (the expert and the manager) need to convey their respective understanding and seek a holistic view.

Characterizing Hierarchy

A conventional characterization of an organization's hierarchy involves two criteria: the depth and breadth of the org chart. The more people a supervisor oversees, the flatter the organization – that's the breadth of the organization. The depth of the hierarchy is how many layers there are. See the Valve handbook [107] and Joreen's essay [39] for contrasting views on the merits of an organization's hierarchy.

Organizations that try to be flatter (more employees per manager) saturate the attention of managers. As a result there are more discussions that everyone has to pay attention to so they don't miss something happening. The opposite design (fewer employees per manager) is less noisy but results in silos of reporting because lateral coordination is more challenging.

Another view of an organization's hierarchy also involves two criteria. The two choices that shape hierarchy are how many people a supervisor oversees and how many supervisors a person has. You might naïvely expect that an employee has one boss, but that is not a requirement. A supervisor for a given topic may have many people reporting to them, and a bureaucrat with multiple roles may report to more than one supervisor.

Often the concept of hierarchy intended to describe the relations in an organization is not representative of actual relationships among coworkers. For that reason, the concept of roles is another way to characterize interactions. Roles are defined by boundaries of responsibility in an organization. Similar to the motive for hierarchy, the purpose of a role is to minimize conflict, decrease the need for coordination, reduce redundancy, and allow for control of resources. Clear boundaries of responsibility enable effective bureaucracy.

The structure of an organization is dynamic, but at each point in time an organization typically has a defined set of roles. Different scopes of decision authority distinguish each role. Roles are often confused with titles. What matters is the role (scope of decisions) and who reports to whom. The names of teams can be similarly not descriptive.

As part of your practice of Process Empathy, consider the roles and titles of bureaucrats you collaborate with and rely on. A person may have more roles than titles, and the two are loosely correlated. Your perception of another person's role may not match their self-perceived role. You can discuss these differences and better understand each person's expectations.

Sequencing Dissemination of Information

A hierarchical organization with partitioned knowledge introduces a challenge: the order in which you share information with others matters. Your choices for who to first describe an idea to are your peers, your management, and the people you manage. The people you manage know more about the topic and are exposed to the consequences. Giving them a chance to vet the idea results in a more robust idea and validates their value in the organization. Alternatively, first sharing your idea with management allows your superiors to provide context you might not be aware of. And choosing to start the conversation with your peers first indicates you value the relationship and decreases the risk of duplicating work. There is no right answer.

>> Trilemma

Autonomy in a Hierarchical Organization

Acting as part of a group means ceding part of your autonomy. Hierarchy cedes some of your responsibility and adds expectations about relationships. The consequence of hierarchy in an organization is that, as a member of the bureaucracy, you do not have full autonomy – otherwise you would not be a member of the hierarchy. At the same time, you are not under strict control of the organization – you still have some subjective authority as a bureaucrat.

In a hierarchy, the upward flow of decision authority and justification is a feature, not a bug. If justifications and decisions were bidirectional that would be consensus and take more time.

The person at the top of the hierarchy does not know everything. The person at the top of the hierarchy does not have input on every decision made in the organization. All members of the bureaucracy retain some autonomy.

The autonomy retained by members of a hierarchy can result in problems for participants. One example is when a member seeks upward communication and skips engaging the person directly above them in the chain of command. A similar problem occurs in the opposite direction when a person higher up engages someone far below them without coordinating with the management between them. This is referred to as “skip-level meetings” by Grove in [47]. In both these cases, neglecting to engage middle management risks missing relevant context necessary for effective communication. Middle managers can get nervous or frustrated when they aren’t part of the conversation.

Another challenge induced by hierarchy for nominally autonomous members is direct communication between lateral peers. If you think of a hierarchical organization using the labels a family tree, the members of your team are your siblings and the team manager is the parent. Talking with your peers on other teams is engaging with your cousins. When discussions with your professional work cousins is informal and ad hoc, that can disrupt the intended flow of coordination between your manager and the other team’s manager. This can interfere with the focus and priorities of each team.

Finally, the challenge for autonomous members is uncoordinated broadcasting of information to the entire hierarchical organization. Because each person lacks a holistic understanding of the complex organization, angst and misinterpretation can occur. The typical fix is to rely on upward and downward propagation of information in the chain of command. That way local context can be applied at each layer specific to the audience.

Roles Outside the Hierarchy

Independent of the defined roles and formal titles in an organization's hierarchy, there are a set of implicit roles and a separate social hierarchy of informal influencers and decision-makers. Informal influencers in a bureaucracy usually have long relationships with the decision-maker, relevant credentials, or both. The credentials can be formal (e.g., a [PhD](#)) or informal (demonstrated success on a project). In either case, the decision-maker is relying on another person's expertise.

Another set of informal relationships within an organization is between mentors and mentees. These relations allow mentors to share institutional knowledge with mentees and enable people in senior positions to access the novice perspective.

Fear Induced by Hierarchy

One consequence of hierarchy is a sense of fear felt by people who report to other people. This fear stems from the loss of control (less autonomy) that leaves the person feeling disempowered.

For example, consider the following relationship. Sue is perceived to have power over another person, Amy, because Amy gave up some control to Sue. Amy's lack of control over decisions triggers the feeling of fear in Amy, regardless of how Sue behaves. (See Figure 1.5.) Having responsibility for decisions also induces anxiety.



Figure 1.5: Sue and Amy discuss a work-related topic. The person with less perceived power can feel fear associated with loss of control.

If Sue is aware of the potential for this emotional experience, Sue can compensate for Amy's fear by being friendly and receptive towards Amy. Alternatively Sue may exploit or rely on the fear felt by the people she manages. Sue not noticing or accounting for Amy's fear does not invalidate Amy's emotional experience.

Organizational Chart as a Guide and a Lie

An [organizational chart](#) (hereafter an “org chart”) is a document that identifies formal roles and the formal relations among roles. An org chart is at best a snapshot in time, and more often aspirational than descriptive. Despite possible deficiencies, an org chart helps outsiders and newcomers understand the scope of responsibilities and interactions.⁵ The other sense in which an org chart serves as a guide is to identify who in the organization is claiming which areas of responsibility. Aligning which people or teams to different divisions of labor informs members of the organization about who to talk to for specific topics.

Org charts are a lie because undocumented relationships can matter more than official roles. Org charts fail to capture the informal roles and network of relations that facilitate progress in any organization. Org charts document titles instead of describing roles.

Org charts foster a second separate lie by creating a sense of power dynamics based on visual orientation. For more on this see the discussion of [org chart orientation](#) on page 92.

Fundamental: Meetings for Coordination

In an organization comprised of more than one person, meetings are necessary to facilitate coordination. The coordination accomplished by a meeting can be explicit (verbal or written), or it can be indirect through signaling (who attended the meeting, when the meeting was held, where the meeting was held, or how much notice was provided).

Not everyone understands that meetings are vital to coordination in a bureaucracy. The following sequence of scenarios illustrates the thinking some bureaucrats use. If you’re already convinced of the value of meetings, see [tips on improvement](#) on page 147.

Anti-meeting view: No plan or coordination needed; I just do what I’m told. With this approach, either I will be successful because I worked hard on what my supervisor directed, or I will fail because my supervisor directed me to do the wrong thing.

Potential response by the supervisor: You are smart, and you’re capable of shaping your career. Let’s work as a team to improve your effectiveness.

Another potential response by the supervisor: Is that how you want your career to go? Or do you desire autonomy and creativity?

Anti-meeting view: No point in making a plan or coordinating because everything changes so often.

Potential response by the supervisor: But the work has an end goal, right?

Anti-meeting view: Yes, so then the plan is to get from where we are now to that end goal. Coordinate as necessary.

Potential response by the supervisor: And there are no intermediary steps? Milestones? Is it better to have no plans and just put out fires as a reaction, or to have a plan with contingencies that are subject to change?

Anti-meeting view: What is a plan anyways?

Potential response by the supervisor: There is value in collaboratively specifying a goal, enumerating tasks that would support the goal, identifying the dependencies among the sub-tasks, and time-binning the dependencies with defined milestones and deliverables. That is my definition of a plan. And having those elements of planning is more useful than merely reacting.

Anti-meeting view: Who’s plan? Who’s relationships? I don’t need to come up with that plan, my supervisor

⁵The organization chart hasn’t always existed. The [first known org chart](#) was created in the 1850s.

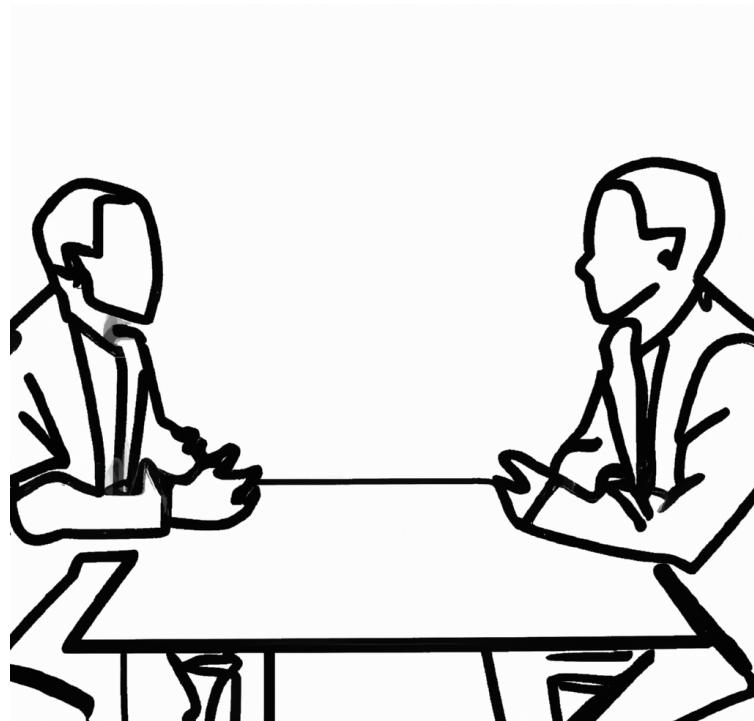


Figure 1.6: Meeting to discuss the value of coordination. Face-to-face in-person meetings enable participants to convey non-verbal information like respect or curiosity through their posture, attentiveness, and level of distractedness.

already has a plan. Just tell me what the plan is.

Potential response by the supervisor: That's not as effective as coming up with independent plans and then resolving the differences. There's value in resolving the differences, even though that will cost time and could create frustration.

Not every team member in a bureaucracy is against planning, or as obstinate about collaboration. My intent for sharing these debates is that you will be less surprised when your coworkers raise them. Process Empathy is most relevant when the people you rely on lack Process Empathy.

Fundamental: Written Communication

As with hierarchy, written communication is not required for bureaucracy. Policies and processes don't have to be written down. However, written communication is extremely common and can be helpful. For example, policymakers typically don't need to be present for consultation by the administering bureaucrat.

Paperwork, [red tape](#), and modern electronic forms are closely associated with bureaucracy. Digital reports, spreadsheets, and emails are the current technological artifacts of an organization's bureaucracy. A written record creates evidence about policies, justifications, and decisions regardless of format. Written records are burdensome to create and maintain and search, but they are not intrinsically good or bad.

Becoming skilled at creating written records is crucial for being an effective bureaucrat. You may have some education on spelling, grammar, and composing essays, but the artifacts of bureaucracy have distinct best practices. For example, plagiarism can be good – you're being consistent and efficient. Chapter 6 provides advice on effective verbal and written communication in the context of a bureaucratic organization.

See page 119.

Fundamental: Feedback Loops and Ripples

A feedback loop exists when a decision-maker experiences the harms and benefits of their decision. Decisions that lack a feedback loop still have consequences for the decision-maker, in that potential future decisions are altered or limited.⁶

Virtuous cycles and vicious cycles are rare in bureaucratic organizations because there are rarely mechanisms for feedback loops. Instead, there are **ripples** – propagation of consequences for other people's schedules, altering what is possible for other people, and creating dependent tasks to be carried out by people other than the decision-maker.

The weak feedback mechanisms for a bureaucrat are reputation (subject to spin) and rarely enforced retroactive accountability in the form of the question, "What did you know and when did you know it?" Retroactive accountability depends on written records from meeting notes, emails, agendas, and reports. Reducing the potential for retroactive accountability is one motive for bureaucrats avoiding written records for decisions and policies.

When there are multiple competing objectives among stakeholders in a **zero-sum** use of resources (my win is your loss), how can you determine what's best? In some domains there are feedback loops to guide progress. When feedback loops are weak or not present, the most powerful stakeholder (potentially distinct from the biggest or loudest) will dominate.

Approvals and Justifications

Because of the lack of quantitative feedback loops for bureaucrats, there is significant interest in documenting justification, proactive monitoring, reporting, and retroactive assessment. Each of those activities creates more administrivia. Deepening your Process Empathy involves looking for feedback loops (which are rare) and understanding what arises in place of feedback loops.

Because feedback loops are weak for decision-makers, alternative mechanisms are needed in bureaucracy. A standard approach is the use of approvals and justifications. The strength of justification needed for a given action depends on your relationship with the approver and the potential ripples associated with the action.

Three motives for justifications are common. By understanding which motive is driving the request for justification, you can tailor your justification to be more successful. The first motive is to provide evidence that the action is consistent with policy. A second motive for requiring justification is to help a decision-maker judge the risk involved with the action. Lastly, a motive for justification is to inform the decision maker about the value of the action so they can compare with other possible investments.

As an example of how to apply that recognition of different motives, consider a manager who views compliance with policy as crucial for the continued operation of the team. A justification that cites specific policies as part of the reasoning signals your understanding of the manager's concern. A different manager who you need input from regarding a politically sensitive topic may not have written policy guidance and instead needs to evaluate the advantages and disadvantages of your request.

The level of detail of a justification can vary. You can tailor the strength of the reasoning to your audience's needs, saving yourself and them time. Examples of the different levels of detail include:

1. I have no explanation.
2. This is my opinion.
3. We've always done it that way. (This indicates a **cargo cult** approach in which the underlying reasoning is not understood by participants).

⁶In Street-Level Bureaucracy [70] Lipsky discusses feedback loops in chapter 4 on page 40.

4. Based on my experience.
5. I was told to do it this way.
6. I think this is the best way (no reasoning, but a desire to optimize; optimization criterion undefined).
7. This way is most effective because X (where X is not quantified, there is a desire to optimize, and there is an optimization criterion).
8. This way is most effective because X (where X is quantified, there is a desire to optimize, and there is an optimization criterion).
9. This way is most effective because X compared to other options (where X is quantified, there is a desire to optimize, and there is an optimization criterion).

Special Interest Groups can be Harmful

Within bureaucratic organizations, special interest groups care about specific aspects of the shared resource central to the organization. Inefficiency can occur when there is a benefit to a small group and the cost is to a larger group.

The [social trap](#) is “a conflict of interest or perverse incentive where individuals or a group of people act to obtain short-term individual gains, which in the long run leads to a loss for the group as a whole.”⁷ The feedback loop for the diffused value relevant to the organization is weaker than the feedback loop for value to the interest group.

Confronting an individual about a group problem usually results in “I can’t fix everyone else’s behavior.” Similarly, a team that is benefiting at a cost to the organization is unmotivated to change. A way to productively engage is to get all stakeholders in an in-person meeting. This social pressure, combined with the prompt to find a way to limit harmful behavior, can encourage brainstorming of better approaches.

>> Actionable Advice

Spending Taxpayer Dollars is a Weak Feedback Loop

As an example of a weak feedback loop, consider the scenario of a government employee deciding how to spend government money.

Taxes and Spending
Suppose you are a government bureaucrat and earn \$100,000 with a tax rate of 30%. That means you pay \$30,000 in taxes to the government. How does that compare to what the government collects in taxes?
For the United States, “in 2021 the government collected \$4.05 trillion in revenue.” ^a
That means your taxes of \$30,000 would be $30000/4050000000000 = 0.00000074\%$ of the tax base for the country.
If you are a federal government bureaucrat and you do not maximize the effectiveness of spending \$1,000,000 of government money, of that misallocated money only \$0.0074, or about one penny, was taxes you paid. The financial feedback loop is weak.
Some federal government bureaucrats earn more money, so the cost of wasting \$1,000,000 is increased.

⁷See Wikipedia entry on [social traps](#)

Federal pay is limited to about \$220,000^b, raising the feedback to 2 pennies.

^aGovernment Revenue from the [U.S. Treasury Data Lab](#), 2023.

^bSee the Wikipedia entry on [Executive Schedule](#).

The lack of feedback allows waste to go unfelt. There's no immediate consequence for the decision-maker.

Example Feedback Loops

A feedback loop in bureaucracy can be abstract, so this section features stories illustrating the concept.

Airport Security Line

A coworker and I were going through passport control at an airport. A [Transportation Security Administration \(TSA\) officer](#) was directing passengers into one of two lines. Both lines were long. The length of each line was not equal even though the entrance to the lines was at the same location. Each line terminated at a row of passport-checking agents. Each passport check took a minute. Passport-checking TSA officers operate independently and concurrently.

The TSA officer's perspective is that there are two long lines. Her procedure is to balance the two lines (for fairness). She does this by pointing people into one of the two lines, with her choice driven by which line appears to have room available.

My coworker and I enter the controlled area and are directed into lines by the TSA officer. The officer directs my coworker left and directs me to go right. The TSA officer completed her job.

My coworker in the left line finishes 5 minutes before me. This difference in completion time is frustrating for me.

Because the lines were not of equal length, balancing the start of the line is a suboptimal method. The consequence is that what seems fair to the TSA officer ends up not being fair for people going through the line. The TSA officer had incomplete information – the lines were not of equal length. Because the TSA officer isn't exposed to the consequence of her approach, she didn't get feedback on whether her decisions are suboptimal or not.

Lesson: if the people making decisions do not experience the consequences of those decisions, then they have no incentive to improve decision-making.

The person in the longer line feels frustrated. The negative feeling is due to a sense of powerlessness, the situation is recurring, and a better solution is available.

The optimal solution in this situation is to have a single line feeding the multiple TSA passport checkers. A single line eliminates the need for the decision-maker but incurs work to change the status quo.

Parking Garage

Bob parks his car in a parking garage every day. The parking garage owner charges \$20 per day for people to park their car.

Bob recently found that one of the exit gates for the parking garage is broken. If Bob uses that gate to leave the parking garage, the gate does not function and Bob cannot exit. Then Bob has to call the parking gate operator to request an exception (which is granted) and Bob can then exit that gate, avoiding the \$20 per day charge.

This action (go to the broken gate, request an exception, avoid the charge) has been repeated for a long time (months). Bob's motive is to avoid the \$20 parking charge; the cost is a mere phone call and a minor delay. This cheating behavior harms the parking garage owner's income. However, the parking

gate operator, serving as intermediary, insulates the parking garage owner from interaction with the cheater. The cheating behavior is small enough that the parking garage owner may not notice.

Having an intermediary policy enforcer alleviates the need for the garage owner to interact with customers. If the incentives of stakeholders are not aligned then inefficiency goes unchecked. If the parking garage operator's profits are a fixed rate rather than tied to parking charges, then the operator lacks the motive to fix problems.

1.5 History of Bureaucracy

Bureaucracy is widely disliked, yet it is widespread and persistent across a variety of cultures. Bureaucracy has repeatedly arisen independently in various societies⁸ lasting for timescales that exceed the lifespan of one person.⁹ That indicates the current situation is not a fluke or coincidence. There may be both utility and lack of alternatives, or perhaps a consistently recurring pathology.

Bureaucracy predates writing and language and even humans! Policy enforcement in support of an organization arises in pre-human tribes, visible in groups of modern apes who have to manage access to shared resources [99].

Though bureaucracy is not new, the pervasiveness is. Before the industrial revolution the scale of employment and government was small relative to today because organizations were limited by the speed of communication. For the past 100+ years, the size of organizations (e.g., commercial, governmental, and academia) has grown beyond [Dunbar's number](#) – the number of human relationships you can maintain (about 150). More people participate in more organizations that are more bureaucratic. Driving this increase is the support for more complex products and processes.

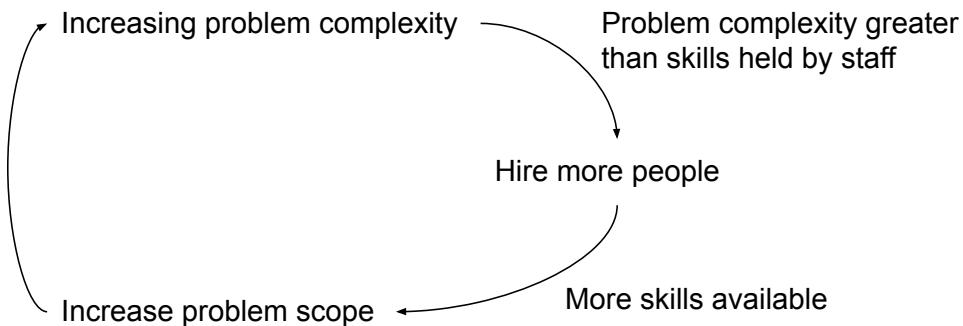


Figure 1.7: Increased complexity requires more staffing to enable specialization. More staff means more skills are available; under-utilized staff skills make room for more scope; more scope adds to complexity.

Extrapolation of trends is easy: the more interconnected the society is, and with more people, and with more complicated products then more bureaucracy should be expected. If society reduces in size and reduces to tools we can make with only our hands then bureaucracy could decrease.

Since society might stay the same or get more interconnected for a while, learning about bureaucracy is a worthwhile investment. And if you want to reduce or eliminate bureaucracy, understanding what would be displaced is crucial. Happily, as described in the next chapter, you already have experience to build on.

⁸See the Wikipedia entry on the [history of bureaucracy](#).

⁹See the YouTube video on the [History of bureaucracy](#).

Chapter 2

Bureaucracy in General

Back to the [Main Table of Contents](#)

This chapter is primarily descriptive but ends with some prescriptions.

2.1 Avoiding Bureaucracy is Nearly Impossible

The only situation where bureaucracy might not exist is if you live entirely independently and have no interaction with other people. That means completely disengaging from society. Even then, personal routines are a self-imposed form of bureaucracy, with the roles of policymaker, bureaucrat, and subject collapsed to a single person – you.

Self-sufficiency and autonomy are attractive alternatives to bureaucracy. The way participants in modern society strive for self-sufficiency is by denying their dependence on modern society. That's a relabeling of selfishness which feels better.

For the rest of us who operate as members of society, bureaucracy is necessary for our rights. You validate your name using paperwork, forms, and records. These artifacts are used, in cooperation with other people, to determine your claim of citizenship and associated rights. That's a policy that [stakeholders](#) in society agree to.

Bureaucracy is useful as a response to the [collective action problem](#) – everyone would benefit from cooperation, but each person has to sacrifice their self-interests. As long as humans form communities, we will address the challenge of [shared resources](#) – whether tangible (e.g., water, land, air) or intangible (e.g., expertise, information). That is why bureaucracy is culturally invariant and persistent across time. Learning to be an effective bureaucrat improves your chances of success in society.

The specific way society is constructed (democratic, authoritarian, dictatorship, anarchy) is irrelevant – bureaucracy is still present. Even the libertarian approach of relying on contract enforcement implies some bureaucracy (e.g., forums for resolving contract disputes like a court system, enforcing decisions through violence).

Not all bureaucracy is due to the state, nor is bureaucracy confined to companies. Parenting involves creating situation-specific requirements for children, with the organization being the family as mentioned in Figure 1.1 and the next section that describes [bureaucracy in childhood](#). Dress codes for sports teams are arbitrary standards. Store clerks are bureaucrats, as are website forum moderators. Content moderation is the process of enforcing standards.

Recognizing instances of bureaucracy enables more skillful interaction, whether as a bureaucrat or subject. The rest of this section illustrates both the view of a person interacting with bureaucracy as a [subject](#) and the perspective of bureaucrats working within organizations.

See page 28.

2.2 Each Phase of Life Involves Bureaucracy

You have experience with bureaucracy, though you may not have framed the experiences as bureaucratic. You might not have used the labels of policymaker, bureaucrat, or subject, but you may have acted in all three roles. If you recognize you've been acting as a bureaucrat you'll be able to apply relevant skills.

In each person's life there are milestones like birth, education, work, and death. Each of these milestones and phases involves bureaucracy, so you have experience with each of the roles that constitute bureaucracy. Each phase in your life provides a different experience of bureaucracy.

Bureaucracy is composed of three roles: the policy creator, the policy enforcer, and the subject (upon whom the policy is inflicted). Who is the bureaucrat and who is the subject depends on the relationship in a scenario. For example, a store manager creates a policy, a store clerk enforces the policy, and the policy is inflicted on the customer. The customer is the subject of bureaucracy. In a separate example, someone at corporate headquarters sets a policy, the store manager enforces it, and the policy is inflicted on the store clerk. Then the clerk was the subject of bureaucracy.

Bureaucracy of Birth

Your birth was marked by getting a name, registering with the state, and initiating medical records. These tasks were administered by bureaucrats (doctors, nurses, and other hospital staff) on your behalf, and you were the subject of the bureaucracy. You had no autonomy or decision-making authority.

Bureaucracy in Early Childhood

Before starting formal education, the bureaucracy of early childhood is inflicted primarily by family members setting and carrying out policies. The organization of bureaucrats is the family, with the shared resources being housing, food, and experience with survival. Other community members or caretakers may also be involved in carrying out the policies of taking care of you. Your decision-making authority as a subject in this bureaucracy was minimal.

Bureaucrats at School

Once you started the formal education process, new bureaucrats got involved. The community of bureaucrats could be a public school, a private school, or homeschooling. In any of those cases, the frontline bureaucrat is the teacher. You're not responsible for making policies that other people follow; you are still the subject of bureaucracy.

The expectations of each phase of school (high school, undergraduate, graduate school) are distinct, and they are different from working in a large organization. Your autonomy increases throughout the duration of school. Your family and teachers are the bureaucrats. You start building informal organizations of friends, and you start to explore policies around social bonding.

Schooling sets a pattern that most students will fall into for the rest of their lives: you were handed a textbook and told to solve a set of problems. That pattern of taking direction can persist for a long time. However, you are not constrained to persist with that limitation. You have the autonomy to do more than what is required. You can find other textbooks that match your interests or are written from a different view.

You get to choose the book you want, even if you don't get to choose the topic you will be evaluated on. You don't need to pick just one reference book – you can review lots of books and figure out which author

style best fits you. You can also choose the level of difficulty – basic and beginner level, or more advanced. You can choose what's best based on your understanding rather than defer to what a class in school is supposed to cover. (This same paradigm applies later in life when you become a bureaucrat or policymaker – you can be mediocre as a default, or you can make extra effort to be more effective.)

>> Actionable Advice

As a subject of the education bureaucracy, you can discover how you learn best. This extra effort requires self-reflection: How do you learn? What works best? What didn't work, and why not? What did you learn? What do you wish you had learned?

>> Actionable Advice

Another pattern that schooling relies on is single-question decisions with only one right answer. Examples include math problems and multiple-choice tests. Schooling tends to avoid setting up dilemmas or paradoxes for students. Academic problems in the education process are designed to be independent of the people involved or the history of the situation.

Schooling teaches how to analyze technical issues and develop solutions. That problem-solution paradigm neglects the crucial steps of discovering the problem, isolating the challenge, identifying stakeholders, learning the history of the challenge, and negotiating with stakeholders before trying to address the challenge. These additional aspects are the skills relevant for being an effective bureaucrat. Academic problems are intended to be solvable and answers submitted get evaluated. In contrast, working in a bureaucratic organization the challenges are ill-defined, there's no known solution, and the topic is sufficiently complex that you have to collaborate.

For some students schooling can emphasize academics over socializing. When transitioning to professional work social skills and political savvy are necessary when trying to change the policies of your team or organization. An effective bureaucrat is more than just book-smart.

Military Service Bureaucracy

Somewhere between 13 percent [33] and 20 percent [67] of the United States federal budget is spent on military, and less than 0.5% of the United States population serves in the military [109]. For those who serve, the military's rigid hierarchy and defined protocols are a distinct experience compared to school or work. Transitioning from military to civilian life can present a dissonance for service members used to the chain of command and clearly defined orders. In comparison, bureaucratic organizations with hierarchical structures are not as rigid as the military.

For members of the military, hierarchy and application of inefficient policies feels stifling. Once out of the military, veterans may reflect fondly on the clarity of orders compared to the vagaries of professional workplace politics. Bureaucrats rely on both formal and informal channels for quid quo pro interactions and sanctions. There's less clarity compared to the military, but also more flexibility and autonomy.

Working in a Bureaucratic Organization

Organizations with communal workspaces have **shared resources**: bathrooms, conference rooms, storage areas, and kitchen areas with fridges and microwaves. Each of these incur policies of use. Unlike being a student at school, you may find yourself responsible for developing and enforcing policy.

As an example of workplace policies, consider the following scenario.

The Bathroom Stinks

The bathroom at work sometimes smells, so I'm a nice person and bring a scented air freshener. Unbeknownst to me, that triggers asthma or an allergic reaction in one of my coworkers. Because of this a policy gets created so this mistake doesn't happen again.

Signs are posted. Violations are reported to management even if no one has a physical reaction to the air freshener.

Policies are often created in response to specific incidents. This intent can be helpful (promulgating lessons learned is efficient) or unhelpful (when policies are an overreaction).

Healthcare and Death

Medical care alters our life, so understandably a lot of money is spent on medical care: 25% of the federal budget in the United States [33]. Understanding the bureaucracy of healthcare is outside the scope of this book, but your role in the bureaucracy is helpful to understand.

Doctors, nurses, and other staff are bureaucrats, the patient is the subject, and the hospital or clinic is the organization. The shared resource is expertise in providing healthcare.

To illustrate the bureaucracy of a large organization, consider the importance of toilet paper at a hospital.

Restocking Toilet Paper

If you go to a hospital, use the bathroom, and find there is no toilet paper, that would indicate a deficiency of the hospital.

Since the person who usually restocks toilet paper wasn't also a user, they aren't directly affected by the lack of toilet paper. Therefore a new routine is needed for checking the availability of toilet paper in bathrooms.

The *perspective of the purchasing manager* is that money spent checking the status of toilet paper is money not spent on the hospital's primary mission: improving the health of community members.

A feedback mechanism is instituted: a phone number is posted in the bathroom so users can send a text regarding bathroom status at the hospital.

Bureaucracy is a set of subjectively administered policies within an organization. By recognizing the role of bureaucrats you can identify what is negotiable.

2.3 Bureaucrat's View of Their Organization

Bureaucracy as defined in this book is not the only way that bureaucrats perceive their environment. To understand their situation, bureaucrats may create a narrative involving themselves, their work, their subjects, their coworkers, their supervisors, and the people they manage. Complicating this story, the motives of an individual bureaucrat for an activity vary. The variance of motivations is even more complicated when a request incurs more work, there's no deadline, and no reward. What is your incentive? Is it emotional approval? Relationship building? Social approval?

See page 3.

Most bureaucrats don't self-identify as bureaucrats even if they do recognize they operate in a bureaucratic organization. The common paradigm is, "I'm an engineer and the company I work for is bureaucratic," or "I'm a manager and my team is distracted by too much administrivia," or "My coworker Paul is not like me – he doesn't respond to my messages."

See page 107.

See page 123.

As a consequence of not thinking about the bureaucratic system you operate within, a typical response is to develop heuristics that fit the recurring patterns you've experienced. While that feels like learning, the heuristics you develop are specific to your motives and your experiences.

The perspectives below are archetypal for bureaucrats who don't consider bureaucracy [as defined](#) in this book. In practice, a practitioner's perspective might be a mixture of these views. The descriptions of bureaucracy below are both wrong and harmful. The source of the harm is that if you use the framing to guide your actions you'll be less effective compared to process empathy framing. The alternative framings are listed so they can be contrasted with Process Empathy.

See page 3.

As a bureaucrat, what matters is what I can do with my skills and the resources I have access to.

Assessment: This person is task oriented. Results are what matters. The intricacies of bureaucracy are a distraction to getting the work done. Communication for coordination is a distraction from work being done by the individual. This bureaucrat may have the perception that if they participate in the organization then they will be blamed when things go wrong. The emotional reward for this person is doing or completing the task. This person is likely to say to their manager, "Tell me what I need to do to be successful" rather than identify collaborations.

As a bureaucrat, what matters is how I feel.

Assessment: Your feelings are real. They have consequence, in that your emotions affect motivation and enthusiasm. However, a feelings-centric perspective may not be productive for you, your team, or the organization. Brainstorming can feel unpredictable. Challenging statements made by coworkers may feel intimidating. Talking about tough topics is emotionally difficult. Being effective means compromise and some people may not get everything they wanted.

What matters is how others feel.

Assessment: Depending on the emotional state of those around you is unhealthy and can be unproductive. Working for the happiness or satisfaction of other people is risky – they may not know what's best, or they may not have your interests in mind.

What matters are my immediate coworkers.

An approach to avoiding thinking about bureaucracy is to characterize interactions with other people merely as personal relationships. That is easier than thinking of bureaucracy as the complex system that exceeds your local view.

This perspective can be positive (e.g., I collaborate with those around me) or negative (e.g., I compete with those around me). In this scenario everything beyond the local scope is personified or ignored.

Assessment: Your relationships do matter. However, they are not all that matters. Missing from this view is the ability to explain what is happening outside the immediately observable realm. This "just relationships" view misses emergent phenomena and over-simplifies the situation. As a result your effectiveness is decreased.

Just because you are a bureaucrat doesn't mean you have a well-informed understanding of bureaucracy. Regardless of which of the above perspectives is held, a bureaucrat experiences the difficulties of operating within an organization. A bureaucrat can rationalize to themselves why things don't work in their organization with stories like

- Other people are lazy and don't want to work.
- Other people are inexperienced.
- Other people don't care.

There are lazy people, inexperienced people, and people who don't care in any given organization. Those are not unique to bureaucracy and do not explain bureaucracy.

The bureaucrat who uses explanations like laziness, lack of experience, and lack of care applies them to people he or she hasn't directly interacted with. The bureaucrat using these explanations may not realize other people could apply those same stories to the bureaucrat.

2.4 Not Many Options for Organizations

The effect of clustering bureaucrats into organizations or teams can be to hide the complexity of enacting policies for managing access to shared resources. The value of organizations and teams is that they are a simplifying abstraction that depersonalizes the function of inputs and outputs. Without organizations or teams you would be directly exposed to the complexity of knowing every person's title and responsibility. Organizations and teams are abstractions to hide complexity.

When complaining about the ineptitude of organizations (or more specifically, leaders, managers, bureaucrats you manage, and coworkers), consider the variables available to be modified. As a thought exercise, what would it take to rebuild the organization you are in from scratch?

Listing the levers available for enacting change in an organization is intended to emphasize the importance of personal interactions within bureaucracy. When you get frustrated with inefficiency, consider the systemic changes available – there aren't that many. Options for restructuring the organization are limited, so the importance of your creativity and informal influence is dominant in determining the effectiveness of bureaucracy. Those factors relevant to Process Empathy are separate from having the right staff and being able to have an adequate number of staff.

>> Thought Exercise

Organizations comprised of bureaucrats have fewer options for change than individual bureaucrats. The choices an individual bureaucrat faces are described on page 47 in the section on [dilemmas](#). In comparison, the structural choices faced by the designers of an organization include:

- Flatness of organizational hierarchy – how many layers of oversight are there? Another way of arriving at the same structure is to ask how many employees there are per supervisor.
- Hierarchy split by function (all the lawyers in one team, all the engineers in one team, all the sales people in one team) or by product (mixing experts to solve a customer's problem)?
- Size of organization. Having more people allows for more specialization and requires more support.

Not all changes have to be structural; there are choices to be made when operating within the existing hierarchy. Organizations create processes for recurring tasks like hiring, promotion (pay or title), awards, compensation, recognition, professional training, and firing. Each of those has a set of design choices that inform the organization's culture. The organization may have policies and processes regarding hiring, promotion, training, and firing, but the decision may be made by team managers rather than managers higher in the chain of command. In some organizations (e.g., government), the constraints of some incentives like pay and financial awards are set outside the organization. That further constrains the ability of bureaucrats to shape their organization's culture.

Organizations are more accountable to their source of funding; less so to the subjects of bureaucracy or members of the organization. For example, the [Internal Revenue Service \(IRS\)](#) is accountable to Congress, not taxpayers or IRS employees.

A flat organization (more employees per manager) means more people doing work instead of managing, but sufficiently large organizations are typically broken into teams to make coordination less chaotic.

Organizations are segmented into teams and there are not many options: create a new team, merge existing teams, or dissolve a team.

Shuffling the structure of teams (referred to as re-organization) is a favorite hobby of executive leadership. The alignment of hierarchical structure with an organization's purpose is a change that is easy to point to as an accomplishment.

For a given set of teams, the lateral interactions are competitive or cooperative. Coordination is required (or conflict will occur) for money, staffing, and resources. Examples of resources include access to or control of data, computer equipment, hardware, floor space in a building, prestige, and ownership of products.

Not Many Options Within Teams

Similar to the limited number of options available for shaping organizations, the choices faced by a team are limited. As a consequence, relationships and effective communication are more significant for effective bureaucracy.

Team managers might decide who gets hired, who gets promoted, who goes to what training, and who gets fired. Though in some environments even that control is relegated to an external team. A team manager usually has decision-making authority regarding tasks the team works on.

Accountability in the context of teams comes from person-to-person interactions. These can be either lateral (sideways), parent-child (top-down), or child-parent (bottom-up) [59]. Each of these three categories has associated constraints.

The upward child-parent (bottom-up) communication is either inadequate (too few updates, not enough information, or insufficient context), relevant, or excessive. For example, a weekly or monthly report to multiple superiors may be inadequate.

Finding the balance depends on the presenter knowing the individual audience members so that a tailored message is provided and then adapting to the specifics of the situation.

The downward parent-child communication either is inadequate (no direction provided or imprecise direction provided), provides actionable vision, or micromanagement. Finding the right balance and specificity requires insight into the communication needs on both sides of the relationship. The manager of a team member has a variety of tools available beyond setting tasks and deadlines. A manager can create an environment that provides psychological safety, promotion based on accomplishments, recognition of contributions, encouragement, and constructive feedback.

For interactions among team members at the same hierarchical level the conflict of interests between cooperation and competition manifests in struggles over money, staffing, products (output), and resources (inputs).

Understanding the options available for organizations, teams, and relationships informs your Process Empathy. There are constraints bureaucrats operate within and there are a limited number of ways to evolve out of a situation. By listing possible ways to change you can identify which options are best to invest in.

>> Actionable Advice

Roles of Management versus Leadership

Teams include managers and leaders. Those roles are not necessarily filled by the same person. By clarifying the distinction, you can determine what to expect from various members of the hierarchy. A common mistake is to expect leadership from managers. (In fact, anyone can lead!)

A manager's role involves time management, task tracking, employee evaluations, promotion, pay, requesting resources for team members, firing, and hiring. Sometimes the responsibilities of promotion, pay, and hiring are split into a supervisor role, leaving task tracking and time management to the roles of project manager or product manager.

A leader's role includes on coordinating vision and principles. Vision can be either a destination (a specific outcome) or a direction (an area of focus). The principles (or strategy) identify which behaviors of team members are expected or shunned. The vision and principles for the team do not have to originate from the leader – other team members can contribute ideas. The leader's responsibility includes creating and renewing social consensus around the vision and principles.

Another responsibility of team leaders is aligning the efforts of members. That involves identifying roles, responsibilities, and relationships. Roles get titles to label the responsibilities. Relationships are codified by an [org chart](#) that indicates who reports what to whom.

As a thought experiment to illustrate the necessity of management and leadership, consider an uncoordinated mob of people. How would a mob create complex machines like a car, common electronic devices like a computer, or large infrastructure like skyscrapers and bridges?

The complexity and size of [decentralized bureaucracy](#) requires managers and leaders even though the access to shared resources is less easy to visualize. In the next section on friction the difficulties of coordinating bureaucrats is reviewed. The understanding of sources of friction is important for managers, leaders, and bureaucrats to understand as part of their process empathy.

Sources of Friction between Teams within an Organization

Ideally there is a clear division of responsibilities among different teams. Having separate teams requires interaction among teams – one team may depend on the output from another team. Coordination among the teams regarding the transfer of data, products, projects, or knowledge is critical to the smooth operation of the organization. Separation allows for de-duplication of work and better transitions for work that spans teams.

The division of responsibilities between teams can become unclear because a team's scope tends to align with skills of the team members. One team may be responsible for an aspect of a task workflow, but if members of another team also have those skills (e.g., due to cross-training), the separation of responsibilities can be blurred.

Another factor that leads to friction is the constraint that organizations have finite staffing, money, and time. Therefore, teams within the organization face a [zero-sum](#) distribution of resources – more for one team means less for everyone else. While cooperation among teams would be efficient, competition arises from the allocation of resources.

As with coordination among individual bureaucrats, a source of friction for teams is the differences in perspective based on local conditions, having insufficient education or experience, different incentives, or different definitions of success. Ideally each team shares the organization's vision, but in practice local conditions influence decision-makers.

When trying to resolve friction between teams, there is an authority common to the teams due to the hierarchical structure of responsibilities. Based on their position in the organization, that person is responsible for resolving conflict, lacks nuanced insight, doesn't have time to get involved in every challenge, and doesn't want to micromanage multiple teams. The resolution is often left to the respective teams.

Data Transfer from one Team to Another

Consider two teams in an organization that interact, and each has data storage and data processing capability. Allen's team sends Bob's team data every week. Because the teams were built for different purposes and at different times by different people, the data storage capabilities used by each team are not compatible. Members of Allen's team print all the records (usually about a hundred pages) and then deliver the paper documents to Bob's team. Members of Bob's team then retype all the information

into the data storage used by Bob's team.

In a recent effort to modernize the office went paperless. Now Allen's team sends Bob's team a set of PDF files. Members of Bob's team type in the content from the PDFs into the database for Bob's team. This is deemed a win for efficiency – no more printing of paper documents each week!

Why doesn't the organization common to both teams hire a data scientist to automate the recurring data transfer? Or train the current staff to learn to program a solution? Or create a third team that manages a common server? Because the current staff skill set supports printing and typing (data entry). Training someone with a new skill set takes an investment of money, time, is an opportunity cost, and makes them a flight risk. Hiring a data scientist is expensive. Whether the task is feasible is uncertain from the view of Bob and his manager (they both lack experience with the needed technology), and how long the task will take is uncertain. Even once they create a connection, then a person with the skill set to maintain it is needed. The cost of ongoing maintenance and implementation is unknown.

The choices for resolving this friction between teams is to either stick with the known working approach that is suboptimal and has a known cost, or take a risk with unknown potential improvement of unknown degree for an unknown capital and unknown ongoing cost. And if that improvement works out, staff who were enacting the current solution would need to find new work or learn new skills.

2.5 Bureaucracy as Accidental, Legacy, or Essential

Essential bureaucracy is the minimum set of processes, staffing, and skills necessary to address the complexity of managing a community's access to a **shared resource**. Achieving this minimum is tricky since optimization can be with respect to resilience to change, resilience to edge cases, staff turnover, speed experienced by subjects, financial cost, time spent by the organization, and the number of staff. Miss any one of those goals and the bureaucracy is deemed inefficient.

Undesirable bureaucracy can be categorized as either accidental or legacy. Accidental bureaucracy arises when someone misunderstands what is needed or when skills of the bureaucrats involved are insufficient for the complexity a problem. Legacy bureaucracy occurs when the situation changes but processes do not.

Accidental and legacy bureaucracy accumulates within an organization. Optimization of improved efficiency is at odds with change which disrupts careers, relationships, and accumulated power.

Resolving each of these suboptimal conditions may seem easy: have better knowledge of the problem, assign the right people to the problem, and change processes as problems evolve. In practice, the easy resolution is challenging.

Having enough knowledge is often infeasible, especially for complex problems at a large scale. Having the people with the right skills assumes that a pipeline of people with relevant talents exists and that people in the pipeline won't be poached to work on other challenges. Keeping up with evolving problems depends on having resources to change (beyond the maintenance baseline) and having a defined approach for changing the process.

The explanations of accidental and legacy bureaucracy are not intended as excuses. By understanding the causes, you can better differentiate accidental and legacy from essential bureaucracy.

2.6 Bureaucratic Fallacies

Discussions about bureaucracy by non-experts often rely on common conceptions that are **thought-terminating**. Identifying these enables you to understand both why the fallacy is attractive during a discussion with fellow bureaucrats and how each idea is incomplete.

These fallacies may at first feel right but are misleading. In contrast, there are [unavoidable hazards](#) (see page 79) that may feel bad but reveal underlying truths.

Bureaucratic fallacy: Bureaucracy is bad.

Why this feels true: When a person subjected to bureaucracy has a negative experience, the easiest attribution is to the least understood aspect – bureaucracy.

What this is missing: [Bureaucracy](#) as defined in this book is neither good nor bad. Bureaucracy is merely a way of managing access to resources shared amongst a community.

Bureaucratic fallacy: There is no point in planning since everything (staffing, funding, purpose, scope) is always changing.

Why this feels true: Change can feel disorienting, especially when it is unexpected. A change of the assumptions for a plan may make the plan less relevant.

What this is missing: Preparing for change and thinking ahead about contingencies enables effective use of resources. Have a vision and work towards it while accounting for and adapting to change. This approach requires extra work, some of which will be left unused. See Dilemma 3.11 on page 56.

Bureaucratic fallacy: Bureaucracy is an aberration, a mistake, due to poor planning or incompetent participants.

Why this feels true: Mistakes are made, poor or insufficient planning does happen, and some participants are incompetent.

What this is missing: Bureaucracy occurs even if no mistakes are made, effort is spent on effective planning, and participants are competent. That's because [dilemmas](#) arise from the use of distributed knowledge and distributed decision-making.

See page 47.

Bureaucratic fallacy: Bureaucracy is inefficient.

Why this feels true: Subjects and bureaucrats observe seemingly wasteful processes.

What this is missing: If bureaucracy were truly inefficient (not allocating resources efficiently), then in a competitive environment it would be replaced by a more efficient approach. The key is to ask, “Efficient with respect to what metric?” The metric of money, time, number of people, stability, or robustness to perturbation? Second, what would motivate improved efficiency? Without incentives, change is less likely.

Bureaucratic fallacy: Bureaucracy is due to malfeasance.

The specific number of malicious bureaucrats in variations on this fallacy ranges from “all of the participants” to “just enough to be problematic.”

Why this feels true: There are bad actors present in any system comprised of humans.

What this is missing: Most participants are earnestly trying to help make a positive contribution, even though that can be hard to see from the view of subjects or even other bureaucrats. Processes like isolation or exclusion exist within bureaucracy to deal with malicious bureaucrats.

Bureaucratic fallacy: Bureaucracy is a sign of decay from within the organization.

Why this feels true: Relationships within an organization have a half-life and require ongoing investment to renew. At the same time, new bureaucratic processes are constantly being developed by other bureaucrats. The number of processes increases as the organization ages. Bureaucracy seems to arise without effort and countering it takes effort.

What this is missing: Bureaucracy unavoidably emerges in every organization because coordination is

required. The negative connotation of decay should be replaced with a sense of neutral evolution.

Bureaucratic Fallacy: If the response to a request I make can't be expedited, my request must not be important.

Why this feels true: Other people would show they care about what I am working on by prioritizing things I am dependent on.

What this is missing: When everything gets prioritized, that's the same as nothing getting priority.

Bureaucratic Fallacy: The expected duration of a task is how long it would take one person to accomplish.

Why this feels true: When I imagine carrying out a task, the default is a story with one character.

What this is missing: This narrative fails to account for the overhead of interaction among participants and delays due to asynchronous dependencies. This is described well in Brook's *Mythical Man-Month* [14] and modeled in [the appendix](#).

Bureaucratic Fallacy: When developing or altering policy, focus on the average or majority (to the exclusion of outliers).

Why this simplification is misleading: Sometimes outliers are not just more of the same; they alter the outcome. For example, during the transition from horses-for-transportation to cars, cars could initially have been considered outliers.

Bureaucratic Fallacy: People learn from their mistakes.

Why this feels true: There's an optimistic desire for this to be true.

What this is missing: People repeat mistakes without noticing. People do not naturally reflect on their failings in a constructive way and then apply insights to future situations. People *can* learn from their mistakes. Doing so requires a low latency feedback loop and incentive to change. In bureaucracies feedback loops are weak so learning may not happen.

Bureaucratic Fallacy: Processes are serial.

A conventional approach to process design is a sequence of tasks. As an example, consider approval chains.

Why this feels true: Serial processes are easier to understand.

What this is missing: Some tasks that are independent can be carried out concurrently; see the section on [reducing overhead](#) on page 38.

Bureaucratic Fallacy: Hard work creates results.

Why this feels true: Some results do require hard work. The alternative (results arise serendipitously or with little effort) is not inspiring.

What this is missing: Hard work can be invested on wasteful effort. Don't confuse being busy with being productive. Sometimes insight is more useful than hard work.

Bureaucratic Fallacy: You cannot pay a little and get a lot.¹

>> Folk Wisdom

Why this feels true: If small investments made a big difference we'd already be making the investment.

What this is missing: This doesn't account for creative solutions and ignores [nudge theory](#) from behavioral economics.

¹See the Wikipedia entry for the [Common law of business balance](#)

When you are reasoning about bureaucratic systems, there may be a conclusion that is concise and feels explanatory. Then you should try to come up with counter-examples, either logically or from experience.

Some fallacies are based on an expectation that other people should be more like what you imagine your best self to be. That mindset fails to account for your shortcomings and the diversity of other bureaucrats.

2.7 How to Reduce Administrative Overhead

You can read this list from a position of authority to take action, or you can read this list as an advocate for improvement.

In isolation, none of the following suggestions should be surprising. However, enacting each idea requires ongoing investment. A champion is needed to actively promote and support each idea.

- *Tip:* Automate recurring decision processes. Automation can decrease work and decrease the risk of inconsistent outcomes. Automation is a way of encoding bureaucratic processes that convert subjective decisions into repeatable steps.

Why this doesn't happen: Bureaucrats don't know how to automate processes, or there isn't infrastructure available to support automation.

- *Tip:* Where automation is infeasible for a process involving multiple bureaucrats, make advocates with end-to-end authority available to the subject. This improves the subject's experience of a process. A benefit to the organization is that the advocate might see opportunities for improvement not apparent to a bureaucrat responsible for one step in the process.

Why this doesn't happen: The organization may lack incentives to provide customer advocates. When there is a customer advocate, that person may not have the skills or time to exert end-to-end oversight of the process.

- *Tip:* Make processes transparent to participants. This improves the subject's understanding of a process. Transparency can help with trustworthiness if the reasoning for actions is defensible.

Why this doesn't happen: Transparency may require technology that is not central to the process. Transparency costs money that could otherwise be spent on more tasks more central to the organization. Transparency can provide data that is then used against the organization.

- *Tip:* Make information discoverable (e.g., via search engine).

Why this doesn't happen: Technology that isn't the core strength of the organization is a distraction from the central work and a cost in terms of staff and money.

- *Tip:* Make information directly available, rather than mediated by a person.

Why this doesn't happen: Having to talk to a person reinforces the importance of that person. The data owner feels needed, and that can be emotionally rewarding. Whereas providing a pamphlet or software application programming interface ([API](#)) is less personal.

- *Tip:* After an interaction is completed, summarize the steps and outcome for the participant.

Why this doesn't happen: Writing notes takes time away from accomplishing work. The written notes may not adequately capture nuances.

- *Tip:* When a process fails the needs of a participant, investigate the failure and improve the process. Apply the practice of [continual improvement](#).

Why this doesn't happen: A way to detect failures is needed. Why would that exist? A goal of improvement sounds good, but what incentive does the bureaucrat have to improve?

- *Tip:* Make the goals and priorities of the organization clear to all stakeholders. This enables accountability by allowing a participant to point to dissonance.

Why this doesn't happen: Sharing goals enables accountability.

- *Tip:* Define measurable standards of performance, both for individual bureaucrats and for teams. Again, accountability is a feedback loop that needs a starting point for identifying dissonance.

Why this doesn't happen: Carrying out measurements and evaluating the results takes work. Also, measuring outcomes introduces the risk of identifying failure. Then the organization looks bad.

- *Tip:* Train bureaucrats on how to engage participants effectively; these interactions determine the culture of an organization.

Why this doesn't happen: If training is pursued at all, justifying domain-specific technical training is easier.

- *Tip:* Train bureaucrats through formal education or through mentorship.

Why this doesn't happen: Formal training is a cost with an unquantified benefit. Mentorship rarely results in promotion. The attention of experienced mentors is a zero-sum investment that takes away from time spent doing measurable work.

- *Tip:* Make employment desirable to people who have desirable characteristics (e.g., educated candidates).

Why this doesn't happen: Hiring less expensive candidates is easier to justify.

- *Tip:* Enhance accountability to peers (e.g., peer review of actions and outcomes).

Why this doesn't happen: Accountability is relevant if improvement is desired and if you think your peers are in a position to provide useful feedback.

- *Tip:* Look for ways to encourage organizations and individual bureaucrats to improve and take risks rather than maintain the status quo.

Why this doesn't happen: Deviating from the status quo means taking risk. Specifically risk to incumbent power.

- *Tip:* Decisions should be pushed down the hierarchy to the practitioner. This is exemplified in Marquet's book *Turn the Ship Around* [73].²

Why this doesn't happen: Power comes from decision-making. Pushing decisions down the hierarchy means letting go of power.

- *Tip:* When making a decision requires cross-organization interaction, form a team of practitioners.

Why this doesn't happen: Relying on practitioners to coordinate takes management out of the critical path.

²See Wikipedia entry on [Participative decision-making in organizations](#).

- *Tip:* Supervisors should share the workload with their team to gain practical exposure to current challenges.

Why this doesn't happen: The skills a supervisor has may not intersect with work being done by team members.

- *Tip:* Seek feedback from process participants, then provide status updates on the implementation of changes. This provides a feedback loop and is a form of accountability.

Why this doesn't happen: Gathering feedback is an opportunity cost for getting work done. If [continual improvement](#) isn't a basis for promotion of bureaucrats, there's little motive to invest effort.

- *Tip:* Replace sequential approval chains with a concurrent review process. Sequential approval reduces the number of ideas reaching later approvers by filtering good ideas as well as bad ideas. Approvers may perform independent (redundant) due diligence and end up disagreeing.

Why this doesn't happen: Concurrent approval has the risk of unnecessary work (someone says yes after someone else says no or asks for more justification) and likely conflict when two reviewers disagree.

2.8 An Effective Bureaucrat

You can leverage your improved understanding of bureaucracy by changing your behavior. In this section I provide actionable suggestions. This section provides prescriptions, whereas other sections in this book like the [dilemmas](#) (page 47) and [unavoidable hazards](#) (page 79) are descriptive. If you only have the prescriptions (and skip the descriptions) you might get confused and frustrated as to why other bureaucrats are not applying best practices.

I assume you are a good person, you have the relevant technical skills for your duties, and you are a good [project manager](#). Enacting Process Empathy is in addition to those elements.

Characteristics of an Effective Bureaucrat

Bureaucracy is typically enacted by a system of distributed knowledge and distributed decision-making, so coordination is critical. Here are characteristics to strive for.

- You communicate more effectively than anyone around you. This applies to verbal and written communication, [formal presentations](#) and [informal interactions](#).

See page 154.

Why this doesn't happen by default: people plateau when there is no incentive to improve. What level of quality is good enough depends on the situation-specific risks and costs.

- You facilitate meetings such that productivity is noticeably improved. This means creating and sharing an agenda, providing rules on interaction (e.g., raising hands), taking notes, sharing notes, and following up with assigned tasks after the meeting.

Why this doesn't happen by default: facilitation is rarely taught explicitly. The work of facilitation is considered secondary to the discussion even when the productivity of discussions is disastrous and demoralizing.

- You take part in meetings, whether that means actively contributing or intentionally supporting other attendees. You leverage relationships with other attendees.

Why this doesn't happen by default: active participation requires effort and exposes you to more risk than remaining silent.

- You invest effort in written communication (emails, text-based chats, reports). Your writing empathizes with readers, captures relevant context, is concise, and is clearly worded.

Why this doesn't happen by default: writing-as-a-skill is rarely the focus of a bureaucrat's work. Writing may be seen as skill that doesn't require improvement. Finding role models that provide examples of clear writing in bureaucratic organizations can be challenging.

- You communicate verbally concisely and precisely. You listen and you teach. You seek shared definitions.

Why this doesn't happen by default: Without a feedback mechanism motivating urgency, bureaucrats tend to pontificate.

- If you are in-person with colleagues, you walk around and talk with people one-on-one.

Why this doesn't happen by default: bureaucrats interested in "just doing the work" view professional interactions as a distraction that decreases productivity.

- You are **professionally vulnerable**.

See page 126.

Why this doesn't happen by default: Sharing stories of your personal experiences in the organization requires coherent narratives that the listener can learn from. That talent is not taught to members of most organizations.

- In your role as bureaucrat you leverage project management skills: you have a vision, you make and share plans, all while building consensus with stakeholders.

Why this doesn't happen by default: Consensus requires knowing who is relevant to include and then investing in relationships that allow iterative feedback. That use of time is costly. The level of extroversion may not be attractive to every bureaucrat.

- You apply your negotiation skills [23] that improve your interactions and outcomes.

Why this doesn't happen by default: bureaucrats are not taught negotiation unless it is an explicitly named responsibility for their role.

- You reply quickly to incoming requests, whether by answering directly or acknowledging the request and providing a timeline for when you will answer. This allows other people's tasks to either be resolved or have a clear response about when progress can be expected. Other participants in the organization then see you as reliable in a positive sense.

Why this doesn't happen by default: The coping skills of responding to a large number of inbound requests either grows through experience, is learned by watching role models, or just doesn't happen.

- You strive for and demonstrate transparency. You share information with stakeholders. Transparency enables coordination without interpersonal relationships.

Why this doesn't happen by default: Transparency endangers incumbents. Transparency requires an ongoing investment that doesn't contribute to addressing the primary issue. Transparency requires empathy with subjects.

The superpowers of a bureaucrat that facilitate cooperation and progress in any organization include the following.

- You seek information from stakeholders without burdening them. When your requests are burdensome, you acknowledge that and seek ways to pay back (or forward) their investment.
- You apply consistent processes (rather than being reactionary and applying ad hoc responses).

- You hold others (and yourself) accountable for their actions. Accountability is created by clearly stating objectives and then measuring results.
- You adapt to the varying incentives and reference experiences of those around you. Flexibility enables interactions with diverse coworkers.
- You effectively multi-task or, more accurately, switch tasks. The switch among tasks is triggered when the current task encounters an externally-generated pause. You can [work on a task while waiting for another task to finish](#).
- You are prepared with a backlog of ideas (in writing) if someone shows up with resources.
- You know when to change communication channels (from text chats to phone calls to in-person).
- If you are dependent on someone else getting something done to enable your progress, you can demonstrate priority by physically showing up – [presence creates priority](#). Being physically at a person’s desk motivates that person to respond better than calling or emailing them. Showing up where someone works and talking with them conveys how much priority you place on the actions of the person you’re talking with.
- You have intellectual empathy – [theory of mind](#) for thinking – as well as empathy for the emotions of others. You grow your intellectual empathy by [shadowing](#) peers and bosses and coworkers and subordinates.
- You have [process empathy](#). You recognize the deviations and exceptions that cause processes to come into existence.
- You focus on value delivery in relationships to a degree that exceeds the scope of your formal role.
- You have altered your job description to fit the growth you’re seeking.
- You are willing to engage on a personal level and know stakeholders outside their professional role.
- Each of your tasks has a customer, a deadline, and a deliverable artifact. You iterate towards a result.

You occasionally ponder and discuss with other people introspective questions like

- How can I be successful?
- What are the ways I could fail?
- How would the organization be characterized as successful?
- What are the ways the organization can fail?

You find mentors and ask them questions like

- What do you like most about your career?
- Given a chance, what would you do differently?
- How do you manage work/life balance?
- What’s the big challenge for our industry in the next two years?
- How would you tackle that challenge?

- What advice do you have for a young person starting in this industry? In this organization?
- Are there mistakes to avoid?
- How can I be successful?
- What books would you recommend reading?

Although you strive to enact Process Empathy, do not expect that of other people.

Frames used by Effective Bureaucrats

Being an effective bureaucrat is a mindset. There are various framings that are useful.

Framing: A bureaucrat can do more as part of an organization than by working alone. Being a member of an organization means the bureaucrat's identity is subsumed into service for the organization they are part of.³ At the same time, bureaucracy enables the bureaucrat to amplify their presence by being part of a larger organization. That isn't always the case; sometimes the cost of being part of the organization exceeds the force multiplier of working together.

Framing: Measuring your personal growth in a bureaucracy is difficult due to the lack of [feedback loops](#). One approach is to measure your capabilities for a specific task. If you can complete the task in less time, with fewer resources, and with less effort, that's progress. If you can now complete a task that you previously wanted to but weren't able to, that's progress.

Feelings: Bureaucracy induces an emotional response in participants because things don't work the way each person wants. This can lead emotionally to frustration and then apathy. Understanding how things work in a bureaucracy can help decrease the anger.

Another emotional response to bureaucracy is a sense of powerlessness.

"Some third person decides your fate: this is the whole essence of bureaucracy [66]."

That sense of powerlessness applies both to bureaucrats and to subjects of bureaucracy.

The sense of powerlessness is somewhat valid, in that you are as a bureaucrat giving up some power compared to your ability to act individually. That is the trade for working with other people.

Feelings: A process feels bureaucratic when there seems to be dissonance. The subject faces a multi-step task that they can imagine one person doing the same action in fewer steps and taking less time. The illusion of decreased bureaucracy is created by consolidation from the subject's perspective. The barrier to enacting consolidation is the necessary coordination among different stakeholders who receive no benefit from the consolidation. Externalizing the coordination to the subject is what causes the sense of bureaucracy.

How to be an Effective Bureaucrat

The following advice is specific to situations that you may not have yet encountered.

Do: Work on three tasks concurrently. Don't rely on one person or one idea for your success. On the other end of the spectrum, don't spread yourself too thin. Working on a multitude of projects decreases

>> [Goldilocks principle](#)

³See Wikipedia entry on [Deindividuation](#) – the loss of self-awareness in groups.

risk of any one outcome failing but also decreases the amount of attention spent thinking about a specific challenge.

The three tasks should be at off-set stages (early, mid-way, and nearing completion) rather than all being the same level of maturity.

Do: When you get stuck, use the following changes of perspective: **Look upstream, look downstream.**

Look to peers. Zoom in (narrower scope) and zoom out (broader scope). These are all ways of changing the context. That change may help you identify assumptions that are holding back progress.

Do: When you are asked to take on more work, **avoid responding with “That’s not my job.”** If the request is misguided and your perception is that another person has the responsibility, ask if the requester is aware of that other person’s responsibilities. If you are to take on the work, get guidance on re-prioritizing and ensure the request is documented in writing.

Do: If there’s something you want to do, **strive for influence without authority** instead of working to gain control over resources (e.g., through promotion). Avoid the following: “In this organization X is important to me, but I can’t do X right now because I don’t have enough power in the organization. So I’ll get promoted and then do X.”

Do: Learn the perspectives of those around you.

Learning the about the paradoxes of bureaucratic [dilemmas](#) and [unavoidable hazards](#) enables you to talk with your fellow bureaucrats about these specific topics. The goal is to find out what the other person is thinking so that you can account for their view; the goal is not necessarily to find consensus or agreement.

Do: Account for holistic view.

The specific circumstances of the challenges you face as a bureaucrat depend on the individual people involved, what the purpose of the bureaucracy is, what technology is available for enacting bureaucracy, and the resources (staffing, money, time).

Do: Learn the history of the challenge.

This goes beyond [Chesterton’s fence](#) (see page 8), which focuses on why the current approach is in place. Learning the history of a problem ([decision archaeology](#)) means what has been tried before and failed. How did the previous iterations evolve into the current situation? Was the cause personalities, insufficient resources, inadequate technology? What’s changed that enables this approach to be better? What do you know that prior attempts didn’t?

Do: For a given challenge, work on three remedies.

One solution you’re working on may fail, and another may be inadequate.

Do: Minimize imposing costs on other people.

A solution that externalizes costs harms the greater organization and creates bureaucratic debt.

Do: Exploit the flexibility of rules for the benefit of all parties.

Change the rules of the game and the objectives of the game such that every participant wins.

Do: Find ways to rephrase negative complaints.

Negative observation: “Logging into my computer takes a long time.”

Positive statement and explanation of impact: “If the latency for logging into my computer were lower, I could make more progress on X.”

Negative observation: “The service team I need support from doesn’t offer a ticketing queue.”

Positive statement: “If the service team I need support from offered a ticketing queue, I would be able to track the work done on my behalf.”

Do: Share lessons learned.

This can build your network. People value vulnerability in others; you can make the first move.

Chapter 3

Why Bureaucracy is Hard

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In this chapter the challenges of bureaucracy are described. There are a lot of them. If at some point you become exasperated, then skip to the next chapter (which is more positive). The purpose of this chapter is to decrease your surprise when you encounter these challenges. Also, there's value in recognizing that the challenges are generic to bureaucracy and not specific to you, your team, or your organization.

3.1 Subject's View of Bureaucracy

This section is written from the subject's perspective of bureaucracy but is meant to be read by bureaucrats who want to improve their [process empathy](#). This book doesn't provide advice to subjects of bureaucracy.¹

When you have a positive experience engaging with bureaucracy, your positive attribution is to the people involved. Or the ease of a solution makes bureaucracy less visible and the solution seems obvious. When you have a negative experience with bureaucracy, complaints are about the incompetence of the people involved or the incomprehensibility of the system. Don't these bureaucrats know how to do their job? Why isn't the solution obvious? Why does this system not work for me? David Graeber summarized this view [45]:

“Amongst working-class Americans, government is generally seen as being made up of two sorts of people: ‘politicians,’ who are blustering crooks and liars but can at least occasionally be voted out of office, and ‘bureaucrats,’ who are condescending elitists almost impossible to uproot.”

The scale of bureaucracy (the number of people in an organization) and the processes of an organization can seem disproportionate to the complexity of the task. Typically when you interact as a subject of bureaucracy with a bureaucratic organization the artifacts are simple, like a form to fill out. The simplicity of the artifact does not correlate to the number of decisions made, the tracking of information, or the precautions taken by the organization. All these aspects are invisible to the subject because they are internal to the organization.

As an example, consider when you go to the doctor and they put your broken arm in a cast. That seems straightforward because all you see is the doctor putting a cast on. You don't get insight into the decisions they had to make. Why did they need 20 years of focused schooling to carry out a process that took 15 minutes?

¹For advice on navigating bureaucracy, listen to National Public Radio's “[How to Talk with Customer Service](#)” [62].

Judging bureaucracy by the artifact visible to the individual subject undersells the complexity of the **decision-making** necessary to take action. The contingencies that you were not exposed to because everything went well make the amount of investment from the bureaucrat appear wasteful. Distinguishing essential bureaucracy from accidental or malicious bureaucracy is difficult.

As the subject of bureaucracy, you also lack the ability to distinguish how much work is attributable to the bureaucrat generating justifications for their actions (colloquially, [covering the bureaucrat's ass](#)). These justifications are needed both within the organization and potentially for external stakeholders. Each bureaucrat's rationalization may not be reviewed, but it needs to be available for review later.

As the subject of bureaucracy, you typically can't distinguish when work is caused by a bureaucrat's ill-informed decisions. Is the person stupid, mistaken, or is there something you are not taking into account? Sometimes the work is carried out by insufficiently trained bureaucrats, but you don't get to know whether you're working with an experienced and knowledgeable bureaucrat or a new untrained bureaucrat.

As the subject of bureaucracy, you don't have visibility on the many nuances of an organization. The internal power struggles and organizational politics that depend on personalities, resources, and competing prioritization are not clear to outsiders. The inconsistency of an organization's policies may not be felt by bureaucrats in that organization. Each bureaucrat may have a different opinion, resulting in a lack of consistent guidance. There may be legacy policies in effect that once were useful but no longer should be applied.

There is no transparency on either the input or output for subjects. For input, forms ask for specific information (the "what") but do not provide the why. Similarly for output, decisions are made but without justification or reasoning provided. The subject has no input on who gets to make the decisions, nor does the subject feel the decision-maker represents them, nor is there any obligation of competence in the decision-making. Bureaucracies typically have a monopoly on the shared resource they administer, so there are few choices available to the subject.

Effective action by a bureaucratic organization is complicated by the need for relevant information. Gathering, analyzing, and sharing that information persistently requires bureaucratic processes. To further complicate the ideal process, sometimes the organization lacks bureaucrats with relevant skills.

The next section documents why bureaucracy is hard from the perspective of the bureaucrat. Even without getting into the specifics of a bureaucrat's role or the purpose of an organization, there are generic reasons that bureaucracy is a burdensome activity. Your [process empathy](#) stems from recognizing other bureaucrats face the same challenges that you experience.

3.2 Identifying Opportunities to Decide

Bureaucracy is the set of subjective decisions people make as part of an effort to manage access to resources shared by a community. Bureaucrats face a multitude of decisions independent of the specific shared resource and independent of which organization the bureaucrat is a member of. To build your process empathy, this section reviews decisions every bureaucrat faces.

When a decision has two viable options (neither being best), that is a [dilemma](#). The name for a decision with three equally viable options is a [trilemma](#). This section describes a bureaucrat's experience of operating within an organization in terms of dilemmas and trilemmas. Instead of focusing on moral dilemmas [118] or institutional ethics, here the focus is on interpersonal relationships and the logistics of allocating your attention.

Dilemmas are a [simple way](#) of discussing decisions. Dilemmas are a useful framing to highlight the following concepts:

- You, an individual bureaucrat, face decisions that you may not have recognized. Failing to recognize a choice (an error by omission²) can lead to suboptimal results. The dilemmas below are generic to any bureaucratic process and are intended to stimulate your ability to identify decisions.
- You face complex trade-offs in your role as a bureaucrat. Dilemmas are intended as an entry point to more nuanced reflection that is specific to your situation. The dilemmas below are not exhaustive; this list is merely illustrative. The list is intentionally long to emphasize there are many dilemmas.
- You can use dilemmas as an entry to [intellectual empathy](#) with fellow bureaucrats when you recognize they face the same dilemmas. The dilemmas presented here are generic to a variety of situations. You now have a topic to discuss with other bureaucrats. You can share your understanding, and you can be curious about the choice other bureaucrats select for a given dilemma. Everyone in the organization faces these decisions, so these dilemmas give you a topic of conversation to better understand each bureaucrat's view.
- When you encounter a bureaucratic process that does not feel intuitive, you can try to understand which dilemmas the designers faced. You can identify relevant dilemmas to build [process empathy](#).
- You can identify and negotiate potential sources of friction. Other bureaucrats may arrive at different selections for a given dilemma, so recognizing this and discussing it can improve the effectiveness of all involved.
- If you don't recognize the existence of the dilemmas or name them, bureaucracy can feel like resistance, confusion, conflict, and frustration. By recognizing the dilemmas specific to your situation, you can see that bureaucracy is a set of opportunities and potential disagreements that can be negotiated.

Dilemmas explain the inherent complexity of bureaucracy even when bureaucrats are honest and the purpose of the organization is clear. However, the point isn't that one should [select one of the two options](#). The point of recognizing a dilemma is that it is a marker that there is a decision to be made. Once the need for a decision is identified, the action for the bureaucrat is not to select one of the two options. The effective bureaucrat identifies nuances, enumerates alternatives, and talks with fellow bureaucrats about these decisions. Rather than seeking consensus, strive for comprehension of other people's perspectives. That way you can navigate decision-making processes more effectively.

>> Actionable Advice

The choices described below in the simplified representation of dilemmas are intended as a starting point for introducing the decisions relevant to each bureaucrat. Once you recognize the need for a decision, avoid the response of, "Should I do this or that?" If you limit the opportunities you neglect nuances that enable more creative approaches. By recognizing the deficiencies of dilemmas, you can identify nuances specific to the situation you are in and [brainstorm](#) multiple options.

Dilemmas should not be resolved by you alone. Talk with people you manage, peers, mentors, customers, and managers. Understand the history of the situation before making a choice and taking action.

>> Actionable Advice

How Dilemmas Arise in Bureaucracy

The existence of dilemmas is not obvious or natural. Given a task, the simplest response for a person is to take action and be done. There wasn't a decision needed.

Just do the work.

If the task is more challenging then [make a plan](#), [take action](#), and be done. The source of the challenge may be task complexity, scale, number of people affected, diversity of stakeholders, amount of time needed,

Plan then do.

²The other category of error is error by commission – you recognized the need to select among options but made the wrong decision.

how the current task shapes future options, or the number of collaborators. Regardless of why the task is challenging, a dilemma has already arisen: how much time to spend planning versus doing.

If the task is even more challenging, it may be useful to gather data for the plan, then make a plan, then take action and be done. A new dilemma arises: how much time to spend gathering data versus planning. The previous dilemma still exists – how much time to invest in planning versus doing. As an alternative to the dilemma framing, how much time should be allocated to three categories of activity?

Gather data, plan, do.

But wait, how did the person in the first scenario (just do the task) know no plan was necessary? Either it was an explicit choice or they didn't perceive the need to plan – deciding not to plan and not planning are indistinguishable to anyone else. Someone else faced with that same task might choose differently, e.g., to make a plan. The task complexity is relative to the person's skills, experiences, expectations about stakeholders, and potential ramifications.

To continue with this escalating sequence of increasingly challenging tasks, now suppose the task involves you and another person. The overhead of coordination inflicts new dilemmas. The examples of complexity arising from coordination are identified in the list of dilemmas below, e.g., Dilemmas 3.3 and 3.4.

See page 53.

An independent source of friction for distributed decision-making and distributed knowledge is when people involved in the task don't agree on how challenging it is. The framing of the difficulty matters because it can lead different participants to distinct conclusions about how much time should be spent planning versus doing. The choice of "How complicated is the task?" shapes the team dynamics and informs the need for hierarchical roles.

Folk Wisdom on Decision-Making

Bureaucrats, whether hired for their expertise or to provide labor, are rarely experts in decision-making. There are multiple domains in which [decision-making](#) is studied (e.g., [economics](#), [mathematics](#), [psychology](#)), but practicing bureaucrats are more likely familiar with colloquialisms that feel descriptive. A few are provided here to give a sense of both the conciseness (relevant for memetic propagation) and the lack of prescriptive action in each meme.

[Murphy's law](#): "Anything that can go wrong will go wrong."

>> Folk Wisdom

[Hick's law](#): "Increasing the number of choices will increase the decision time logarithmically."

>> Folk Wisdom

[Hanlon's razor](#): "Never attribute to malice that which is adequately explained by stupidity."

>> Folk Wisdom

[Parkinson's law](#): "Work expands so as to fill the time available for its completion."³

>> Folk Wisdom

[Law of Triviality](#): "People within an organization commonly or typically give disproportionate weight to trivial issues."

>> Folk Wisdom

[Goodhart's law](#): "When a measure becomes a target, it ceases to be a good measure."

>> Folk Wisdom

Each of these memes feels descriptive to the practicing bureaucrat. They survive because of their self-encapsulation; no more thought needed. There is also nothing actionable about these memes.

³For a rebuttal see Chapter 5 of [Peopleware](#) by Demarco and Lister [27].

In comparison to the folk expressions above, dilemmas are intended to serve practicing bureaucrats as an accessible starting point for reflection and discussion resulting in action. Effective action is enabled by an improved understanding of the trade-offs faced within an organization. Rather than being reductive, the purpose of cataloging bureaucratic dilemmas is to first point out that there is a choice. Once the choice is recognized, look for ways to think beyond the dichotomy.

How Dilemmas Oversimplify

Although the following concepts are presented as dilemmas and trilemmas, these are necessarily simplifications. For example, two ways to simplify situations into a dilemma are

- Start with a single variable, e.g., “how much data to gather,” and force it into a binary choice “more data gathering” versus “less data gathering.”
- Start with a complex trade-off space with many opportunities and reduce it to a **false dichotomy** of **zero-sum options** where more of one means less of the other: “more data gathering” versus “more planning.” The trade-space involves optimization of multiple goals, like maximizing productivity, minimizing unnecessary risk, maximizing quality, maximizing employee satisfaction, and minimizing latency.

>> Goldilocks principle

The over-simplified dilemmas listed below neglect both the continuous nature of the trade-offs and the alternative creative approaches to a specific situation.

Framing decisions as dilemmas is an oversimplification, but they are useful way to begin contemplating the complexity of bureaucracy. Rather than waiting until the need for decision arises, ponder these dilemmas before the pressure of live decision-making. In your work you can recognize dilemmas and trilemmas and then extend your analysis beyond them by adapting to the local conditions and specific people available to help.

Once a dilemma is recognized, it can be tempting to defer and avoid the decision-making process.⁴ Delaying a decision negatively impacts the people awaiting action, so act quickly. Document your reasoning in a way other stakeholders can discover.

>> Actionable Advice

Dilemmas are not Purely Intellectual

Decision-making is not a purely intellectual task; there is emotional stress induced by the process. Dilemmas create cognitive dissonance for the decision-maker. Any selection is going to have downsides, and compromise can be suboptimal. Those burdens weigh morally on deciders because of the consequences on other people.

To counter this moral weight, talk with other people about decisions. Even though this does not alleviate the responsibility of deciding, discussion can help you arrive at new insights.

>> Actionable Advice

More Complications

Adding to the difficulty and stress, dilemmas presented here occur concurrently (at the same time) and continuously (all the time). The dilemmas are interdependent due to both common variables and constrained resources. Selecting an option for one dilemma alters the options available for other dilemmas.

Oscillation between approaches can be caused by a change of management, accumulation of experience (dissatisfaction) with one solution, the desire for promotion within the hierarchy (where change is presented as progress), or a desire for cost savings (efficiency).⁵ The rate of oscillation is an indicator of the half-life of **institutional memory for an organization**.

⁴<https://xkcd.com/1445/> – strategy A versus strategy B versus time spent analyzing which is more efficient.

⁵In Sterman's book *Business Dynamics* [98], oscillations are attributed to negative feedback loops that feature delay (page 114). I agree with delay being a causal factor, but the human motives contribute to the explanation.

The dilemmas identified below for generic bureaucracy are just a baseline. There will be more dilemmas to identify that are specific to the culture you are in, the project you're working on, and the people you're working with.

The following sections categorize dilemmas as [personal policies](#), policies regarding [structure of the organization](#) (page 72), and [dilemmas raised by subjects of bureaucracy](#) (page 77). The personal policies apply to each bureaucrat in an organization, while the structural policies for an organization are faced by a subset of bureaucrats in the management role.

Personal Policy Dilemmas

In practice, the following decisions are unordered and are constantly faced by the bureaucrat. As observed by Lindblom in [69], this flurry of decisions contrasts with a regularized process that you might envision as optimal.

Focus on the immediate problem.	Ponder the systemic issues and adjacent contexts.
<p><i>Description:</i> Focus on isolated problematic aspects and don't worry about the interdependencies, feedback loops, and stakeholder incentives.</p>	<p><i>Description:</i> Philosophical musings with a holistic view.</p>
<p><i>Cons:</i> Misses systemic issues, causes that exist outside the immediate scope, or issues that occur due to interacting processes.</p>	<p><i>Cons:</i> Relies on knowledge of the wider system that you may have less awareness of. Less emphasis on getting things done. May reveal problems that you don't have the authority to address.</p>

Table 3.1: *Dilemma of Aperture*. The scope of problem-solving can be narrow or broad. Rather than limit your investigations to one or the other, flipping between the two repeatedly (but not too often) can help.

The [Dilemma of Aperture](#) is about the scope of the challenge. The [Dilemma of Aperture](#) arises because isolated problems rarely exist. Challenges occur as part of larger systemic contexts. Addressing the immediate problem leaves the system issue, and tackling system issues is more difficult and takes longer.

Your selection of narrow versus wide scope within the [Dilemma of Aperture](#) depends on what you find emotionally rewarding. Other bureaucrats may gain emotional enjoyment from approaches to problem-solving that you do not. Finding ways to leverage that difference (rather than minimizing it) is useful.

An adjacent dilemma is the question of whether to focus on short-term tasks or long-term tasks. The right balance of how long tasks take is more project management than bureaucratic. Identify a small number of long-term tasks, then divide each into smaller (shorter) tasks. The dependencies among the smaller tasks then determine the order of the work.

Organizations typically incentivize short-term behavior. Annual performance reviews and quarterly feedback cycles might miss systemic changes that take multiple years to enact. Identifying incremental milestones is one response, though that isn't always feasible. Another approach is to only report a subset of your activities (the ones that yield short-term results).

Speak out and speak up if something is wrong or offends you.	Hold back comments and questions to minimize disruptions.
<i>Cons:</i> You could be missing context; you might look stupid.	<i>Cons:</i> You miss an opportunity to correct something; you miss an opportunity to get educated about a situation.

Table 3.2: *Dilemma of Speaking*. There is conflicting folk wisdom on both sides of this dilemma: “The squeaky wheel gets the grease” and “The squeaky wheel gets replaced.” How you raise the issue, with whom, and in what context all matter to either correcting the situation or getting better educated.

The [Dilemma of Speaking](#) arises in bureaucracy because different people have different opinions about policy. You may see someone doing something that appears wasteful, but that may be because you’re not aware of what the optimization objective is. Or that person may be unaware of the waste, or they may not be aware there is a more effective way to take action.

Resolving differences of opinion is not always necessary. If all members of an organization were to try to minimize policy differences, the members could spend all of their time doing so.

The [Dilemma of Speaking](#) is eased when you have relationships with other bureaucrats that allow you to express your curiosity or uncertainty in a way that doesn’t make the person you are talking to feel threatened, or that they are wasting their time explaining what seems obvious.

Whether the culture of an organization promotes speaking up or not depends on having either top-down encouragement or relationships that exist outside formal hierarchical roles. You need both psychological safety and enough time for discussion.

Intervene before the deployment of a policy, process, or product.	Wait on providing feedback until after deployment.
<i>Description:</i> You may know something the team does not.	<i>Description:</i> Allow the team to learn. Allow the team to complete their vision.
<i>Cons:</i> You may lack relevant context. Engaging prematurely betrays your awareness; future explorations by that team are made less visible.	<i>Cons:</i> The team wasted time and attention on something that wouldn’t work or may even be harmful.

Table 3.3: *Dilemma of Early Intervention*. As an outsider to a team responsible for a process, policy, or product, suppose you learn of something before the official deployment (e.g., you learn the internal musings of another team). There is folk wisdom on both sides: “Stay in your lane” and “Speak up when you see something wrong.” See the related [Dilemma of Micromanaging](#) in Table 3.4.

When there is an objective measure for success, suggestions can be evaluated with respect to whether change improves the outcome. Because bureaucracy is based on subjective policy, there are always differences about how to invest in improvements. The [Dilemma of Early Intervention](#) is about knowledge your role didn’t require. That knowledge may be incomplete or you may know more than the people taking action.

The [Dilemma of Early Intervention](#) can harm your relationships if you are seen as exceeding your role. Alternatively, your action can help the organization, and the team taking action may be grateful for the intervention.

Because organizations promote individuals, and there are a limited number of promotions available, the naïve expectation is that intervention that could help others and risks harming your relationships would not happen. The motive for a person to intervene is their sense of displeasure watching other people waste time and resources, or the possibility of learning something new.

Review the status of progress for other people early and often. Many milestones, check-ins, and updates.	Review the status of progress infrequently; just let people you manage do the work.
<i>Description:</i> Micromanagement .	<i>Description:</i> Hands-off management style.
<i>Pros:</i> Early intervention when things are not going well.	<i>Pros:</i> Enables independence.
<i>Cons:</i> Takes up your time and the time of people you're reviewing. Conveys low level of trust.	<i>Cons:</i> Team members are unsure how to proceed and don't know what the goal is.

Table 3.4: *Dilemma of Micromanagement from the Manager's View*. An expression of concern and control by the micromanager. The Micromanager wants the right outcome and may merely have the intent to provide guidance and feedback.

[Micromanagement from the Manager's View](#) is not unique to bureaucratic organizations. The tendency to micromanage does not depend on the level of technical expertise of the manager. Micromanagement occurs when the manager feels insecure about results. If the employees are untrained or unmotivated, the sense of insecurity may be reasonable.

Limiting [Micromanagement from the Manager's View](#) means finding an acceptable level of engagement. This depends on the training and motivation of each participant. To alleviate the manager's fears, the subordinate bureaucrat doing the work can proactively provide periodic status updates.

The manager is accountable for the outcome of their team members, which can lead the manager to fear that their team members will fail. Contrast this with the Dilemma of [Micromanagement from the Subordinate's view](#).

Bureaucrat expects management to provide solutions – just tell members what to do.	Bureaucrat dislikes managers micro-managing by telling people what to do.
<i>Cons:</i> Your manager may not have insight into what needs to be done. Or they may guide you in a less effective direction.	<i>Cons:</i> No autonomy, unable to exploit your expertise and creativity.

Table 3.5: *Dilemma of Micromanagement from the Subordinate's View*. This is the opposite perspective of 3.4. Nominally the manager helps identify the goals and provides context and the subordinate figures out how to accomplish the goal, but who handles what is negotiable in each relationship.

[Micromanagement from the Subordinate's View](#) is based on expectations the bureaucrat has for their manager. Micromanagement is common in bureaucracy due to the defining aspect of subjective decision-making; delegating policy enforcement is a loss of control.

Regardless of origin, [Micromanagement from the Subordinate's View](#) harms each person's emotional state and sours relationships. This impedes your role as an effective bureaucrat no matter the cause.

Happily, this dilemma can be remedied by talking with the other people involved in the situation. Each person has to be willing to express their concerns and to adapt their behavior.

Write everything down to cover your ass.	Don't record sensitive conversations that could be used against you or others.
<i>Pros:</i> Notes can be used for accountability and justification.	<i>Pros:</i> Less time on notes is more time for doing work.
<i>Cons:</i> Takes a lot of time and effort to capture intent accurately. Recording can be done poorly or be misconstrued.	<i>Cons:</i> No written record to point to when someone changes their behavior or fails to deliver results.

Table 3.6: *Dilemma of Documentation*. Write things down and share them with other people (for example, this book). There are costs and risks to investing in documentation. There are [dark patterns](#) for this trade-off, like intentionally misquoting another person to bias the documentation in your favor, or only writing down the aspects of conversation that favor the outcome you are interested in.

Bureaucracy is based on subjective decision-making about policy enforcement. The [Dilemma of Documentation](#) is a question of whether you avoid the risk of accountability or enable accountability of yourself and other bureaucrats. Having a written record is useful when confronted with the question, “What did you know and when did you know it?”

If you decide to respond to the [Dilemma of Documentation](#) by taking notes and sharing them, your coworkers get value from your notes. Your investment saves them time and allows them to search through old notes. As a new member of a team, this is an easy way to provide value.

A limiting factor biasing a bureaucrat towards the “no documentation” extreme is the ability to take good notes during or after conversations. That can be limited by your ability to multi-task (listen and write), your memory of what was said, or your handwriting. Another bottleneck is the time needed for writing notes.

A standard response to the idea of taking notes is, “I remember what happened.” These memories can be spotty, biased, and are verbal stories rather than artifacts. Relying on memory to recall events doesn’t work for everyone.

>> Actionable Advice

Ponder what should or could be done.	Figure out how to carry out the goal.
<i>Description:</i> Which of these should I select?	<i>Description:</i> How should I do the thing I selected?
<i>Cons:</i> Less time for action.	<i>Cons:</i> Prematurely select an action that is suboptimal.

Table 3.7: *Dilemma of Think or Do*. Brainstorming is useful, as is considering the holistic situation. At some point that transitions to action, but when? Both of these options succumb to [analysis paralysis](#).

The [Dilemma of Think or Do](#) is pervasive in bureaucracy. Any time not spent taking action looks wasteful, while investing too little thought can result in wasteful action.

Coordinating with other bureaucrats magnifies the challenge. If different bureaucrats allocate different amounts of time to planning and acting, then each person interrupts others. This is unavoidable. Effective bureaucrats default to early coordination instead of waiting to see how others respond.

The [Dilemma of Think or Do](#) applies at the scale of individual bureaucrats and to the collective behavior of teams and organizations. The time it takes a team to respond is longer than that of a person, and the time an organization takes is longer than that of a team. A common mistake is to apply the timescale relevant to a person to a team or organization.

Inaction is usually a safe response to a situation. Admiring the problem, studying the options, or continuing to work on other issues are common behaviors. Only when circumstances threaten relationships or the team or organization is action taken.

Allocate time for meetings to facilitate coordination.	Allocate time for action.
<i>Pros:</i> Create awareness, build consensus, get approval.	<i>Pros:</i> Create results to iterate from.
<i>Cons:</i> Less time for participants to enact ideas.	<i>Cons:</i> Results in uncoordinated activity which can be wasteful.

Table 3.8: *Dilemma of Coordinate or Do*. Like the [Dilemma of Think or Do \(3.7\)](#), but here the question is about coordination versus doing the work. The amount of coordination depends on how many stakeholders there are, how familiar the stakeholders are with the challenge, and whether the action is reversible when found to be incorrect.

When you first hear of a challenge, you may be interested in immediately tackling it. You see a path to improvement, you have the skills needed, and addressing the challenge would help your team. Unbeknownst to you, another person on another team saw that same challenge and had the same reaction.

Because of the distributed nature of knowledge and decision-making in bureaucracy, the [Dilemma of Coordinate or Do](#) is happening all the time for many aspects of the subjective decisions being made. Advertising “I’m going to do something,” “I’m doing something,” and “I did something” as you are progressing on any given task is vital to decreasing the likelihood of unintentional duplication. Even that activity of advertising and listening to the advertisements of other bureaucrats takes time away from doing your work.

The [Dilemma of Coordinate or Do](#) is a cause of conflict among bureaucrats who prioritize doing the work versus bureaucrats who see value in checking in with others first. The constraint of time allocation and a variety of views leads to friction in organizations.

As with the [Dilemma of Think or Do](#), inaction is the safer default. Having a meeting is less risky than investing time in creating a prototype.

Operate at the level you are being paid for.	Operate above the level that you are being paid to be promoted.
<i>Description:</i> Meet job requirements but nothing extra.	<i>Description:</i> Exceed job requirements.
<i>Cons:</i> Risk not being promoted.	<i>Cons:</i> Experience wage loss since the organization is getting free labor.

Table 3.9: *Dilemma of Working Extra Hard*. Work above your pay grade (provide the organization extra labor and you get reduced pay) or at your pay grade (expected labor and pay)?

Just as there are two views of micromanagement ([3.5](#) and [3.4](#)), promotion can be seen from the manager’s view and the subordinate’s view. The [Dilemma of Working Extra Hard](#) is the view of the person being managed. Unlike jobs in which labor is directly tied to financial profit, a bureaucrat has a weak feedback loop for their labor. Promotion may (but is not guaranteed to) happen in the future based on your current level of effort.

The [Dilemma of Working Extra Hard](#) creates competition among bureaucrats competing for a limited pool of promotions. Because organizations rely on hierarchy, and hierarchy is correlated with pay, promotion is typically not based purely on the merits of an individual bureaucrat.

Promotions exist to bias bureaucrats towards the “extra labor for reduced wages” outcome. Bureaucrats who have enough income and autonomy may not see promotions as relevant and thus be comfortable with their current workload. There are other [motivations](#) driving bureaucrats besides pay, such as working towards a vision or gaining new skills.

See page [107](#).

Send bad news up the chain of command.	Minimize bad news up the chain of command.
<i>Pros:</i> You are a reliable source of information.	<i>Pros:</i> You minimize the burden of managers.
<i>Cons:</i> You are viewed as a source of problems.	<i>Cons:</i> Harmful events eventually catch up with the organization.

Table 3.10: *Dilemma of Bad News*. The canonical example is the [Challenger disaster](#) in 1986. Transparency and professional vulnerability are desirable but have costs.

The [Dilemma of Bad News](#) is a consequence of hierarchical reporting in organizations. Regardless of whether the hierarchy stems from the specialization of skills or the delegation of decisions, information traverses up the [chain of command](#).

News going up the chain of command is subject to modifications – both filtering and embellishment. Filtering out bad news or making the report more grandiose can be spun as contextualization. Which outcome is preferred depends on the specific people reading the reports. Whether to report an update is one choice, how to spin it is another. Did the team members fail to accomplish their objective, or did the team members learn something that will inform the next phase of their progress?

The [Dilemma of Bad News](#) applies to peer-to-peer relations and manager-to-subordinate, but in those two relationships the repercussions of bad news are less. Being professionally vulnerable feels less dangerous when there is less risk.

Prepare for disasters and emergencies; invest in mitigation.	Wait for the specific problem to arise before responding.
<i>Pros:</i> Lessen the effect when bad things happen; decrease the number of problems occurring in the first place.	<i>Pros:</i> Deal with the specifics of the scenario at that time and thus be better informed. Look like a hero for handling the emergency.
<i>Cons:</i> Fewer events evolve into emergencies because you’re prepared, or the effect of disasters is lessened. Both make you look overly paranoid and wasteful. Less recognition for planning.	<i>Cons:</i> Unexpected events result in worse outcomes.

Table 3.11: *Dilemma of Preparation versus Cleanup*. How much to invest in contingency planning and preparedness. In practice, you will do both.

Bureaucracy arises to manage a shared resource; there are emergencies regardless of the specific resource. Emergencies can be on the supply side, like problems with air quality or not enough food inspectors. Disasters on the demand side come in the form of sudden spikes. The [Dilemma of Preparation versus Cleanup](#) cannot be avoided.

There is a bias favoring the reactionary cleanup mentality. Bureaucrats appear responsive to the needs of the situation. Planning for an emergency requires thinking about contingencies.

Even when there is consensus around the value of preparation, the follow-on question is to what degree. The [Dilemma of Preparation versus Cleanup](#) is an entry point to discussions that depend on the personalities of individual bureaucrats and resources available.

Only let good ideas through as determined by a detailed review process of a clearly specified plan.	Give resources to untested and under-specified ideas.
<i>Pros:</i> Less waste of resources and time. Everyone has confidence in the investment.	<i>Pros:</i> High-risk and high-reward ideas that are disruptive can be enacted.
<i>Cons:</i> Burdensome review process.	<i>Cons:</i> Some ideas will fail.

Table 3.12: *Dilemma of Idea Filtering*. How much vetting should novel ideas get before being enacted?

The [Dilemma of Idea Filtering](#) is one element of the broader topic of [innovation in bureaucracy](#). Related dilemmas include the [Dilemma of Innovation](#) and the [Dilemma of Where to Innovate](#). Any one of these is enough to suffocate change and all are biased toward the status quo.

There's no shortage of good ideas or obvious things to fix if you are an observant and creative person in a bureaucracy. The challenge is identifying fellow bureaucrats who buy into your good idea and are willing to spend their attention and skills taking action and sustaining the concept as opposed to any other opportunity.

Having complaints, good ideas, or even plans is insufficient. Taking action and creating sustainable change is the measure of an effective bureaucrat.

Focus on fixing flaws.	Focus on innovation.
<i>Description:</i> Resolve bugs.	<i>Description:</i> Add features.
<i>Pros:</i> Addresses known problems. Helps people already in the system.	<i>Pros:</i> More externally visible and promotable.

Table 3.13: *Dilemma of Flaws and Innovation*. Zero-sum investment of attention in either maintenance of the status quo or making progress. Both require work, but rewards are biased toward innovation.

The [Dilemma of Flaws and Innovation](#) applies to bureaucracy in terms of policy; the industry framing applies to product development. Most discussions of innovation within bureaucracy favor the status quo, but this dilemma defaults towards innovation. That dissonance is resolved by separating the value of lip-service to innovation from enacting change.

Innovation is more likely to result in promotion and recognition even though maintenance and innovation both require skill, creativity, hard work, and persistence.

The [Dilemma of Flaws and Innovation](#) shows up in relationships in both directions. Innovators are recognized if they change the organization for the better, but bureaucrats also recognize the value of maintenance even though it's not rewarded.

Work on disruptive innovation.	Work on iterative (evolutionary) innovation.
<i>Description:</i> Start from scratch, aim for revolution, replace the legacy.	<i>Description:</i> Start by changing the existing solution. Adjust the legacy path.
<i>Pros:</i> High reward.	<i>Pros:</i> Low risk, low cost.
<i>Cons:</i> High risk, high cost.	<i>Cons:</i> Low reward.

Table 3.14: *Dilemma of Innovation*. Incremental change may not suffice. Disruption can be costly.

Managing shared resources in a dynamic environment necessitates changes to policies and processes. Change, whether incremental or revolutionary, threatens incumbent stakeholders who hold power based on current practices.

Incremental change provides quicker feedback but requires understanding and integrating with the existing bureaucracy. Revolutionary change is easier to get started but you will have to relearn the lessons the incumbent already knows.

The **Dilemma of Innovation** can be disheartening for bureaucrats. The innovation is usually intended to improve the team or organization, so resistance to change demoralizes the bureaucrat.

Being an innovator (whether incremental or disruptive) can gain you supporters and friends as well as more negative reactions – what does that person think they are doing? That person is so naïve.

A good indicator that you're on a useful path is when your support is from people with less to lose (at the bottom of the organization's hierarchy) and when the resistance is from people who have more status and power to lose (top of the hierarchy). However, that could merely be a sign your idea is popular and naïve.

Innovate in a novel-to-your-team environment.	Innovate in your team's standard environment.
<i>Pros:</i> More likely to allow people to suspend their expectations.	<i>Pros:</i> Easy to operate in.
<i>Cons:</i> Loses access to connections vital for creating success. Uses extra space; induces the logistics of moving twice.	<i>Cons:</i> Allows conventional processes to take effect. Participants hold onto their assumptions.

Table 3.15: *Dilemma of Where to Innovate*. Where (physically, spatially) innovation takes place matters because the environment sets context for assumptions.

The **Dilemma of Where to Innovate** is not specific to bureaucracy. Changing where work is done is disruptive. Disruption of routines can be harmful and beneficial. Apply Process Empathy in this context involves not just weighing options but talking with fellow bureaucrats to determine what provides participants value.

The benefit of trying to innovate in an environment isolated from other people is that you can focus without typical distractions.⁶ When you participate in an off-site session you might neglect to check your email. Your focus improves but your lack of responsiveness harms people who depend on you.

Bureaucracy is resistant to change, and innovation implies change. While moving to a distinct venue may make innovation easier, it incurs the cost of bringing the innovation back to the routine scenario.

⁶This is called “The Getaway Ploy” (page 145) in *Peopleware* [27].

Work on innovation in the open.	Work on innovation in hiding.
<i>Pros:</i> More likely to be criticized. Criticism can be positive (as in an incubator setting).	<i>Pros:</i> Less drama – the incumbent won't attack the innovation since they don't know about it.
<i>Cons:</i> Negative criticism intended to harm – an incumbent has reason to be defensive. The incumbent attacks the innovation before it is sufficiently developed or has time to build a user base.	<i>Cons:</i> Less opportunity for feedback. Project is easier to kill since the value is not advertised.

Table 3.16: *Dilemma of Obfuscated Innovation*. How is innovation carried out within the organization?

Because innovation within bureaucracy is challenging, a common reaction is to hide the change until it has time to mature. The hope is that protecting the idea during development will result in a robust implementation that can withstand criticism.

The [Dilemma of Obfuscated Innovation](#) identifies the [conflict of interest](#) between useful criticism versus harmful criticism. Because bureaucracy operates in a zero-sum environment, attention and resources invested in innovation are always at risk of being cut in favor of more reliable efforts.

When you have an idea about how to improve, you can navigate the [Dilemma of Obfuscated Innovation](#) by talking with mentors about whether to hide or operate in the open. You may not agree with their advice, but the mere act of seeking their wisdom is likely to strengthen your relationship.

Seek recognition for your work.	Work in obscurity.
<i>Pros:</i> Helps with promotion.	<i>Pros:</i> Less distraction.
<i>Cons:</i> Devalues the contributions of other people.	<i>Cons:</i> No one knows the value of your work and you won't get feedback.

Table 3.17: *Dilemma of Recognition*. This dilemma is magnified when the task you work on is high-risk or resource-intensive.

While seeking glory for your accomplishments may seem egotistical, there is value in being recognized for good work: you're more likely to be able to get resources for your next effort. If fellow bureaucrats are not aware of your previous results, from their perspective you represent more risk. Having a track record of success paves the way to bigger risk-taking.

The [Dilemma of Recognition](#) is a personal question of whether you prefer to remain less noticed or more noticed. As a bureaucrat you may see that people with authority get to make important decisions, so climbing the hierarchy seems relevant to accomplishing your goals.

The [Dilemma of Recognition](#) can induce issues with claiming credit when acting as part of a team. When you are recognized for your efforts, how is your dependence on other bureaucrats accounted for?

Gather lots of data.	Gather minimal data.
<i>Description:</i> Gather lots of data for a well-informed decision.	<i>Description:</i> Minimal information because the decision-maker knows what to do or the outcome is irrelevant.
<i>Cons:</i> High cost of gathering data (time, resources). Opportunity costs .	<i>Cons:</i> Lack of data results in decisions based on oversimplified assessment.

Table 3.18: *Dilemma of Data Quantity*. How much data to gather for a decision. See Figure 3.1. This issue is related to [bureaucratic debt](#) (see page 175), which is the concept of work needed to change a process. Changing a process may require collecting more information to inform decisions. Information that was collected may no longer be relevant.

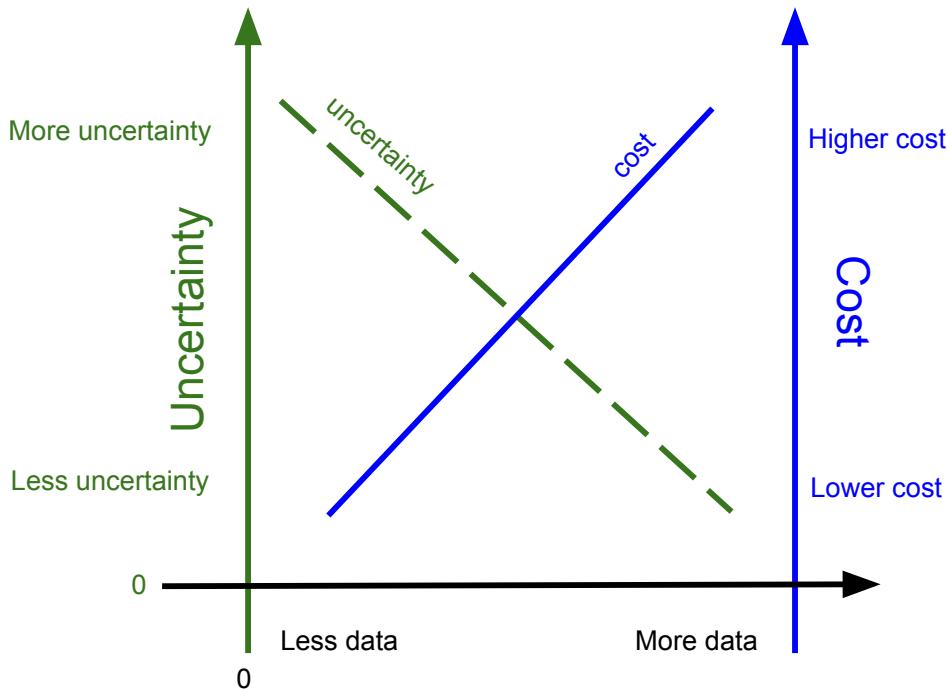


Figure 3.1: Collecting more data costs money and time and decreases uncertainty. See the Dilemma of Data Quantity (3.18). This plot is wrong for multiple reasons. Cost, whether temporal or financial, does not increase linearly with data quantity. Similarly, uncertainty is not linear with data quantity. Even quantifying uncertainty is challenging.

Decision-making is foundational to bureaucracy, so gathering data to inform decisions is crucial. There's typically insufficient time and resources available for this work, which results in imperfect decisions.

The [Dilemma of Data Quantity](#) is more nuanced than merely finding [just the right amount](#) of data. The skill is knowing which data is most relevant to the decision and having relationships with data owners to ease the cost of gathering data.

The logistics of gathering data can be measured, but there are other subjective aspects to account for as well. Making a decision has an emotional toll on the decider due to the risk of failure. Also, decisions are made in a social context, with decision-makers accounting for the ramifications on people they have relationships with.

While gathering less data means less cost for the bureaucrat facing a decision, you might imagine some accountability for bad decisions due to inadequate data. To shield individual bureaucrats from reputation-harming liability, a decision may require an approval chain. That review process diffuses responsibility for decisions.

The [Dilemma of Data Quantity](#) is distinct from the [Dilemma of Planning](#). It is possible to do a lot of planning with only a little information gathered, and it is feasible to have lots of data and do no planning.

Extensive planning upfront (proactive).	Iterative improvement of plans (reactive).
<i>Description:</i> Lots of time spent brainstorming potential scenarios and contingency options before taking action.	<i>Description:</i> Start taking action and use feedback to shape next actions.
<i>Cons:</i> “No plan survives contact with the enemy.” - von Moltke	<i>Cons:</i> Less prepared.

Table 3.19: *Dilemma of Planning*. How much time to invest in different types of planning.

Managing a shared resource requires more than just on-the-spot decision-making. Thinking ahead to potential scenarios that effect the shared resource is the responsibility of the bureaucrat.

The [Dilemma of Planning](#) identifies a widely applicable challenge for bureaucrats throughout an organization (top to bottom, and on every team). Regardless of whether you’re planning your next day or the next few years, there will be unforeseen challenges. Do those interruptions invalidate the effort of planning?

The [Dilemma of Planning](#) induces different responses for each bureaucrat, so you will likely encounter both someone who you think plans too much and someone who doesn’t plan enough. Being exclusively reactionary can be demoralizing, as can seeing your plans become moot.

Making a decision imposes a bound on how much time is available for both gathering data and planning. More time gathering data is less time planning. Similarly, the number of people available for data gathering and planning is bounded, and tasking people is a zero-sum choice.

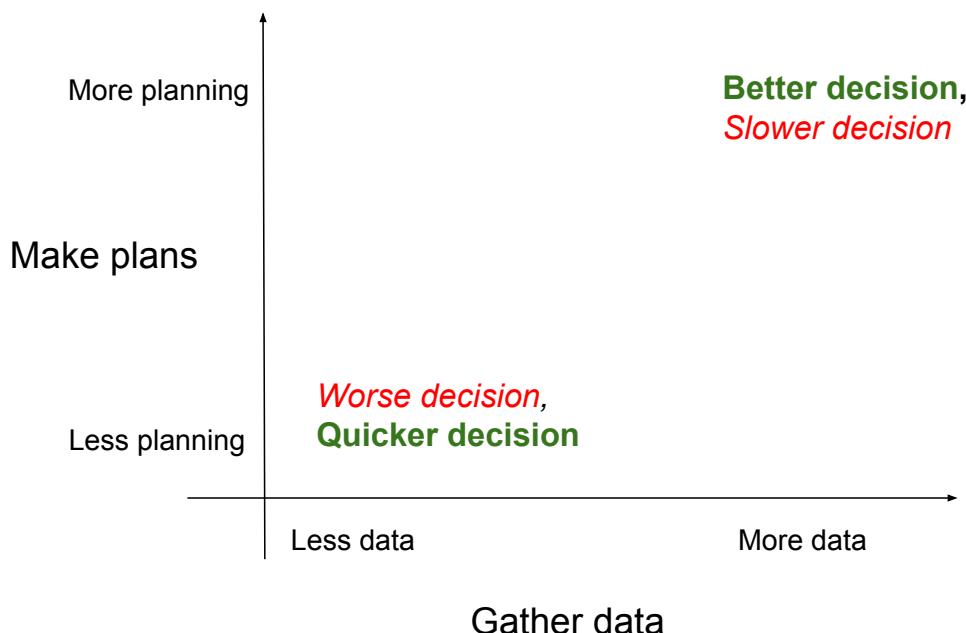


Figure 3.2: The trade-off of Planning (Dilemma 3.19) and data gathering (Dilemma 3.18).

When planning (Dilemma 3.19), aspects to consider include the amount of risk seeking or risk tolerance (Dilemma 3.20) and the intended scope of effect (Dilemma 3.22).

Take on big risks and big rewards.	Take on small risks and small rewards.
<i>Description:</i> High risk tolerance.	<i>Description:</i> Low risk tolerance.
<i>Pros:</i> Potential for failure and harm is significant.	<i>Pros:</i> If any one investment fails, you can continue other efforts.
<i>Cons:</i> Costly investment, longer feedback cycle.	<i>Cons:</i> Incremental can be slower.

Table 3.20: *Dilemma of Risk tolerance*.

Taking big leaps can be exciting. But you might be leaping to failure. Small leaps are less risky, supporting an evolutionary path to discovery.

The [Dilemma of Risk Tolerance](#) arises in bureaucracy because the environment around the shared resource being managed isn't static. Change requires policies and processes to change. Whether the change is small or large is dependent on the risk tolerance of each bureaucrat involved in the decision.

The risk tolerance of each person is shaped by their experience. What you see as conventional and routine another bureaucrat would regard as untested.

The bias for bureaucrats is towards smaller risks. That way if failure does occur the bureaucrat incurs less harm to their reputation. As a consequence, significant [innovation](#) is difficult in bureaucratic organizations.

Involve people who disagree.	Ignore people who disagree.
<i>Pros:</i> Get constructive feedback; account for factors you didn't consider; build a robust solution.	<i>Pros:</i> Save time by not interacting.
<i>Cons:</i> Results in a compromise or partial solution that minimizes aggregate unhappiness.	<i>Cons:</i> Miss a vital aspect you didn't consider.

Table 3.21: *Dilemma of Disagreement*. Engagement with opposition to process or change.

Bureaucracy is the subjective decision-making associated with management of shared resources, so the existence of people who disagree is not surprising. The choice you face is whether to engage with people who think you're wrong.

The [Dilemma of Disagreement](#) is sensitive to how social you are and how well you can negotiate. If you can hear criticism of your idea and not take it personally, you are more capable of getting constructive feedback. Having relationships where that level of honesty is available is a long-term investment.

The default behavior for bureaucrats facing the [Dilemma of Disagreement](#) is to avoid negative input. What you might consider innovation another person might see as wasteful. To avoid that risk, don't share what you're working on.

Broad scope of effect.	Narrow scope of effect.
<i>Description:</i> The consequence of the work has many stakeholders.	<i>Description:</i> Small number of stakeholders.
<i>Pros:</i> Help more people.	<i>Pros:</i> Niche effect means fewer dependencies on other people.
<i>Cons:</i> Harder to get everyone in agreement.	<i>Cons:</i> Less visibility to the rest of the organization.

Table 3.22: *Dilemma of Scope of Effect*. Scope of the effect of your work.

Framed as “Should you work on something consequential?” the naïve answer is to say yes. However, to make effective change involves coordinating more stakeholders than you may be comfortable with. Experienced bureaucrats are more likely to carve off a small portion of a big challenge.

You may have some freedom to choose what you work on, in which case the [Dilemma of Scope of Effect](#) is in play. Mentorship from more experienced bureaucrats can help you decide what scope of task is big enough to be meaningful but not too big as to be intractable.

Once [data is gathered](#) ([Dilemma 3.18](#)) and a [plan is made](#) ([Dilemma 3.19](#)), the result is disseminated. The choices of how to disseminate are the [Dilemma of Consistency over time](#) ([3.23](#)) and the [Dilemma of Disseminating information](#) ([3.24](#)).

Guidance updated often; incremental change.	Consistent application of policy over time. Rules persist; then sudden drastic change.
<i>Pros:</i> Adapt policy to new information and changing conditions.	<i>Pros:</i> Stability is easier to predict between regime changes.
<i>Cons:</i> More work needed for revisions. Accused of lacking stability.	<i>Cons:</i> Doesn't adapt as conditions change. Accused of being inflexible to evolving conditions.

Table 3.23: *Dilemma of Consistency over time*. Stability of rules; how change is enacted. Can also be characterized as when to tell other people: sooner (decreases surprise) or later (when firmer information is available). See the description of [static versus dynamic processes](#) on page [174](#).

Deployment of products in industry and deployment of policies in a bureaucracy face similar dilemmas. The [Diffusion of Innovation](#) describes how innovation is adopted by people with different amounts of risk tolerance.

Bureaucracy exists to manage access to shared resources. Management occurs by policies and processes. The community accessing the shared resource changes over time, so the policies and processes evolve to reflect that change. The [Dilemma of Consistency over time](#) is about the degree of incrementalism of the change.

Bureaucrats responsible for carrying out policies and processes disagree on the question of stability. This disagreement generates friction for other processes reliant on those relations within an organization. The [Dilemma of Consistency over time](#) is also disruptive to the subjects of bureaucracy.

Bureaucrats are incentivized to avoid change, so the bias in this dilemma is towards consistency and stability even if that means not adapting to current local circumstances.

Tell people one-by-one.	Tell everyone at once.
<i>Pros:</i> One-on-one allows a freer response from the audience.	<i>Pros:</i> Saves time for the speaker.
<i>Cons:</i> Order matters for relationships.	<i>Cons:</i> Overwhelming feedback all at once. Some people don't feel heard.

Table 3.24: *Dilemma of Disseminating information*.

Once a decision has been made, the decision is executed or enforced. [How many rules are there](#) (Dilemma 3.26) and [how strictly are the rules enforced](#) (Dilemma 3.25)?

Bureaucracy involves coordination to facilitate distributed knowledge and distributed decision-making. Each bureaucrat has finite time and attention. When communication channels are instantaneous (e.g., phone, email, video), there is often more information to be consumed. The [Dilemma of Disseminating information](#) is a question of whether to save time by telling all stakeholders at one time or demonstrate the importance of a relationship by talking one-on-one.

One aspect of the [Dilemma of Disseminating information](#) can be addressed using personalized emails. Rather than send an email notice to ten people, automating the process of sending ten separate emails can make it appear to each recipient that the conversation is one-on-one. That doesn't resolve the challenge of getting all feedback at once.

Whether to talk informally before a formal interaction ([nemawashi](#)) or not depends on how much time to allocate to sharing the information.

Enforce rules strictly.	Lax rule enforcement.
<i>Pros:</i> Predictable.	<i>Pros:</i> Bureaucrats feel empowered. Tolerance for changing conditions or exceptional cases.
<i>Cons:</i> Insensitive to nuance.	<i>Cons:</i> Enforcement is subjective and unpredictable.

Table 3.25: *Dilemma of Strictness of rules.*

Bureaucracy is the subjective decision-making associated with shared resources. Interpretation of rules and enforcement of rules is not objective. Bureaucrats are empowered to make trade-offs specific to the circumstances being considered.

The [Dilemma of Strictness of rules](#) is about how the bureaucrat enforcing policies decides to act, whereas the [Dilemma of Consistency](#) (whether to seek exceptions) and [Dilemma of Flexible Rules](#) are from the subject's view. While the objective question is similar, the rationalization for behavior depends on which role is being considered.

Bureaucrats and subjects of bureaucracy both complain regardless of where on the spectrum each instance of the [Dilemma of Strictness of rules](#) occurs.

Different bureaucrats will evaluate which rules apply in each circumstance slightly differently (which provides another opportunity to apply your Process Empathy). Barring consensus, the organization's hierarchy is used to having one person decide what the relevant interpretation is.

The default behavior is strict enforcement since that is a defensible story for the responsible bureaucrat. Exceptions based on personal relationships do not appear fair to outsiders.

Control via rules.	Freedom, autonomy, agility.
<i>Description:</i> High number of rules to cover various situations.	<i>Description:</i> Low number of rules to enable flexibility.
<i>Cons:</i> The more rules that exist, the more likely it is that someone will find a way to exploit them to their advantage.	<i>Cons:</i> The fewer rules that exist, the more likely it is that someone will try to get away with something bad.

Table 3.26: *Dilemma of Number of rules.*

The [Dilemma of Number of rules](#) arises in bureaucratic organizations because bureaucrats have to make subjective decisions about shared resources.

>> [Goldilocks principle](#)

An alternative approach to the [Dilemma of Number of rules](#) is to use guidance derived from principles. A principles-based approach relies on good judgment which can be adapted to specific situations. What qualifies as “good” has subjective boundary conditions and requires knowledge of the situation.

If it's not against the rules, it must be okay.	I can only do what is allowed by the rules and nothing more.
<i>Description:</i> I can do anything that's not illegal.	<i>Description:</i> Do only what is mandated by the organization.
<i>Pros:</i> Autonomy, flexibility.	<i>Pros:</i> Less risk of getting in trouble.
<i>Cons:</i> What one person deems reasonable, another may not.	<i>Cons:</i> Constrains creative solutions. Less productive. Responding to novel situations is inhibited.

Table 3.27: *Dilemma of Adherence to Rules* depends on a person's risk tolerance versus aversion to risk. The scope of your actions is bound by mandates and legality, but the way you interpret that is subjective. Constraining activities to explicitly specified rules can be used as an excuse for laziness.

Your understanding of your freedom versus responsibilities may be a philosophical topic, but it can manifest in bureaucratic organizations. Being a member of an organization means leveraging the resources available or acting in accordance with mandates. The [Dilemma of Adherence to Rules](#)⁷ is used by bureaucrats to rationalize their action (or inaction).

There are a few tactics you can use when you encounter a coworker who disagrees with your understanding of which side of the [Dilemma of Adherence to Rules](#) your organization operates. Changing a coworker's attitude on this dichotomy depends on the origin of their stance. You can use appeals to authority or provide emotional reassurance.

A decision in a process is informed by a single bit of information.	Fault-tolerant decision-making through redundancy.
<i>Description:</i> A form featuring a checkbox option.	<i>Description:</i> Multiple independent confirmations that the data collected is correct.
<i>Pros:</i> Less overhead.	<i>Pros:</i> Decrease mistakes.
<i>Cons:</i> Single point of failure. Might be accidentally wrong.	<i>Cons:</i> More time needed. Extra burden of collecting and processing more data.

Table 3.28: *Dilemma of Redundant Data for Decisions*. Having a single checkbox on a form makes data collection easier for both the subject and the bureaucrat. However, the person using the form might not see the checkbox or may accidentally fill in the checkbox. Is there any validation of the selection? The process is sensitive to this single bit of data. This applies to written forms and verbal conversations.

The [Dilemma of Redundant Data for Decisions](#) is about the redundancy of data used for coordination. Collecting as little data as needed streamlines interactions between subjects and bureaucrats. Bureaucratic management of shared resources depends on decision-making, and decisions require information. That information should be correct, but how much investment should be made to ensure correctness?

⁷See Wikipedia entry [Everything which is not forbidden is allowed](#).

The [Dilemma of Redundant Data for Decisions](#) is distinct from the [Dilemma of Data Quantity](#), which is about how much data is needed for assessing the application of policies.

Most decisions are of low importance, so the correctness of information is rarely checked. Redundant information is deemed wasteful, and those habits don't necessarily change when the significance of a decision increases. The lack of feedback loops motivating correct information can harm participants.

The [Dilemma of Redundant Data for Decisions](#) presents a lose-lose situation: collect redundant information (which introduces more risk of conflicting information) or hope that data collected represents reality without checking.

A single bureaucrat reviews information and makes a decision.	Catch mistakes in decision-making by using multiple reviewers.
<i>Description:</i> A decision process relies on a single bureaucrat.	<i>Description:</i> Multiple independent confirmations of a decision.
<i>Pros:</i> Less overhead.	<i>Pros:</i> Decrease mistakes.
<i>Cons:</i> Single point of failure. Might get policy interpretation wrong.	<i>Cons:</i> More time and staffing needed. Diffuses ownership of decisions.

Table 3.29: *Dilemma of Redundant Reviewers*. Having a single bureaucrat make a decision is quicker than checking that bureaucrat. Validating the decision slows down the process and requires more bureaucrats.

The [Dilemma of Redundant Reviewers](#) extends the same concept as the [Dilemma of Redundant Data for Decisions](#) to humans making decisions based on the provided data. Each bureaucrat is fallible, so checking a decision for faults is a reasonable investment if the decision is significant. The challenge in this dilemma is evaluating what qualifies as worth reviewing.

[Decentralized bureaucracy](#) is defined as the system of distributed decision-making about shared resources, and the [Dilemma of Redundant Reviewers](#) is one aspect of what is meant by distributed.

The [Dilemma of Redundant Reviewers](#) presents another lose-lose choice: trusting a single bureaucrat, or diffusing responsibility among many. In the case of a single bureaucrat as the decider, other members are implicitly trusting the validity of decisions made. In the case of multiple reviewers, there is a reliance on personal relationships ("Do I trust the other participants to do their job?") and professional expectations ("That person must know what they're doing.")

The [Dilemma of Redundant Reviewers](#) defaults to multiple participants because diffused responsibility is preferable for each participant. Only when a decision is trivial or there is insufficient staffing will a single bureaucrat suffice.

Quickly complete tasks or deploy new policies or create new products.	Methodically complete tasks (or well-founded policies, quality products).
<i>Description:</i> Enact a solution quickly to address urgent needs.	<i>Description:</i> Methodical well-planned design and execution yield robust solutions/products/policies.
<i>Pros:</i> Rapid solution.	<i>Pros:</i> More likely to get the solution right.
<i>Cons:</i> Risk of a quick task is that the result is ineffective, inefficient, or wrong.	<i>Cons:</i> opportunity cost .

Table 3.30: *Dilemma of Speed and Accuracy*. Speed versus accuracy of task completion.

If you try to resolve the [Dilemma of Speed and Accuracy](#) by both getting a solution deployed quickly and then iterating towards a robust outcome, you may appear unpredictable or unstable; see Dilemma 3.19. This is an example of cascading dilemmas. The interplay of a creative resolution to one dilemma can affect the solution space for other dilemmas.

Regardless of where on this spectrum you are with the [Dilemma of Speed and Accuracy](#), someone that you depend on in the bureaucracy will take the opposite stance. This becomes a source of friction regarding how long tasks should take.

The bias for this dilemma is that most bureaucrats want to be perceived as methodical and careful. Quick judgment is seen as risky.

Push people to work hard.	Create a comfortable work environment.
<i>Cons:</i> Burn out and leave.	<i>Cons:</i> Lower instantaneous productivity.

Table 3.31: *Dilemma of Urgency*.

There is usually a large range of productivity possible for a bureaucrat. Management has input on what is expected from a bureaucrat. The [Dilemma of Urgency](#) reflects the trade-off of how much to push employees of an organization. The [Dilemma of Urgency](#) is the manager's perspective, whereas the [Dilemma of Working Extra Hard](#) is the view of the bureaucrat.

Because of weak feedback loops in bureaucratic organizations, bureaucrats default to a relaxed work environment. Examples of exceptions to this include seasonal variations like tax collection time for the [Internal Revenue Service](#) and demand spikes like a natural disaster for the [Federal Emergency Management Agency](#).

Talk more to convey more information.	Listen more to learn more information.
<i>Cons:</i> Less time available for listening.	<i>Cons:</i> Less time to convey what you know.

Table 3.32: *Dilemma of Talking*. In conversations or meetings there is a (subjective) balance for participants.

The [Dilemma of Talking](#) captures the zero-sum information constraint that most bureaucrats can't concurrently talk and listen.

The [Dilemma of Talking](#) depends on the personality of each bureaucrat involved in the coordination of distributed knowledge and distributed decision-making. Some are patient listeners, while others feel uncomfortable with silence.

Talking constructively about work takes effort, so the default here is to not communicate.

Seek out experienced collaborators.	Work with less experienced people.
<i>Pros:</i> Quicker to get something done.	<i>Pros:</i> Less set in their ways and open to more novelty.
<i>Cons:</i> Experienced people who are good are probably busy.	<i>Cons:</i> Slower progress; more education needed.

Table 3.33: *Dilemma of Experienced Collaborators*. People with experience are useful but less accessible.

Distributed knowledge in a bureaucracy relies on collaboration among bureaucrats. The [Dilemma of Experienced Collaborators](#) is about the options of who to collaborate with.

The bias for the [Dilemma of Experienced Collaborators](#) depends on the promotion structure of your organization and the composition of the workforce. If training new members of the team is rewarded, then you might choose to work with less experienced bureaucrats. If the entire team is experienced, then this Dilemma doesn't apply.

Say yes to new opportunities.	Say no to new opportunities.
<i>Pros:</i> Positive attitude, collaborative.	<i>Pros:</i> Able to prioritize and focus.
<i>Cons:</i> Fail to complete tasks.	<i>Cons:</i> Not a team player.

Table 3.34: *Dilemma of opportunities.* Acceptance or rejection of more work can be explicit or implicit. Bureaucrats respond to this challenge by sending mixed signals: expressing interest but not following up with action.

The [Dilemma of Opportunities](#) depends as much on the workload as on your personality.

Finding ways to avoid doing work while helping the person providing the opportunity is the central skill for the [Dilemma of Opportunities](#). This may mean referring the opportunity to another coworker or expressing support but not investing effort.

Share less data.	Share more data.
<i>Pros:</i> Restricting data access saves money and time for the data owner.	<i>Pros:</i> Sharing data improves transparency and accountability.
<i>Cons:</i> People other than the data owner are unable to extract value from data.	<i>Cons:</i> Sharing data uses resources (people, money, time).

Table 3.35: *Dilemma of Sharing Data.* How much data to share. A potential solution is to make data discoverable. Advertise the availability of data without providing data. Then negotiation is feasible for people interested in the data.

In the [Dilemma of Sharing Data](#) there are many aspects of data that can be shared to improve discoverability: who to contact about access, what the data sources are, how often data is collected, how long data is stored, and how much data exists.

Distributed knowledge and distributed decision-making both rely on having data. Without data, the policies and processes of bureaucracy are less effective.

Sharing data is typically perceived as helpful. The [Dilemma of Sharing Data](#) points out that helpfulness has a cost.

Because sharing data consumes resources, the bias is to not provide data. That applies to sharing with other bureaucrats within the organization as well as subjects of the bureaucracy.

Compete for resources.	Cooperate for productivity.
<i>Description:</i> individuals compete for attention and promotion; teams compete for money and staffing resources.	<i>Description:</i> cooperation improves productivity.
<i>Cons:</i> Fail to synergize skills resources.	<i>Cons:</i> Not clear who to assign responsibility for success or failure.

Table 3.36: *Dilemma of Cooperate or Compete.* Applies to teams and to individuals.

A bureaucratic organization responsible for management of shared resources has finite staffing and money. When there are multiple concurrent efforts relevant to managing the shared resource, dividing staffing and money is a challenge.

The [Dilemma of Cooperate or Compete](#) is best addressed through explicit conversations, both between peers and with decision-makers. These discussions may not remedy the challenge, but they provide an opportunity for you to learn more about the people in your organization. Process Empathy doesn't always lead to happy results, just better appreciation for possible outcomes.

The [Dilemma of Cooperate or Compete](#) can lead to animosity among competitors or stronger, healthy relationships for collaborators. Before harm occurs, or even after bad situations arise, you can renegotiate your interactions with your peers.

Consistent application of policy across cases.	Adapt policy to specific cases.
<i>Description:</i> Maximize broad applicability; minimize exceptions.	<i>Description:</i> Demonstrate flexibility for unique scenarios.
<i>Cons:</i> Less sensitive to the nuances of a specific situation.	<i>Cons:</i> Takes more work. More likely to be accused of bias.

Table 3.37: *Dilemma of Consistent Policies*. Case consistency versus adaptability.

When a change to policies is desired, there are options on how to advocate for change; see the [Dilemma of Coalitions](#).

One person or team owns an area of responsibility.	Anyone take on any task.
<i>Cons:</i> Staffing capacity may not be as flexible as varying workload.	<i>Cons:</i> Not everyone is skilled at everything.

Table 3.38: *Dilemma of Swimlanes*. How are tasks assigned? This can be negotiated with coworkers and is not intrinsic to the structure of an organization.

Independent of how tasks are assigned within a team or organization ([Dilemma 3.38](#)), individual bureaucrats can decide how they act in [Dilemma 3.39](#).

Adhere strictly to the scope of your role.	Stray outside (or outright ignore) the scope of your role.
<i>Description:</i> Inflexible to novelty. Specialization of tasking.	<i>Description:</i> Lack of structure. Generalization.
<i>Cons:</i> Efficiencies of cooperation and specialization would not occur. Does scale well when flexibility is needed.	<i>Cons:</i> Deadlock condition arises due to a scheduling constraint – no one can proceed because everyone is waiting on everyone else. Responsibilities are unclear when scope is unclear.

Table 3.39: *Dilemma of Scope*. Both strict adherence to role scope and ignoring scope can decrease an organization's productivity. What happens when a person deviates from their role? How are people who do not conform identified? Are they confronted?

The best approach to the dilemma of whether to specialize or generalize is to aim to be “T” shaped – breadth and some depth.

As a specialist, you have two choices: invest in deepening your expertise and skills, or expand the breadth of integration with your team members. Both have the result of improving your organization, but they are not equivalent in impact. Educating your coworkers and coordinating actions has a force multiplier effect that burrowing into a problem may not.

Speak outside the scope of your expertise.	Have representative experts participate in discussions.
<i>Pros:</i> Make progress quickly.	<i>Pros:</i> Ensure correct information is shared among stakeholders.
<i>Cons:</i> Likely to make mistakes that aren't detected until being enacted.	<i>Cons:</i> Getting a diverse group of experts together is logistically challenging since they're busy.

Table 3.40: *Dilemma of Speaking Scope.* If you don't know what you're talking about, should you speculate or keep your mouth shut?

Distinguishing speculation from experience is critical in communication. Explaining the basis of your experience is also vital.

Have more people participate in a discussion.	Have fewer people participate in a discussion.
<i>Pros:</i> Diverse viewpoints and backgrounds contribute to a more robust result. People feel valued if they contribute.	<i>Pros:</i> Can make decisions quickly.
<i>Cons:</i> Synthesizing disparate information takes time.	<i>Cons:</i> People feel excluded.

Table 3.41: *Dilemma of Participants.* There is no [Goldilocks principle](#).

Delegate; share work with other people.	Work alone; don't rely on other people.
<i>Cons:</i> Your success is dependent on other people.	<i>Cons:</i> Can't do as much on your own.

Table 3.42: *Dilemma of Delegation.* Sharing work can improve productivity and build relationships but also incurs risks to reputation and success.

Health of the organization.	Results of the organization.
<i>Description:</i> Maintain processes and train staff. Considered “overhead.”	<i>Description:</i> Do the work that motivates the existence of the organization.
<i>Cons:</i> Unproductive for subjects.	<i>Cons:</i> Unsustainable for members.

Table 3.43: *Dilemma of Health versus Results.* Producing the results that motivated the existence of an organization often requires spending the organization's health.

Many small tasks or goals.	Fewer big tasks or goals.
<i>Description:</i> Your day is occupied with various short-duration tasks.	<i>Description:</i> You work on only a few efforts during a typical day.
<i>Cons:</i> Enables a fail-fast approach from quick feedback.	<i>Cons:</i> Less overhead of task switching to manage.

Table 3.44: *Dilemma of Chunk size.* You may or may not have a choice of task size and number of tasks. If you have autonomy, what do you prefer? Do your coworkers and managers know your preference?

Task with many external dependencies.	Task with few external dependencies.
<i>Cons:</i> Risk of failing because of a failed dependency.	<i>Cons:</i> Have to develop everything yourself; waste of resources due to redundancy.

Table 3.45: *Dilemma of Dependencies.* External dependencies can enable broader scope. This Dilemma only is relevant if you have autonomy in the selection of your tasks. See also the Dilemma of Delegation, 3.42.

Focused on one role.	Have multiple roles.
<i>Cons:</i> If a role does not consume 40 hours per week, you'll be idle.	<i>Cons:</i> Context switches between roles and delayed responses.

Table 3.46: *Dilemma of Roles.* The right number of roles for a bureaucrat depends on personality and tasking.

Dissent is welcome and discussed freely.	Dissent is suppressed.
<i>Cons:</i> Can be disruptive to normal operations. Distracts from the task.	<i>Cons:</i> Limits novel ideas from spreading. Harms morale.

Table 3.47: *Dilemma of Dissent.* Dissent is caused by dissatisfaction with people or processes.

Do share lessons learned.	Don't share lessons learned.
<i>Pros:</i> Honesty, accountability, self-awareness, and self-reflection.	<i>Pros:</i> Look competent, even when making mistakes.
<i>Cons:</i> Looks weak and unprofessional.	<i>Cons:</i> Limit the growth of bureaucrats in the organization.

Table 3.48: *Dilemma of Sharing Lessons.* Sharing lessons learned may seem reasonable unless you want to maintain a pristine reputation.

Share lessons learned about yourself.	Share lessons learned from observing others.
<i>Cons:</i> Potentially look stupid.	<i>Cons:</i> Potentially hurts their reputation.

Table 3.49: *Dilemma of Sharing*. When sharing lessons learned (option 1 in 3.48), the lessons do not have to be about you.

Learn lessons from your mistakes.	Learn lessons from others (formal training).
<i>Cons:</i> Potentially look stupid; waste resources discovering what others already know.	<i>Cons:</i> Formal training may overemphasize irrelevant or impractical concepts.

Table 3.50: *Dilemma of Learning*. How much formal training to invest in before learning by doing?

Build a small coalition of interested parties.	Build a large base of support and get everyone on board.
<i>Cons:</i> May not be representative of all stakeholders.	<i>Cons:</i> Takes time away from the work. Many people may disagree or be disinterested.

Table 3.51: *Dilemma of Coalitions*. A coalition can provide morale support but takes time to build.

Process requests as they arrive.	Process requests in batches.
<i>Pros:</i> Responsive.	<i>Pros:</i> Improves efficiency.
<i>Cons:</i> Decreased efficiency.	<i>Cons:</i> Induces a delay in processing.

Table 3.52: *Dilemma of Batching*. For repeated actions, who is the process optimized for – the subject or the bureaucrat?

Dilemmas of Policy for an Organization's Structure

The constraints a decision-maker faces are informed by the person's environment. Dilemmas 3.53 through 3.58 shape the experience of bureaucrats in an organization.

Flatter hierarchical organization.	More layers of hierarchy.
<i>Description:</i> More people managed per manager.	<i>Description:</i> Fewer people managed per manager.
<i>Cons:</i> Less feedback and attention per employee.	<i>Cons:</i> Fewer people doing work.

Table 3.53: *Dilemma of Shape of Hierarchical Organization*.

Concentrate the smartest people together.	Disperse the smartest people across the organization.
<i>Description:</i> Bring effective people in the organization together on a team.	<i>Description:</i> Provide local help where it is needed.
<i>Pros:</i> Synergy produces unexpected results.	<i>Pros:</i> Less disruptive since each person is fighting local challenges.
<i>Cons:</i> Less feedback/attention per employee.	<i>Cons:</i> Fewer people doing work.

Table 3.54: *Dilemma of Dense Effectiveness.* Effectiveness of bureaucrats is not uniform. Some bureaucrats in an organization are more effective than others.

As an organization adds more bureaucrats, the distance in terms of relationships between the most effective members increases. The larger the organization, the more ineffective people there are between any two effective people. Process Empathy can be practiced by both categories of bureaucrat.

Bringing the smartest members of the organization together on a team can result in benefits at the cost of decreasing the productivity of the abandoned teams.

Staffing: good coverage.	Staffing: minimal coverage.
<i>Description:</i> Enough staff.	<i>Description:</i> As small of staff as possible.
<i>Pros:</i> Cover all edge cases; resilient to changing demands.	<i>Pros:</i> Less expensive.
<i>Cons:</i> Slack resources; sometimes inefficient. Increased communication needed.	<i>Cons:</i> Fragile when requirements change or workload increases. If one person leaves and there's no redundancy, capacity and capability are harmed.

Table 3.55: *Dilemma of Size of team or organization.*

In-house services for non-central activities.	External dependencies for non-central activities.
<i>Pros:</i> More control.	<i>Pros:</i> Easier to replace.
<i>Cons:</i> Expands scope of responsibilities.	<i>Cons:</i> Less understanding of the problem.

Table 3.56: *Dilemma of Services.* Services that are necessary but not central.

The **Dilemma of Services** isn't unique to bureaucracy. It applies to businesses in a market and to governments in a global environment. Externalized services may be cheaper, but the long-term consequence is the loss of in-house expertise.

Bureaucrats making decisions about shared resources benefit from personal experience gained from working on specific challenges. When services are outsourced, oversight doesn't provide insight into the nuances of the issue.

Teams in a bureaucratic organization that work on aspects not critical management of the shared resource will earn less of the glory and be seen as a cost. Because efficiency is sought, organizations benefit from outsourcing non-core activities to other organizations that specialize in the domain.

The [Dilemma of Services](#) can serve as guidance for where in an organization you should position yourself. Working on a support team means less glory and fewer resources than working in a team that is more aligned with the purpose of the organization.

Centralized services.	Locally distributed services.
<i>Description:</i> A single provider of services for the organization, typically due to top-down mandate.	<i>Description:</i> Each team has a local service provider; typically a bottom-up organic result.
<i>Pros:</i> Cheaper. Enables coordination.	<i>Pros:</i> Quicker response. Enables innovation. Accounts for local deviations from the norm.
<i>Cons:</i> Less sensitive to local issues. Less responsive. Longer delays. Single point of failure.	<i>Cons:</i> Uneven quality of service. Inconsistent strategies and policies.

Table 3.57: *Dilemma of Centralization of Services*. Oscillation (see Figure 3.3) indicates neither solution is optimal.

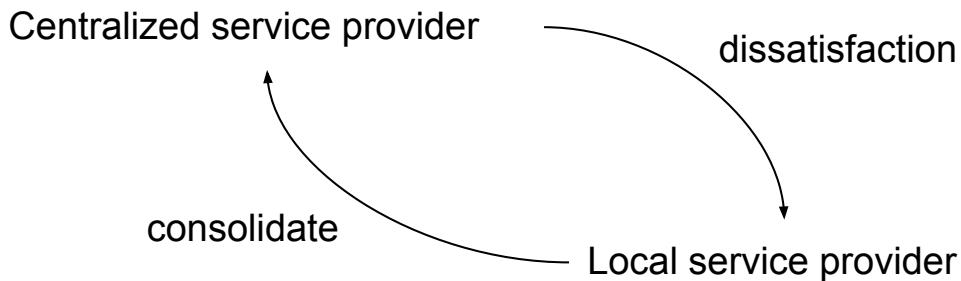


Figure 3.3: Dipole oscillation. See Dilemma 3.57. Migrating to the opposite paradigm gives people in charge a chance to show their responsiveness to the needs of participants. The rate of oscillation is a measure of institutional memory half-life.

Bureaucratic organizations are comprised of teams that provide services to other members of the organization and to subjects. A centralized approach improves efficiency through less redundancy, but also can decrease responsiveness. Grove [47] calls the centralized model functional teams.

Centralization is often carried out for cost efficiency. The cost savings are due to de-duplication and having less slack. Both of those “savings” are a decrease of redundancy, which has a cost when there are unexpected fluctuations in need.

Another motive for centralization is to concentrate talent within the organization. This can have the unintentional result of siloing talent and isolating experts from the people they want to help.

Decentralized manifests as cross-functional teams. Do the compliance officers, financial people, or IT support staff work directly on your team locally or are they in a separate team?

The rate of change between centralized and decentralized may be a function of turnover or promotion rates.

>> Speculation

A matrixed organization [82] mixes the centralized approach and cross-functional team.

Centralization is an intentional monopolization, with a corresponding decrease in choices. Centralization (de-localization) can decrease the value assigned to feedback from people using the service because personal relations are devalued.

The weaker feedback, lack of redundancy, and decreased emphasis on relationships motivate the creation of local services.

Redundant services in a market.	Monopoly service provider.
<i>Description:</i> Using a market model within the organization.	<i>Description:</i>
<i>Pros:</i> Enable customers to choose the best service.	<i>Pros:</i> Efficiency of a single service.
<i>Cons:</i> Redundancy.	<i>Cons:</i> Might not meet the needs of all customers.

Table 3.58: *Dilemma of Monopoly*. Services within an organization. See also Figure 3.4.

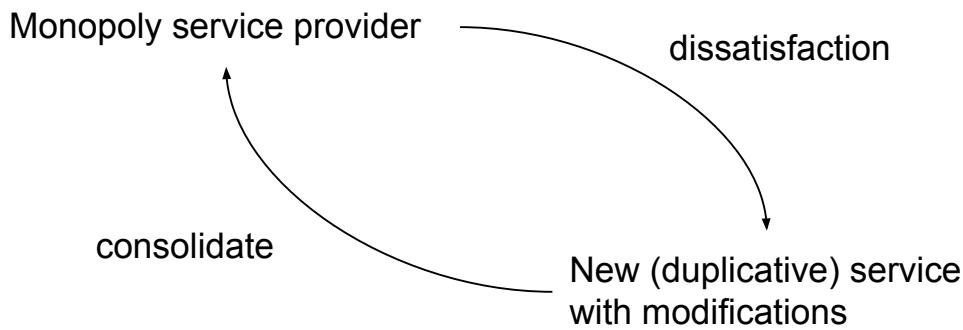


Figure 3.4: Dipole oscillation: solution A exists but doesn't meet my needs. Rather than tweak A, re-invent solution B. B mostly overlaps with A but has independent development and support. See also Dilemma 3.58.

The [Dilemma of Monopoly](#) is similar to the [Dilemma of Centralization of Services](#), in that both seem initially to be dipole oscillations. The centralization of services can be addressed by a matrixed organization, while an approximation of that concept for services would be federation.

The [Dilemma of Monopoly](#) is a label for the [conflict of interest](#) between minimizing redundancy and customizing solutions. Services tailored to the needs of a bureaucrat or subject mean that someone else with different needs will want a different solution.

The default direction for a bureaucratic organization is toward centralization and monopoly because that seems more efficient. At the same time, individual bureaucrats observe local challenges and invent solutions relevant to their needs.

Decision-making lower in a hierarchy.	Decision-making higher in a hierarchy.
<i>Description:</i> Push decisions down to empower employees.	<i>Description:</i> Escalate every decision to management.
<i>Pros:</i> Better information.	<i>Pros:</i> Better scope.
<i>Cons:</i> More inconsistency.	<i>Cons:</i> Decision-maker has less skin in the game and may be less well-informed. Employees are disempowered.

Table 3.59: *Dilemma of Decision Height*. Where decisions get made in a hierarchical organization.

Bureaucrats with direct exposure to a challenge and the ramifications are better positioned to make decisions. As Marquet [73] points out, pushing decisions down improves the sense of ownership. However, people directly working on a challenge may lack a holistic perspective held by bureaucrats higher in the chain of command.

The [Dilemma of Decision Height](#) indicates that no one person is ideally positioned to make decisions. Bureaucracy involves distributed decision-making because no member has all the relevant information. The coordination of distributed knowledge is a remedy that requires ongoing investment.

The [Dilemma of Decision height](#) indicates that relationships up and down the chain of command are necessary. Low-level bureaucrats need to understand the holistic perspective, and bureaucrats at the top of the organization need to understand the ramifications of their decisions.

Relationships rarely span the chain of command, and bureaucrats make decisions based on locally accessible information and personal experience.

Trilemma: Do you support the cutting edge, most of the middle, or the laggards?

For any given aspect of bureaucracy there is a [bell curve](#) of skills and interests of bureaucrats. In your role as a bureaucrat you face a choice: find and collaborate with and enable the best and brightest, or aim your efforts at the massive mediocre middle (most bureaucrats), or try to get the dumbest bureaucrats up to speed?

Trying to escape the trilemma by claiming that you treat everyone equally means you are disregarding the needs of the tail of the distribution.

Trilemma: Do you work for your team, your manager, or yourself?

Being a member of a team that operates within a hierarchy is tough. One reason is the question of who you are working for. The trilemma is whether you work for yourself, work for your manager, or work for your team. Ideally, you can find ways to do all three, but that is not always the case.

Members of the team should work collaboratively, but there is a potential counter-force: accountability to the manager. Because each team member is accountable to their manager(s), that motivates the action of the individual. The team does not have autonomy – they are accountable to the boss.

In the approach “team members are directed by their manager,” the synergy of the team is neglected and the manager becomes a bottleneck (for decision-making and for creativity and for planning).

The third approach is for a person to ignore their team and their manager. This might enable quicker progress, at the risk of going in an unhelpful direction or not leveraging the skills of coworkers.

Trilemma: Seek less budget, same, or larger budget. Less budget is needed if you improve efficiency, but then the proportional power within the organization is decreased. A larger budget may be due to inefficiency or growth. Keeping the same budget indicates no promotions are relevant (although a steady state could result from a combination of growth and improved efficiency).

A trilemma applicable to many situations is that options are **fast, inexpensive, good; choose two.** (This is the [project management triangle](#).)

In other words, the options are

- Good and fast is expensive (i.e., requires lots of resources).
- Good and inexpensive takes a long time (i.e., find a clever solution).
- Fast and inexpensive will be low quality.

Dilemmas Raised by Subjects of Bureaucracy

Each subject of bureaucracy views themselves as logical, self-consistent, and erudite. In practice, the bureaucrat serving subjects encounters conflicting statements.

Subject asks, “Why do I have to fill out this form?”	Subject asks, “Why aren’t you catching more cheaters and fraudsters?”
<i>Cons:</i> Filling out forms is burdensome for the subject and the bureaucrat.	<i>Cons:</i> To detect problems and identify risks, information is needed.

Table 3.60: *Dilemma of Forms*: no one likes paperwork or letting cheaters cheat. The cost of protecting scarce resources is felt by everyone.

Subjects of bureaucracy expect efficiency. While that’s reasonable, the nuances include minimizing the burden of interaction while also making sure the shared resource managed by bureaucrats isn’t misallocated to malicious or unworthy recipients.

The [Dilemma of Forms](#) is the subject’s experience of the bureaucrat’s [Dilemma of Redundant Data for Decisions](#).

As a result of the [Dilemma of Forms](#), bureaucrats are unable to satisfy the desire of subjects to have efficient bureaucracy.

Subjects desire consistency across situations.	Subjects seek exceptions for their specific situation.
<i>Description:</i> Predictability allows for planning.	<i>Description:</i> I am unique.

Table 3.61: *Dilemma of Consistency*. Consistency is seen as fairness, when in fact consistency can ignore critical differences.

The origin of the [Dilemma of Consistency](#) is based in narcissism on the part of subjects. “I am uniquely special and no one else is.”

Bureaucrats seek consistency in the application of policies as a defensible story justifying the allocation of shared resources. A complicating factor is whether you think of fairness as equality (consistency means everything is the same) or equity (consistency accounts for differences).

As with the [Dilemma of Forms](#), the consequence of the [Dilemma of Consistency](#) is that subjects will usually be unhappy with bureaucracy. Your Process Empathy extends to how subjects view the bureaucracy you are part of.

Subjects seek clearly defined rules.	Subjects seek flexibility in application of rules.
<i>Description:</i> Rules are seen as enabling fairness, when in fact rules can perpetuate inequality. Rules (assuming uniform enforcement) are also seen as enabling predictability.	<i>Description:</i> Subject may expect their status in the community or their relationship with the bureaucrat to allow exceptions.

Table 3.62: *Dilemma of Flexible Rules.*

The application of policy by bureaucrats is subjective. Relying on rules to be deterministic misses the relevance of human interpretation. Predictability of rulings helps bureaucrats and subjects.

As with all other dilemmas, the [Dilemma of Flexible Rules](#) is enacted to various degrees by different bureaucrats, resulting in non-uniform outcomes for subjects. Your relationship with the deciding bureaucrat matters. Information you provide and arguments you make sway the decider.

The bias for bureaucrats faced with the [Dilemma of Flexible Rules](#) is to appear consistent across decisions. The appearance of inconsistent policy application is harmful to the reputation of the bureaucrat and the organization.

Subject wants transparency.	Subject wants low cost (free).
<i>Description:</i> Transparency requires collection and reporting of data.	<i>Description:</i> Access to shared resources shouldn't be costly.

Table 3.63: *Dilemma of Transparency.* Transparency has a cost.

Whenever there is a desire for lower cost and some feature, there is a [conflict of interest](#) with the costly feature. Bureaucrats make subjective decisions, so transparency helps other people understand the reasoning behind outcomes. Transparency is not free, so a dilemma occurs.

The [Dilemma of Transparency](#) depends on your role. If you are a decision-maker or data owner, you do not gain immediate value from justifying decisions or sharing data. You pay a cost to provide transparency, both reputational (your mistakes become visible) and financial (for hosting data, time spent publishing). There are potential benefits to transparency – improved trust in relationships, subjects detecting and reporting mistakes.

An incumbent bureaucrat defaults to no transparency. If subjects want to dispute decisions they benefit from having information about how the policy was applied. If the subject is willing to pay the cost for the data, then the decision-maker has to do extra work to make data available.

Consequences of the Dilemma-based Framing

There are many dilemmas listed above but the list is not comprehensive. The point of having a detailed list rather than just a few is to illustrate the nuance and complexity of bureaucracy.

In practice, most bureaucrats do not choose an optimization strategy, then decide how to respond to all 60+ dilemmas. Nor do bureaucrats talk with their fellow bureaucrats about how to respond as an organization to all 60 dilemmas. Bureaucrats decide when forced to respond by circumstances after having deferred as long as possible. Early decisions are premature and have less information.

Decisions regarding how to respond to a dilemma are not made in isolation - one decision alters the options available for other dilemmas. The ability to project potential consequences depends on you understanding the reaction of peers, people you manage, and managers you depend on. Your decisions create constraints and opportunities for them.

A bureaucrat aiming to avoid dilemmas may respond by deferring to someone higher in the hierarchy to decide and coordinate. While fewer people making decisions would improve consistency, this would be [micromanagement](#). The people in the hierarchy above the person facing the choice don't have exposure to the problem. Choices are delegated to leverage expertise.

When you are facing these dilemmas and trilemmas there are constructive responses that can improve your effectiveness. Improvement helps your results, your reputation, and the organization.

>> Actionable Advice

- Collect quantitative data for each variable. Quantitative arguments can augment qualitative stories.
- Construct the Pareto frontier to identify non-optimal choices that can be eliminated.
- Instead of assessing variables in isolation, assess consequences in the context of workflows and effects on stakeholders.
- Discuss subjective decisions with stakeholders so that potential disagreements can be negotiated instead of creating friction.

Even if each bureaucrat were to consider the same dilemmas (which doesn't necessarily happen), not everyone makes the same selection. This is a source of friction in an organization. The next section expands on the challenges inherent to bureaucracy.

3.3 Unavoidable Hazards of Bureaucracy

There are certain challenges in a bureaucracy that cannot be avoided. The value of recognizing them is to understand that what you're experiencing isn't an anomaly. The problem isn't unique to you, your circumstances, your coworkers, or the organization. The cause is the combination of all those factors. Understanding the unavoidable hazards in a bureaucratic organization improves your Process Empathy.

Accounting for unavoidable hazards is what distinguishes being naïve from having experience. A naïve bureaucrat may see a challenge and come up with an idea of how to improve the situation. In practice, merely having a good idea is insufficient for improvement; the availability of a good idea is not enough for adoption or continuation if there are incentives for stakeholders contrary to the idea.

Even when a good idea is adopted that does not imply longevity. The idea may only be enacted for a promotion, or while the champion persists. Concepts that improve a team or organization do not need to continue.

Being aware of the unavoidable hazards is vital to your tenacity as a bureaucrat. Your emotional fortitude is critical.

Hazard: Separation of responsibility and accountability.

Each bureaucrat in an organization has responsibilities associated with their role. The ability to complete the tasks associated with the role is not wholly within the scope of the bureaucrat's control. You are dependent on other bureaucrats. Even if there is a desire for action, the action might not be immediately feasible because of a dependence on another person or process.

The consequence of separating responsibility from authority is that other people look incompetent or lazy and unresponsive. For the same reasons, you feel impotent. In this scenario Process Empathy can take two forms: empathizing with fellow bureaucrats who are in this state, or intentionally exceeding the boundaries of your role to break the equilibrium.

Hazard: Perception matters more than intent.

You may mean to convey a specific message, but the way your listeners hear that content or read the message depends on context and interpretation. Decreasing the ambiguity in phrasing is a useful investment, but you don't control how an audience responds.

Communication is crucial for bureaucracy, so the best response is iterating with an audience rather than expecting a single message to be enough.

Hazard: Appreciation for being an effective bureaucrat is rare.

If you do your job well no one will notice. This is because of an expectation of smooth and fast interactions. Frictionless engagement is expected even if that is not the norm.

Consider teachers who catch cheating students [105]:

"No one [thanks teachers] for policing cheating. Not the cheaters, not the honest students who feel inconvenienced and mistrusted, and certainly not the school [administrators] who have to process academic dishonesty paperwork."

This same concept applies to any bureaucrat. The number of thank you cards sent to [Food and Drug Administration](#) meat inspectors keeping food safe, [Occupational Safety and Health Administration](#) regulators ensuring a safe work environment, [Federal Communications Commission](#) detecting disruptive electromagnetic signals, [Federal Trade Commission](#), and [Securities and Exchange Commission](#) is likely small.⁸

There are counterexamples in public service bureaucracy. Law enforcement is thanked when there is a victim of a crime. The military is held in high regard. In both of those bureaucracies the bureaucrats are visible and the consequence of their work is tangible.

In large organizations there are teams of bureaucrats like the Information technology department and human resources. IT support bureaucrats are occasionally thanked by their subjects, though most of the time the expectation is that computers should just work. Outside of hiring, HR produces few tangible products, so the appreciation is lower.

Hazard: Lack of accountability to fellow bureaucrats who rely on you.

You are more likely to feel accountable to your supervisor. Performing for your supervisor and explaining your value matters more than the work done to support coworkers. This also applies when you depend on other people – they aren't accountable to you.

To counter this tendency, build personal relationships with peers. This requires ongoing investment, both to maintain relationships and to create bonds with new coworkers as your previous coworkers leave.

Hazard: Decision-makers are under-informed and inexperienced.

You can make a decision with insufficient information. There is rarely an expectation of expertise or experience. Gathering information takes time and is thus burdensome. Having experience requires getting experience – you either start as a novice and make mistakes, have formal academic training, or rely on mentorship to avoid the direct experience of mistakes.

⁸FoIA 2022-000758 submitted to the [Federal Communications Commission](#) sought the first 100 documents received by the FCC from consumers with any of the words "thank," "thanks," "appreciate," or "appreciated" between January 1, 2020 to December 31, 2020. I reviewed the 100 documents and found no letter of gratitude; just complaints.

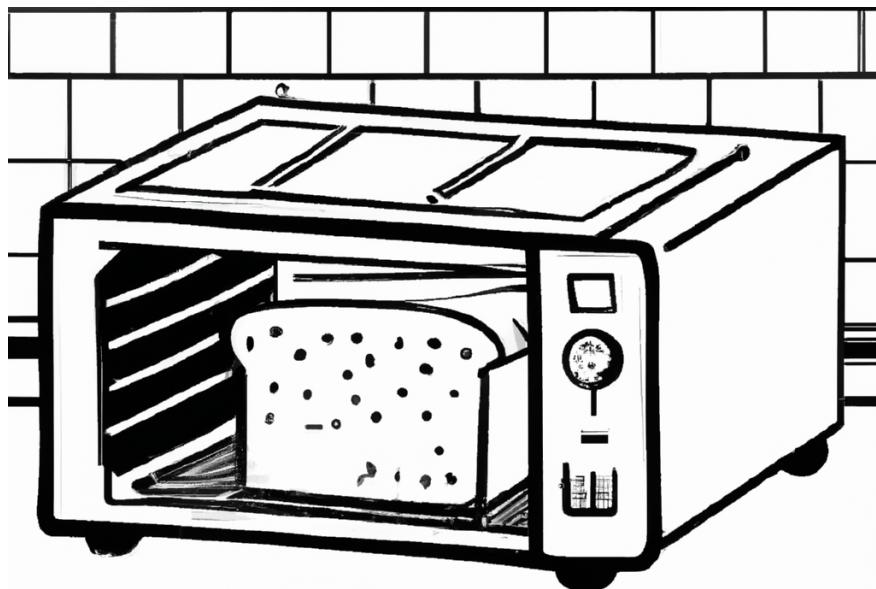


Figure 3.5: Toaster oven in the office kitchen. Each participant in the accounting process adds overhead to the baseline.

Hazard: Gathering data for decisions takes resources and expertise.

When there is a desire to gather data, and there is data available to be gathered, an investment of time is necessary. Well-informed decisions take time, experience, or both.

Hazard: Defining success is subjective and dynamic.

Who defines success and for which audience in a bureaucratic organization is subjective because of the lack of feedback mechanisms. Consequences may not be immediately obvious. Worse, how success is defined can be changed at any time – there's no need for consistency.

Hazard: Change threatens incumbents.

For example, change of plans, roles, tasks, resources, the flatness of the organization, scope, or technology.

Practicing Process Empathy means having compassion towards the fear other people fear and socializing the change before enacting change. This investment in a preview is called [nemawashi](#).

Hazard: Diffusion of responsibility in the bureaucracy.

A specific task needs to be completed, and action requires the involvement of multiple collaborators. In this scenario there's a risk of each **participant** not feeling ownership over the outcome. This risk is more likely when roles are less well-defined or when participants don't have relationships to maintain.

Consider the perspectives of an office worker, an office manager, a building manager, an electrical substation operator, and an electrical grid operator.

Layers of Margins
<p>An office worker wants to plug in a toaster oven in the office kitchen (see Figure 3.5). The owner of the toaster oven files a notice with the office manager who tracks electrical loads in the kitchen. The toaster owner uses the power number (1200 Watts) from the manufacturer's website. In practice, the toaster</p>

oven doesn't use that much power; that's just the maximum rating for the device.

The office manager aggregates power from the devices in the kitchen. The office manager has a power budget for the team's kitchen equipment and keeps a margin of 10% spare capacity for flexibility. The office manager's power budget is provided to the building manager (who keeps a margin of 10% for flexibility). The building is one of many sharing the electrical substation. The electrical substation owner sees the power consumption is below the rated capacity, but the subscription for available power is full – no new users can be supported.

Lesson: in a system of aggregated layers, each person only sees adjacent layers. When each person builds safety into their budget, the accumulated slack is excessive and wasteful.

Similar situations arise for temporal planning (schedule), financial budgets, and spatial planning.

Hazard: Diffusion of blame in the bureaucracy.

Example: if something goes wrong, who is at fault: the creator of a policy or the person tasked with executing the policy?

To apply your Process Empathy redirect the focus from blaming people to identifying systemic causes. Did the people involved have enough training? Was adequate time allocated for the task? Were people distracted, tired, or hungry?

Hazard: Management doesn't do their job well.

From your perspective as a bureaucrat (or subject), management may seem inadequate. The Peter Principle [89], the Dilbert Principle [1], and the Gervais Principle [91] all attempt to explain this feature. Process Empathy provides another perspective.

Management may oversee multiple different disciplines (e.g., engineering, marketing, manufacturing) and different types of people (e.g., outgoing, introverted, independent) and as a result have insufficient time to address everyone's needs.

Management is supposed to facilitate coordination in the hierarchy between teams. Management often lacks technical expertise and lacks time needed to understand each issue deeply. Management adds latency to the process of coordination. The alternative, not including management in coordination and instead relying on direct interaction between peers, is chaotic.

Manage is supposed to coordinate up, down, and laterally. Each of those is supposed to be bidirectional.

Management is supposed to make decisions that affect multiple different teams but lacks expertise and the time to understand each issue in-depth.

Management has a holistic perspective to identify gaps and inefficiencies. Management has the authority to redirect resources to address these issues.

The choice of the manager is to either dive deeply into one topic (and neglect the other needs) or try and superficially respond to all needs and seem like a dilettante. Because management cannot address issues satisfactorily, they appear incompetent.

Hazard: Policies are dumb.

There are a variety of reasons for this, but a sampling of the causes includes incompetence, diffused control, and what is valued.

Incompetence as a source of dumb policies arises for multiple reasons, but a subtle cause for individuals making bad decisions is that information isn't available.

As another cause for dumb policies, sometimes the information exists and relevant decisions are identified but control is spread across the organization resulting in lack of coordination. This is a coordination issue.

In some organizations adding complexity is perceived as a source of value. This is because nuance (appropriate to a situation) gets confounded with complexity.

Dumb policies arise when the conventional process is story-driven requirements (as opposed to experimental data).

Hazard: High latency feedback.

See [slow communication](#) on page [123](#) and [decision delay](#) on page [16](#).

Hazard: Weak feedback.

Suppose my bureaucratic task depends on a service provided by you, a fellow bureaucrat. If your computer isn't working, your ability to provide the service is blocked by a dependency on a computer repair person. You might feel relieved – you can relax while you wait on the computer repair and you don't have to do work providing the service to me. You might feel anxious – you're unable to provide the service until the computer is fixed. Regardless of how you feel about the situation, my task is blocked. If neither you nor I have priority relative to the computer repair person's other tasks, then we wait. This question of priority could be resolved hierarchically (for which there is limited attention bandwidth) or socially (dependent on someone having a relationship with the repair person).

The delay for my task may be sufficiently small that raising the issue through the hierarchy or socially is not a good use of time.

Hazard: The person making the rules that you follow doesn't know what they're doing.

Your choices then include

- Follow the rules that are not correct. This harms your productivity and morale.
- You can violate the rules and be more effective. This puts you at risk for sanctions.
- You can work the change the rules. Then you are not doing the work that's needed.

Hazard: You rarely get to pick who is on the team.

When a task requires collaboration, there is rarely a choice of who you get to work with.

Hazard: You rarely get to alter team membership.

As a team member, you typically get little input on who you work with. Even as a manager your options for hiring are often limited.

Hazard: Fear of the unknown.

Current suffering is tolerable compared to the uncertainty of change, especially when the suffering isn't felt by the decision-maker.

By identifying this fear in yourself or those you collaborate with, you can discuss specific concerns and work to address them.

>> Actionable
Advice

Hazard: Fear of change.

Change disrupts the status quo, putting accumulated power at risk and altering relationships.

An emotional basis for decision-making (or avoidance of decision-making) may or may not be rational. Discussing the fear with fellow bureaucrats can ease the burden.

Hazard: Fear of conflict.

Refers to conflict of ideas, not physical conflict. Conflict of ideas is not personal, though the consequences may have impacts on careers for stakeholders.

Professional disagreement is to be expected in a bureaucratic organization.

Feeling uncomfortable is distinct from feeling unsafe. Communicating while feeling discomfort is a useful skill, rather than avoidance. You can show courage by talking about your sense of discomfort.

Hazard: Inadequate resources: staffing, time, money.

The resources you have to address a challenge may not match the complexity of the issue.

Hazard: Outcomes for the team are ill-defined and constantly shifting.

Most bureaucrats rely on approaches that assume consistency of their environment. Planning for uncertainty and change is more complicated.

Hazard: The reward for good work is more work.

When a coworker doesn't do their fair share, then the productive employee shoulders more burden. The deficient worker has no incentive to improve.

Hazard: The organization has a lack of vision; or has vision but no plan; or has vision and a plan but no consensus; or has vision and a plan and consensus but inadequate resources.

An organization of bureaucrats can operate without a vision, plan, or sufficient resources. Being busy is easy; being productive is hard.

Hazard: Progress depends on subjective decision-making.

Rarely is the optimal path deterministic.

Hazard: Easier to ask for big money than small money.

Processes are scale invariant. Regardless of whether you're asking for \$1000 or \$100,000, the process is the same. Accountability processes for large amounts of money are not scaled down to fit small amounts because people can be as dumb with \$100 as they are with \$10,000.

Hazard: Some challenges are scale invariant.

Challenges arising from personalities are invariant to where in the hierarchy the problem occurs. The difference is that less attention is paid to the same problem at the lowest levels as compared to higher in the hierarchy because of the scope of impact.

Hazard: Flux of people and processes.

Sources of flux include staff turnover, changing conditions, changing timelines, change of vision, and the need to be promoted. Consistency doesn't yield promotion in a bureaucracy.

Hazard: Why are there so many rules?

To address edge cases and malicious or dumb people. See the [Dilemma of Forms](#).

See page [77](#).

Hazard: So much paperwork or forms. Why is red tape endemic to bureaucracy?

Paperwork as a form of coordination in processes to facilitate decentralized decision-making.

One of the motives for paperwork is to catch people who are misrepresenting their intent, whether accidental or intentional. Documentation makes prosecution more straightforward.

Hazard: Everything is slower.

What the person saying this means is “slower than desired for what I need” or “slower than I imagined in my simplified model.”

Progress is slower than expected because there aren’t as many hours available as naïvely imagined. The time spent working in a bureaucracy is less than the number of hours you get paid for. Breaks taken during work, vacation from work, holidays, and sick leave are illustrated in Figure 3.6. An added factor is that the people you depend on do not work exclusively on your request – there are competing investments of attention.

Developing [process empathy](#) means having a more detailed model that accounts for the cost of coordination and accounts for there being less time available than the naïve expectation.

Hours per activity per employed year

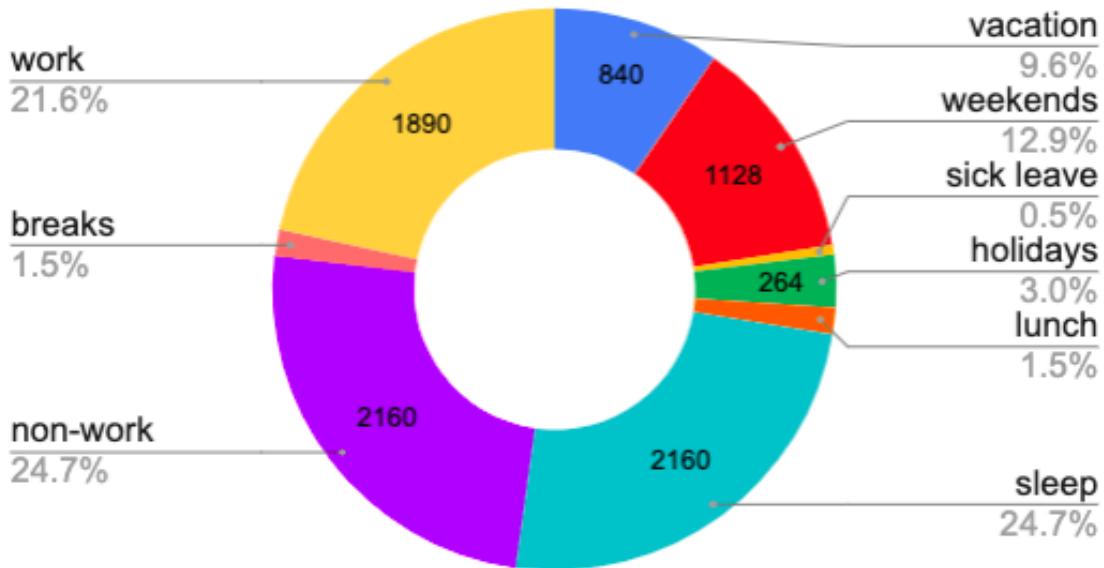


Figure 3.6: Hours of “work” per year when accounting for the rest of life. Assumes five weeks of vacation, two days of sick leave, and eleven holidays.

Hazard: Bureaucracy inhibits creativity.

See notes on [innovation](#) on page 100.

Hazard: Bureaucracy grows.

Increasing the size of a bureaucracy is easier than cutting it down. The causes of growth include scope creep, an increased number of people participating in the process, an increased workload, or a decrease of the ratio of workers to managers.

Bureaucracy grows because some people lie – there are defectors. Progress is called “improved accountability” because we aren’t sure who the next liar is going to be. More work is created for everyone because confronting liars and cheaters is uncomfortable and takes work.

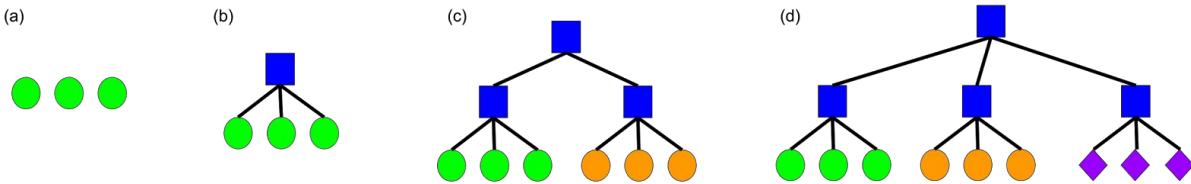


Figure 3.7: Growth of an organization as complexity and workload increase. a: three technical workers (green dots); b: administrative functions are delegated to an administrative assistant or manager (blue square); c: as complexity and scale grow a new technical team (orange dots) is brought in with their manager; d: administrative work is delegated to a dedicated team of non-technical staff (purple diamonds).

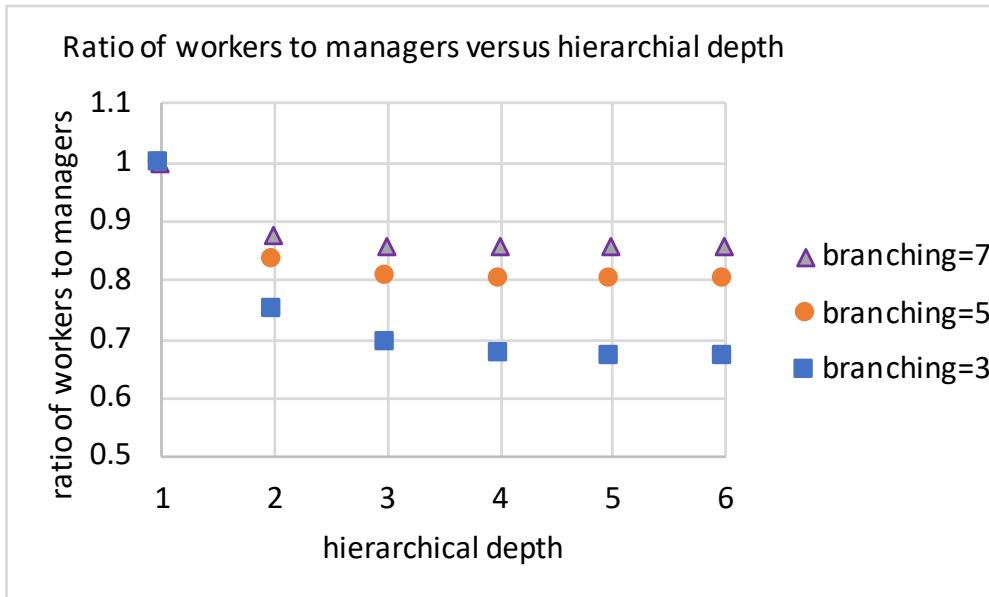


Figure 3.8: As the depth of a hierarchical organization increases, the ratio of workers to managers approaches an asymptotic value that depends on the number of workers per manager. The “branching” parameter is the number of workers per manager.

You can measure the growth of bureaucracy using metrics like the latency in addressing a request and the number of people involved in addressing a request.

Increasing the size of a bureaucracy is easier than cutting it down.

Hazard: The ratio of workers to managers gets worse as the size of the hierarchy grows.

As complexity and workload increase, the number of staff needed increases. To facilitate coordination, managers arise. The amount of work being done in a bureaucracy can be small compared to the number of participants.

In Figure 3.7a, the ratio of workers to participants is 3:3=1. When a manager is added, the ratio is 3:4 = 0.75 (a lower value means less work per employee is being done). Adding a second team with dedicated management puts the ratio at 6:9=0.66. Finally, with a dedicated administrative team (e.g., payroll, hiring, facilities), the ratio is 6:13=0.46.

Adding more people to a hierarchical organization results in diminishing returns for time spent on the central work since bureaucrats invest time maintaining the hierarchy and administrative processes.

Hazard: Each person in a bureaucracy has multiple roles.

To limit the expansion of the bureaucracy. The multiple roles come from multiple relationships necessary to span an organization larger than [Dunbar's number](#) – about 150 people.

Hazard: Everything is more complicated.

Bureaucracy administers access to resources, whether tangible items (water, air) or expertise. There's friction for tangible resources because the easiest solution is you get the resource (without an intermediary). There's friction for expertise because the expert understands things you do not.

Hazard: Bureaucracy is inefficient and wasteful.

The inefficiency of an organization is not just due to a breakdown of communication among its many members. Other sources include

- Individuals in different roles face distinct external incentives that drive a diversity of investments. Work that is not aligned results in wasted effort.
- Participants have different views of what constitutes a problem and which problem is most relevant. Coordinating to resolve disagreements appears inefficient regardless of which metric is used to measure efficiency.
- Within the organization there can be competition for resources. Competition leads to wasted effort.
- Because decisions by bureaucrats are subjective, there is significant risk of being wrong or being called out by others as being wrong. The incentive to [cover your ass](#)⁹ exists for decisions. As a result, unnecessary work is carried out to limit blame.
- Situations and constraints change faster than the time it takes to complete a task. Then you are faced with either continuing under the initial assumptions or pivoting a project partway through. If an objective quantitative measure of value is available, the return on investment could be determined.

Efficiency is typically assessed from the perspective of a serial process – a single worker could do this task faster, so why involve ten people and get a slower, more burdensome result? Specialization of skills, resilience, validation checks, and increased throughput all motivate the addition of bureaucrats to processes.

[Brook's *Mythical Man-Month*](#) [14] points out that dividing a task among ten people does not make the task finish in a tenth of the time. There is overhead of coordination and the training of new members who are intended to help.

[Amdahl's law](#) is the quantification that a task that takes one person one hour is unlikely to scale to ten people accomplishing ten results in one hour. The consequence is that you can't evaluate what should be considered wasteful by considering a single person's throughput and then multiplying by the number of people on a team.

Hazard: Scope creep.

Scope creep can originate from three sources: the bureaucrat doing the work, the subject of the bureaucrat's work, and the bureaucrat's management. In the first situation, the person doing the work might see a nearby opportunity that only requires a little more work.

When the subject is the source of scope creep, the root cause is that the subject wants more. While the exploration of what's possible can be exciting (a positive experience), what the bureaucrat hears is more

⁹“The preferred options are to make sure somebody else does the failing, or to elegantly explain why it looks like a failure, sounds like a failure, but is actually a brilliant advance in an unexpected direction.” [106]

work and delayed results. This implies a few trade-off options, all of which are negative for one or both parties.

- Stick with the original terms (telling the subject “no”, which is negative for both parties).
- Re-negotiation for more time (a burden to both parties).
- The bureaucrat doing more for the same pay, which means less money per effort (yielding a less happy bureaucrat).
- Decreasing existing efforts to fit the added requirements (yielding a less happy subject).
- Even if the bureaucrat is getting paid by the hour, more work means the end product will be delayed to accommodate added features (yielding a less happy subject).

The third source of scope creep is management. Executive decision-makers tried to make decisions without having the full context of the impacts of the decisions. People lower in the hierarchy see opportunities and extend their scope incorrectly because they don’t have the full picture. In both these cases, the problem is that the person doesn’t know what they don’t know and trying to solve problems outside of their domain of responsibility. How would that person know that they don’t know? The easy answer to this is if you are in a position of authority, check downward before making a pronouncement. If you are in a position of execution, check upward before taking action. [Commander’s intent](#) (the sharing of what the end-state should look like) works in both directions.

Hazard: Migrating technologies.

The person enacting the transition has to be educated in both the old and new technology. The legacy code has to be migrated to the new implementation convincing stakeholders; may require synchronization difficulty scales with the number of stakeholders.

The 39 hazards listed above are not comprehensive. However, there are enough to illustrate that even a well-run organization with trained bureaucrats trying to do good will encounter friction.

Even with the known hazards described above, you can be an effective bureaucrat by practicing process empathy. The next chapter focuses on what you can do.

Chapter 4

You are an Individual in an Organization

Back to the [Main Table of Contents](#)

This chapter focuses on the perspective of an individual bureaucrat operating within an organization. What actions can you take? This chapter is foundational to the next chapter which describes [collaborating with others](#).

As a bureaucrat, understanding your options for action matters. You're less effective if you don't know what your options are. If you are okay with being ineffective or are not feeling the harm of your ineffectiveness, keep in mind that there is no neutral member of a bureaucracy. Either you are contributing to the organization, or you are sapping resources from the organization. This dichotomy exists because the organization has a zero-sum allocation of resources.

This chapter starts with the hiring and onboarding process, then focuses on your emotional state as a bureaucrat, and ends with how you can be effective. Even though you may join an organization once, organizations that are not shrinking have to add new members due to turnover and sometimes growing size. Even with this ingest of new people an organization is distinct from the rest of society due to the differences in norms and goals. If an organization does not invest in onboarding new members, the norms of broader society will prevail. Littering, crime, pollution, scams, and fraud are usually aspects organizations try to constrain.

The next section on [hiring](#) is discussed from both the perspective of the person hiring and the person being hired. Likewise, incentives for [promotion](#) (see page 99) are described from the view of the person promoting a bureaucrat and the person seeking promotion. The reason to cover both roles is to help people in each position build empathy with the other person's experience.

4.1 Hiring into a Bureaucracy

Hiring shapes the culture of an organization and determines what is feasible, both by the skills of those hired and how well new hires integrate with the existing organization.

Hiring can be an expensive process, both in time and money spent by the organization to recruit and filter applicants, as well as the emotional investment of candidates. As a candidate, recognize the risk the organization is taking. As a reviewer of candidates, hiring is an investment in the future of the organization.

Organizations are not identical to the society they operate within. As a candidate you should expect a different set of norms. As a bureaucrat reviewing applicants you will see behaviors not consistent with the norms of your organization. Reasons for the difference in norms of society versus the norms of the organization include incentives and constraints specific to the organization. There is also a [selection bias](#) in the people who join a bureaucratic organization, and there is a selection bias to who stays in a bureaucratic environment. The people in a bureaucratic organization are unlikely to be perfectly representative of the society that the organization serves. Tactics that work inside a bureaucratic organization may not apply in society, and tactics that are useful outside an organization may not work on bureaucrats.

There are specific attributes that make a candidate more likely to be successful in a bureaucracy, regardless of the role they are being hired into. In addition to role-specific skills, hire candidates with the ability to reflect on thinking ([metacognition](#)), navigating complex social scenarios with competing interests, and intrinsic motivation are useful. If you're a candidate bureaucrat you can develop these traits.

4.2 Tips for Getting Started

You may have graduated from school with a degree in a specific subject. Then you go to work and expect the position you're in to apply the domain-specific education you have in your new role. Your work produces an outcome and gives meaning to the struggle of your prior education process (an investment of time, money, and effort). In practice, there can be a disconnect between your professional role and your educational training. The disconnect may feel dissatisfying when you are not practicing what you went to school for.

An alternative framing that is more helpful is that you went to school to learn how to learn. A degree represents your ability to learn and persist rather than a domain specialization. Then, when you get to work, you are presented with new opportunities to learn other domains.

Onboarding into a Bureaucratic Organization

The hiring process involves at least two people. Responsibility for successful integration relies on both people actively working together. This cooperative effort manifests in a few specific tactics.

As the new hire, try to learn the names of those around you. As the hirer, make introductions. Not just the first time, but for the first week or two.

>> Actionable Advice

As the new hire, learn the jargon of your new organization. As the hirer, explicitly expand jargon when used.

As the new hire, seek one-on-one meetings to get feedback. As the hirer, offer one-on-one meetings to provide feedback.

As the new hire, write documentation on processes as you experience them. You're in the best position to write down your observations because you are seeing things for the first time. As the hirer, provide documentation on processes. Your organization gets value from new hires faster when they are efficiently trained.

How to Orient Yourself

Sometimes your role as a bureaucrat may be poorly defined. The lack of direction or objectives may feel disappointing or frustrating. This is especially true for your first job having just left the structured environment of school. The positive perspective is that you can define your tasks and determine what would be helpful or interesting.

Two mentalities that are useful throughout your career are enabling other people through collaboration and working yourself out of the job. Your goal is to facilitate success rather than being integral to the process. Enabling other people to be successful can apply to subjects, fellow bureaucrats, or management. Not everyone matters equally, so figuring out the priority of helping specific people informs your decision.

Another tactic is to look around, look backward, and look forward. What are the challenges the team or organization faces? Then review previous attempts to address the challenges. Why did previous efforts fail to remedy the situation? Once you have a less naïve view and more context, what is your vision of the desired scenario? Without this vision for improvement, there is a danger of doing work that keeps you busy but yields no progress.

The tactics of identifying challenges and learning the history of a challenge often rely on social interactions. A bureaucratic organization rarely maintains a searchable written record of decisions and failed efforts. If that content is available, it may lack the specificity available from a verbal narrative by people who were present. When investigating issues in a bureaucracy, end discovery-oriented conversations with the question, “Who else should I talk to about this issue?” Independent of the prior content or the quality of the preceding discussion, this question can be the entry point to an extensive second-order social network of expertise that is often separate from the hierarchical chain of command. If multiple discussions with different people lead to the same person, then that person is key.

>> Actionable Advice

Documenting your process as you proceed can help with self-reflection and your ability to measure progress. Written documentation of your status can be used as proactive updates to your management and provides a record when someone asks why you took certain actions (rather than coming up with after-the-event rationalizations).

Bureaucratic challenges that do not violate the constraints of Nature (such as conservation of momentum, conservation of mass, the speed of light, [Heisenberg's Uncertainty principle](#)) are solvable. There are typically political, social, personality, security, and technical aspects that need to be accounted for. Laws can be changed, regulations altered, people replaced, and norms updated. Constraints that appear to be logically inconsistent may be reframed to be resolved. Narrowing or broadening the scope may reset the context for a challenge.

The tactics provided above can help you be an effective bureaucrat. Because there is variability to effectiveness there can be emotional highs and lows. The next section discusses the emotional aspect of bureaucracy.

4.3 Setting Your Emotional State

As a member of a bureaucratic organization, you may feel the frustration of bureaucracy, the happiness of success, the excitement of possibilities, or the fear of uncertainty of operating in a complicated environment. Your emotional state alters your productivity and the well-being of your coworkers, regardless of whether that emotion was set by your work or set by events outside the bureaucracy.

You may see emotions as getting in the way of productivity and creating problems, or perhaps you see emotions as unprofessional. This view is not shared by everyone, and there are real benefits to feelings like passion, enthusiasm, excitement, and joy. Yes, joy can be felt by bureaucrats.

Expecting bureaucrats to apply cold, rational logic to decisions and interactions is unrealistic. Openness to engaging emotionally is more constructive than avoiding or suppressing emotional aspects of the job.

One source of emotions inspired by bureaucracy is when your roles, responsibilities, and resources do not align with those of other people you engage with. You want to be effective and feel frustrated. This frustration can infect your interactions with coworkers.

Another source of emotions in a bureaucratic organization is when you see someone else making what appears to be a poor decision or policy. If you cannot alter the decision or influence the policy, this can feel disheartening or demoralizing. Worse, these policies outside your control may be of consequence to you.

A third set of emotions in bureaucratic interactions occurs when a group of bureaucrats with distinct perspectives, strong opinions, and diverse experiences faced with complex challenges have insufficient time to create consensus and select the optimal choice. Stress felt by each participant informs the interaction.

These emotional states are relevant because frustration and stress can decrease your capacity for effective communication. Happier bureaucrats can be more productive and collaborative.

By identifying these emotional patterns, the situation can seem less personal. Your feelings are legitimate, but they are not unique to you. Anyone in that situation is likely to feel similarly. Realizing this helps build empathy instead of ignoring the feeling. You can ask other people how a situation makes them feel. There's value in both shared experience and identifying different responses.

The next section on a specific artifact of bureaucracy may seem separate from your emotions, but how information is framed can inform your expectations. These subtle expectations about your environment inform your feelings of what is acceptable or not.

Organization chart orientation

A common method of describing relations within the bureaucracy is the organization chart (commonly the “[org chart](#)”). Normally the Chief Executive Officer (CEO) is at the top of the chart, middle management is in the middle, and managed employees are at the bottom. See Figure 4.1 on page 93.

Artifacts like org charts subtly convey an organization’s culture. There are emotional connotations to alternative layouts. You can alter expected relations (culture and norms) by playing with the orientation of the org chart. There is a risk of overanalyzing org chart orientation, so the exploration in this section is limited.

The point of thinking about org chart orientation is to frame how you perceive your chain of command, peers, and (if applicable) the bureaucrats you manage. Notice that the framing is embedded in the words – prefixes super (over) and sub (under). These concepts inform what you expect from relations with supervisors and subordinates. Do I seek support or direction and guidance from my supervisor? What do I expect from my supervisor? My peers? The people I oversee? What do I expect to provide them?

The relative orientation of the [CEO](#) to the workers sets expectations for relations. Options for orientation are the conventional CEO at the top (Figure 4.1), CEO at the bottom (Figure 4.2), CEO on the right (Figure 4.3), CEO on the left (Figure 4.4), or the CEO at the center.¹

In implicit conclusion from Figures 4.1, 4.2, 4.3, and 4.4 is that teams at the same level of the hierarchy are peers and should be treated similarly in terms of importance. Figure 4.5 provides yet another perspective informed by which team provides services to other teams. Which teams are the customers informs the relationship dynamics.

¹For example, the diagram on Wikipedia page for the 1930 [League of Nations](#).

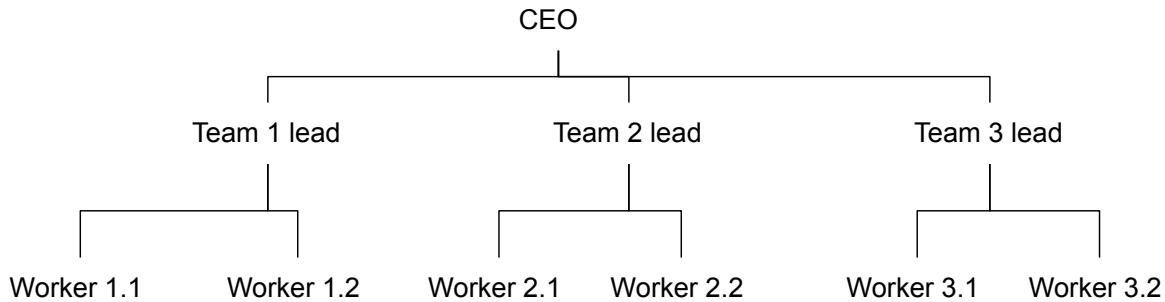


Figure 4.1: Standard orientation. The role with the most oversight and authority is at the top. Left-to-right ordering is usually intended to be irrelevant in this view, though reading left-to-right order can implicitly emphasize relative importance.

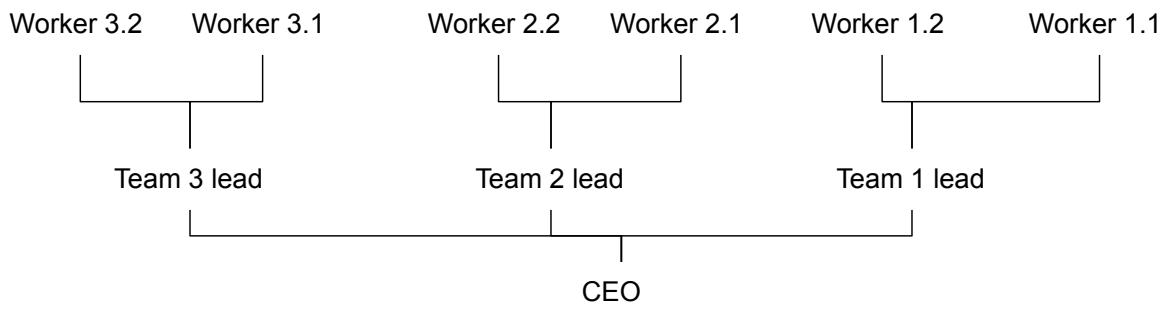


Figure 4.2: Flipping the orientation of Figure 4.1 presents a more realistic view of the CEO's responsibility. The crushing burden of servant leadership is clear. Left-to-right ordering is intended to be irrelevant in this view.

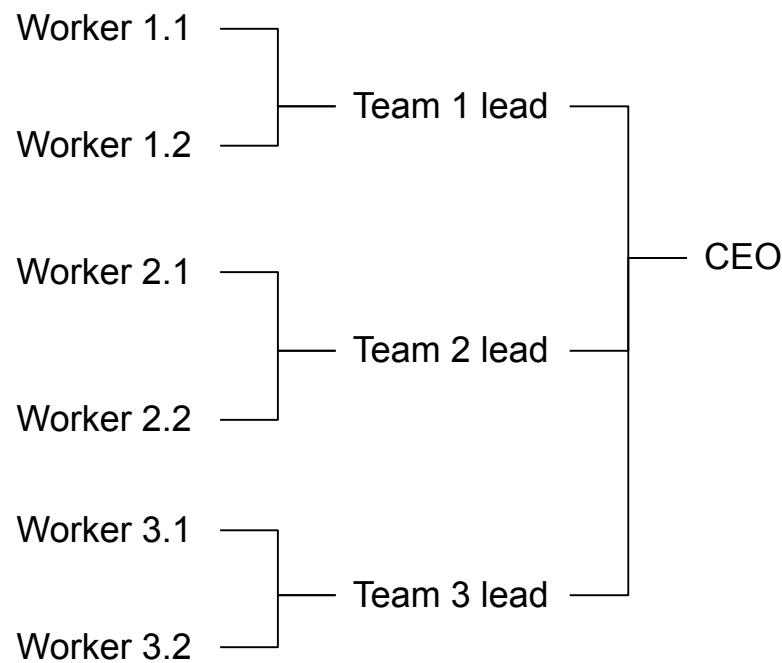


Figure 4.3: Conventionally time flows from left (old) to right (new), so in this graph the CEO leads the charge into the unknown. Is the CEO dragging workers forward, or are the workers pushing the CEO? The top-to-bottom order may be implicitly read as importance even if that wasn't the intent.

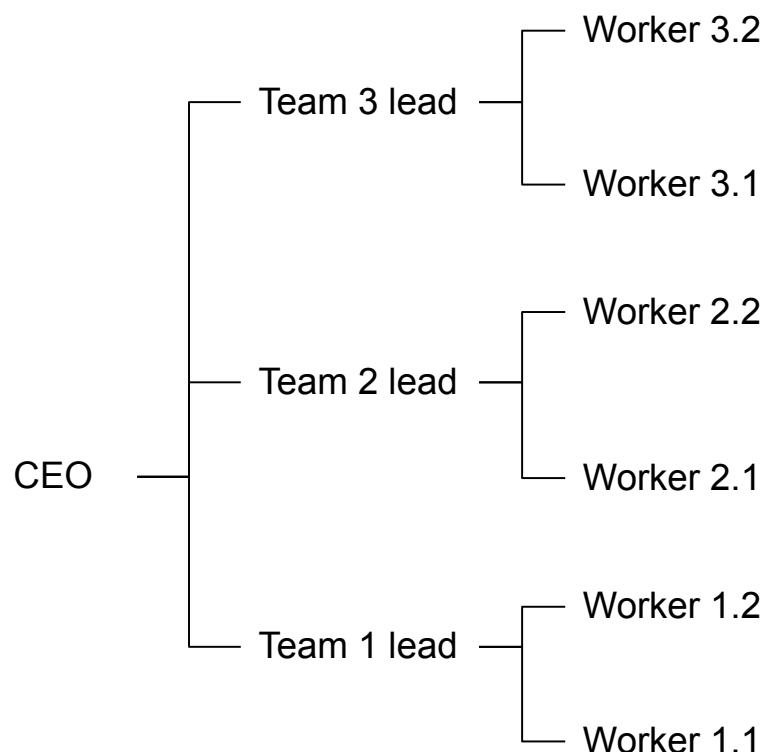


Figure 4.4: The “chariot view” with the CEO in the chariot and the workers out front. Workers are in the future; the CEO is in the past operating on old information. As with Figure 4.3, top-to-bottom ordering can be read as importance.

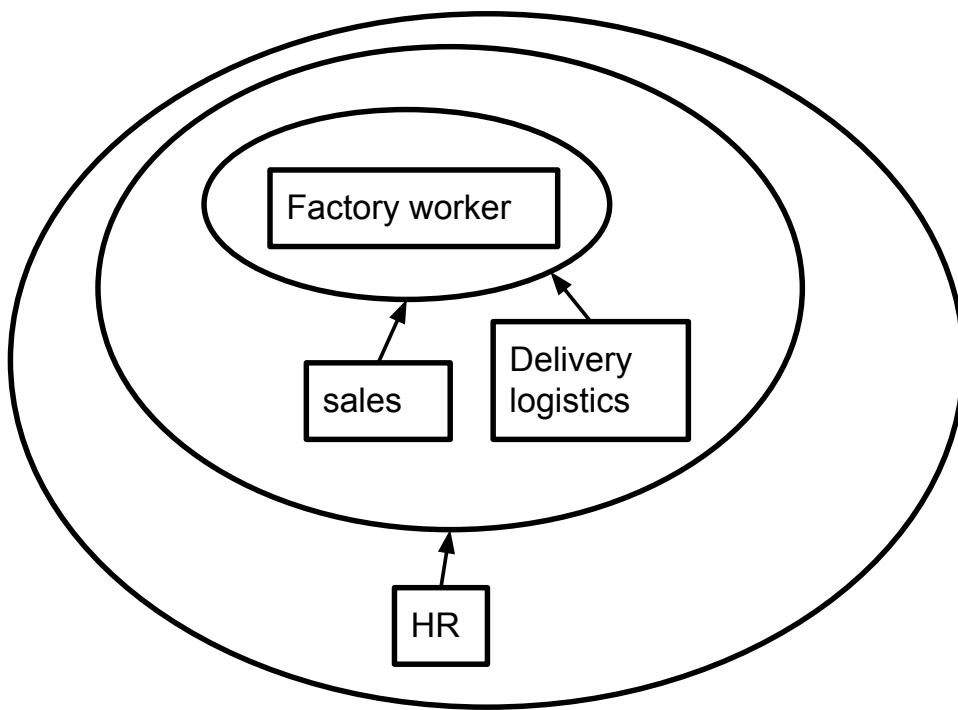


Figure 4.5: An internal-customer-oriented view rather than a reporting-oriented view. The center of the bullseye is the team that generates the value that is the focus of the business or the organization, in this case a manufacturing company. Teams in the outer rings support teams in the inner rings. The diagram is specific to an organization's domain. This visualization identifies which teams are the customers of which other teams in an organization.

4.4 Learning from Failure

Framing of emotions is crucial for learning. Wisdom comes from experience comes from failure, but if you are afraid to fail you'll have fewer opportunities to learn. While you should learn from the experience of other people, you will also need to cope with the anxiety that can come with decision-making. This section on individual failure is separate from [how an organization characterizes failure](#) (see page 98).

Making progress in a bureaucracy is not a linear sequence of steps. Ideally there is an ongoing cycle of trying something, not succeeding, and then applying what you learn towards the next try. This idealized “fail-fast” cycle does not occur naturally – participants need either intrinsic motivation or external incentives to make progress. Failing as a path for learning is justified after having exhausted less expensive alternative education opportunities like reading books, going to school, and talking with experts.

The recognition of failure depends on a clear measurement. Do the participants know the relevant measure? Can they make the measurement? Having a defined measure of failure and regularly making the measurement relies on having an understanding of the expectations for the situation.

Assumptions can be categorized as opinions, guesses, or based on experience. For example, opinions on the interpretation of policy. In that context policy interpretation can be bent or exceptions can be made. Guesses can be stated as, “Given multiple options, X seems most likely.” If someone else is making a guess, you can express curiosity about the basis for their reasoning. Lastly, experience can be extrapolated: “Last time X happened, so next time...” In this situation it can be worth asking others if they have similar or different experiences.

Failure with respect to expectations implies thinking about the future so that you can measure your progress (or failure). That is a subset of planning. You can fail if you don’t plan, and you can fail if you do plan. This does not indicate that planning is irrelevant. Plans can be overly detailed and prescriptive, or plans can be inadequately specified; both are unhelpful.

If your measurements indicate failure, this could be due to an invalid assumption (with a valid objective) or you may have selected a bad objective. Declaring failure means re-evaluating assumptions, resetting objectives, or giving up on the concept and doing something else.

>> [Goldilocks principle](#)

There are ways to avoid failing: by not setting an objective, or setting an objective that isn’t measurable. You can avoid the appearance of failure by not telling anyone the objective. Extrinsic accountability for failure requires other people to have awareness. If the criteria for failure are not known to other people, it may be because the person (or, [in the next section](#), the organization) doesn’t want to share how they’ve failed until they have a success.

Understanding rationales like the failure avoidance mentality is critical if you want to avoid feeling baffled the first time you encounter it. By learning these bureaucratic anti-patterns, you can inoculate yourself emotionally and cognitively – there will be less surprise when you encounter it. You now have a chance to think ahead before encountering the situation.

A counterargument when you hear that someone is avoiding failure is to explain that noticing failure is essential to improving. Detecting indicators of failure, addressing the cause, and then changing is the process of improvement. Being more efficient involves decreasing incidents of failure, but that can also become brittle (not robust). When someone wants to avoid failure, how do they expect to find novel effective ways to do things?

4.5 Success (and Failure) in Your Organization

This section on how a team or organization conceptualizes failure is separate from [learning from failure](#) as an individual bureaucrat because the two concepts are distinct. Pondering team and organization success is relevant to you because your individual success needs to align with how your team defines success.

See page [97](#).

Understanding the ways your organization (or team) succeeds or fails matters to you because it affects how you are evaluated and how you feel about your work. Success and failure should ideally be measured against a quantitative objective that was agreed upon in advance by all stakeholders. While theoretically feasible, in practice most organizations do not enact these discussions.

Bureaucratic organizations have varying definitions of success and failure because organizations are made up of individual bureaucrats with a multitude of motives and weak feedback mechanisms. There are a few macro-level patterns for organizations. Each pattern has a consequence on the individual bureaucrats operating within the organization.

A bureaucratic organization that provides infrastructure service (such as a public water utility, an electrical power company, or an organization's internal computer support team) has a specific failure mode. When infrastructure is unavailable or degraded, that's a failure. Success means satisfactory operation at a minimal cost. An organization operating in this context is motivated to avoid failure. Success is a lack of failure or improved efficiency. An effort to improve processes or otherwise innovate will face the inertia of a culture organized around avoiding failure.

A bureaucratic organization that claims "wins" but no failures (because either more or different work is needed) is difficult to be productive in when the successful outcome has ill-defined value. The success can be counted (number of wins), but the relative importance of the success is unclear.

Examples of win-focused organizations include law enforcement, research teams, and teams with a responsibility for innovation.

For an organization focused on "wins," funding depends on how convincing these success narratives are. This biases the organization to focus on investments most likely to get more funding. When the funding for an organization does not come from consumers of products or policies created by the organization, there is a disconnect. The "wins" may not be helpful to the consumer.

An organization that works to improve the productivity of other organizations may have neither successes nor failures. Money and time are invested with the hope that results will be useful to someone else at some future time. If the organization didn't exist no outcome would be significantly affected. Any win might be attributable to either organization, and any failure can be attributed to either organization. As with no-failure organizations, success is focused on anecdotes and narratives.

Your ability to be effective requires identifying which of the above models describes the organization you are a member of. The foundation of your Process Empathy relies on recognizing the incentives of the organization you are in. Understanding how your organization defines success and failure is vital to your emotional well-being as well as your ability to get promoted.

4.6 Promotion

Bureaucrats get promoted for a variety of reasons: due to their technical competence, a role needs to be filled, to motivate retention, or for their managerial ability. Not being promoted can feel like a slight against you for any of those reasons.

In this section, folk wisdom illustrates the frustration bureaucrats have with promotion. The purpose of familiarizing yourself with these common sentiments is to understand that the failures of promotion are not specific to the team you are on or the organization you are a member of. The deficiencies are generic to hierarchy. With this insight, you can choose a more emotionally healthy response to the situation. Process Empathy is intended to produce emotional resilience based on an improved understanding of the situation you are in.

Folk Wisdom about Promotion

The [Dilbert principle](#) says organizations “Systematically promote incompetent employees to management to get them out of the workflow.” A similar-in-spirit observation is [Putt’s Law](#) which says, “Technology[Bureaucracy] is dominated by two types of people, those who understand what they do not manage and those who manage what they do not understand.” Those two observations are post-hoc rationalizations for managers lacking managerial skills and technical skills.

>> Folk Wisdom

>> Folk Wisdom

For bureaucrats who don’t seem effective in their role, try to determine whether there is a lack of training, lack of awareness, or lack of interest. Training can take the form of reading books or attending classes. Lack of awareness can be addressed with measurements of turnover rate and surveying team members.

>> Actionable Advice

>> Folk Wisdom

The [Peter principle](#) [89] says, “People in a hierarchy tend to rise to ‘a level of respective incompetence’: employees are promoted based on their success in previous jobs until they reach a level at which they are no longer competent, as skills in one job do not necessarily translate to another.” This incompetence might manifest as recurring failure for a person in a role they are inadequate for. More likely, your incompetence will blind you to your failures.

To avoid falling victim to the Peter Principle, do not seek promotion until you have a track record of performing at the next level. The downside is that you are working at a discounted rate since you are providing value beyond what is expected of your rank. (That’s Dilemma [3.9](#) on page [55](#).)

>> Actionable Advice

The Peter principle has an element of truth, especially when a person starts a new role. It takes time to find your footing in a new job. However, you can learn the role and become competent.

Designing Incentives to Align with Values

Promotion is critical when designing incentives for behavior. Promotion is challenging to engineer because people are driven by various motives like money, status, and authority.

Promotion typically focuses on the past success of a person. This de-emphasizes teamwork and lessons learned from failures. Promotion of a person (rather than the team) results in hero culture.

The risk tolerance of a bureaucratic organization is driven in part by conflicts of interest in the promotion processes: an interest in success (more success is better) and avoidance of failure (organizations typically don’t promote members for failing). This imbalance can lead participants to seek ownership of efforts that are likely to succeed, to seek easier successes, and to steal credit for outcomes created by other people.

The promotion process within an organization is often coupled to the concept of innovation, even if your promotion is at odds with taking risks. The next section describes why innovating within a bureaucratic organization is challenging and how to be effective.

4.7 Ideas for Innovation within a Bureaucracy

As a bureaucrat in an organization, you will see deficiencies and challenges. You could ignore the issues, complain but not take action, work around (avoid) the issues, or try to improve your organization. This section focuses on the last option.

Sometimes the issue and the fix seem straightforward. If the situation has persisted for a long time, consider why the conditions have remained as-is. Instead of framing your idea with, “Isn’t it obvious that things would be better if...”, learn why what seems obvious doesn’t happen. Learn the history. Talk to participants. If there is agreement that the situation is harmful, why has no one else tackled it? If previous attempts to innovate were tried and failed, why did they fail? What is novel about your innovation compared to those?²

If you understand the conditions creating a challenge, the history of why other approaches failed, and you have an innovative response, consider the stakeholders. Innovation is necessarily disruptive to incumbent processes, teams, and social power. Do the incumbents benefit from the proposed innovation? Have they said they will benefit or are you projecting their response? Innovation that helps the organization but harms incumbents is less likely to succeed.

In addition to the social hurdles, innovation requires taking risks (otherwise the effort is merely incremental improvement). Risk in an organization means the potential for losing time and resources (waste), potential harm to reputation, or legal consequences.

Avoiding waste and harm are rational reactions when you are managing [shared resources](#) on behalf of a community. The incentive against innovation is the minimization of failure.

Anyone who fails can argue they were trying to innovate. The distinction of [fail-fast](#) from failure-as-wasteful requires that you learn from failure and you share insight gained so other people don’t need to repeat your experience. You can also learn from the failures of others, though these conversations can be painful for the person who failed to revisit.

Once you decide to innovate, and after you’ve learned the history and talked to participants, you have choices about how to innovate:

- Innovate while ignoring the bureaucracy. Your scope is limited to what you can accomplish alone. Integration is tough and causes frustration for stakeholders.
- Fight to create a space free from bureaucracy to enable innovation. You’ve intentionally isolated innovators from resources present in the organization, and integration back into the org is now more challenging.
- Leverage existing hierarchy and processes. Working with bureaucrats who are not as focused as you are can be frustrating.

There is no obvious best solution – just a Pareto frontier of suboptimal trade-offs.

The innovation lifecycle is a sequence of decisions.

1. You see problems and challenges in your environment. This manifests as complaints from both the people directly harmed and observers who see inefficiency.
2. You share ideas for innovation and get feedback. Build a coalition of people willing to fight for the idea on your behalf so that when you’re not present, the idea is still proceeding toward implementation. That puts the threshold at “so important other people are willing to pause whatever they were working on and take up your cause.”

>> Actionable Advice

²See the Wikipedia entry for [Heilmeier’s Catechism](#). Also see the [description of effective presentations](#) on page 154.

3. Enacting these suggestions requires either a change to existing processes or new processes or an investment of work. These changes may not succeed – there's risk. Your idea could fail because it's not a good idea. It could also fail because someone doesn't like you, or the idea doesn't account for some dependency you weren't aware of, or it might conflict with other changes in progress.
4. If you do decide to invest effort, the activity takes you away from your current work. Enacting the change might involve skills you don't have; learning those skills takes time. Carrying out the activity with new skills increases the likelihood of novice mistakes.
5. If someone else enacts the idea they get the credit for having done the work.
6. If the idea saves money or time, there is not reliably a monetary reward. Recognition and improved reputation are not required as part of the change process.

There are many barriers in that sequence. If the person you need to engage with isn't harmed by what you see as a problem, that person may not see benefit from resolving inefficiency. You have to build a coalition of stakeholders.

In addition to the work of enacting the change, there is an administrative overhead of documenting the reason for the change. Decisions are subjective so choices have to be defensible. The need for defensible justifications results in conservative decisions, risk aversion, and decreased motive for innovation.

A common example is that organizations don't buy new technology because there are lots of risks, and members already know how to use the existing technology. (The same reasoning applies to innovation with policies.)

The people in decision-making positions in the hierarchy have more experience with existing technology and are therefore biased against novel technology. Also, getting burned a few times on innovation makes people more conservative.

With limited time and staff available within the organization, experienced decision-makers are typically not on the bleeding edge of the [hype cycle](#).

Bureaucrats, recognizing that bureaucracy stifles innovation, will occasionally invest in internal innovation efforts. Because innovation can come from unexpected sources, the process of innovation is open to everyone.

Incompetent people can innovate just as much as well-informed experts, but the output of inexperienced people is more likely to be disappointing, wasteful, or even harmful.

These barriers lead external observers to the following simplification [51]:

“Bureaucracy destroys initiative. There is little that bureaucrats hate more than innovation, especially innovation that produces better results than the old routines. Improvements always make those at the top of the heap look inept. Who enjoys appearing inept?”

>> Folk Wisdom

The motive for providing the explanations above is the observation that bureaucrats who are persistently innovative in complicated organizations have a strong grasp of the above pitfalls and build relationships with stakeholders to compensate. Effective bureaucrats still fail because not all the aspects are controllable or predictable.

Changing your Environment

Changing the bureaucratic organization you are a member of is difficult. That applies regardless of your motive for change and the thing to be changed. Regardless of motive, there are tactics applicable to any change. The two major categories of change are [processes](#) (e.g., technical solutions, changing policy) and changing the [culture](#) of the members of an organization.

See page [176](#).

[Culture](#) is the set of norms that determine acceptable behavior for members of the organization. Norms are the expectations of your fellow bureaucrats. Each member of the organization can model desired behavior and inflict punishment for deviation from norms. The culture of the organization is practiced by members.

The expectations of an organization should be stated explicitly so that members cannot use the defense that they were not aware. If the stated norms conflict with what is experienced by the organization's members and left unaddressed, the hypocrisy decimates trust.

Besides modeling desired norms in the organization, there are a few more tactics you can take. You can reinforce examples of desired behavior with public praise and meaningful rewards. You can counsel people who go against the culture and punish instances of undesirable norms.

>> Actionable Advice

Altering the culture of an organization means altering member behavior and expectation. This is accomplished by adjusting incentives to reinforce the desired behavior, punishing undesirable behavior, and providing resources to make the intended outcomes easier.

Although aspects of culture may be problematic, thinking of cultural change as problem-solving can be a misleading framing. Rather than solve problems think of change as addressing challenges. Altering the culture often introduces novel challenges. Even though you don't solve a challenge, you can still get a sense of emotional reward from having improved the situation.

Before investing effort in change, reflect on the emotional and career impact of your effort. Will the work bring you joy, or is your emotional reward tied to the outcome? If the outcome is the only source of reward, you'll either be disappointed in failure or you will be more conservative (intending to increase the likelihood of success). The work of creating positive change can be joyful: you can form relationships and focus on learning.

One of the challenges of change in a bureaucratic organization is figuring out what is worth changing. There are many opportunities for improvement. Talk to stakeholders and enumerate their challenges. From the myriad stories, identify recurring themes and root causes. Typically bureaucratic challenges intertwine technical, budget, staffing, historical context, personalities of participants, and organizational politics.

>> Actionable Advice

Select an aspect that you have some competence in and would facilitate personal growth. If the challenge is big (many people involved, takes a long time, costs a lot), can it be broken down into incremental challenges? Distinguish wide-scale changes you envision from local changes over which you have more influence.

Having surveyed challenges worth addressing and having picked an issue with a high return on investment, the guidance of [Chesterton's fence](#) (page 8) is that you shouldn't change something until you understand why things are the way they are. Figuring out the history of an issue requires work when there is a lack of historical records.

>> Folk Wisdom

Talking to stakeholders in the survey phase may yield tidbits of history. Why have previous efforts been rejected or not taken effect? Your review of written documentation of the history should be augmented by seeking out oral folklore.

If your idea has a novel justification for success, identify all possible methods of progress and then rank the tasks. If you can't do all the work, who can you collaborate with? Can you delegate to people with skills you lack, or will you have to gain new skills? If no one has the relevant skills, becoming the widely-acknowledged expert improves your influence.

Creating Change in the Organization

If the organization you are in has no problems or challenges, this section can be skipped. For bureaucrats in organizations that do have issues, this part of the book provides points to ponder independent of the specific problem.

As a bureaucrat, you have unique insight into the challenges the organization faces, and you have unique leverage to alter the situation. While you could proceed haphazardly, an effective bureaucrat has vision – a story of what could be. This vision can be broken into goals – specific, measurable outcomes. Each goal requires contingency plans for achieving the goal. Plans are marked by milestones that indicate whether the plan is proceeding successfully.

Perspectives to consider when assessing change include what the situation is, what the situation could be, and what the situation looks like for different stakeholders. Each person has different information, a different way of responding to issues, and shifting intents.

People you depend on who have conflicting visions or no vision confound your ability to improve the organization. There are different views on whether something is a problem, distinct characterizations of an issue, and competing priorities.

A trade-off to consider is that having a niche impact is easier than broad change (the [Dilemma of Scope of Effect](#)). There's also a trade-off of the quick fix versus more robust solutions (the [Dilemma of Speed and Accuracy](#)).

[See page 62.](#)

Suggestion: Understand and empathize with people who fear change.

When faced with a challenge, the options are to take action or not take action. If you take action, the options are failure, success, or iteration. Action incurs risk due to uncertainty and costs work to create change. The choice of not taking action is attractive if you are not suffering. Even if change would decrease suffering, delay minimizes work and there are other things to focus on.

Fear of failure is justified if the cost of the failure is greater than the value of lessons learned.

Fear of iteration is a fear that the process might be stopped prematurely – before perfection.

Suggestion: Before starting a new effort, check to see whether this has been tackled before. Learn the history of the problem. Why hasn't this been solved?

[>> Actionable Advice](#)

Suggestion: Learn the folklore. Talk with your first- and second-order social network. Ask your coworkers, and ask them who else you should talk with.

[>> Actionable Advice](#)

Suggestion: Use social recommendations by naming relevant individuals.

Leverage the trust already in an existing social network by starting with "Person A recommended I talk to you about X."

Suggestion: Sit in on meetings, listen to topics, see who is talking, and see who is attending. After the meeting, talk to individuals about the meeting. Set up one-on-one informal discussions. Keep the first conversation

brief - 10 or 15 minutes. Your body language should indicate engagement and interest. “Who else would you recommend talking to?” is the last question in the first conversation.

Suggestion: Get feedback early before polishing. This iterative approach enables you to account for the concerns of stakeholders and decreases their surprise.

>> Actionable Advice

Suggestion: Advertise the result. Don’t rely on the change being sufficient for people to be aware the change happened.

Suggestion: Hear criticism and respond. Ignoring feedback harms relationships. People who complain want to at least be heard.

Suggestion: Leverage both social networks and bureaucratic processes. This requires building and maintaining relationships.

Suggestion: Identify sources of power (hierarchical positions and titles, social influence, reputation and credibility, buzzphrases or popular paradigms) and leverage them.

Suggestion: Conduct your interactions with professional respect (for what the other person knows) and professional curiosity (for what you don’t know).

Example: Getting approval from multiple overseers in different hierarchies is hard. Often different stakeholders have different objectives and incentives.

Consensus doesn’t mean everyone agrees on the problem, the remedy, the approach, or who’s taking action. Consensus in a bureaucracy means people aren’t going to resist the change.

Social and Bureaucratic interactions

Change in a bureaucracy can apply to processes and people, but a more amorphous concept is changing the culture of a team or organization. What is meant by “culture” usually refers to norms – the expectations of behavior that individuals hold to in the absence of policies or rules. That definition of culture is generic; what is meant within a bureaucratic context requires new labels for specific expectations.

To evaluate expectations, we start by introducing categories of interactions. Interactions among members of an organization are either a social interaction or a bureaucratic interaction.

As examples of each of these,

- *Social interaction example:* “Did you see the game on TV last night? Our team did fantastic, right? I wanted to get tickets for the game, but they were sold out.”
- *Bureaucratic interaction example:* “You’ll need to get approval from Sue before presenting your idea to the board for their review. Then talk with Russ and get his thoughts about how to proceed.”

Both social and bureaucratic interactions are vital to cohesion in an organization. Engaging exclusively in either will decrease cohesion.

Bureaucratic interaction can be broken into two subcategories: **visible bureaucracy** (processes are written down and can be discovered by stakeholders) and **invisible bureaucracy** (processes are known to some stakeholders and are conveyed verbally to some of the other stakeholders).

Invisible bureaucracy is akin to related topics outside the professional environment: invisible domestic work³ and invisible relationship work.⁴ The work associated with emotional cohesion, logistics, planning, scheduling, and communicating is hard to quantify so it does not get counted.

The relevance of this jargon is to break down the components of an organization’s “culture” experienced by participants. When someone in the organization advocates for changing the culture, which expectations are they specifically referring to? Invisible bureaucracy is the hardest to alter because it is undocumented and not counted.

Processes default to invisible bureaucracy because creating and maintaining documentation requires work. Making the documentation discoverable requires work. To make invisible bureaucracy visible, document the work and enable other people to find the documentation.

4.8 Measuring Bureaucratic Maturity

Bureaucratic maturity of bureaucrats in an organization can be broken into three stages of behavior: complaining (acknowledges an issue but doesn’t seek to resolve), seeing opportunity (“what if we...”), and finally enacting *nudges* (ways to alter behaviors) or altering incentives.

The first and most widespread behavior is to see a problem and then complain about the situation. This indicates an awareness of the environment but no creativity regarding what to do about the problems.

The second, less common behavior, is to see a problem and recognize the situation as an opportunity. This requires creativity and reframing.

The third behavior is to see a problem and then alter the situation toward a vision. The vision could be in the form of a long-term (temporally distant) outcome, or the vision could be of immediate multi-party cooperation. Changes could be through either direct action or by influencing others.

An individual bureaucrat can show one or more of these behaviors. That is, being capable of the third behavior still allows the person to complain about other topics.

There is not a specific amount of experience within the organization needed to arrive at any of these three paradigms. A holistic understanding of the system helps.

³Cleaning your living space, raising children, caring for pets; see [25].

⁴Consistent need to delegate, being curious without reciprocation.

Chapter 5

Working with other Bureaucrats

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The previous chapter focused on you. When working with a team in an organization you are not the main character. This chapter provides advice for navigating an organization comprised of bureaucrats who are not like you.

You were hired to do a job. Your job relies on skills you've accumulated through education and experience. Now you're a member of the team. You'll need to interact with other bureaucrats for various reasons: delegating tasks, asking for help, offering help, seeking input, and offering input. While that generic observation sounds reasonable, in practice you encounter significant friction in getting things done. If everyone participating in a process thinks they are doing the right thing, then why are there suboptimal outcomes? Potential reasons include

- Each participant in the process may have a limited view of other parts of the process. Each person talks only to adjacent participants.
- Each participant typically has a limited scope of responsibility. They don't need to know everything, which can lead to incorrect decision-making. Specialization can simultaneously improve efficiency and cause harm by narrowing scope.
- Each participant typically has a limited scope of authority. Even if the person knows more than their role, they lack control over other aspects of the process.
- Participants typically have insufficient time, resources, and expertise to enact improvements. There may be a theoretical "best outcome" but practical resource constraints result in suboptimal outcomes.
- Participants in the process may have a common goal but use different methods for addressing the challenges. This results in friction even though the destination is agreed upon.

Those are all potential constraints; they don't exclude being effective or improving the process. For example, you can learn what someone else's priorities are and why those are priorities. Then you can take action that accounts for other perspectives.

Solo work may be more emotionally rewarding due to fewer external constraints, but the cost is that task complexity and scope are limited to the skills of the individual.

When you can't do everything yourself, you rely on your team and members of the broader organization. You can choose to treat this loss of independence within the organization ([deindividuation](#)) as either sublimation (and feel suffocated) or an extension of your capacity and abilities (and feel empowered).

Working with others allows you to occasionally achieve complex results beyond your skills or your bandwidth despite collaborators not being under your control. How? Through persuasion. The challenge of collaboration is to multiply productivity rather than merely sum the output of a set of individuals.

Inside an organization, cooperation and coordination are not held together by internal contracts or even [service-level agreements](#). What keeps the organization together is the force of will of participants. You engage other bureaucrats because you see merit in doing so, and the same perspective applies to every other person in the organization.

Time, Attention, and Alertness

Bureaucratic organizations are comprised of humans. Your intent to be an effective bureaucrat must account for this aspect. When you engage fellow bureaucrats as part of a process, you are investing your [attention-time](#) in the relationship. Relationships take time, which is time not spent on other opportunities. In addition to your time (and theirs), the other two factors are your attention and alertness. To illustrate the relevance of those aspects, consider the following. I can talk to you for 15 minutes, but if your attention is directed toward your phone or computer then you're not fully engaged with me. If you are paying attention during the time we have together but haven't slept for 36 hours, your alertness may not be 100%.

When interacting with fellow bureaucrats, are you giving them your attention? Are you alert to their input? While engaging, determine if they are not attentive or alert. You can be curious and ask if deferring the interaction would allow them to give more of their attention. If you're not feeling alert, let the people you're interacting with know. Being tired, hungry, or distracted is part of being human. Accounting for imperfect attention and alertness improves your process empathy.

5.1 Motives of Bureaucrats

Learning the diverse motives of bureaucrats you depend upon is instructive for finding causes of delay or opposition. If you expect everyone to have the same motives as you, then you will be surprised by the friction created by diverse motives.

Motivations of participants are rarely, "How can I make the organization more successful?" or even, "How can I sell or produce more product?" Usually, motivation is based on personal fulfillment in various manifestations. Learning the motives of each bureaucrat - what they value in terms of a [utility function](#) and how they perceive risk - enables you to gather data that is personally relevant to the argument you're making and frame your narrative more effectively.

Bureaucrats on the same team with similar skill sets have similar external incentives. However, their intrinsic motives may be different and result in distinct behaviors. Within an organization, bureaucrats differ due to their intrinsic motivations, extrinsic incentives, and each person's risk tolerance. These three factors combine into emergent phenomena, leading teams and organizations to act in ways no individual member would. The dissonance of how (personified) organizations behave confounds observers outside the bureaucracy. If you were to talk to each member, you could find a reason for that person's behavior. Bureaucrats do not act randomly.

Each bureaucrat has a motive, even the bureaucrats who do nothing. Bureaucratic nihilism (showing up for your job but choosing to not provide value) is an option, but it is not without cost. In an organization where you are a paid bureaucrat, you are either actively working to improve the organization or your existence

is parasitic to the organization. There is no “idle” status for paid employees in an organization with limited resources.

Employees may choose to stop contributing value if they perceive that a lack of action will not harm their options. There is a perceived disconnect between their actions and the consequences for the organization. This is not pure [nihilism](#), as the person still benefits from showing up (usually a paycheck).

Rationalizing money as the cause for action is just one of many potential sources. There are a variety of motivations and incentives for bureaucrats: stability (aka job security, the comfort of a routine), money (current pay or future earnings), travel, problem-solving, social status, exerting power or control, the credibility of being associated with the organization (if the organization has a positive reputation), logistical convenience (“the office is near where I live”), and service to people the organization serves.

As an example incentive for a bureaucrat, I want to avoid being too efficient such that I eliminate the need for my job, while not so inefficient that the organization fails and I lose my job. Increasing the efficiency of bureaucracy is desirable for the organization and the outcomes, but can be harmful to the bureaucrat’s career.

>> [Goldilocks principle](#)

The consequence of diverse motives is that expecting bureaucratic organizations to be logical, fair, consistent, and efficient is unreasonable even when every participant wants those features. Each bureaucrat thinks, “I am logical, fair, consistent, and efficient.” Therefore each bureaucrat expects other bureaucrats to meet those same (unrealistic) standards. The next step in thinking is to personify the team or organization and expect the group to meet those standards.

Even if each bureaucrat were logical, fair, consistent, and efficient (they are not, and neither are you), each person has a different motivation. At the same time, each person wants to accomplish something using their skills. Compounding the confusion, each bureaucrat has to coordinate using communication that has latency, limited bandwidth, and isn’t precise.

When viewed from the outside, bureaucracy can appear illogical, unfair, inconsistent, and inefficient. From inside the bureaucracy, each bureaucrat is driven by different motives and uses distinct ways to tackle challenges. Working against bureaucratic entropy (an ongoing investment) yields improvements even though perfection may be inaccessible.

The above discussion might leave you with the impression that individual bureaucrats are distinct. While that’s true, with a sufficient number of different people there are recurring themes that are detectable. The next section identifies common tropes you might encounter.

5.2 Bureaucratic Tropes

Any sufficiently large organization will have a diverse group of bureaucrats. From that diversity certain tropes emerge [32]. The value of recognizing these recurring patterns is to leverage their strengths so that you and that person can be more effective.

- **Trope: Excited intern or new employee.**

What you can do: Their enthusiasm can be channeled to take on challenges other bureaucrats are scared of taking on for political reasons. Their naïveté should be remedied by pairing them with a mentor who can explain the organization’s history and specific challenges.

- **Trope: Retired in place.**

What you can do: Recognizing this attitude allows you to temper your expectations about their productivity.

- *Trope: Font of institutional memory.* Likes to explain how the current situation relates to his experience ten years ago.
What you can do: You can benefit from talking to this person about historical processes and what has been tried before.
- *Trope: “Let them eat cake” managers* who are removed from challenges and deny the problem is a problem.
What you can do: It is worth figuring out whether these managers don’t care, or if they are busy fighting battles you are not exposed to.
- *Trope: “Don’t rock the boat”* people who tried changing the system, didn’t succeed, and are emotionally beaten down such that they no longer try.
What you can do: These people are often creative and can be consulted before you tackle a challenge they have experience with.
- *Trope: The Patriot* is willing to sacrifice for the organization.
What you can do: Educate them that there are alternative ways to be effective in a bureaucracy.
- *Trope: Mismatched* – this person’s skills and interests don’t match their role, so they are despondent and frustrated.
What you can do: You can provide value to this person by networking with them and finding better opportunities.
- *Trope: Friendly grouch* is friendly and helpful but unhappy in their job due to bureaucracy and other hurdles.
What you can do: Provide a copy of this book to increase their effectiveness and improve their spirits. They will be grateful to you, and the organization will benefit.
- *Trope: Detail-oriented* – you ask them what time it is and they’ll tell you how to build a clock.
What you can do: You can serve as their ambassador to other members of the team or organization.

The above personality tropes apply to individuals. If your team works on multiple projects, you may identify project tropes:

- *Trope: We’ve always done it this way.*
Assessment: The team is scared of change. The change may be known (and undesirable) or unknown. Change disrupts incumbent power.
What you can do: You can brainstorm with the team ways to improve incrementally.
- *Trope: Individual solutions to systemic challenges.*
Assessment: Demonstrating small wins helps build credibility.
What you can do: Plan to ramp up complexity (towards the systemic challenges) and [spend the earned reputation](#).

See page 111.

Team tropes can emerge from either the top-down directives made by supervisors or by the collective (in)actions of team members.

Tropes as labeled patterns of behavior can decrease surprise when you first encounter them and can help you develop constructive responses.

The last set of tropes is on the topic of bureaucratic problems.

How to Solve Problems

Not every bureaucrat responds to challenges the same way. Understanding the diversity of potential reactions (or inaction) before you encounter them decreases the surprise.

- Solve the problem. This is the engineering approach.
- Solve a simpler problem. This is the Physics approach.
- Solve a more abstract problem. This is the Mathematical approach.
- Solve a different problem.
- Recognize and ignore the problem.
- What problem?
- Assign someone else the problem.
- Redefine the problem so that it is already solved. “That’s not a problem; that’s how it’s supposed to work.”
- Point to the problem as a justification for more resources.
- Apply for resources (staff, training, money) to solve the problem.
- Give a talk about the problem.
- Write a paper about the problem.
- Teach a course on the problem.
- Talk to your therapist about the problem.
- Your manager declares the problem solved and gets a bonus.
- Reframe the problem as an opportunity.
- Study the problem in the context of the broader system.
- Study the problem from other people’s perspectives.
- Explore the impact of the problem on the broader system.
- Develop a set of activities for role-playing parts of the problem.
- Solve part of the problem. Then another part.
- Research whether anyone else worked on the problem.
- Find other instances of the problem that were already solved.
- Find similar problems and identify the differences.
- Contract out the solution and select a bid.
- Explain why the problem does not need to be solved.
- Explain why the problem is beneficial.

- Form a team and set a mission statement addressing the problem.
- Slow-roll the problem until you don't need to worry about the problem.

Did you recognize any of those responses from your past experiences? Were any unexpected? Process Empathy expands beyond what you think should happen to the realm of possible responses by your fellow bureaucrats.

>> Reflect and Discuss

5.3 Not My Job: Task Scope

If you ask someone for help on a task that benefits your team, that person might respond that the task is “not my job” and explain that time spent on tasks like what you’re asking for gets in the way of their progress. The emotionally engaging work is not that task.

This recurring pattern is sufficiently common that at least one domain has jargon for the concept. ‘Scut’ is slang in the medical field for the non-clinical yet essential tasks that do not require a doctor’s degree or expertise. Another label used for non-expert tasks is administrivia (short for administrative tasks).

A mindset related to the “not my job” view is the following. “Once I realized someone else has the same problem, I stopped worrying about it.” The separation of scope can be reasonable (no point in duplicating effort) but may cause harm (when there’s no coordination). The “not my job” refusal is about the task being outside the scope of a role.

The potential reasons for this reluctance to help include

- Working on the task will not get them promoted.
- Their understanding of the scope of their job and their expertise does not include the task.
- The person doesn’t know how to do the task and they don’t want to learn.

In any case, engaging with the individual refusing to help isn’t usually productive. If you perceive that progress is crucial and is blocked by this person you can escalate the request up the chain of command to get a determination about whether the collaboration should happen. A person who holds the “not my job” may need clarification of what the scope of their role is.

>> Actionable Advice

Asking for help and giving (or refusing to give) help is dependent on your reputation. The next section discusses how you can manage your reputation in a bureaucratic context.

5.4 Building, Managing, and Spending Reputation

Within a bureaucratic organization the interaction of bureaucrats is based on both *quid pro quo* and coercion (e.g., sanctions). Good news: you have some input on your reputation, and that influences how other people engage with you.

This section is about actions you can take to create a reputation. Even if you don’t intentionally build a reputation, you still get one because you interact with other people. Also in this section: how to spend political capital – both yours and that of your team.

Relevance of Reputation in a Bureaucracy

As a bureaucrat, you may want to be all things to all people. Since that is not feasible, you have to limit your scope and therefore disappoint some people. This same dynamic of a limited scope applies to the team you are on, and again to the organization the team is part of. The purpose of a bureaucratic team or bureaucratic organization is to manage a [shared resource](#) for a community. The community members will invariably be disappointed because access to the shared resource is limited.

The good news is that you can influence how others perceive your limitations. Their perception of your value is shaped by your investment in relationships and by your creative negotiations with other bureaucrats.

Definition of Reputation

Your [reputation](#) as a bureaucrat is what other people expect from you. Reputation is perception. What does that person think of you? Your team? Your organization? Reputation is set whenever and wherever you are observed, or artifacts are associated with you. What you wear matters to how you are perceived. When you show up alters your reputation. How your written communication is read alters perceptions. People are informed by your body posture in meetings.

Reputation, Brand, Image

There are multiple phrases that all refer to the same concept of being perceived and generating associated expectations. Individuals create (or get) a reputation; organizations have brands. A team of bureaucrats can have a reputation.

Your Reputation matters

Your reputation within the organization dramatically alters your effectiveness. People will let you do things (or prevent you from doing things) based on their expectations of you.

Your reputation alters your influence. Whether other people turn to you for input depends on what they expect from you. How others perceive you impacts what you can accomplish and when people seek your help or input.

You can Manage your Reputation

Managing reputation means acknowledging that your interaction with others is partially performative. This may feel disappointing if you want to be judged solely on your productivity or knowledge.

Your success is limited if you focus exclusively on doing the work, and your success is limited if you focus exclusively on performative aspects. Neglecting to manage your reputation means you lose input to the stories others tell about you. Active management of your reputation requires engaging with people and generating evidence.

Your reputation is dynamically changing based on your activities and communication. Your communication matters, and the stories other people tell about you matter.

Techniques for Building Reputational Capital

Ideally, your reputation would be based on your technical skills, your ability to collaborate with other people, the strength of your network, and your creativity. None of those matters if the person you're engaging with doesn't know those things. You build your reputation by doing things that are useful contributions, are

visible to other people, and are associated with you (or your team or organization). This positive association is what you are creating.

Because the definition of reputation is about expectations other people have about you, what you choose to work on matters. How you work on your tasks (creativity, enthusiasm, dedication), the artifacts produced, and your ability to communicate all shape your reputation.

When building your reputation, you can work on multiple small wins or take larger risks on bigger bets. The bigger bets provide faster leverage of reputational capital as you have shown your worthiness and skill.

The same concepts apply to teams of bureaucrats and bureaucratic organizations. Just as people compete for resources, teams compete for budget, staffing, and glory. How the team's budget and staffing are spent informs reputation.

A specific technique for building a good reputation is [giving others credit](#). This may seem counter-intuitive if you are focused on assignment of credit. What matters is that other people observe you (whether directly or indirectly) giving credit.

>> Actionable Advice

Similarly, another technique for building good reputation is offering to [take blame](#). Again, this can seem counter-intuitive since being blamed doesn't sound good. The value is in proclaiming your willingness to be blamed such that other people observe your offer.

>> Actionable Advice

Using Good News (or Early News) to Increase Influence

Rather than tell good news directly to a top-level decision-maker, first inform the person who influences the decision-maker. You can tell the influencer the information does not need to be credited to yourself.

>> Actionable Advice

The benefits of this approach include

- Improves the influencer's reputation with the decision-maker.
- The influencer can contextualize the information for the decision-maker.
- The influencer can leverage the information in ways you would not have.
- Your reputation with the influencer is enhanced.
- You reaffirm the influencer's role and status.
- Influencers can be easier to access than decision-makers.

How to Spend Reputation

Based on your reputation (what the other person expects of you), what trust does that person have in you? You can then use that trust to do things that might not otherwise be feasible. You can spend your reputation to bend rules.

Reputation is not the only thing you can spend as a bureaucrat. Other examples include your time (up to your entire career), your ability to be a member of the team or organization, your self-respect, and your ability to be promoted or receive bonuses. At the level of the team and the organization, additional aspects to spend are budget and staff. Each of these (reputation, time, membership, budget, staffing) are potential investments.

To build or improve reputation you have to spend something. When considering what to spend account for your personal boundaries. Things you might not want to spend include your integrity and your health (physical, mental, emotional). Similar boundaries apply at the team and organization levels – trust in the team, the well-being of team members.

Whenever you engage within your team, you are either actively spending or building your reputation within the team. Whenever you are engaging with people from outside your team, you are either actively spending or building your team's reputation. Spending reputation means taking risks that involve other people.

Whether for your reputation or that of your team or organization, be careful to get a return on the investment. Examples of spending reputation and not adding value:

- Ask for a favor and provide no value.
- Explore options that other people don't see as worthwhile and then, after investing, find there's no benefit.
- Produce nothing of value to the organization or other people.
- Talk with people outside your team and misrepresent the efforts of your team.
- Speak honestly about the faults of your team to people outside your team.

Reputation management shouldn't be an exclusive motive since your autonomy can become limited by accounting for how other people perceive you. How much reputation matters varies from person to person, but having awareness of the concept and potential consequence of your effectiveness is helpful. The next section is another variation on thinking about how other people think.

5.5 Intellectual Empathy

As a bureaucrat, you will work with people who are smarter on a specific topic than you are. That superior knowledge might come from experience or formal education.

The person with superior knowledge may be able to convey their knowledge to you, or they may struggle to. That struggle could be due to an inability to break down complex insights, or they don't recognize the mismatch between what they know and what you understand. This same scenario can be reversed – you might be more knowledgeable on a given topic than some other bureaucrat you work with. In either situation, both parties have responsibilities for [intellectual empathy](#). The more knowledgeable person needs to understand what they can build on when talking with the less knowledgeable person, and the less knowledgeable person has to be clear about what makes sense and what does not.

You can start conversations with people who are new to you by asking about their professional background – their education, past work experience, and other aspects that would allow you to build on their existing knowledge. This allows you to tailor the conversation to the gap of knowledge that exists when discussing a challenge.

>> Actionable Advice

During a conversation you can monitor body language for reactions like a squint, a head tilt, an eyebrow raise or an eyebrow furrowed. Those are common reactions when information doesn't conform to what the listener expected.

>> Actionable Advice

You can ask about the other person's knowledge of the topic. The phrasing "Do you know about (name of topic)?" is less effective than "What do you know about (name of topic)?" Respondents might claim experience or knowledge of a topic, but probing for the difference between "I've heard those words before" versus "I was part of a team that implemented (topic)" versus "I came up with the original idea for (topic)" is helpful.

>> Actionable Advice

Sometimes the person with less knowledge on a topic feels uncomfortable with indicating their confusion, or sometimes the person doesn't realize they are missing the main point. The more knowledgeable person can check in with the listener to confirm. "What did you get from what I just talked about?" is a better

confirmation than “You understood what I meant, right?” The person with less knowledge can proactively check their knowledge by providing a read-back: “Here’s what I understood you to mean:...” These check-ins, regardless of who initiates, should be relatively frequent when exploring complex topics.

Admitting ignorance can be intimidating and may feel like you risk losing the other person’s respect. A gentler way of saying “I’m lost” is “I was following up until the point where you described...” Intellectual empathy is the responsibility of both parties in a conversation.

5.6 Leveraging Expertise

The definition of [bureaucracy](#) is the management of shared resources on behalf of a community. In addition to tangible shared resources like land, water, and air, an intangible resource accessed by a community is expertise. Bureaucrats are responsible for finding people with expertise, vetting claims of expertise, and deploying expertise for the benefit of a community.

Experts who accumulate knowledge and experience look for ways to apply their expertise. Finding the relevant decision-makers and providing context for decisions can feel satisfying when positive outcomes benefit a community.

The following two sections address both viewpoints: that of a bureaucrat seeking expert help, and that of an expert providing input. Bridging the cultural divide and knowledge gap in both directions is necessary for the success of an organization.

Non-experts seeking Experts

Before you seek the help of an expert, your first instinct may be to try and proceed on your own. *How hard could this be? Looks straightforward enough...* That do-it-myself approach is a plateau you can remain on for an entire career. Or perhaps you encounter difficulties and realize your limitations. You may seek help from a local peer. Seeking help from those around you is a second plateau that may suffice for the issue you’re responding to. When local knowledge is inadequate you need an expert.

Finding an expert can be difficult to distinguish from talking with non-experts who know something you don’t. If you decide a challenge requires skills you don’t have, anyone with those skills has more expertise than you. Expertise is relative.

Finding Experts

One reason you as a bureaucrat seek an expert is you don’t have expertise yourself. (If your motivation is merely to seek an external scapegoat that can be blamed, then getting any expert that appears convincing will suffice.)

A technique for finding a relevantly qualified expert is to triangulate. Seek guidance from your existing social network. Multiple referrals from independent parties are a positive indicator. That is not the same as vetting the person’s claimed expertise.

>> Actionable Advice

Once you’ve identified a potential expert, you’ll need to evaluate their expertise and the ability to collaborate. This is inherently difficult since you lack the expertise you are seeking.

Do people defer to the candidate because of the candidate’s title, the candidate’s position in the hierarchy, the candidate’s experience, or the candidate’s knowledge of technical details? Those can each qualify someone as an expert, but the title and position are least connected with expertise. Even experience can be misleading: ten years of doing a job can sometimes mean just doing the same first-year activities for ten years. Evaluating an expert’s depth of insight is often relegated to peers in the same field.

When signaled solely by credentials, expertise is independent of experience. Another risk is that the expert may lack the ability to communicate their knowledge with people outside their domain.

Within an area of expertise there may be sub-disciplines that you are not familiar with. Don't be embarrassed to ask the expert you find what subfield they have experience in, and their evaluation of how well that aligns with the effort you're recruiting them for.

Communicating with Experts

A common barrier to successful collaboration is the use of jargon by experts. Jargon can serve two purposes: to signal group membership (which is harmful to people outside the group), and to be more precise about a concept (a desirable trait). A pseudo-expert may use jargon relevant to a topic but not be able to explain the concept to you. That can be indistinguishable from someone who does know but explains poorly.

If you're tackling a complex challenge, you may need experts from different disciplines. This introduces added challenges of cross-discipline communication.

As a way of distinguishing people who know more than you do, consider the following levels of expertise.

1. A self-designated expert is unfamiliar with domain-specific jargon.
2. A pseudo-expert can use jargon in discussion but cannot expand the definition or provide analogs.
3. A pseudo-expert has memorized definitions and can use analogies but doesn't grasp underlying relations and principles. Boundaries of what to apply where are uncertain.
4. An expert can map the situation-of-interest to underlying relations and principles, then use that mapping to remedy the issue (or explain why a fix is infeasible). The result works and the solution wasn't obvious to non-experts.

For bureaucrats seeking to leverage experts, there is the confusing use of caveats. People who don't have a depth of knowledge are more likely to be overconfident, while people who do have expertise are cautious about including caveats and limitations.¹

For Experts Looking to Help Non-expert Decision-makers

Providing help to decision-makers can be an emotionally rewarding application of your skills. The interaction with bureaucrats can also feel devastating when you aren't listened to, you aren't understood, or your input is perverted in ways you didn't want. Identify strengths your audience has and build on those.

You, the expert, may not win any debates based on the number of years of experience. Some audiences may have many years in the field. However, expertise (rather than experience) is what they can benefit from.

To establish boundaries on advice-giving, identify areas in which you have specialized knowledge and which areas the non-expert audience has insights that you do not. Respect and account for the expertise of the audience (especially when they work in a different field). Acknowledge your limits and account for their limits.

Instead of relying on providing expertise as a single-dimensional relation, find ways to relate personally to audience members. The purpose of creating and maintaining a personal relationship is necessary because they will need to trust you.

When you have multiple people seeking to learn from your expertise you don't have to teach the group all at once. You can provide one-on-one teaching in which the audience may feel less worried about asking dumb questions. Once you've taught more than one person, they can help each other translate the insights.

¹See Wikipedia entry on the [Dunning-Kruger effect](#).

Being the sole subject matter expert in an organization can feel isolating. You are constantly educating others, but the stakeholders are not expected to become your peers. Typically stakeholders want to know just enough to make a decision.

When there are no other experts locally available who you can ask questions of, turning to membership in professional organizations is an option.

Lastly, there is a risk that your expertise is crucial to the decision-maker. That dependence can result in you thinking that you are important, but it also means the decision-maker will be less successful if you are unavailable. You should invest in cultivating your replacement.

>> Actionable Advice

5.7 Does Anyone Want to Volunteer?

Bureaucracy relies on coordination to facilitate the management of shared resources. In the course of coordination, new tasks arise that have no one person responsible. The word volunteer has two meanings in this setting: contributing without seeking financial gain, and choosing to contribute of your own free will. The focus here is on the second meaning.

When the facilitator of a meeting asks the group, “Does anyone want to volunteer for this task?” the question is often met with silence. No one wants extra work that does not help them, even if there is benefit to the team or organization. The lack of response is an instance of the [tragedy of the commons](#), but in an anticipatory sense. Instead of asking this poorly-framed question, the facilitator can get higher engagement with the following tactics:

1. Ask each person in the meeting whether they are attending to passively observe or to participate.
2. Ask each person willing to participate how much time they can invest. Responses could be zero hours, one hour (non-recurring), one hour per month, or something else.
3. Ask each person what their goals in the interaction are. It is usually generic (“I want the group to succeed.”) but it can be narrow, in which case that gives you something to focus on.
4. Ask each person what they are good at and what skills they have. Are they good with personal interaction? Writing? Computers? Coordinating? Logistics? Fundraising? Making phone calls?
5. From the inventory of tasks, are there any that fit both the skills and time? Can the task be scoped to fit the time? If there are multiple candidate tasks for a volunteer, let them pick the task. (If no existing task aligns with their skills, do not create work to be assigned.)
6. If other people are working on the same task, put the volunteer in contact with the other people.
7. Give the volunteer a deadline for the task. Your deadline should not be arbitrary – it should be based on the task dependencies.
8. Confirm that the volunteer is willing to commit the time to complete the tasks by the deadline.
9. Schedule a check-in with the volunteer before the task deadline to review progress.
10. To create accountability among multiple volunteers, hold a group review to explain how each participant’s work contributes to the goals and how work done by one person enables the next task done by someone else. (Enumerate the dependency graph; include deadlines.)

As the facilitator looking to designate tasks to participants, the above tactics align the work with the skills of contributors.

As a contributor, your obligations to the team are knowing how much time you have to contribute and being clear about the relative priorities of tasks. Explaining that the new task is lower priority than all your other obligations is a valid response. Your responsibility is to negotiate with the person looking to assign new work and the people who depend on the results of your current tasks.

Chapter 6

Communication within a Bureaucracy

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This chapter includes a mix of theory (the why) and practical tips (the how). If the theory feels irrelevant you can skip to the tips. If the tips seem obvious they can be skipped without consequence. The theory and practical application re-inforce each other. The theory and advice were both unknown to me when I started my career, so they are included here to save you the burden of learning through experience.

6.1 Communication is Critical for Bureaucracy

[Decentralized bureaucracy](#) relies on distributed knowledge and distributed decision-making. Distributed decision-making relies on effective communication. Bureaucrats communicate by writing and speaking; both methods convey incomplete information and are imprecise. The inability to communicate comprehensively and precisely means iteration is helpful when establishing a shared mental model of the situation and plan.

The dependence on iterative interactions means relationships matter for communication. [Metcalfe's law](#) says the value of an organization is proportional to the square of the number of people interacting in the organization. A team of 5 people is not just the aggregated skills of five individuals – there's the synergy arising from ten bilateral relationships. Broadening your network of collaborators increases your potential effectiveness and, symmetrically, the reach of your fellow bureaucrats.

>> Folk Wisdom

Suppose that you don't invest in relationships with your fellow bureaucrats. Then you'll be less likely to know what is happening in your organization, and you won't understand why certain decisions were made. Your confusion might lead you to focus on your interests since that is what you have some control over and insight into. Being selfish doesn't leverage the potential synergy of collaboration, but at least you look busy.

The analysis above applies to each person in the bureaucratic organization. The consequence is that the organization's goals are not achieved when bureaucrats act independently. There is a way out of this: broadcast your intent to other people, be transparent with decisions, and share the results of your activities. That decreases the confusion other people may have about your actions and can improve everyone's effectiveness. You can make yourself and the organization more effective even when your investment in communication is not reciprocated.

Information within a bureaucracy shapes the relationships among bureaucrats. You have a choice: you can decide to not share information, you can be transparent, or you can be vulnerable. Not sharing information can harm or protect relationships. Being transparent conveys "here's what is happening." Being vulnerable expands transparency to explain "here's why that's happening or what might happen." Each of those options

informs how your coworkers, peers, management, and team members interpret their perception of your intent. Your communication shapes your [reputation](#).

[See page 111.](#)

Another way communication alters bureaucratic organizations is when actions informed by locally available information produce [suboptimal results for participants](#), as illustrated by the [Prisoner's dilemma](#).

[See page 121.](#)

Prisoner's Dilemma
<p>(The Prisoner's dilemma describes the following scenario. Two people suspected of a crime are held by police. The suspects are not allowed to communicate with each other. The suspects can either both remain silent (and be jailed for 1 year), one testifies against the other (in which case the silent person goes to jail for 3 years), or both testify and each goes to jail for 2 years.</p> <p>Each suspect would select the testimony (resulting in betrayal) to minimize their imprisonment even though there's a better option of remaining silent since each suspect cannot predict the behavior of the other person.</p>

As with suspects in the Prisoner's Dilemma scenario, bureaucrats rarely have access to the holistic view of their organization. Bureaucrats have a narrow view of their team and interfaces to adjacent teams. The concept of "locally available information" applies to communication among bureaucrats that facilitates delegation of work, allocation of resources, relationship creation/maintenance, and carrying out processes.

If having a holistic view yields better results, why not just do that instead of relying on local information? Each bureaucrat benefits from gathering information that shapes their actions, but communication has a cost: time spent building and verifying consensus delays action. You get fewer things done when you spend time talking with people. That trade-off of not being able to do everything well is called an [opportunity cost](#).

The explanations above show that communication is critical for bureaucracy and essential for being an effective bureaucrat. Communication occurs between two or more people, but before getting to that you need to improve your [inner monologue](#).

6.2 Communication Reflects and Shapes Your Thinking

Before you talk to another person, you have an internal dialog about how to interpret events and what you think will happen in the future. Your inner monologue shapes your expectations and your actions. When you talk with fellow bureaucrats, you're sharing some of your thoughts and allowing their thoughts to shape your contemplation.

As a bureaucrat, you might have a few complaints you've thought about regarding your team or organization. Complaining about bureaucracy is a common way for bureaucrats to bond. Complaints occasionally lead to insights, but that's typically not the goal.

By changing how you think about the challenges you face, you can alter your perception and your reputation. As an example of this change, can you turn complaints into impact statements? The following examples show how to spin a negative experience. Providing a solution isn't required in this exercise.

[>> Actionable Advice](#)

Negative observation: "Logging into my computer takes a long time."

Positive statement with explanation of impact: "If I were able to log into my computer more quickly, then I could do more tasks."

Negative observation: “I need support from a team that doesn’t offer a way to track the status of my request.”
Positive statement with explanation of impact: “If the service team I need support from offered a way to track requests, then I would be able to know the status of my request.”

Negative observation: “When I submit a support request to the team, I don’t have visibility on the status of the request.”

Positive statement with explanation of impact: “If the service team I need support from offered visibility into their tracking of tasks, then I could proceed with other tasks knowing my request wasn’t lost.”

Sharing negativity is a way of commiserating, but it doesn’t indicate to other people that you’re adding value. When you notice a complaint, can you frame it as describing why the issue matters?

Another framing that harms your thinking and how you communicate is the use of generalizations. Personifying other teams and organizations is a simpler-to-understand and simpler-to-describe model, though the simplification is often incorrect.

Here’s a progression that shows how to transform generalizations into action:

>> Actionable Advice

1. This organization does not like blueberry pie.
2. No one in this organization likes blueberry pie.
3. I don’t know of anyone in the organization who likes blueberry pie.
4. I like blueberry pie. How would I find someone else in the organization who wants blueberry pie?

The first statement personifies the organization. Organizations cannot like or dislike tangible items, so that statement is meaningless. The second statement is slightly more precise (each person can have likes and dislikes) though still a generalization and therefore likely inaccurate. Did you confirm with every member of the organization that they do not like blueberry pie? The source of the generalization might be your lack of relationships with every member of the organization. That leads to the fourth statement which is correct, precise, and curious.

Now that you’ve reflected on how your internal dialog alters your perceptions and actions, the next section describes how communication goes wrong.

6.3 Failure to Communicate

Communication among bureaucrats, policymakers, and subjects is critical because [decentralized bureaucracy](#) relies on distributed knowledge and distributed decision-making. When less effective communication occurs, individual bureaucrats are less able to rely on the knowledge of other experts, and they have to make decisions with less consensus.

This section on failure outlines how ineffective communication happens. Identifying generic sources of difficulty is intended to help you distinguish what is common in bureaucratic organizations versus what is specific to the people you collaborate with.

Sometimes failure to communicate is caused by too much ineffective communication. You can get overwhelmed when there is a lot of communication happening (whether from too many sources or too much content). Feeling saturated with meetings, emails, phone calls, and other coordination may stem from ineffective communication. Communication that is incorrect, imprecise, redundant, and insufficient can be improved. Improvement in communication effectiveness is more than just a time saver – poor communication yields poor negotiation. When negotiations are not going well, the interaction defaults to an emotional struggle of willpower.

Why written communication does not happen

Written communication is important in bureaucratic interactions because an objective record is created. Besides the author and reader referencing the content, other people can review who said what when. This accountability can be a benefit or risk depending on what you’re doing. Writing takes skill and time, so the investment is rare compared to talking on the phone, over video calls, or in-person.

If you can identify specific causes of why communication isn’t happening, then you can intervene and address the concerns other bureaucrats may have. The following list is a set of common reasons that you can remedy by developing a workaround or by discussing the issue explicitly.

- There are too many reports, emails, and messages to read, process, and respond to. As a result, bureaucrats feel emotionally and cognitively overwhelmed.
- The bureaucrat receiving information may read slowly. A slower processing rate has ripple effects for coworkers and subjects.
- The bureaucrat-as-author may type slowly, or their handwriting is poor. Applying your Process Empathy, imagine how the person may feel and how they might cope.
- Potential participants fear imperfect communication. What if the email is incomplete, inaccurate, or ambiguous? Their perception is that imperfect communication is a risk to reputation. How can you help address these fears? Are the fears based on specific reference experiences?
- The bureaucrat views written communication as “official” or “plan of record” and feels uncomfortable brainstorming or creating contingency plans.
- The bureaucrat wants to avoid accountability for their statements. How will you practice Process Empathy in your interactions?
- The bureaucrat may not be confident in their writing ability – spelling, grammar, sentence composition, and structuring content. (These skills can be improved through intentional investment using self-study or directed coursework.)

Once you can identify why written communication is not happening, you can work with the other people involved to develop creative solutions.

Another source of challenge for written communication is the latency of asynchronous interactions. By labeling distinct types of delay, you are better equipped to respond when the issue arises.

Slowing Communication

In an ideal scenario there would be no delay associated with communication – you would get the information you need when you need it. In practice, there are various causes for why your progress is blocked when you depend on other people.

Tactics that delay communication within a bureaucratic organization include stonewalling, slow-rolling, bikeshedding, and red herrings. By learning these concepts you will be better able to identify and then respond to instances of their use.

Stonewalling is when the recipient of a request or question doesn't reply. There may be [legitimate reasons for the lack of response](#). The person may be busy and didn't see your message, or they did see your message but didn't have a chance to reply yet because a response to you is lower priority than other tasks they have. You cannot differentiate those reasonable causes from when the recipient doesn't want to enable you to proceed. They may disagree with your objective and see silence as [less confrontational](#) than explicit rejection.

[See page 133.](#)

One way of circumventing stonewalling is to ask if the respondent is opposed to your idea. Then a lack of response indicates no opposition. This tactic works best when you are confident the recipient will read or hear the message.

[>> Actionable Advice](#)

An unintentional source of stonewalling is when you ask on the wrong channel. Sending an email may result in what appears to be stonewalling if the person relies on chat messages or the phone. The solution for this is feasible, but action is required by the person who doesn't respond. The person who only uses certain channels should explicitly indicate that. An automatic out-of-office email that says, "Contact me by phone" tells the sender the [preferred channel](#).

[>> Actionable Advice](#)

From the view of the person doing the stonewalling, if you need time to think or gather information before responding, tell the person who sent a request that you acknowledge their message and will follow up in more detail later (with a specific timeline). While better than no response, this leads to the next challenge.

[See page 125.](#)

Slow-rolling is when you get a response to your request or question, but the response isn't helpful. Progress is delayed because you have to iterate to get an answer. There are valid reasons for a slow-roll and there are malicious reasons for a slow-roll response. Perhaps the person wants to acknowledge your request but doesn't currently have time to provide a full explanation. The person may need to gather more information for the complete response. Or the person is [passive-aggressive](#) and may understand your question but does not want to enable your progress.

[>> Actionable Advice](#)

The reason for a slow-roll should be made explicit by the respondent, and a timeline for a complete response is helpful.

[>> Actionable Advice](#)

Bikeshedding is when the recipient of a question or request [focuses on unimportant details relative to the primary topic](#). Whether this behavior is intentional or not, the best response is to refocus the conversation on the core issue. The amount of time allocated for various topics should be proportional to their consequence.

A [red herring](#) response is misleading, whether intentional or not. The respondent provides what looks like a reasonable answer but results in unproductive work. Occasionally there is a coincidental benefit of discovering something unexpected, but that wasn't the respondent's intent.

Even though bikeshedding and a red herring can be [dark patterns](#), that may not be the intent of the speaker or author. Perception matters more than intent. Process Empathy applies both when you are sharing information (how could the information be perceived?) and when you are receiving information (what was the author's intent?).

[>> Mantra](#)

Decreased Effectiveness in Communication and Some Remedies

This section describes a few common challenges and what you can do if you find yourself in this situation.

Challenge: The [Allen curve](#) is an “exponential drop in frequency of communication between engineers as the distance between them increases.”

>> Folk Wisdom

Tactic: Presence creates priority - go to the person’s desk that you’re seeking a response from.

Presence Creates Priority

I needed some data from a coworker. After trying email and phone calls multiple times, I ended up flying across the country. Once I arrived and stood in their office the person was able to provide the data in a few hours.

Tactic: Merely sitting next to a coworker, even with no official purpose of interaction, results in spontaneous informal discussions. See the discussion of a [Prisoner exchange](#) on page [171](#).

Tactic: Take advantage of the [Allen curve](#) by enacting the Inverse Conway Maneuver: if you know what interfaces a product or process needs, then design the placement of your team members to reflect that.

Challenge: [Wiiō’s law](#): “Communication usually fails, except by accident.”

>> Folk Wisdom

This pessimistic take is similar to [Murphy’s law](#) and indicates the level of investment needed for effective communication.

Tactic: You can aim in every interaction to wow your audience with the utility of your insight and the precision of delivery.

Challenge: Periodic status reports sent up the chain of command get sanitized so that only good news is shared. The removal of “bad” information impedes risk analysis.

Tactic: If your reports are getting sanitized, ask for a copy of the sanitized version. If you have the responsibility for consolidating and aggregating reports, aim for conciseness and context rather than good news.

Challenge: Decisions by bureaucrats high in the [chain of command](#) are not pushed explained to members lower in the hierarchy.

Tactic: You can request management provide a summary of their activities.

Challenge: To assume makes an ass out of you and me, yet assumptions are necessary to making progress in communication.

>> Folk Wisdom

Tactic: You can address this dissonance by looking for sources of difference and then talking about them. For example, when you first talk with someone you can ask what their educational background is. You can tune your language to their academic training if they have a different degree than yours. You can make your story more relatable.

Tactic: Another technique for detecting differences is to ask about the person’s previous experience. What did they work on previously in this organization? What were their jobs before joining this organization? This backstory can provide context for decisions that need to be made in the current context.

Disrupting the Path to Failure

The [Prisoner’s dilemma](#) is a scenario in which two participants have conflicting objectives and are unable to coordinate. (See page [120](#) for more details.) Each participant has to guess what another person in their position might do. An inability to coordinate leads to suboptimal conclusions. For bureaucrats in similar conditions, options include

- Expose all participants to the consequence of outcomes. In practice, this feels unfair to each participant because the outcome is partially attributable to other people involved in the process. Dividing responsibility limits exposure to consequences.
- Have all participants communicate. In practice, communication takes time and skill. Not everyone is willing to invest since communication is not seen as “doing the task.” The farther apart people are from each other spatially, the more effort is required to communicate. (The relation of spatial locality with communication is characterized by the [Allen curve](#).) The time needed to arrive through consensus at an optimal approach for a given situation may exceed the time available for addressing the challenge.
- Limit everything to what can be done by one person. This hero-based approach is limited to the person’s attention-bandwidth and skills. As the complexity increases, the necessary skills increase and the number of candidate heroes decreases. Large organizations carry out complicated tasks by leveraging diverse skills of teams of bureaucrats.

Addressing the Prisoner’s Dilemma that is rampant within organizations depends on recognizing the issue and identifying possible fixes. You will likely have to invest effort beyond what other bureaucrats are doing.

The multitude of potential causes of communication failure is made more complicated by the myriad ways individuals prefer to communicate. The next section provides an example of why a bureaucrat might prefer one channel over another.

6.4 Communication Preferences

There are typically multiple communication channels available between bureaucrats in an organization. Rather than focus on specific implementations using specific technologies, consider two variables. The first variable is asynchronous versus synchronous. Examples of asynchronous communication channels include voice mail, email, web forums, websites, and calendars. Synchronous options include phone calls, video calls, in-person, text-based chat like [IRC](#) or [Slack](#). The distinction between asynchronous and synchronous can be blurred, like if someone immediately replies to your (asynchronous) email. The second variable is a set of categories: voice (e.g., phone), text (e.g., website, web forums, calendars), video (e.g., calls), and in-person.

The two variables above are characterized by latency (how much delay) and bandwidth (how much content per unit time). Any communication technology, platform, or service is characterized by latency and bandwidth.

When a communication channel has less bandwidth, there is a loss of ability to interpret intent. For example, consider audio that has been converted to text. In addition to the text transcription, voice audio has inflection, volume, volume variation, rate, and rate variance. Those aspects help the audience understand the speaker better, improving the effectiveness of communication.

The relevance to a bureaucrat of identifying these channels is to know which channel is preferred for what purpose. You can list your preferences so that people know how best to engage with you. Second, you can learn and then leverage the preferences of people you collaborate with.

As an example of knowing your behaviors, do you keep your calendar up-to-date? Or is your calendar irrelevant? Is that preference stated explicitly to the people who might reference your calendar? Is your calendar visible to your coworkers?

>> Actionable
Advice
>> Actionable
Advice

Communication Channel Preferences

The following illustrates when to use which channel for what purpose, and in what order.

Text chat is useful for asynchronous interrupts. Text chats are better than stopping by in person or calling on the phone since in-person drive-bys and phone calls interrupt whatever I'm thinking about or discussing. The purpose of the text chat is either a reminder or to find a convenient time to talk.

Email is useful for notifications or questions or setting up logistics. If I don't respond to your question or request for action within two days, please send a reminder.

Video calls are my preferred method for group meetings. Group meetings via video call scheduled in advance on my calendar are best. Impromptu video calls are acceptable but as disruptive as a phone call.

In-person discussions are my preferred method for one-on-one discussions. Stopping by my desk without an appointment interrupts whatever I'm thinking about. If a calendar invitation is inconvenient, a text chat confirming my availability before the in-person discussion is helpful.

The phone is useful when the caller is unable to be present in-person. Phone, being voice-only, is inferior to video calls. Unscheduled phone calls interrupt whatever I'm thinking about. I've intentionally disabled voicemail.

Status updates in electronic issue trackers, wikis, or forums are best (rather than email-only). Notifying in text chat or email that a wiki page or issue is updated is helpful but not mandatory.

Given all those caveats, I prefer communication in any form at any time over surprises.

If you're unsure whether you should communicate, default to communicating. If you're not sure whether communication would interrupt something, check my calendar and then communicate. If it's urgent or blocking progress, ignore my calendar and interrupt me.

>> Actionable Advice

You may not have the same prioritization, or you may not have as detailed preferences. The take-aways from the above example are that you should know when to switch communication channels. You should know when to start in one channel and then escalate from text to phone to in-person.

The discussion above of which channel to use is person-specific. While bureaucracy can seem (and is designed to be) impersonal, being an effective bureaucrat means tailoring your interactions to the people you work with. That personalization doesn't have to stray into being intimate friends; there's a professional capacity for vulnerability.

6.5 Communicating a Professional Sense of Vulnerability

Personal emotionally vulnerable communication is a form of intimacy. You are exposing personal issues to other people. Being emotionally vulnerable deepens relationships. The risk is that information could be used to manipulate or harm. Whether you choose to form social friendships with your coworkers is up to you, but that isn't a requirement for an effective bureaucrat. However, there is a more relevant practice of vulnerability.

Professional vulnerability is about going beyond transparency regarding bureaucratic issues. Transparency is about what is happening, while professional vulnerability is about why something is happening. For example, professional topics of conversation include processes and incentives. Bureaucratic processes may be intended to be impersonal, but the consequences are felt by participants.

Discussions of internal intrigues of an organization are a form of gossip among professionals. **Gossip** can be constructive (finding aspects to remedy), lead to insights, and shapes cultural expectations within the

bureaucracy. As with personal gossip, professional gossip can risk harm if used against other organization members.

As with personal vulnerability, professional vulnerability involves learning who to share what information with and when. When interacting with a person who is new to you, you can experiment by being professionally vulnerable and see whether they reciprocate or at least explore the topic with you. Being open, direct, and curious can help the person you're talking with feel more comfortable. Shared introspection is the objective.

>> Actionable Advice

As an example, you can say something like, “Perhaps the reason behind (observation) is (reason 1) or (reason 2).” That gives the other person a chance to brainstorm with me without committing to a position. If the other person is unwilling to explore in-depth, reverting to safer topics is easy. Being vulnerable does not mean the other person will reciprocate. That is a risk on your part.

Another tactic for using professional vulnerability is asking for help. This can be especially effective for engaging with people who you disagree with or don't like you. Establishing a common goal and a shared task is a way to collaborate. Alternatively, leveraging a difference in knowledge can create an opening for vulnerability: state your lack of skill or insight and ask for the other person's expertise.

6.6 Communication Tips

The role of verbal and written communication is critical for bureaucrats. Bureaucracy is distributed knowledge and distributed decision-making, both of which benefit from effective coordination.

Plenty of advice on effective communication (e.g., enunciate, speak loud enough to be heard, be humble, be curious) exists; the advice below is included because of specific relevance within bureaucratic organizations. However, the following is generic to interactions outside of bureaucracy.

Communication Tip: Not all Interaction Challenges are Communication problems.

Sometimes an inability to discuss ideas is not a communication problem but a psychological deficit of personality. Distinguishing “I'm an ineffective communicator” from “the person I'm talking with doesn't communicate effectively” from “that person has a diagnosed psychological reason they are unable to communicate” is tough for those of us who are not psychologists or psychiatrists.

Communication Tip: Avoid relying on stereotypes.

Within an organization, different teams may build up reputations for certain behaviors, or there may be significant events that the team is associated with. When interacting with members of a team that has a reputation, avoid relying on that stereotype or event as an opening for discussion. You're speaking to a person, so discuss that person's behavior with them. Be curious.

Communication Tip: Avoid questions that have a binary response.

Responding “no” to a request benefits the person replying to the question. The person answering “no” then has less work required, less risk of failure, and better continuity with previous activities. As an example of a poorly framed question, you could ask, “Can I have a copy of the data you're using?” The person you're asking is less disrupted if they refuse to share.

A more constructive phrasing is, “I need information on X to work on Y, and I think you have information about X. How can you help me get information on X?” By clarifying your intent, you allow the person with the data to provide options you may not have considered.

Similarly, when you're being asked for information, try to learn the person's intent motivating the question. Sometimes the requester doesn't know what to ask for. Instead of “no” try to figure out how to enable

the person to be successful.

Communication Tip: Leverage the other person's experience while focusing on your own.

Advice without context is less effective.

Bad: "Here is what I think you should do in that situation."

Better: "Here is what I did in that situation."

People usually find talking about themselves an easy topic if you are curious about their experiences. If you can learn the other person's background, history, and motivations, you can weave that into the advice you provide. Tailoring your message increases the likelihood of implementation.

Communication Tip: Avoid Platitudes.

Platitudes are [thought-terminating](#); the statement feels true and is resistant to debate. Platitudes capture a feeling with enough accuracy, but with imprecise language. As a result, there's no specific action.

Because platitudes result in a conclusion, the conversation participants may feel more bonded. However, that bond is shallow.

Example platitudes to avoid:

- Pick your battles.
- Some things you can't explain.
- Your time will come.
- You can be anything that you want to be.
- I just want to get through this day.
- It is what it is.
- I'm just one person.
- That's that.
- Life's not perfect.
- Life's not fair.
- There's only so much you can do about it.
- What is meant to be will be.
- It is God's will.
- It's part of God's plan.

If your goal is to understand a concept or issue deeply, you need to use precise language.

Communication Tip: Strive to use Precise Language.

Imprecise language causes miscommunication. The speaker's or writer's intent is unclear, as is the expected consequence. Typically people get away with imprecise language because their actions are inconsequential. Only when the consequences matter does the problem of imprecise language manifest.

Tip for Precision: If you have a specific definition for a word central to the topic of interest, ask your new

collaborator for their definition. Do not expect others to share your definition even when there are established norms for the topic.

Tip for Precision: Instead of asking a collaborator, “Are you taking action on this topic?” ask, “What actions are you taking on this topic?”

Tip for Precision: If someone claims, “We plan to get to that action,” ask for a timeline. A deadline can be for an artifact or a re-evaluation of the topic.

Imprecise language takes less cognition to create and can take less time to convey. Thinking harder about how to precisely convey an idea takes effort. The importance of precise language is proportional to the potential consequences of action, inaction, or wrong action. The degree of precision should be proportional to the complexity of the topic being discussed.

Communication Tip: Word is Bond.

Your communication (verbal and written) is your reputation. People rely on what you tell them even if there isn’t legal recourse. Reliance on your word is why precision matters.

Frustration and disappointment follow when you don’t uphold your word, others misinterpret your imprecise language, or you are misunderstood.

Communication implies responsibility for the content. There is corresponding accountability in the relationship between speaker and listener (or writer and reader).

Communication Tip: Take care near the Boundaries of Knowledge.

Trying to find someone else’s extent of knowledge is tricky – they don’t want to appear stupid. They may interpret the exploration as a trap. “I don’t know” can be an embarrassing statement to make, even if you don’t share their embarrassment.

Knowing the limitations of your knowledge and disclosing those boundaries to others is critical. Distinguish what you know from speculation about things you don’t.

Communication Tip: Listen all the way to the last word of the speaker.

Formulating a response to the first part of an idea or a sentence is tempting. Waiting for the speaker to finish before thinking of how to respond is courteous. Waiting creates a pause which makes you seem more thoughtful.

This waiting is complicated by speakers who include long pauses for contemplation and then resume.

Communication Tip: Stop speaking over other people.

Crosstalk occurs when two people who are communicating verbally experience interference from another audible conversation. That can occur because a third person is talking at one of the original two participants, or when four or more people are holding two separate conversations concurrently.

Crosstalk in a bureaucracy can be motivated by the limited time available to communicate. A meeting participant may feel inspired by something someone else said and want to interject. Crosstalk can indicate engagement and enthusiasm, or it can be due to the speaker wanting to dominate the topic through interruption. The likelihood of crosstalk is dependent on the level of aggressiveness of participants. In either case (enthusiasm or power-seeking), the original speakers are disrespected. The original speaker may feel annoyed at being interrupted.

The audience is frustrated by the lack of clarity on where to focus. This distraction causes participants to lose focus, and the productivity of the interaction decreases.

Bystander intervention for an out-of-control meeting: raise your hand. This non-verbally reverts focus back to the discussion facilitator.

>> Actionable Advice

Communication Tip: Account for Warnock's dilemma.

Warnock's dilemma is the common experience of figuring out how to interpret not getting feedback. This is especially vital in meetings where the speaker or facilitator needs to gauge participant comprehension of delivered content. Asking, “Does anyone not understand what I just described?” is likely to get no response from attendees because each person wants to avoid looking stupid.

>> Folk Wisdom

Technique for getting participation: Pick one person to provide a recap.

Technique for getting participation: Survey the audience using multiple-choice to gauge understanding.

>> Actionable Advice

Communication Tip: Seek action with a Deadline.

When asking someone for help or input, specify a deadline for their response. This helps the person rank the urgency of their tasks.

>> Actionable Advice

Communication Tip: Make Deadlines Explicit.

Typically requests have two deadlines. The first deadline is when a response is sought. The second deadline is when a response is no longer useful.

As an example, suppose you are inviting people to a meeting. You send the invitation five days before the meeting and want to know who can attend by three days before the meeting. The second deadline is the time of the meeting. Replies after that second deadline do not help you understand who is going to attend.

Communication Tip: Identify the cause of miscommunication.

Letting miscommunication go uncorrected takes the least amount of work. Left uncorrected, the same behavior is likely to happen again.

- Miscommunication can be due to different definitions of words or differences in context. Confirming definitions once confusion is identified is a useful first step.
- A speaker may be inarticulate. Sometimes the speaker is unable to coherently convey their internal experience to a listener.
- A speaker has nothing to say about a subject. Regardless of whether they are capable of articulating a concept, a person in this situation still wants to take part but they are unable to meaningfully contribute.
- Empty talk is the use of words that are ill-defined, emotionally resonant, unactionable, and impersonal. This is sometimes performative or can be intended to fill the time.

Communication Tip: ask-tell-ask.

Collaborating with fellow bureaucrats who have expertise in areas you do not requires extra work. There may be differences in the words used to describe certain situations, more precision in wording that you're used to, or thinking about situations in ways you are not familiar with. In that context, to bridge the differences you can ask, tell, ask [38, 9].

The first step is asking what the other person's perspective is on the topic. This helps establish the right level of nuance and can tell you how that person frames the issue. The second step is to tell the person what you want to say. The "tell" step should leverage what you learned from the first "ask" step. Use phrasing that is consistent with what you just learned from the other person. The third step is to ask the person what they heard from you. If they are unable to tell you, you may need to refine your delivery. To improve the likelihood of success, keep the content in the second step short.

The ask-tell-ask technique can be used iteratively in the same conversation, especially when discussing complex topics with a new collaborator. Using ask-tell-ask takes longer than just telling but increases the effectiveness of the communication. You also get to learn more about the other person's perspective.

>> Actionable Advice

Communication Tip: Initial responsiveness and status updates.

Taking action in a bureaucracy may require approval or guidance from other bureaucrats. If you are the person providing approval or guidance and immediate determination isn't possible, a response indicating you've received the request allows the person asking for input to know you are aware of the request. Sitting on the request (whether intentionally not responding or because you are busy with other tasks) allows for two outcomes. The person with the request may give up, or the person seeking input may ask again. The act of asking again can serve as an indicator the priority of the task. If you are working towards a determination and can provide status updates, that helps the person with the request understand what is happening.

Communication Tip: Don't seek Attribution for Contributions; Credit Others.

Give credit to others for good ideas and beneficial actions. Either they accept credit and you are seen as a contributor to their success, or they push back and you look generous. Credit is not a [zero-sum game](#).

Communication Tip: Offer to take the Blame.

Before an action begins, tell collaborators that you are willing to accept blame if something goes wrong. This alleviates their fear of risks.

Communication Tip: Survey Stakeholders.

The following story about digging a well illustrates the challenge of surveying stakeholders.

Building a Well for Water in a Rural Village

Suppose you are a [Peace Corps](#) worker in Africa. You show up and the village doesn't have easy access to clean water. Villagers walk a long distance in dangerous areas for dirty, unsafe water. This is an obvious problem and all the villagers agree that they don't have good water and that this problem should be fixed.

Enacting the solution would take about a week - get the equipment to the village, drill a well, and build a pump.

You could take more time and involve the villagers in this project. They could participate in getting the equipment, which should lead to a sense of ownership. But then when the equipment shows up, they don't drill the well. If the well is drilled, it soon falls into disrepair and the villagers are back to doing things the way they used to. What happened?

The villagers don't see access to clean water as the most significant issue. You came in and imposed your view of what the problem is and how to fix it. When you impose your view of what the problem is, the solution won't be adopted by villagers because they don't prioritize it. It is better to survey the community to see how they operate. What do they think the problems are? Community members need

to provide priorities.

This issue is exacerbated if you come to the village as a representative of a company providing wells. You are biased when you ask, “Do you have any problems?”

Of course the villagers have water problems which could be fixed with better wells. However, when you get into the details of placing or improving a well, they lose interest. What the community wants is free installation, zero maintenance, easy to use, and no operational costs. That would improve their lives.

When you say there's cost (both initial investment of capital and then operations+maintenance) and a learning curve associated with the solution, then the user's interest wanes – you are presenting another cost/benefit ratio for them to evaluate. Then they ask, “Can we get by without the well?” Yes, they don't need the well – they've survived without it.

Novel solutions (in this example, drilling a well and installing a pump) have barriers to adoption. Two barriers are the current priorities of the community and the incumbent solution or processes.

If there are problems with higher priority, the community will delay enacting your solution. That's fine if the higher-ranked priorities are bounded, but they are often not. An example of this is the following: Suppose a person has three tasks, and you introduce a solution which is a fourth task. If the first task is “go from point A to point B,” then that task will eventually be eliminated and there will be three remaining. If the second task is “secure your village,” that is an unbounded task. The person won't get to or won't prioritize your low-ranked task.

How will your solution impact their higher-ranked priorities?

If enacting all these tips sounds like a lot of work, that's because it is. Effective written communication requires intentional effort because of the lack of augmenting channels (compared to voice or video or in-person).

Summary of what action should be carried out

As the outsider, you should help the community enumerate and document all of the problems they identify. Then you can help enumerate and document how the problems are related (dependencies). Only then can you help the community identify and document the root causes.

If the solution you, the outsider, identified is the root cause, then the community will arrive at that independently. If that is the case, then you can enable them to enact a solution that addresses the root causes. The community will then have a sense of ownership.

6.7 Effective Emails and Reports

A common misconception is that emails and reports are for communication. To be more precise, the only true statement you can surmise from the activity is, “I wrote something.” Asynchronous communication has no requirement for a response or action. There's no guarantee that what you wrote has been incorporated into the audience's mental conception of reality. That's what makes it asynchronous. Any communication (i.e., building a shared mental model) that occurs is merely incidental.

Even though emails and reports may not be ideal forms of communication, there are other reasons they are useful to invest time in.

Written documents as notifications: Email can be used to document that you told someone something. Even if they don't read the content, you can later point out that the information was provided.

Email as a task request: Putting a task in another person's shifts the responsibility. Emails in their queue may or may not be read, and may or may not be acted upon.

Just because you sent an email or filed a report, your responsibility to communicate effectively hasn't finished. You need to confirm that the audience has integrated the information.

Another reframing of emails and reports is to discard the concept of an essay. When you learned to write in school, you were taught the essay structure and associated conventions. Emails are not essays, and they don't have to conform to the norms of essays. Three ways of novel ways of thinking of emails are as a template, as art, and as a game.

Email is Structured: Originality is not a requirement in bureaucratic writing. Plagiarism is acceptable. The consistency of a fill-in-the-blank template for reports is efficient.

Email is a Piece of Art: Effort invested in each email to improve readability means more than just careful wording. Use visual cues (different fonts, different font sizes, highlighting, font color) and pictures to improve readability. See Figure 6.5 for an example.

Email is a Game: Email is a game of documenting decisions and responses so that the sequence of interactions is clear for audits and recrimination.

Your emails are not constrained to an essay-like narrative structure.

Asynchronous Communication Responsiveness

Delayed response applies to any asynchronous communication such as voicemail, email, memos, and reports. Here I'll use email, though the same issues apply to other channels.

There are tiers of responsiveness, assuming the reader wants to respond but doesn't have sufficient time available. (The explanations below can be the other side of [stonewalling](#) or [slow-rolling](#).)

Which level you are at depends on the speed of your reading, how fast you can write, the number of incoming emails, the number of outgoing emails, and how much time you allocate for email.

1. You can read all incoming emails and reply to all emails that necessitate a response.
2. You can read all emails and reply to some.
 - Only important emails.
 - Only emails that have short answers.
3. You are unable to read all incoming emails.
 - Skim the content of all emails to find relevant information, but likely to miss some key points.
 - Read emails from important people only (based on who the sender is).

- Search through your inbox if someone needs something and cites an email that was sent to you.
4. You have an assistant to respond to emails.
 5. You have a front office team to handle messaging.

The following scenarios are focused on case 2, where you can triage (skim) emails but do not have enough time to respond to each.

In a situation where you have insufficient time, which of the following emails do you reply to? An email from your boss, an email from your peer, an email from a person who reports to you, or a person who you do not know? (The ratio of these email categories is not one to one to one to one.)

The email from your boss is likely the top priority. Of the remaining emails (peer, subordinate, unknown), the peer email is likely the next priority. The subordinate and unknown person are likely last.

The consequence of triage is that when there's insufficient time available, your transparency to subordinates and unknown people is likely to decrease.

Let's consider another scenario requiring triage of email. Three emails come in. One has no action, one is easy to reply to, and the third is difficult and takes time. Which one gets the response? As with the previous scenario, the ratio of these inbound emails is not one to one to one.

The email that is easy to reply to gets answered first. The difficult email is second. If you only have time for one of the emails, it's likely to be the easy one. This is an example of **ambiguity aversion** – preferring known over the unknown. As a consequence, outsiders see this as you demonstrating bikeshedding, also known as the **Law of triviality**: disproportionate weight is given to trivial issues.

The next section quantifies the cost of email. The point of the analysis (and similarly for meetings on page 146) is to enable comparison with other investments the organization makes. Creating a cost model can help determine how much effort into improving what might otherwise seem like minor issues.

Email is not free

Bureaucracy as distributed knowledge and distributed decision-making requires communication. Because synchronous communication like phone calls, video calls, and in-person meetings is challenging to coordinate, written communication is widely used for asynchronous collaboration. Whether that written content is emails or text-based chat, writing is expensive.

The cost of email includes time spent writing (authorship), time spent reading (readership), and infrastructure costs (e.g., maintenance). Those three factors can be quantified as variables.

>> Math

$$\begin{aligned} \text{Cost per email} = & (\text{hourly rate of writer}) * (\text{time spent writing}) + \\ & (\text{hourly rate of reader}) * (\text{time spent reading}) * (\text{number of readers}) + \\ & \frac{\text{annual salary of maintainer}}{\text{number of emails per year}} + \frac{\text{email server cost}}{\text{number of emails per year}} \end{aligned}$$

Plugging in some numbers, suppose an author charging \$50 per hour spends 5 minutes writing an email to 4 people. Each of those four people also charges \$50 per hour and spends 2 minutes on reading.

$$50 * (5/60) + 50 * (2/60) * 4 + \frac{100000}{1000000} + \frac{10000}{1000000} = \$10.84$$

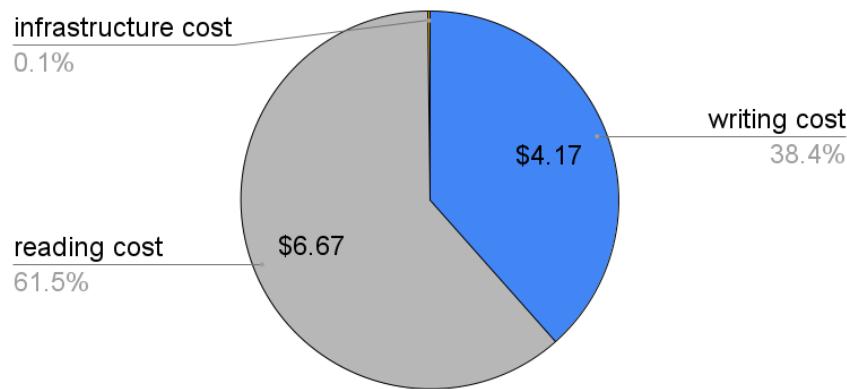


Figure 6.1: Breakdown of costs for one email when the writing took 5 minutes and there were 4 readers. This example assumes an hourly rate of \$50 per person and a reading time of 2 minutes per reader. There are three costs, but infrastructure is too small to see at 0.1% of the costs.

The cost to the organization is more than \$10 for one email! The breakdown of the three variables is shown in Figure 6.1. You've probably sent and received more than one email in your professional career as a bureaucrat.

If the cost of one email doesn't lead you to be careful with communication, consider the cost to the organization of communication. If email consumes 2 hours a day per person (reading and writing), and if staffing is 50% of the organization's budget, then 12.5% of the organization's budget is spent on email. The same math applies to meetings, so with 2 hours of meeting and 2 hours of email that's 25% of the organization's personnel budget on coordination.

Logistics of Sending an Email

This section focuses on sending one email. Whether you are the only recipient or one of many receivers can change how you interpret the intent of the email. Whether you are in the “to” or “cc” field matters. Unfortunately, “to” versus “cc” are not reliable indicators since email senders do not reliably conform to the expected use.

An email sent to multiple recipients may have different purposes for different readers. The reader's role or knowledge may factor into how they interpret the content. The inclusion or exclusion of recipients alters how the content is understood. Knowing when to switch channels (e.g., to phone or in person) is vital.

Send One Email to One Person

Consider the scenario where you send an email to a person. The recipient reads the content and reacts emotionally. Alternatively, the recipient reads the content and attempts to project what the author may have intended.

In this simplest case, as the author you have to account for how the reader might respond. Merely sending a set of facts, questions, requests, or personal observations misses half the situation.

An email to Two People

Consider a different scenario where you send an email to two people. Now the possible responses include:

- Recipient reads the content and responds emotionally. This is typical.

- Recipient reads the content and attempts to project what the author may have intended. Especially relevant when wording is ambiguous.
- Recipient reads the email and attempts to project how the other recipient might react emotionally.

That last outcome is distinct from when you sent an email to one person. The challenge of a reader projecting how the other recipient might react makes writing content that doesn't get misconstrued complicated.

There are a couple fields in email (to, cc, bcc) to convey the sender's intent.

- "to" can serve multiple purposes: "for your situational awareness," or "please take action," or "please respond."
- CC is equivalent to "for your situational awareness, here's what you told the people in the 'to' field." There's no expectation for action by the cc'd recipients, but there is the opportunity to interject nuance, clarification, or opposition.
- BCC is similar to CC, but not telling other recipients (to, cc) that the BCC'd person has awareness of the content.

Permutations available when emailing 2 people include:

- You could send the email to the two people both as "to" recipients. Both recipients know the other person received the email. You're treating them as equals. You may be expecting action or response from each person, or this might be a notice to both people.
- You could send the email to the two people with one person being "to" and the other person being "cc". Typically You're not expecting a response from the cc'd person, though they can respond as needed. The "to" person can see that you sent the content to both people.
- You could use BCC for one person and put the other person in the "to" field.
- You could BCC both recipients. Neither recipient would know who else received the email.
- You could send two separate emails, one to each recipient.
- You could send two separate emails, one to one recipient, and then forward that email to the second recipient.
- You can do the same as above except swapping the order of who gets the email first and who sees that the email was sent to the person.

Each of the above 7 options has a different emotional connotation for the recipients of the email. Beyond the issue that different people have different reactions to the same content, recipients will respond differently based on who else received the information and the order in which the information was shared.

A complicating factor in the analysis of sending to two people is whether they are peers, competitors, members of the same team with the same role, members of the same team with different roles, if there is a power disparity between the two recipients, or one of the manager and the other is not.

A bad thing for BCC people to do is to reply to the thread and indicate to the other recipients that they received the content.

A common use case for BCC is with introduction emails. You know Bob and Sue but Bob and Sue do not know each other. You send one email with the two of them as recipients introducing the two of them to each other. Bob can then send a reply with Sue as a "to" recipient and you BCC'd. In the email body, Bob will explicitly say that he has moved you to the BCC. The consequence is that you get to see that Bob replied to Sue, but if Sue replies to Bob by email, you don't need to be part of that conversation.

An Email to More than Two People

The new aspect that arises with 3 or more recipients is whether there are factions among the 3 or more people. In the smallest case, options are:

- All three have the same reaction.
- All three have three different reactions.
- Two people have the same reaction, and that is different from the third recipient's reaction.

When there are groups of people (here two people form a group) then there are insiders and outsiders. In the previous scenario when you sent email to 2 recipients, there is no insider/outsider dichotomy (just power imbalances). When you send email to 3 or more recipients, there can be groups and that means having insiders (a group with a common reaction to the email content) and outsiders (who don't have the same reaction).

A recipient projecting how someone else might respond to the content still applies, but now in addition to "How did the other person respond?" when there were just 2 recipients the projection can also be "How did the group respond?" or "How did the outsider respond?"

Tactics for Emails with Many Recipients

The easiest escape from this complexity is to restrict the emails you send to just one person at a time. As the sender, you no longer have to account for how different audiences will react, nor do you have to account for groups with different reactions.

When communicating with a collection of groups, splitting the message by group can help. Partition the email into like-minded cohorts. That way each person in their group is less concerned about how someone in another group would respond. For example, suppose you have a message for members of the workforce and management.

- Talk with members of the workforce to understand the systemic issue.
- Tell management the issue, that it is with input of the team, and here are solution options.
- Forward the message you sent management to the team so they can see that the topic was presented to management.

In general, team members and management getting the same message should be two separate emails.

Personalized emails (using mail merge) are a way to increase the likelihood of content consumption. This tactic is the additional benefit the recipient doesn't know who else the message went to. Personalized emails also remove the risk of a projected emotional reaction of a hypothetical third party.

Improving your Emails

Email Improvement: Good emails balance enough context (the why) and relevant details (the what) against conciseness (word count).

Email Improvement: Emails convey both emotional tone and facts. Your intent as an author is practically irrelevant; the reader's perception is paramount.

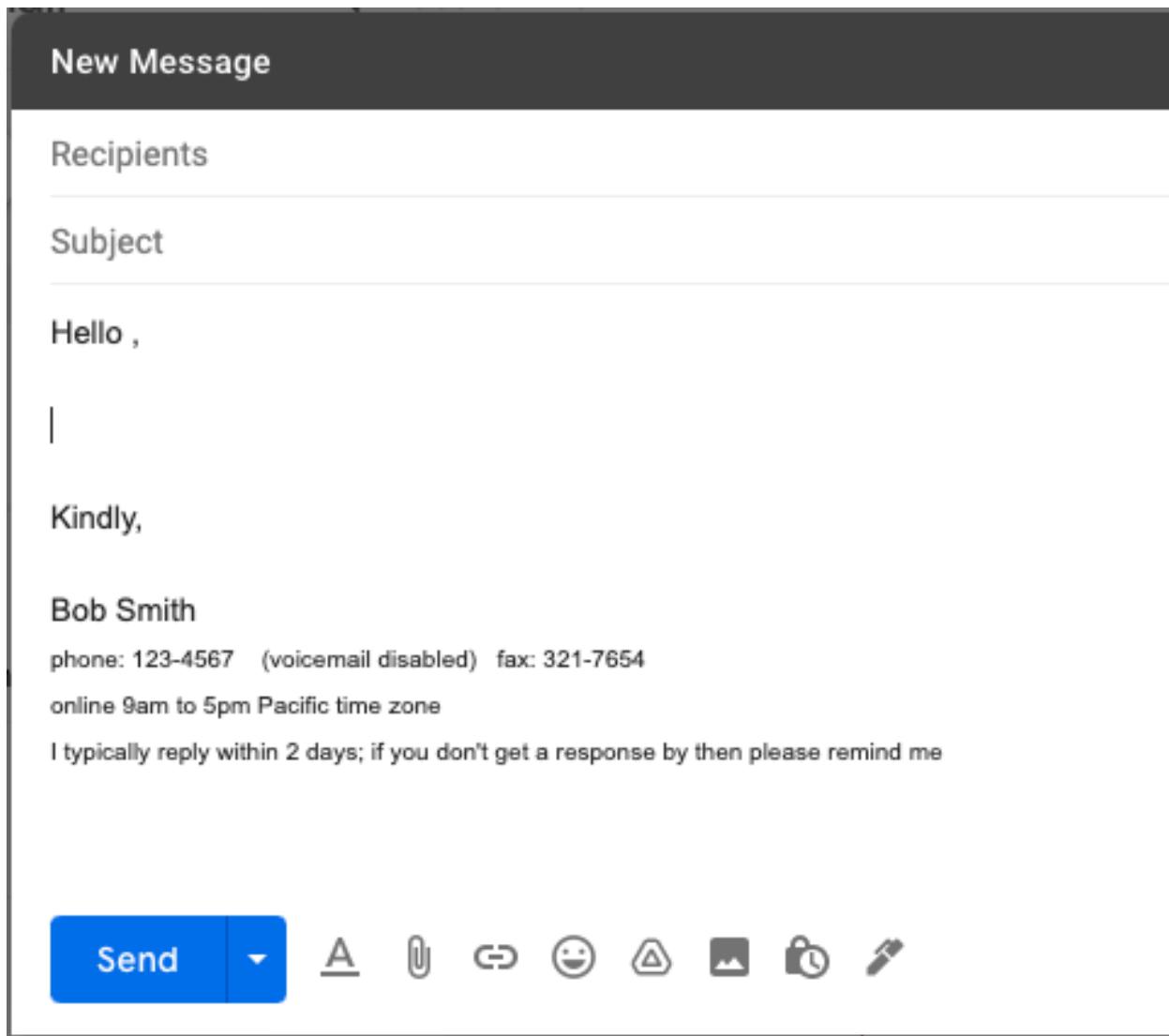


Figure 6.2: Template for new email messages. The greeting has a space after the comma – that is where the recipient’s name will go. Signature block uses a smaller font size after the name.

Email Improvement: Use consistent design and structure for your emails. Emails are part of your professional reputation. See Figure 6.2.

Email Improvement: Emails start with a greeting: Hi, Hello, Good morning, Good afternoon, Good evening. Email greetings include the name of the targeted recipient(s). See Figure 6.3.

Email Improvement: Emails end with a professional closing, e.g., “Kindly”, “Regards”, etc. See Figure 6.2.

Email Improvement: Emails have a signature block with contact information – phone number, normal hours of response, which timezone you’re in if your team spans timezones, how long to wait for a response before asking again, which communication channel you prefer, etc. See Figure 6.2.

Email Improvement: Email signature blocks do not include unnecessary images, as that uses more storage for recipients.

Email Improvement: Email threads focused on a specific instance of a recurring event include the date (YYYY-MM-DD) in the subject line. See Figure 6.4.

Email Improvement: Based on the purpose of the email, example key phrases for subject lines include: “meeting notes” versus “agenda” versus “question about.”

Email Improvement: Revising an existing subject line can disrupt the ability of email software to thread conversations. However, sometimes the revision is worth breaking threading.

Email Improvement: When replying to an ongoing thread, keep the original message as part of the thread to provide readers with historical context.

Email Improvement: When replying to threads with sensitive messages, sanitize the included content by removing names or identifying details.

Email Improvement: If an email has multiple requests or questions, at the top of the email (after the greeting) explicitly say how many of each type. Then, in the body of the message, number them. See Figure 6.4.

Email Improvement: If an item corresponds to a requested action, separately highlight the action and indicate who is supposed to take the action and what the deadline for response is.

Email Improvement: Computer commands should use distinct separate fixed-width font. This distinguishes the text from the rest of the narrative. See Figure 6.5.

Email Improvement: References to documents include a direct full path.

Email Improvement: If referring to a previous separate thread, include the subject, date, and time that email was sent.

Email Improvement: For bullet points, explicitly specify that items are joined by one of the following: OR, XOR, AND. For example,

- Buy bread.
and

- Sell socks.

versus

- Press the “Return” key.
xor
- Press the “Space” key.

Email Improvement: If you have an unordered list, explicitly state that order is irrelevant.

New Message**Recipients****Subject**

Hello Mary,

Two questions for you:

1: What happened with Jane?

She looked upset after the meeting.

2: When is Bill returning to work?

I saw he wasn't at his desk today.

Kindly,

Bob Smith

phone: 123-4567 (voicemail disabled) fax: 321-7654

online 9am to 5pm Pacific time zone

I typically reply within 2 days; if you don't get a response by then please remind me

Figure 6.3: Distinct items the recipient should address in a reply. A good subject for this email would indicate there are two questions you are seeking answers for.

weekly discussion on boat rowing -- meeting notes for 2021-10-...**Recipients**

weekly discussion on boat rowing – meeting notes for 2021-10-08

Hello Mary and Jane,

This week the topics were X, Y, Z.

For X, the oar is not in the water.

action for Jane: check whether the oar is made of wood; reply all by 2021-10-12

For Y, the rudder may be broken.

No action

Kindly,

Bob Smith

phone: 123-4567 (voicemail disabled) fax: 321-7654

online 9am to 5pm Pacific time zone

I typically reply within 2 days; if you don't get a response by then please remind me

Figure 6.4: Who has what action due when? The meeting notes are for a particular instance of a recurring event, so YYYY-MM-DD is included in the subject. Process Empathy involves thinking ahead about how future readers will differentiate this message from others.

unable to get list of boats using "foobar" application

Recipients

unable to get list of boats using "foobar" application

Hello Sue,

I logged into the server this morning and wasn't able to get a list of boats.
Could you let me know if I'm using the relevant commands?

```
ssh rowboats
cd /opt/boatapp
cat boatlist.csv
cat: boatlist.csv: No such file or directory
```

I'm not clear whether cat is the right command, or if there's some other explanation.

|

Kindly,

Bob Smith

phone: 123-4567 (voicemail disabled) fax: 321-7654
online 9am to 5pm Pacific time zone
I typically reply within 2 days; if you don't get a response by then please remind me

Send ▾ A U ↻ ☺ 🎉 📸 🕒 ✎

Figure 6.5: The computer commands use fixed-width font. Input is distinguished from output using bold and non-bold respectively. The error message is highlighted using red. Inline text like “cat” in the last line is also fixed width.

Email Improvement: If you have a sequence of steps, number them and indicate which steps are required versus optional. For example,

1. (*required*) Go to France.

2. (*optional*) Go to Greece.

3. (*required*) Go to Spain.

Email Improvement: Use visual sketches to illustrate concepts rather than always relying on text. Don't use pictures all the time, and don't have too many pictures in an email.

Email Improvement: Know how to embed pictures inline, how to attach files, and when to use which. Email replies should preferentially be at the top of the thread. If replying to multiple points in the previous email, embed replies inline, mark the distinction, and highlight the authorship.

reproducing an issue

Recipients

reproducing an issue

Hello Sue,

See my replies below in **purple**.

Kindly,

Bob Smith

phone: 123-4567 (voicemail disabled) fax: 321-7654

online 9am to 5pm Pacific time zone

I typically reply within 2 days; if you don't get a response by then please remind me

From: Sue

Sent: Friday, October 8, 2021 9:16 AM

To: Bob

Subject: Re: Rowing in one direction

Good morning Bob,

Three questions:

1: when you use "docker run", what is the command you're using?

[Bob] I'm using `docker run -it <name_of_image>`

2: when you use "foobar epsilon", what command are you using?

[Bob] I'm not sure what that means. Are you available for a phone call later today?



Figure 6.6: Bob's reply to Sue's questions. The third question is not shown in this illustration.

Email Improvement: If replying inline, explicitly state that at the top of the thread.

Email Improvement: If the email is longer than a paragraph, provide a **B.L.U.F** (bottom line up front) or

tl;dr (too long; didn't read) or summary. In general emails should be short. Longer discussions should be held on the phone or in person, with a summary report after the discussion. Reliance on a BLUF or tl;dr risks resulting in the reader skipping the content.

Email Improvement: Every email should have a purpose. What are you asking the recipient to do? How do you want them to feel? How should they respond?

Email Improvement: When replying, starting your email with an expression of gratitude for the work the recipient has done so far sets a positive tone by acknowledging their investment.

Email Improvement: Read each email and report to determine the purpose.

Reading each email is burdensome. If you don't have time to read everything, a common tactic is to skim the content. This tactic of skimming can lead to problematic behavior. First you scan the text of a message to see if there is immediate action or response needed. If no action or response is needed, go to the next email. That may not work for emails that have logistics associated with future events, or emails that alter your perception of the situation.

If you read an email to figure out the purpose of the email, that will help determine what action and response are relevant. Here I'm using "action" to refer to activities outside the email channel.

Why did this Email get sent?

Below are potential intentions of the person writing the email.

Email intent: Decision needed. Typically includes context.

Action: if the team maintains a decision log, update that. Response is your selection of a choice.

Improvement for decision-centric emails: Instead of asking for a decision, ask if the person is opposed. Or, even better, ask for the go-ahead. This framing biases the respondent towards action (specifically approval) rather than thinking. See [approval, forgiveness, and opposition](#) for more details.

See page [179](#).

Email intent: Situational awareness.

Action: Expected default is no action, but interject if there's an issue.

Email intent: Action or Tasking.

Action: Do something within a specified deadline.

Email intent: Approval sought.

Action: Confirm or deny.

Email intent: Feedback sought.

Action: Assessment of proposal.

Email intent: Meeting logistics. Can be an announcement (widely available), registration (limited attendance), or invitation (specific to you). Attendance is either optional or required.

Action: Create or update a calendar event. Response should restate the logistics (specifically the time and date and location and purpose) to confirm.

Email intent: Brainstorming.

May provoke a response for building on an idea. “For your situational awareness, no action needed.” Notification of activity by someone else. Or change in plans. If needed, a correction to the described direction might trigger a response or even a meeting.

Email intent: Reference. E.g., describing a process, or a business workflow, or a citation.

Action: Copy process documentation to wiki. Copy citation to bibliography. Acknowledgment response thanking the sender for the update or clarification.

Email intent: Setting a formal policy or issuing an informal edict.

Action: move the policy or edict documentation to [Confluence](#) or Wiki. Acknowledgment response is needed only if the edit is aimed at just me or the group I am leading.

Email intent: Question.

If this is a recurring question, move to a “Frequently Asked Questions” page on a Confluence or Wiki. Response is needed that provides an answer or seeks clarification.

By categorizing the intent of emails and reports, you can respond more appropriately. Often the intent may be unclear, in which case a response can be framed as curiosity-based: “I think you’re seeking a decision, but here’s the question that is crucial to ask before deciding.”

6.8 Meetings are Bureaucratic

[Decentralized bureaucracy](#) is characterized by distributed decision-making and distributed knowledge supporting management of shared resources. Bureaucrats rely on a variety of mechanisms to communicate, one of which is a meeting with other bureaucrats.¹

Every participant in an organization is invested the outcome of every decision made because there is consequence to how resources are divided and the direction of the organization. Every bureaucrat has an opinion, even when lacking experience or expertise.

The section describes [financial models of communication](#), essentials of a well-run meeting, [types of meetings](#), options when [listening to bad presentations](#), and how to [make effective presentations](#).

Meeting time compared to Theft

In large organizations there can be significant attention given to small purchases. A multi-step review process may be incurred for a \$200 acquisition. (Typically the cost of the review process in terms of person-hours spent isn’t part of the calculus.)

Another measurement of value is that if an employee were to steal even \$200 worth of materials, the organization would likely punish that employee.

¹See also Zhuo’s Chapter 6 in *Making of a Manager* [120]

In the book High Output Management [47], Grove points out that those metrics apply to tangible goods, but not to people's time. Consider a meeting of 10 people and each person's cost is \$200 per hour. A wasted meeting is not unusual and would not incur bureaucratic review processes. The cost to the organization is fiscally the same – \$2000. Similarly, consider an employee who is late and causes a loss of productivity. Merely depriving the organization of \$200 worth of time is not punished in the same way theft is.

>> Math

In practice, organizations default to meetings (even recurring meetings) rather than not meet. And being late (by a few minutes) to a meeting is commonly accepted. We can debate the differences between theft of materials and theft of time, but these are financially indistinguishable.

A Well-run Meeting

Being an effective bureaucrat means leveraging the distributed knowledge present on your team and in your organization. Explaining how to run an effective meeting (the scope of this section) is easy compared to the work of implementing those techniques. The extra work required to facilitate an effective meeting means the default of unproductive discussions is a [Nash equilibrium](#). In general, a Nash equilibrium is when each participant in a scenario can improve their situation if no one else changes their approach. We all sit in ineffective meetings because that is the easiest thing to do.

Good news: you can choose to take action that disrupts the equilibrium. The positive view of that action is that you can serve as a role model and demonstrate behaviors of other people can learn from. The negative view is that you are relieving the need for other people to do work.

Most bureaucratic meetings lack the formality and structure covered by [Robert's Rules of Order](#) (a set of parliamentary procedures).² The level of formality for meetings in bureaucratic organizations varies widely. Most commonly bureaucrats rely on personal relationships and social norms in meetings of less than 15 people. In that context there are tips for effective interactions. Although many of these may seem obvious, each of them requires extra work.

Before the Meeting

Meeting suggestion: Form relationships and understand constituents before the meeting.

To minimize surprise during meetings, socialize the concepts before the meeting. This concept is called [nemawashi](#).

If you don't have relationships or if the topics are a surprise to meeting participants, time will be spent educating and setting definitions. This is an inefficient use of time when different participants have different backgrounds and motives.

Meeting suggestion: Don't invite everyone.

This may seem counter-intuitive since bureaucracy is about coordination, but having too many attendees wastes the time of people who have no input on the issue. To identify essential attendees you need to think ahead about which decisions are going to be made and who has the authority to make a decision. If someone does not need to be present, tell them in advance that you will share the meeting notes afterward. See the [Dilemma of Speaking Scope](#).

See page 70.

²I have not used Robert's Rules of Order for a meeting internal to a bureaucracy. Robert's Rules of Order does not appear to be commonly used inside bureaucracies. Some public-facing meetings may be, but not internal to the organization.

Meeting suggestion: Create and use an Agenda.

Bad: Having no meeting agenda. As a consequence, much time is spent rehashing previous topics. No action items are recorded so accountability is more challenging.

Good: Have an agenda for the meeting.

Better: Share the agenda with other participants before the meeting. Having an agenda keeps attendees focused. Enables tracking of progress during the meeting so participants are more likely to get to all topics.

Best: For formal meetings, share the agenda in writing before meeting. Sharing the agenda in advance allows attendees to research topics, gather data, do analysis, and form opinions. Some attendees might be good at quick responses, others need time to think about a topic of discussion. Opinions formed before the meeting decrease the risk of groupthink.

The primary reason agendas don't happen is that takes time to create an agenda. When an agenda is created and shared, attendees might not take the time to read the agenda before the meeting.

Attendees may not stick to the agenda during the meeting. Enforcing agenda discipline requires someone willing to combat the natural entropy of human interactions.

Meeting suggestion: Ensure facilities are adequate.

For formal in-person meetings verify the meeting venue has enough space, seating, and working IT equipment.

For formal virtual meetings ensure participants are familiar with virtual meeting controls.

As a bureaucrat you may not see taking care of details like this as your responsibility. Ensuring well-run logistics and effective use of infrastructure may not be your area of expertise, you lack training in this domain, it's not in your job description, and you won't get promoted for taking care of it.

Attention to detail outside the scope of your official duties helps your reputation. Proactive concern for the smooth operation of the bureaucracy enables efficiency in time and resources.

During the Meeting

Meeting suggestion: Body language matters.

If you are not speaking, are you reclined or leaning forward on the edge of your seat? Are you looking at the speaker?

If your eyes are closed, other people don't know if you're picturing something or falling asleep.

If you approve of something but don't want to verbally interject, a thumbs up is useful signaling.

Meeting suggestion: Take and share Meeting Notes.

Meeting notes can be more detailed than the agenda but less detailed than a transcript of who said what. Meeting notes synthesize the discussion. Meeting notes specify who is taking which follow-on actions with what deadlines.

There is a spectrum of options for meeting notes.

- No one takes notes. The arguments used to defend this approach include, "I'm too busy participating in the discussion," "I'm not able to write summaries during the interaction," and "Taking notes isn't my responsibility." In practice the memory of each attendee is not as good as the attendee might think.
- One person takes notes for everyone. The person in the role of scribe could be the same at every meeting or on a rotating basis among participants.
- Each person takes notes; no sharing and no aggregation.

- Each person takes notes; with aggregation and sharing.

Changing the cultural norms for a team or organization can come from top-down directives, you can try to convince coworkers of the value of taking notes, or you can ignore cultural norms and take initiative and just focus on what you can do.

See also the discussion on [why meeting notes do not get taken](#).

See page [122](#)

Meeting suggestion: Facilitator ensures Presenters are Capable.

Does the presenter know how to project slides or video? If audio is needed, does it work for everyone in the audience? See advice on [presentations](#).

See page [154](#).

Meeting suggestion: Facilitator's ground rules.

To run a smooth and productive meeting, I explicitly state two ground rules to the attendees:

- If you want to talk, raise your hand and I will call on you. If multiple people want to talk, I'll track the order of speakers.
- If you talk too long, I'll cut you off.

This approach is critical when there are many people present, when people with diverse backgrounds are present, or when there is a mixture of dominant and submissive personalities present. If a visual signal like hand raising is not used, reliance on verbal interruption defaults to dominant personalities. Waiting for a person to finish speaking doesn't work for everyone because some participants will use more than their fair share of time. Speaking for a long time needs to be addressed regardless of whether an intentional effort to exclude others or a consequence of verbosity.

As a facilitator, my focus is on structure (distinct phases of the discussion) and ensuring participation. I remove myself from taking part in the discussion.

The facilitator does not need to share all their guardrails with participants. You should have a structure in mind before starting the meeting. For example,

1. Establish understanding of what the topic is. Without a shared focus and a common goal a meeting is unlikely to be productive.
2. Set aside topics that are not the focus. Either discuss outside the current meeting or defer to a later meeting. Managing scope is critical to accomplishing the goal.
3. Establish a shared language specific to the topic and the participants.
4. Establish each participant's viewpoint on the topic.
5. Brainstorm options.
6. Build consensus or nominate a decider.

Meeting suggestion: Facilitate Asking Dumb Questions without Feeling Intimidated.

Asking a question of an expert from a position of ignorance can feel intimidating. You may worry you're wasting the expert's time. In a recurring meeting a facilitator can address this by having participants write questions on paper and submit them anonymously. The questions or discussion topics can then be raised at following meetings.

To facilitate anonymity every participant must be given paper and pen, and every participant must write something on the paper. The facilitator then has to collect the paper from each participant. For contributors who don't have a question, they can write down feedback about the meeting.

This technique allows the expert to get the information needed for a response, or to figure out who the best person to respond is.

After the Meeting

Meeting suggestion: Share meeting notes.

Attendees can check that their input was captured and clarify if additions or changes are needed. Notes should be provided quickly after a discussion while the observations are fresh in each person's mind.

Meeting suggestion: Collect feedback from Attendees on How to Improve.

To learn what meeting attendees wanted from the interaction you have to ask. Or you can hope that complaints are verbalized and shared with you. By engaging with attendees you can help them feel valued.

Characterizing Meetings

Characterizing meetings is critical to distinguishing which norms are applicable, and what people expect from the different formats.

Meetings can be categorized as internal meetings, customer meetings, conferences, [scheduled one-on-ones](#) (see page 151), or [impromptu walk-arounds](#) (see page 151). These are easy to label and participants agree on the labels. A more important framing is to evaluate the potential purposes of a meeting. The relevance of this approach is that sometimes participants in a meeting wouldn't agree about the purpose (if that question is raised) and sometimes the purpose of a meeting evolves during the meeting.

Standard reasons bureaucrats have to create a meeting include:

- To gather input from attendees.
- To make a pronouncement to attendees.
- To educate attendees. Formally labeled as a training course, but often makes an appearance in meetings that weren't initially intended to be educational.
- To educate one person. Especially important if the person lacking context is the decision-maker.
- To signal interaction. Participants in these meetings can say they met with other stakeholders, but that doesn't imply value was generated.
- To brainstorm ideas.
- To make progress towards a goal.

When the purpose is not explicitly stated, confusion arises. When multiple purposes occur in one meeting and the transition is not explicitly stated, confusion arises. The reason for this confusion is that the assumptions and expectations and norms of each purpose are different. When the attendees don't know the purpose or the purpose shifts, the expected behaviors and roles are unclear.

An attendee can ask what the purpose of the meeting is during the meeting but that is generally considered rude. An attendee can try to deduce the purpose of a meeting, but this takes time and attention and can

result in the wrong conclusion. An attendee can try to set the purpose of the meeting during the meeting, but this can conflict with the intent of other attendees.

A meeting's purpose can shift during a meeting. If done intentionally, the changes should be stated explicitly. Otherwise an attendee may continue to work under the previous set of expectations rather than the current norms.

Level of formality, start time (early or on time or late), end time (early or on time or late), utility, duration, number of attendees, number of speakers, and number of participants.

Meetings involve people, either known or strangers. Meetings involve information, either relevant or irrelevant. Relevant information is either new or related to previous work. Meetings either have a leader or no leader (e.g., team brainstorming). If there's a leader, the leader may be disseminating information to participants or gathering information from attendees.

Walk-around impromptu meetings

Meetings aren't constrained to occur in conference rooms around a table with everyone seated. Walking around the shared office space and having conversations with coworkers can be an intentional form of informal meeting. This is a way to break the problem described by the [Allen curve](#) – that communication drops as spatial separation increases.

Ambushing coworkers when they aren't expecting interruption takes tact. As the (potential) interrupter, you need to be sensitive that other people may not want to be interrupted, while others seek diversion from their current task. If you're the person being interrupted by the coworker walking around, you have the right to deferral.

Walking around and finding people to talk with can be for [social engagement](#) or to discuss tasks you are working on. In either case, you are interrupting existing activities. Presence creates priority, whether intentional or accidental.

See page 104

This concept isn't new. In the American Revolution, [Baron von Steuben](#) and [George Washington](#) used walk-around meetings to understand the needs of the members of their army.³

One-on-one check-in meetings

In contrast to the ambush of a walk-around, formal one-on-one meetings are typically a planned interaction between a supervisor and a team member. These discussions can be mutually beneficial. The meeting is an opportunity for the supervisor to coach the team member and for the supervisor to learn what the problems are on the team. From the team member's perspective, a one-on-one is an opportunity to ensure alignment with the team's direction and provide insight into how to improve the team. There can be education in both directions.

When a supervisor oversees multiple team members, holding one-on-ones can take a lot of time. With ten team members and an hour every other week, that's 12.5% of the supervisor's time without counting prep and documenting the discussion outcomes. There's a risk that the mindset becomes "no news is good news" or "everything is going well, no need to engage." The consequence of that minimal mode is that only [negative feedback causes interaction](#).

³<https://www.battlefields.org/learn/articles/winter-valley-forge>: "Like Steuben, Lafayette engaged directly with his soldiers and became well known for enduring the same hardships as his men."

A constructive check-in requires forethought for both the supervisor and the team members. For one-on-one meetings there are generic questions that can help the supervisor understand the team member's status.

A supervisor should ask the team member questions ⁴ like:

- What have you been successful with since we last met?
- What is blocking our team's progress?
- What are your plans?
- How are you collaborating with the rest of the team?
- If you could change one thing about our organization, what would it be and why?
- How do you plan to train your coworkers on topics you understand and they don't?
- What have you learned in the past month?
- What are the biggest risks for the team?
- What's limiting your productivity?

Responding to these questions takes time (an hour) and a willingness to be open.

If the supervisor doesn't ask these questions, the team member can include them in the agenda and bring them up.

Preparation for the one-on-one is a shared responsibility. The supervisor can review notes from the previous discussion and any artifacts that have been in progress. Before the meeting, the team member should document responses to the following questions:

- What was discussed previously?
- What progress has been made since the previous meeting?
- What is blocking progress?

The generic questions above may not fit all situations, like when a new bureaucrat joins an existing team. The one-on-one check-in should be tailored to the phase of the employee's progression. Frequency of check-ins depends on the newness of the team member, the complexity of the work, or how quickly the conditions are changing.

1. *Name of phase: Welcome to the team!*

Scenario: New team member, either new to the team or new to the organization.

Here the focus of the one-on-one is to ensure a smooth onboarding process. Get them up-to-speed on the technical challenges, professional norms, and integrated with other team members. Resolve administrative blockers like the following: Does the employee have the necessary computer log-in accounts? Do they have an email account? Are they on the mailing list?

Questions you can ask:

- What are the goals for the team?

⁴Not sure what to discuss? An extensive list of questions on topics like career development, conversation starters, and job satisfaction are available on <https://github.com/VGraupera/1on1-questions>.

- What items on the onboarding checklist are not yet completed?
- Who have you met on the team? What is your understanding of their role on the team?

The duration of this phase could last between a day and two weeks.

2. Name of phase: Initial contributions

Scenario: Team member handles small tasks.

The purpose of this one-on-one is for discussions on training, planning, and task reviews. This phase is characterized by the team member being dependent on others for their success. In this phase the employee collaborates on tasks.

Questions you can ask:

- What are the goals for the team?
- What are your task goals?
- What are you expecting to deliver to the team? When?
- What dependencies does that deliverable have (external to the team or internal to the team)?

The duration of this phase could last a few months to years.

3. Name of phase: Experienced contributor

Scenario: Team member handles large tasks (which they break into subtasks).

The purpose of this one-on-one is to help the team member define their success. Activities include planning, resource allocation, and assessment. This phase is characterized by the need to coordinate with others on the team or other teams. Team member understands task scope and intent and relevant processes. Team member decomposes task into subtasks.

Questions you can ask:

- How do the artifacts you're working on support your plan for the team's progress?
- What dependencies does that deliverable have (external to the team or internal to the team)?
- What insights do you have about the team or organization?
- What insights do you have about the relevance of the task relative to the purpose of the organization?
- What should management be doing to enable the team's success?

The duration of this phase could be the rest of a career.

4. Name of phase: Facilitator

Scenario: Facilitating the productivity of others.

Rather than being task-oriented, this team member supports coworkers.

Questions you can ask:

- What observations from mentoring team members do you have?
- What collaborations should we be fostering?

5. Name of phase: Peer

Scenario: Peer check-in.

This one-on-one is a form of mentorship. The value of the exchange is to get a different perspective and to hold each other accountable.

To evaluate when a team member and their supervisor should move to the next phase in the evolution, have an explicit conversation about the threshold for progression. Your practice of Process Empathy involves accounting for different rates of maturation for team members.

Listening to Bad Presentations

Occasionally you attend a meeting with a bad presentation. The slides may appear slick but the content is poorly thought out. Or the presenter does not understand the topic well. Or the presenter has good content but does not convey it well. Or the presenter is wrong about the topic. Regardless of the cause, you should assume the presenter is making their best effort.

You could remain silent, complain, criticize, ask leading questions, or offer constructive feedback. Your silence may result in other attendees and the presenter leaving with incomplete or wrong information. If you speak up you'll prolong the meeting or limit the presenter's time to convey their material.

Your assessment of the presentation may be wrong. You may lack relevant information. A reliable technique for interjection is to assume a state of confusion instead of confidently asserting that the presenter is wrong. If you believe the presenter is wrong, asking about the source of their information is a good entry point.

You should ask for clarification when the information is correct but presented poorly (or above the level you understand).

By paying attention to a bad presentation, you can identify issues that you do not want to repeat. The next section summarizes a few insights so you don't need to learn from bad presentations.

Make Effective Presentations

Speaking is vital at decision points in your career progress – at interviews, competitions, gaining new collaborators at conferences. Because you want to avoid mistakes in those situations, you will need to prepare and practice. Aim to impress your peers, supervisors, and the bureaucrats you oversee.

Breaking down the variables of your presentation can help identify questions to consider.

- **Purpose:** What's your goal? What does your audience want? Are those aligned?
- **Scope:** What is the minimum information you need to convey your point, while balancing that against the need to provide enough evidence of your claims?
- **Audience:** What's their background? What are they seeking? What are they expecting?
- **Speaker:** What should your appearance be? Do you need to alter your normal enunciation, volume, or rate?
- **Slides:** What is the layout of your content? What's the content?
- **Props:** Are there artifacts that demonstrate the point of your presentation?
- **Venue:** How big is the room? What technology is available? How is the lighting? Will you be competing with a noise source? Other visual distractions?
- **Time:** How much time do you have to prepare? Do you have access to the venue before the event? How much time do you have for presentation? For questions?

Expanding on the question of purpose for your talk, a standard framing is [Heilmeier's Catechism](#). Heilmeier's list of questions is concise enough to be memorable, but skips some relevant aspects. The list below extends the original set:

- (Heilmeier asks) What are you trying to do? Articulate your objectives using no jargon.
 - Should the solution be technical, social, or a process?
 - Which aspects are quantifiable and which are qualitative?
- (Heilmeier asks) How is it done today, and what are the limits of current practice?
 - How did we get to the current situation?
- (Heilmeier asks) What's new in your approach and why do you think it will be successful?
 - What has been tried before? Why did those efforts not succeed?
- (Heilmeier asks) Who cares? If you're successful, what difference will it make?
 - Who are the stakeholders? What involvement do you expect from each stakeholder?
- (Heilmeier asks) What are the risks and the payoffs?
- What are the constraints?
 - (Heilmeier asks) How much will [each milestone] cost?
 - (Heilmeier asks) How long will [each milestone] take?
 - What skills are needed for each milestone?
 - How do you know that set of constraints is correct? Complete?
- (Heilmeier asks) What are the midterm and final “exams” to check for success?
 - Who is evaluating the milestone artifacts?
 - What will be measured to determine the success of each milestone?
 - You should pre-register what counts as failure to enable accountability.

In addition to the questions above, another way to think ahead is the sequential tasks associated with the presentation. The following can serve as a checklist.

Planning your presentation

Evaluate your audience's experience and education before creating the presentation. The question you are addressing in your presentation may be independent of the audience, but the level of delivery depends on the audience's background.

When speaking to an audience outside your field, aim to use jargon your audience is familiar with. Another tactic is to look for areas of commonality and then build on that.

When introducing your topic, there are a few ways to open the talk:

- **Compliment** the audience.
- **Humor**: tell a relevant joke.
- **Vulnerability**: Tell how this work makes you feel.

- **Numbers:** Explain context and relevance in terms of money, number of people involved, and size of the system.

Prepare the content:

- Tell a coherent story with a unified theme. Each slide should be logically connected to the following slide. Don't just put a bunch of slides with data or pictures together. You risk disorienting your audience.
- Run spell check before presenting.
- Translate your slides from your native language to the language of your audience.

For the visual content in presentations:

- Switching between dark and light slides in a dark room stresses the eyes. The audience needs time to adjust to varying light levels.
- Images should use both color contrast and distinct symbols; this is called redundant coding.
- Pick colors that are accessible for colorblind audiences. For example green and magenta are better than green and red.
- Making slides appear “professional” means adding non-informational content. This added content should be consistent, not distracting.

Common choices include L^AT_EX (specifically Beamer), Microsoft PowerPoint, and Apple's Keynote. You are sending a few messages to your audience if you use Microsoft Word, a document PDF, Notepad, or any other non-presentation software to make a presentation. The two messages are first, the audience isn't worth the time you needed to develop a proper presentation, and second, you are not technically savvy.

Live demos can invigorate a boring presentation. Besides the interactivity aspect, the audience is excited by the risk of technical failure. If you plan to give a live demo, have screenshots of the process in the presentation. That way, if the demo fails you can show what was supposed to happen in the slides. If the demo works, skip the slides.

Practice the presentation (out loud in real-time) at least once. Use the setup as close to reality as possible for practice sessions. Project onto the screen using the projector. This experiment will show if the color contrast is sufficient.

Questions to ask your host:

- Will I have a projector and screen for the presentation?
- For the technology I'm using (PowerPoint, PDF, Keynote), which version is provided? Or does the speaker bring their computer? Or is there internet access?
- How to best get the presentation content to the host? Bring a USB drive or laptop, or email the presentation file to the host?

Day of talk

Appearance (suit and tie or jeans and t-shirt?):

- Underdressed = I don't respect the audience.
- Overdressed = I'm better than you.
- Similar level of dress = I'm a peer.

Some of these suggestions should seem glaringly obvious. They are here because I have seen them in "official" presentations given by a "professional." For example, do not curse. No profanity while speaking, in the slide presentation, or even the name of the file.

Before the talk begins

- Ensure your facility has power, a screen, a projector, a pointer, and any other necessary equipment.
(Don't rely on your host to think of these things for you.)
- Ensure all equipment works and functions together.
- Before the presentation begins, use a slide to make announcements and reminders:
 - List the agenda if there are multiple speakers.
 - Time talk begins, how long it will last.
 - Reminder: Turn OFF Cell Phones. Airplane mode is insufficient since previously set alarms can ring.
- Announce whether to ask questions during the talk (i.e., the audience should interrupt) or to hold questions until done.

During the talk

- Opening: Thank hosts, inviters, and organizers. Establish a connection between you (the speaker) and the audience.
- Do not pace.
- Do not stand frozen.
- If you are the only person laughing at your joke, it isn't funny.

End of Your Presentation

- Let the person asking the question finish. Even if you think you know what they are going to ask, wait.
- Restate the question to make sure the audience heard it and that you understood it.
- Aim for shorter responses. Save your longer answer for a follow-up discussion after the audience has been released.

Chapter 7

Bureaucratic Processes

Back to the [Main Table of Contents](#)

Because bureaucratic policies and processes seem convoluted, let's start from a more relatable point: your personal habits. You might eat at the same time every day, or you might go to bed at the same time most nights. Those are both examples of personal policies. Sticking to a routine decreases the need to think about options. In the same way, bureaucrats in organizations seek routines to decrease uncertainty.

You have experience with creating and using personal policies (your habits). Bureaucratic processes for organizations are similar. Both are routines that ease the burden of decision-making. A habit can be intentional (e.g., my policy is to brush my teeth before going to bed), just as a process can be designed. Habits can be unconscious (e.g., arriving at work without recalling driving there), just as processes can arise without an intentional design.

Consider your intentional habits – they are likely motivated by a personal policy. Similarly, bureaucrats acting on behalf of an organization apply processes that support the policies of the organization.

This chapter covers the [what](#) (page 158), [why](#) (page 162), and [how](#) (page 165) of processes. The last sections of this chapter ([design](#) on page 173 and [change](#) on page 176) assume a level of control and autonomy that you may not think you have. Regardless of where your role is in the hierarchy, your purpose is to provide value to the organization. That value can be negotiated with fellow bureaucrats on improvements to the design of task workflows.

7.1 Definition of Process and Policy

Bureaucrats manage access to shared resources (tangible or expertise). A decision about a resource that is administered by bureaucrats is formalized as a [policy](#) so that other bureaucrats can cite and apply consistent decisions. The policy of an organization constrains what action is required, allowed, or not allowed with respect to the shared resource being managed by the organization.

To determine which policies apply in a given circumstance, a sequence of tasks (referred to as a [process](#)) are defined. In a confusingly circular dependence, tasks may invoke policy enforcement by bureaucrats.

Processes inform the decision-making of bureaucrats and result in access to or denial of shared resources. A process has inputs and outputs. A process can be decomposed into other processes. Processes operate on

both information and tangible objects. Processes require [work](#) and time. Processes are carried out by people or machines.

Processes are important for organizations because they create a defensible story for the bureaucrats involved. Processes are not correlated with fair distribution of the shared resource managed by the bureaucracy. Management of shared resources is defensible with policies, and enacting policies require processes.

The alternative to process is an [exception](#) – see page [169](#) for more details. Creating and maintaining processes is burdensome, as is dealing with exceptions. This is the [Dilemma of Consistent Policies](#) described on page [69](#).

In your role as bureaucrat or subject you have options for responding to policies and processes. You can:

- Accept them. The default for most bureaucrats in an organization.
- Intentionally break them maliciously (to cause harm). Typically limited to a small number of participants. These defectors have various motives – frustration, moral opposition, personal revenge, etc.
- Intentionally break them for disruptive innovation. From the view of other bureaucrats, your intent of innovation may be indistinguishable from malice.
- Be ignorant of them. This may initially be easier for you (there's less to think about) but causes friction for everyone else and results in you being less effective.
- Work in an environment where the rules have not yet been set. Then you are either limited in scale and complexity, or you will need to form new policies and processes as the organization grows.

Evolution of Processes

Processes are defined as a sequence of tasks. Although an existing process may feel unchanging, understanding how processes arise can improve your effectiveness in using or changing processes. Often processes start with someone asking a reasonable question and another person providing a response. To ensure consistency for future instances, a policy is created. As new edge cases for the policy arise from repeated application, more information is needed by more stakeholders. An intent to decrease mistakes in the application of policy also imposes more work. To gather and disseminate the information for stakeholders a process is created.

With sufficient scale and complexity, each task becomes associated with distinct roles. The distinction of roles originates in skill specialization, separation of responsibilities, and granting narrow authority.

When there is insufficient staffing then individual bureaucrats have multiple roles. This can lead to a [conflict of interest](#) among the roles held by one person and is experienced by the bureaucrat as a [cognitive dissonance](#). For example, when one person has both the responsibility to enact a plan and review the completed implementation, the oversight is ineffective.¹

The effectiveness and value of a process can evolve even if the steps remain the same. A person who doesn't understand the original intent or the current design might be put in charge of the process. Or people involved might lack the training, incentives, or experience relevant to the process.

The simplifications necessary for making policies and the neglect of specific circumstances results in [process friction](#). Process friction manifest in waste of resources (tangible or expertise), slowdowns, emotional frustration, and social distrust of institutions.

¹For a formal mechanism of documenting roles, see the Wikipedia entry for the [Responsibility Assignment Matrix](#).

The above observations are theoretical and generic, but there's practical relevance to your actions as a bureaucrat.

- Understanding concepts like process and policy helps you identify when to work within versus work around, when to accept versus change, when to ignore, how to leverage, and how to design.
- In your role as a bureaucrat you may administer a process. When you do that, check that the person you are inflicting the process on can explain the steps back to you. If they cannot, their confusion will likely create more work for the bureaucrats involved.
- As the subject of a process, check that your understanding of the process is consistent with the bureaucrat's intent. Summarize the next steps and applicable deadlines so they can confirm.

>> Actionable Advice

Types of Process

The generic definition of [process](#) used above can be separated into subcategories. In practice, there are three types of processes: heroic, bureaucratic, and social.

A heroic process is exemplified by a single person or a small number of people doing the work associated with a specific task. The person may be acting in multiple roles and typically relies on expertise from multiple domains. This approach is not sustainable as there's significant dependence on the hero(s). The heroic process is a common pattern because it minimizes the work of other bureaucrats and is more efficient because there's less hand-off between bureaucrats. The heroic process may cause demoralization of the hero (because other bureaucrats are not able to reward the hard work) and result in burn-out.

Processes with fewer people and fewer steps can be quicker and use fewer resources, but they are more fragile and likely to be particular to the administering bureaucrat. Having more people involved helps with capacity and edge cases but slows down the process. Hero culture is rarely an intentional design; it is based on personalities and cost to the organization. Enabling redundancy in the form of a buddy system costs more in the short term.

The arguments against hero culture center on the long-term benefits of resilience and scalability. Those motivations lead to the next type of process.

A bureaucratic process is a sequence of steps with each step administered by a different bureaucrat. The steps of the process may not be communicated to process participants, which often causes frustration when the subject of bureaucracy has to discover each step sequentially. The number of steps in the bureaucratic process may seem onerous to subjects going through the process because of the multiple interactions with different bureaucrats (compared to the simpler heroic process). The bureaucratic process often takes longer than desired due to loss of information and context in the hand-off among bureaucrats. The participant has to re-explain the background and intention to each bureaucrat.

In contrast to heroic processes and social processes, bureaucratic processes are associated with forms (paper or electronic). Forms are meant to enable hand-off among bureaucrats, ensure consistent application of policy, and to catch people who shouldn't get the resource (in cases of accidental request or malicious request). For malicious requests, a more burdensome process merely filters the low-cost grifters.

A social process is undocumented and relies on relationships instead of titles. There is a strong sensitivity to prior experiences of the bureaucrats and on the skills of the people involved. There is no single person that represents or manages the social network, so the entry point is through relationships with bureaucrats who have existing connections.

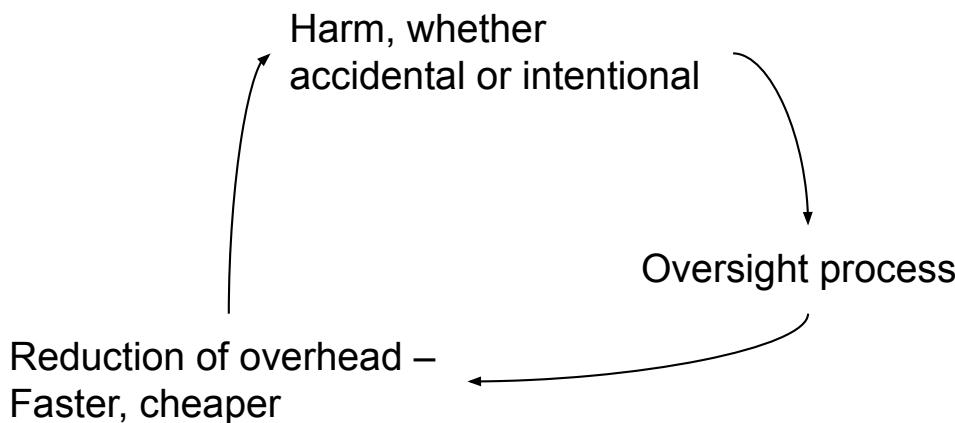


Figure 7.1: The harm-oversight-improvement loop that motivates policies and processes.

Once distinctions between heroic, bureaucrats, and social processes are recognized, tactics can be used to address the challenges associated with each type of process.

If you are blocked by the hero of a heroic process, you can try waiting until the hero leaves. Given burn-out and turnover, sometimes this is only a few years. Alternatively, you can try creating a positive relationship with the hero. If you're the hero and don't want to be, look for ways to transition to bureaucratic or social processes.

For the social process, participants are swayed by reputation more than title. In an ideal bureaucratic process your reputation wouldn't matter. That assumption turns out to not be valid. Building and maintaining relationships matters for all three types of process.

To build relationships with stakeholders,

- Learn the interests and dislikes of your coworkers involved in processes you care about.
- Doing favors for process participants acts as professional lubricant. However, explicit quid pro quo is likely to fail due to inadequate trust.
- Bring cookies and donuts and brownies to foster relationships and good will. Instead of bringing food when a favor is needed, bring food repeatedly before the favor is needed. Again, trust is built over time.

>> Actionable
Advice

Social processes can work well for small tasks that are infrequent. Social processes can be effective in anomalous situations. Bureaucratic processes are useful under routine conditions.

When you are forced to use a bureaucratic process for a complex objective and you have not previously used the process, avoid using the critical case for learning. Rather than start with the most important or hardest issue, send a test case through the process. This enumerates the sequence of steps, provides a measure of the time needed to get through the process, and identifies key personnel.

>> Actionable
Advice

Thinking of bureaucratic processes in opposition to social relationships is a false dichotomy. Bureaucratic processes are formalized versions of interactions intended to displace the need for social relationships among bureaucrats. When no process exists, only people with relationships succeed. Processes enable novices to an organization to contribute value and gain experience.

Processes (whether heroic, bureaucratic, or social) are not consistent because relationships vary – both among the bureaucrats administering the process and the person going through the process.

7.2 Why do Processes Exist?

The following sections explain why organizations rely on [processes](#). The reasoning matters to you in your role as a bureaucrat when you design a process (page 173) or try to revise an existing process. Similarly, as a person going through a process, the reasoning below explains why you are experiencing [process friction](#).

[Processes](#) are used by [bureaucrats](#) to leverage specialization, improve throughput, and enable consistent application of policies.

Processes Enable Consistent Application of Policy

While social processes may work well for low-volume ad-hoc requests, formalized bureaucratic processes become necessary for recurring high-volume activities.

Emergency Medical Team

When a medical emergency occurs for a patient who is already in the hospital, a team of medical staff is called to respond. Every medical team member has the knowledge associated with their role. One approach could be to have the team members negotiate the best approach before engaging the patient. To save time for routine actions a process is developed that eliminates the need for negotiating.

There is limited time available to respond to a patient emergency by a medical team. To decrease the latency for medical treatment roles are designated before the emergency during training sessions. Where each team member stands with respect to the patient is worked out ahead of time so that even if you don't know the nurse's name, you know the person is a nurse based on where they are standing at the bedside. The lead doctor stands at the foot of the bed to ensure they have a clear line of sight to the patient and team members.

Training for routine medical events allows emergencies to be handled with less cognitive load for the staff, resulting in fewer mistakes and less time to resolution.

Organizations are an abstraction intended to be insensitive to individual participants. That depersonalization applies to both bureaucrats and subjects. (In practice, outcomes depend on who the bureaucrat is and who the subject is.)

Consistent application of policies through the use of process decreases risk of mismanaging the shared resource. At the same time, the risk to the bureaucrats carrying out the process is also decreased. The use of processes addresses the risk of both immediate bad behavior and the potential of things going bad in the future. Process is the guardrail limiting harm to bureaucrats and the shared resource.

The [tragedy of the commons](#), is a motive for bureaucracy. The tragedy of the commons refers to the concept that when there is a shared resource, someone in the community will try to get away with behavior that is harmful to the community of users. Limiting harmful behavior can take the form of oversight processes. If oversight processes are not in place, malicious can actors dominate.

Another example guardrail is keeping stakeholders informed (justifications) so that intervention can be taken if needed.

Each process for oversight, review, or approval may be justifiable when evaluated in isolation, but the aggregate can feel unreasonably burdensome to both subjects and bureaucrats.

Processes Enable Simplification

Compared to an ad hoc approach, processes are intended to simplify what could otherwise be complicated moral decisions or complex coordination challenges. Simplification by using a process is intended to benefit



Figure 7.2: A task that one smart person can do might take two people who are not as smart. This concept applies to any task size and any population of workers. In this diagram three levels of task complexity are shown. As task complexity increases, the size of the team needs to grow with intelligence held constant. The growth may be less if the team members are brilliant. Those brilliant people cost more and there are fewer of them available.

the bureaucrats involved and the subject of bureaucracy. The benefits can be challenging to comprehend for stakeholders actively engaged in a process.

The relation between the complexity of a task and the skills of the bureaucratic workforce is another motive for the creation of processes. A positive story is that specialization allows narrow focus and thus deeper understanding and skill. An alternative perspective is that specialization allows for dumbing down the role, thus enabling a cheaper workforce. See Figure 7.2 on page 163 for a visualization of the trade-off.

Applying a process allows dumb individuals to accomplish complicated things. The collective talent exceeds that of any individual. As a specific example, consider the process of designing and building a car. That complexity is feasible to undertake for a skilled and knowledgeable individual, but the cheaper approach is to hire individuals capable of installing the passenger-side doors in an assembly line. The same reasoning applies to the next reason processes are used – to improve throughput.

Processes Enable Increased Throughput

Processes that leverage specialization can improve scalability. Adam Smith's [example of a pin factory](#) cites a productivity gain of 240 times better than the artisanal approach. Similarly, the introduction of moving assembly lines in Ford's car factory produced cars 8 times faster throughput.² Using processes improves throughput both through simplification described in the previous section and because increasing the number of participants in the process is easier.

²See the Wikipedia entry describing [Ford's assembly line](#).

Processes Enable Less Reliance on Social Relations

Bureaucratic organizations comprised of humans feature informal relations among bureaucrats. If there were no processes the policies could still be inflicted through social influence. Processes used by bureaucrats formalize how policies get enacted.

There is an interplay between personal relationships and bureaucratic processes; you should not rely exclusively on either approach. The relation between bureaucratic processes and social bonds was noted by Selznick in his 1943 paper [96]. Social influence is not antithetical to processes. There's always a mixture of the two.

Attempting to generalize claims about professional bonds in an organization is beyond the scope of this book. For a given complexity and given scale, some people are more sociable and less sociable and therefore desire more or less process. Some bureaucrats want documented processes and are confused as to how things are operating when formal processes aren't present.

The invisibility of informal professional relationships limits bureaucrats not attuned to the importance of these informal bonds. Informal professional influence among bureaucrats lacks transparency. Informal professional relationships can be hard to uncover and are not documented. Bureaucrats who do not take the initiative to form and maintain professional relationships or social relationships want processes so that they can be told what to do. Processes are also a way to avoid an interpersonal (professional) conflict which most people fear and avoid. The ability to professionally disagree is a skill worth learning.

In contrast to informal professional relationships, processes are easier to understand and track. The counter to informal influence is the hierarchical [org chart](#) described on page 21. Relying on top-down directives for formal processes enables bureaucrats to avoid responsibility.

Not all members of an organization have social relationships to leverage. The next section describes the benefits of having a process for participants who lack relationships.

Processes Enable New Bureaucrats and Subjects

Bureaucrats new to a team are likely to ask, "What are the processes and where is the documentation?" Bureaucrats who have been on a team for a long time say, "Don't burden me with processes; I just need to get things done using the relationships I have with people." One motive for processes is to help with onboarding team members who don't yet have relationships.

Besides not having formed a social network, there's a second reason new people seek processes. New team members who recently graduated from school are used to the existence of formal processes at the high school or university level. Therefore when they join a job, they expect a similar set of conditions for processes to exist and follow.

Once this motive for processes is recognized, the relevance when onboarding new hires is clear. New hires will need to discover the existing processes while they form social bonds. Discovering processes comes through oral folklore or written documentation. One technique to augment both discovery of processes and the creation of relationships is to have new hires sit with experienced team members. This is described in the section on [Prisoner exchange](#) on page 171. Where you sit matters to your effectiveness as a bureaucrat because locality matters for creating relationships.

>> Actionable
Advice

Processes Enable Promotion

Processes can arise organically (bottom-up) or be created top-down. In either context, creating a new process counts as bureaucratic innovation. Misguided managers of bureaucrats consider process creation worthy of promotion because the managers fail to distinguish novelty from innovation. Real innovation incurs risk,

whereas new processes are merely novel. Both cause change, but processes are typically designed to decrease risk. Rewarding decreased risk is reasonable, but it shouldn't be labeled as innovation.

7.3 Riding the Chaos

Bureaucratic organizations are imperfect because they are composed of humans. A bureaucratic organization is a complex and chaotic environment.³ A sensible response is to impose processes, hierarchy, and roles. Imposing structure can feel intellectually fulfilling and emotionally satisfying. Imposing structure looks like progress and may even help with your promotion in the hierarchy. The challenge (or continual source of employment) is that chaos is dynamic. A process created in response to chaos creates new challenges and is disrupted by changes in the number of staff, changes to who is part of the process, and changes to the amount of work. The half-life of structure depends on the rate of change of tasking and the rate of [personnel turnover](#).

[See page 176.](#)

A bureaucrat facing perpetual chaos could strive for perfection, run away from the chaos (to something less chaotic), exploit the chaos, or adopt an attitude of "I do what I can" or "I'll wait out the chaos." Another option, and the focus of this section, is to build skills for navigating the chaos of a bureaucratic organization.

You can build and maintain your network of professional connections with fellow bureaucrats. This augments the chain of command of a hierarchy. There is a turnover in both hierarchical roles and in your professional network, so you need to continually invest effort in creating new bonds and maintaining existing relations.

[>> Actionable Advice](#)

You can see change as an opportunity for improvement rather than a destruction of your previous investments. The [sunk cost fallacy](#) applies both to your emotional state and the resources you invested. Fear of change is prudent – change disrupts the comfort of stability and known processes. Anticipating change and preparing for it eases the stress of change.

You can leverage personalities and unique traits rather than expecting everyone to be interchangeable and treating differences as flaws. By knowing the strengths, interests, and weaknesses of coworkers, you can facilitate the process of change.

[>> Actionable Advice](#)

7.4 Processes Involve a Person New to the Process

Bureaucratic processes require working with other people. One source of friction is that participants may lack familiarity with the process.

This observation can be quantified with a small number of assumptions. When there are more inexperienced people than experienced people, the distribution of team membership tenure might fit a [power law distribution](#). What matters in this context is how long the team member has been in their role rather than how long they've been a member of the organization. Assume a max tenure of ten years [84]. With these conditions, if the process involves five people then the least experienced member will have a median of 100 calendar days of experience.

Three calendar months (or 70 business days) may be inadequate for complex processes or processes that are infrequent (quarterly or annual), especially if there was no training. When the number of participants is ten people, then the median tenure of the youngest participant is 51 calendar days (37 business days).

³Chaotic in the [mathematical sense](#) of non-linear dependence on initial conditions, not just the colloquial sense of disorder.

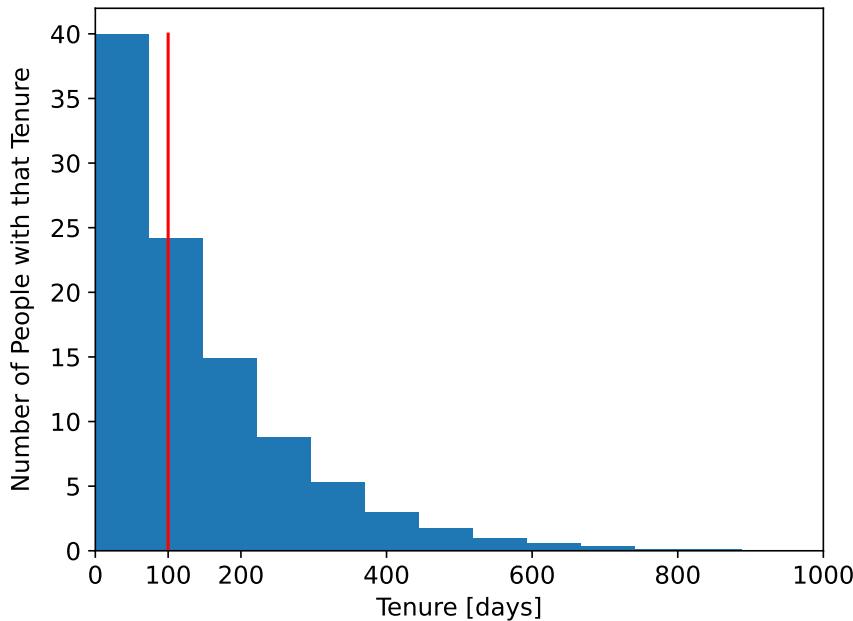


Figure 7.3: For a population of 100 people, the power law distribution of tenure using the probability density function described by $a x^{(a-1)}$ where the free parameter $a = 5$. The median tenure of the youngest participant in a process with five people is 100 days, indicated by the horizontal line.

To recap, the assumptions made were:

- Random, independent sampling of organization members.
- Tenure in your role matters, not the tenure in the organization. (This assumption excludes transfer learning among roles.)
- Tenure in role fits a power law distribution.
- The power law distribution is characterized by (free parameter $a = 5$, max tenure=10 years).
- There are five people involved in the process.

If that last parameter is varied, the estimate of three months as the median is reasonable for processes with five or more participants.

Even when there's a single participant, the median tenure is less than two years because of the power law distribution of tenure.

What if the power law distribution of tenure were replaced with a uniform distribution? Surprisingly the shape of the distribution of the youngest participant's tenure is not uniform, see Figure 7.5. The median tenure of the youngest member of a process with five participants is 15 months.

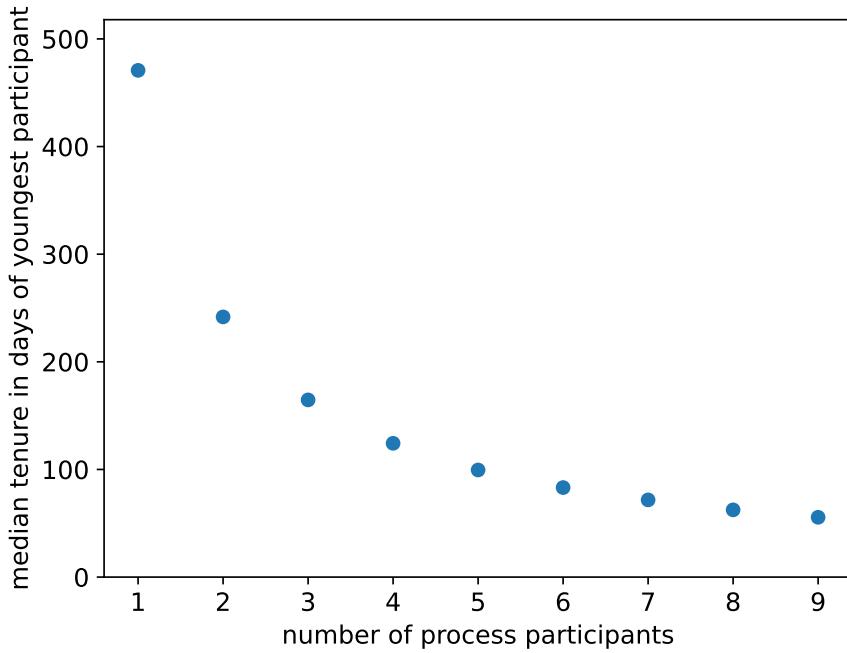


Figure 7.4: Median tenure of the youngest participant (in calendar days) as a function of the number of process participants with tenure following a [probability density function](#), $a = 5$, and max tenure of ten years.

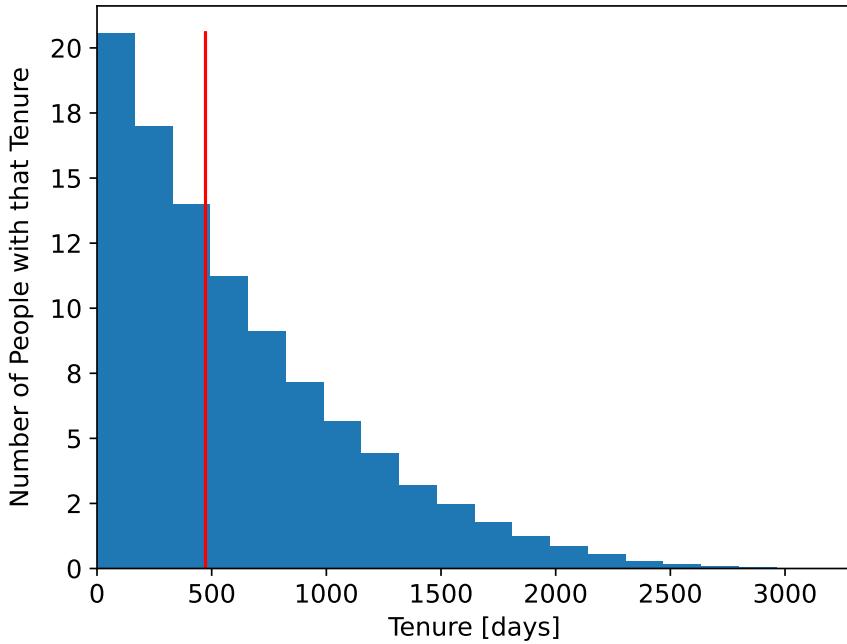


Figure 7.5: The median tenure of the youngest participant in a process with five people is 472 days when the distribution of tenure is uniform. The population size has been normalized to 100 people.

7.5 Automating Processes

The desire to automate processes is widespread. Automation has the benefits of consistency, predictability, decreased labor costs, and easier troubleshooting. When physical objects are involved, then robotics is necessary for automation. For bureaucratic organizations that deal with intangibles (referred to as “[knowledge work](#)”), automation often involves computers.

While the benefits of automation are typically clear to participants, there are barriers to automation you will need to address. As with making information discoverable and searchable, automation requires an investment of time, money, and skills that are ancillary to the purpose of the organization. A transition from manual processes to automated workflows requires doing the original work while enabling automation. Creating the conditions that are needed for automation has a delayed pay-off.

The evolution of automating a process involves

1. Identify who is involved in the process. How did the process get created and how has it evolved up to now? Who evaluates the success of the process?
2. For existing processes, transition verbal folklore to written documentation. The purpose of this step is to write down the workflow, business logic, and relevant decisions.
3. Transition the documentation in the previous step from plain text documentation to structured data. Examples of structured text that can be parsed by a computer include decision trees and workflow diagrams. Implementation could be in [Graphviz](#) or [PowerPoint](#).
4. Collect metrics (for example, the number of times the software application was opened, how frequently the folder was reviewed, how much time was spent on the webpage) for existing manual processes to enable cost evaluation for implementing automation. This is the modern version of a [time and motion study](#).⁴
5. Implement stand-alone software (scripts) for each task using personal automation tools like [PyAutoGUI](#) (a free Python-based automation package) or [AutoIt](#) (a free domain-specific language for Windows GUI applications).
6. Tie the scripts in the previous step to the task workflows from step 2.
7. Create an automation assistant that actively monitors your activities (keystrokes, mouse clicks, on-screen events) to detect repetitive actions that are candidates for automation.

The path described above is not accessible to many bureaucrats for multiple reasons. The barriers to automating bureaucracy depend on having relevant skills, IT resources, and predictable workflows that justify the [return on investment](#). Compounding these hurdles, the skill of identifying opportunities for automation depends on your practical skills (what are you capable of) and your experience.

Where you are in the hierarchy of your bureaucratic organization affects your options. Automating bureaucracy from the bottom-up can be augmented and supported by management. At the organizational level, there are system-level changes like

- Hire people who desire automation and the skills to enact automation.
- Use tracking bits in [PDFs](#) and webpages to collect data on how systems are used. This decreases the burden on process participants to report metrics and can be less biased since it does not rely on self-reporting.
- Provide a metrics aggregation service. The ability to store metrics from multiple teams enables a holistic perspective on the organization and can help identify chokepoints. Without the ability to view the entire organization, premature optimization is likely.
- Align incentives (e.g., pay, promotion) with the implementation of automation.

⁴<https://xkcd.com/1205/> – the trade-off of task frequency versus temporal savings per task instance.

- Transition from paper to [PDF](#) to a website to an [API](#) (application programming interface).⁵
- Members of bureaucratic teams should be trained to develop software, share code, use [APIs](#), create [APIs](#), and maintain [APIs](#).

Automation can reduce labor costs, but designing, implementing, maintaining, and updating automation requires significant investment, a change of culture, and new skills for the workforce.

When automating bureaucratic processes, exceptions disrupt the expected workflow of tasks that comprise the process. Handling exceptions is a tricky subjective topic because exceptions are sometimes critical to allow for and can be abused. Abuse of exceptions to a process can originate from the subjects of a process or from the bureaucrats administering the process.

7.6 Exceptions to a Process

Process designers are usually motivated to address a specific issue associated with access to shared resources. When bureaucrats execute a process to support a policy, there may be cases that violate the designer's assumptions. Now the person with the exceptional case and the bureaucrat carrying out the policy has extra work to deal with the broken process. This is a source of [bureaucratic debt](#).

[See page 175.](#)

When the routine process is inadequate, there are routes for exceptions:

- Change the process to address the exceptional case. This takes extra time and work for the subject and the bureaucrat.
- Ignore the process. Use relationships instead.
- Ignore the task. If the result isn't crucial to your efforts and the work is too burdensome compared to alternatives, stop the process.
- Seek an exception to the process. The exception can be recurring or one-time. The justification for the exception can be based on the social capital of participants (title, reputation) or be a data-driven argument or some mixture of both.

The designer of a process may not be able to anticipate future circumstances, but expecting the capacity to be responsive to change is reasonable. The process designer should use sunset provisions and escape hatches. A sunset provision can be time-based (e.g., this policy expires after three years) or based on a threshold (e.g., this policy should be evaluated for renewal after 1000 cases). An escape hatch specifies the conditions under which the participants are excepted from the policy. A good escape hatch for a policy provides directions about what follow-on actions should be taken.

>> Actionable Advice

Another reason processes may be inadequate is due to urgency. A result that is needed quickly may not fit the timeline of sequential tasks for a process.

Time Sensitivity Exceptions

Exceptions to a process may be required when a result is needed quickly. In the medical setting, there are categories of urgency; a task may be routine, priority, urgent, or stat. Each of those categories is associated with a time-bound, though the specific duration varies by medical domain and by location [110, 108].

Common failure modes for processes include abuse of prioritization (everything is important) or abuse of urgency (everything is needed quickly). Either of these abuses need to be corrected to have a healthy bureaucracy, but typically the cost of labeling an effort as "priority" or "urgent" is low.

⁵To read about how this worked out at Amazon, see [Yegge's 2011 description](#) [117].

Interaction between the bureaucrats tasked with work and the people characterizing relative value is needed to limit the abuse of processes. This interaction is a negotiation of what work gets done when and in what order. Labeling every task as “urgent” is a failure to communicate the relative value of a set of tasks.

Process friction can arise from the separation of roles needed to support a process. Those separate roles can happen within a team of bureaucrats, or the process can span distinct teams. The difficulty imposed across teams within an organization is moderated by the existence of a common arbiter in the chain of command. Troubleshooting processes is even more complicated when processes span organizations.

7.7 Processes Involving Two Organizations

When two independently-managed processes interact across organizational boundaries there can be friction. Process friction, especially between two organizations that lack shared coordination, results in either [exceptions to the process](#) (see page 169), lying, or a [change in process](#) (see page 176).

The following stories illustrate process friction between teams within an organization and process friction between organizations. The teams within an organization have shared objectives set by the organization, whereas separate organizations lack incentives to coordinate.

Two teams operating within an organization, with a shared intent and working relationship, may be stuck with the process they have even when the friction is clear. When organizations lack a common objective, friction can be even more significant.

Example of coordinating processes between two Organizations

This story is about receipts from one process being submitted for reimbursement to another process. Submitting the receipt shifts the accountability and justification burden to the accepting bureaucrat.

Dental Insurance
I have dental insurance. I visited the dentist on December 2. One of the procedures during a routine cleaning was “bitewing x-rays.” This procedure is covered by my insurance, so I was surprised when I received a bill for it from my dentist a few weeks after my visit.
I called my dentist and they explained that the dental insurance had declined to pay for the procedure. I called the insurance company on January 3 and they confirmed that the procedure was covered by my policy. Every time I called the insurance provider I had to provide my social security number, date of birth, and zip code twice – once to the automated system, a second time to the person I talk with. The insurance company had made a mistake and said they would cover the cost of the procedure. I followed up with my dentist and explained the situation.
I called the dentist to see if they had received payment yet. They had not, so I called the dental insurance provider again on February 6 and 8. On February 8 the insurance company said they would process the payment within 7-10 business days. I called again on February 20 and the claim hadn’t been started within the insurance company. I spoke to the supervisor and she said she would personally visit the claims office within the insurance company.
From the perspective of the dentist, they are seeking money for the service they provided me.
From the perspective of the insurance company, delaying payment on a claim makes good financial sense – the policyholder is likely to just pay the balance to avoid going to court with the dentist.
From my perspective, the question is whether chasing this issue makes financial sense. I think of my hourly rate as \$40, so after an hour the charge of \$38 would have been better to pay out of pocket. Effectively I’m devaluing my time. The emotional stress and thought-cycles spent are also relevant,

though harder to quantify.

Streamlining bureaucratic processes does not occur automatically. There needs to be both incentive to change and authority to make the change.

In the above story, the dental office wanted to be paid for services provided. The insurance company wanted to minimize the number of payments made. And I wanted to minimize my costs. While none of those are conflicting, each organization has separate objectives.

Deploying Bureaucrats to Different Teams or Organizations

One method of addressing friction between teams or organizations is to deploy a person across boundaries. This may not result in a specific change, but it can help members of both the originating team and the receiving team better understand their counterparts. For the rest of this section I'll use "Team A" as the origin and "Team B" as the receiver, though the concept applies to an exchange of organization members. The name of the bureaucrat in this example is Mark. This example covers an informal deployment in which Mark remains employed with Team A. While Mark is with Team B he provides the management of Team A with a weekly activity report.

The easiest question regarding Mark's deployment to Team B is "How long?" That depends on the purpose of the exercise and the complexity of the work Mark will be doing with Team B, as well as how long Team A can operate without Mark's contributions. What is a successful outcome for Mark? For Team A? For Team B? For the organization? How long will the integration of Mark onto Team B take? Does Mark need time on Team A to delegate his current work?

A deployment harms the productivity of originating Team A by loss of staff. The deployment also harms Mark's productivity for his work with Team A. The deployment harms the receiving Team B since they have to train or integrate Mark.

Incentives for this investment include cross-training for Mark, better process empathy for both teams, and temporary (exceptional) support. What is Team B expecting from Mark? How will Team A benefit? What is Mark expecting to gain from the deployment? Or is this a sacrifice on Mark's part?

Cross-training Mark can improve Mark's productivity and the teams. Team B gets to hear an outsider's perspective from Mark, and Mark returns to Team A with a broader perspective of the organization. A deployment can build relationships among the teams. Both teams are better able to address process friction or exceptional interactions.

Potential engagement modes for Mark: consultant (providing knowledge to Team B), integree (increasing the capacity of Team B), or shadowing (learning from Team B). Shadowing can be of an individual on Team B, or Mark can shadow Team B by attending meetings.

Mark could be deployed full-time for the entire duration, split his time between teams, or build up and then decrease over the course of the deployment.

Are there criteria for early termination of the deployment? Are there criteria for extending Mark's deployment?

If this sounds useful to your team, there are a few considerations. Are you on the originating team A or the receiving team B? Who gets deployed? How is Mark picked? Was the opportunity advertised? If you're receiving Mark, what are your acceptance criteria? How many concurrent deployments can your team support?

Service-level Agreements

When two teams or two organizations need to interact repeatedly, a formalized approach is to create a [service-level agreement](#). While a service-level agreement (SLA) is constructive for outlining what each party expects from the other, within a bureaucracy an SLA is typically not a legally binding contractual agreement. Instead of a judge resolving disputes, an SLA within a bureaucracy may be adjudicated by a supervisor common to the two teams.

A service-level agreement within a bureaucracy is dependent on the goodwill and honor of the signatories. Since an SLA is a formalization of a relationship, it is subject to revision when there is turnover of signatories in the teams.

A service-level agreement should include providing historical and live data to stakeholders so violations can be measured. Measurements are needed because enforcement of the SLA is by the signatories. Observability is key to accountability.

A supervisor common to the parties may be invoked when an SLA is not met or if there is a dispute over the interpretation of an SLA. Usually the threat of invoking oversight is enough to coerce a change in negotiations. When the common supervisor gets involved, there are not many options available for sanctions. The supervisor could withhold bonuses or promotions, assign a new team lead, or re-negotiate the SLA.

Because creation of SLAs is burdensome to all parties involved, monitoring to enable enforcement incurs work, and punishment is limited, most cooperation between teams and between organizations is informal and ad hoc. Relying on personal relationships is easier than formal agreements. Reputations, both for individual bureaucrats and for teams and organizations, are then formed based on performance and reliability.

7.8 Process Mistakes

Any process involving humans incurs mistakes.⁶ The only way to drive the number of mistakes to zero is by doing nothing, but that isn't a practical way of managing shared resources. The purpose of pondering bureaucratic mistakes is to come up with ways to limit the consequence of mistakes to cause damage while not inhibiting progress.

Fixes are Difficult

Imposing checks on a process as a way to reduce mistakes creates more bureaucracy. The extra work can be in the form of redundant data collection or by requiring more justification.

Maintaining coordination of diverse activities in a bureaucracy requires that information propagate up the chain of command to a common authority. Some mistakes like duplication of effort can only be detected by checks made high up the chain of command. A less formal mechanism is to leverage informal relations between bureaucrats that operate outside the hierarchical chain of command.

Fixes Fail

The path of information from the person with a problem to the person who can address the situation may pass through many people. At each hand-off there is a significant chance the information is unintentionally mangled.

The consequence is familiar to people who have played the [game of telephone](#).

⁶See the Wikipedia entry for [Murphy's law](#).

Game of Telephone

The person has a problem and explains their problem to the helpdesk staff member. The helpdesk staff member hears the problem with incomplete context and from their frame, then relays it to their manager, who talks to the manager of the engineering team, who delegates the responsibility to the engineer.

This is a solvable problem: the engineer could talk with the customer.

Where Process Mistakes come from

Mistakes in a process can originate from the bureaucrat who inflicts the process, in the hand-off between participants, or from the [subject](#) of the bureaucratic process. Typically there are more checks on subjects and fewer on bureaucrats.

Choices about Mistakes

As a process participant, you may cause a mistake or observe a mistake. Your options are to either ignore it, fix it (which incurs extra work), or report it. If you choose to report it, you can do so anonymously (which decreases the risk of harm to your reputation but also eliminates feedback) or with your name so that discussion can occur and you get feedback.

Brainstorming types of mistakes and causes of mistakes for processes is important not just for developing Process Empathy. Understanding mistakes is helpful if you want to revise a process or create a new process.

7.9 Design of Processes

The most effective process is a minimal process. When designing a process, look for ways to minimize the work for the people involved. Minimizing work (both physical and mental) for the people involved means less sensitivity to entropy in a bureaucracy. Minimizing work requires significant situational awareness on the part of the designer. To minimize the requirements to achieve success, minimizing the effect on existing bureaucracy is vital.

Another question to ask when designing a bureaucratic process is whether a process is needed. Can the goal be accomplished by relying on ad hoc responses and leveraging relationships among bureaucrats? There is a Goldilocks situation for the number of processes in an organization:

>> [Goldilocks principle](#)

- Too few processes (all social relationships). New participants, lacking necessary relationships, find the team or organization chaotic.
- Just the right amount – a balance of process and social relationships, and knowing when to use which. Each participant has a different view about what the right balance is based on what relationships are accessible to them, and how burdensome they find a process.
- Too much process (not enough leveraging of social relationships). When this happens, bureaucrats can end up resorting to the use of social relationships to circumvent burdensome processes.

This optimization is like the [Laffer curve](#) in economics: there's a sweet-spot between the extremes.

Because bureaucrats are typically not formally trained in designing processes, ad hoc ideas reactive to the immediate situation and local constraints are used. A thoughtful process designer tries to account for exceptions (page 169) and potential mistakes (page 172).

Minimal processes and subtle change may not be available. The following sections describe why static process designs are the norm, the role of bureaucratic debt (page 175), and how to design for turnover of staff (page 176).

Static and Dynamic Processes

Change within an [organization](#) is to be expected since the external environment the organization exists in is not static. Sources of external change include improving technology, changes to the [shared resource](#), or shifting expectations of subjects of the bureaucracy. Change is also driven internally to the organization by [turnover of staff](#). Since change is expected, why are static processes that are not robust to change created in the first place? Because static processes are easier to design and appear initially to require less maintenance.

See page 176.

Creating robust processes that are dynamic takes more effort to create. First, the process must be documented so that it can be analyzed. What is expected to happen? Who are the stakeholders? These conditions are likely to change, making the process fragile. Second, document assumptions used in the process. If the assumptions are invalidated, then the process is broken and needs to be discarded or at least revised.

A challenge is that even when the process is documented and assumptions enumerated, there may not be an incentive to check to see if revision is necessary. Measurements (which are costly and disruptive) need to be periodically taken to see if the assumptions are still applicable. To force periodic validation of assumptions, one approach is to use [sunset provisions](#) – automatic expiration dates set at the time of creation.

A more quantitative approach (and even less frequently used) is to tie a process to a cost-benefit model. Enacting a process provides a benefit and comes at some cost. If the assumptions of the process can be tied to a cost-benefit model, then we can determine whether the process is worth enacting. Periodic measurements are needed to update the cost-benefit model and determine whether the process is effective.

Summarizing the steps for creating a robust process,

1. List assumptions used in the process. Who are the stakeholders, what are the goals, and what are the constraints?
2. Relate the assumptions to a [cost-benefit model](#).
3. Determine the measurable parameters of the cost-benefit model.
4. Collect recurring measurements to verify the assumptions.
5. If the assumptions are broken, revise the process.

A robust process is just a fragile process with a feedback loop informed by ongoing measurements. Robust processes require extra work by bureaucrats compared to static processes. A static process shifts the burden to subjects. In this situation bureaucrats have externalized the burden. In practice, ignoring exceptions and reacting to problems is common because then there's less work for the bureaucrats enacting the process. Process Empathy in this case is not just rationalizing suboptimal behavior, but empowers you to take action.

The above description of robust dynamic processes and fragile static processes characterizes workflows in isolation from the history of a team or organization. Typically processes are evolved from previous processes. That evolution induces another source of bureaucratic friction.

Decisions and Processes Create Bureaucratic Debt

Suppose a [process](#) is enacted and later found to be ineffective. Some work is needed to revise the process and hopefully improve effectiveness (or an [exception](#) is needed). [Bureaucratic debt](#)⁷ is the work needed to change a process. Bureaucratic debt is caused by choosing an easy solution now (with limited information or insufficient resources) instead of using an approach that would take longer to design and enact but be more robust.

Decisions made by [bureaucrats](#) occur in a resource-constrained environment. Getting information (measurement) and analysis are costly in terms of money, time, skill, and labor. Each decision made results in options that are not explored. These missed opportunities are associated with short-term versus long-term trade-offs of costs.

The [opportunity costs](#) (options the organization doesn't take) alter which future decisions become available.

The purpose of defining bureaucratic debt as a concept is to capture the work resulting from decisions that would otherwise be unaccounted for. Once the concept of bureaucratic debt is understood it can be tracked.

To document bureaucratic debt, you need to record aspects of decisions as they are made:

- What is the decision to be made?
- When was the decision identified?
- When was the decision made?
- Who made the decision?
- What options were identified?
- Which option was chosen?
- Why was that option chosen over the other options?

The purpose of documenting decisions is to enable both aversion to bad decisions and attraction to good decisions. That may sound strange, but the default of decision-makers is to apply the same behavior in future decisions. Without documenting decisions, there is no transparency, accountability, historical measure of progress, or ability to track dependencies.

Creating a record of decisions is necessary but not sufficient. The documentation of decisions needs to be shared with stakeholders to enable accountability. This should occur as promptly as possible.

Every bureaucrat exercises policies that apply to subjects, even if the subjects are other bureaucrats. What I'm describing above is beyond merely documenting what the processes and policies are for subjects. Documenting bureaucratic debt is for use internal to the team or organization.

The scale of decision impact determines the level of documentation. “Do I choose pencil or pen?” incurs negligible bureaucratic debt; therefore the documentation needed is also negligible. Projecting the consequence of decisions is a subjective prediction.

⁷Similar to the concept of [technical debt](#) in the creation and maintenance of software.

Design Processes for Turnover of Staff

When designing a [process](#), there are a few goals to optimize for: time-to-first-result, average latency, initial financial cost, total financial cost, flexibility to input conditions, throughput, and scalability. In theory all these factors should inform decision-making. An often neglected aspect that is harder to predict and harder to measure is the importance of employee turnover. On a long time scale, the turnover of [bureaucrats](#) is a significant source of risk for any team or project.

Besides the loss of knowledge associated with turnover, another complication is the change of assumptions when new people join an existing process. Processes are enacted differently than initially intended because the people implementing them are not the same people who came up with and designed them. One solution (rarely enacted) is to document the assumptions and reasoning for the design of a process. Having a written record enables bureaucrats who were not present at the time of conception to understand the purpose of the process.

The conditions under which a process is created are not static – requirements and resources change. Making processes resilient to change requires bureaucrats to be educated beyond the requirements of the immediate task. The relevance of education is on-going: during onboarding of the bureaucrat, while carrying out the process, and as bureaucrats exit participation in the process.

Providing training for a process is complicated by the variety of bureaucrats participating in a process. That is why designing a process typically relies on roles – participants are treated as interchangeable with other people who have similar skills. As a bureaucrat coming up with a novel process, accounting for differences in enthusiasm or communication among participants is difficult. Designing processes that are robust to turnover does not mean ignoring the unique talents of participants. To account for differences emphasize documentation that explains the how and why in training new participants.

>> Actionable Advice

Onboarding new bureaucrats involves technical training, explanation of norms, learning the processes, and creating a professional network of coworkers. During this onboarding the new bureaucrat should be documenting their observations. Postponing the creation of documentation until the new person has experience results in a skewed and incomplete capture of the challenges.

Trained and experienced bureaucrats executing a process are responsible for coordinating with other bureaucrats. Bureaucrats should be cross-trained in other roles to gain familiarity with other parts of a process.

Bureaucrats exiting the team or organization or changing roles have a responsibility to document their knowledge for team members. An exit interview can inform how the team improves.

In each phase, documentation is the mechanism for spreading knowledge. Documenting the why (in addition to the how) is critical for the reader. How frequently documentation is accessed should be measured to determine whether there was value in investing in documentation.

The opportunity for you to create novel processes is likely to be rare if you are a bureaucrat in an old organization or team. A more frequent activity is updating and revising existing processes. The next section covers topics specific to changing a process.

7.10 Change Existing Processes

New processes can arise organically or be issued as top-down edicts. Processes evolve to fit the constraints of available resources and skills of bureaucrats and subjects. These causes of consistent flux mean updates

to policies and processes are ongoing. Whether you are a bureaucrat administering a process, a subject burdened by a process, or a bureaucrat responsible for revising processes, you have input on changes.

Processes change over time because the conditions change. When a bureaucratic process is no longer providing value to the organization or the participants, change is needed.

Changing complex processes is hard because individuals involved in the process may depend on steps that are not visible to other people.

Making change more complicated is the entanglement of interdependent processes. Processes do not exist in isolation. A version of Hyrum's Law [54] modified for a bureaucratic context is:

“With a sufficient number of stakeholders of a process, it does not matter what you describe as the steps; all aspects of your process will be depended on by somebody.”

When a change to processes is attempted, change is slow to happen because of lag in feedback loops.

Bureaucratic Inertia

Creating an organization, recruiting staff, getting funding, getting office space, setting up communication technologies, and creating processes is a significant investment of time, money, and people. That same work applies when making changes to the size and scope of an organization (making it larger or smaller). Because this work and attention take time, there is a lag associated with changes to an organization that better reflect the scope of tasks and the number of tasks. The lag of changes as they ripple through an organization characterizes [bureaucratic inertia](#).

On a more personal scale, the causes of bureaucratic inertia are attributable to changes to processes or creating new processes. A process displaces the need for bureaucrats to think, so new processes force bureaucrats to think about their roles or develop new skills.

Another source of bureaucratic inertia is the over-subscription of tasks to the amount of attention available and resources available. In the situation where there aren't enough resources or attention, then the response to some tasks is necessarily delayed or left unaddressed. Delayed tasks block the workflows that depend on those outcomes.

Why Change a Process

Why changes to a process occur in a bureaucratic organization:

- To improve an existing process that is working as desired (i.e., a more clever or efficient solution).
- Improving an existing process by undoing mistakes previously made.
- Inventing a new process where there previously was not one.
- If utility and improvement are difficult to quantify bureaucratic activities, then bureaucrats may be promoted based on change instead of whether value was delivered.

If you recognize that processes are evolutionary, then the right response is to allow and look for iterative change (fail fast) rather than trying to create static processes.

How to Change a Process

Change to a process can come from the top of the organization's hierarchy or from the bottom.

When change is driven from the top-down,

Benefit: Unified vision enables global optimization.

Inefficiency: Can't see all the details from the top, so solutions may not fit well.

Resolution: Better reporting up the chain.

When change is driven from the bottom up,

Benefit: Each component in the hierarchy has local control, sees local aspects, and creates solutions for the local problem.

Inefficiency: Local optimization⁸ across multiple components in a workflow can yield suboptimal outcomes.

Resolution: Each local component acts with the same objective.

Regardless of where you are in the hierarchy, there are generally applicable tips for changing a process. The first is to segment the stakeholders, the second is to find critical **OODA loops**, and the third is to alter how you notify stakeholders.

Even if you use the tactics described here, you are likely to encounter resistance. Transitioning from legacy processes to new processes impacts the bureaucrats involved. Changes have to overcome legacy investments. People can feel threatened by the change of role or skills.

Tactic: Segment Stakeholders

The people a process is inflicted upon are not all the same. Some example categories of bureaucratic subjects are normal users, power users, and malicious users. In a similar manner, **segmenting** the stakeholders for a potential change can help you distinguish different levels of support or resistance.

The concept of a **stakeholder** is broader than just the people in various roles carrying out the tasks associated with a bureaucratic process. To be more effective in enacting change, identify people in the following groups.

- People interested in active collaboration. They may not share your zeal, but finding shared activities is helpful for participation.
- People who passively support the activity but do not provide resources. May provide feedback or enlarge the coalition.
- People who don't care and are not engaged.
- People who disagree with you. Seek these contrarians out to refine the idea or scope. Negotiate! Be open to evolving the concept to address or at least acknowledge their concerns.
- People who are actively working against you. Try to understand their motives. Not through speculation, but by direct discussion. Written communication is inadequate; face-to-face is best since you are more likely to be treated like a human rather than an idea or concept.

Which segment a person is part of changes as your scope and timeline shifts. Their activities and priorities may cause their position to evolve.

Tactic: Find Critical OODA loops

Influence is not distributed equitably among members of a team or organization. For that reason, surveys may be misleading. If you want to change a process, focusing your attention on crucial influencers is more effective than trying to spend the same amount of time learning from every bureaucrat.

The colloquial use of “influencer” doesn’t reflect the bureaucratic sense of shaping the direction of an organization or team. Because the term “leader” is over-used, a more precise label is “maven.” Some mavens

⁸“Blessed are those who optimize locally, for there is no glory in making the whole system work better.” [106]

are highly visible, while other mavens work behind the scenes. Mavens may or may not be highly placed in the hierarchy of the organization, and they may not have fancy titles.

The approach to changing a process being described here takes two steps: figure out who matters in an organization or team, then change how those influencers think and act.

The first step is to use a social implementation of [PageRank](#) to find the relevant mavens for a given topic or process. You start your search with random bureaucrats (sampled from across the organization). In a one-on-one interaction, ask the person who they would recommend talking to. “Who else would you recommend talking to about this topic?” is the last question in the first conversation. To start this search process, start with your first-order social connections. Cover both low-level bureaucrats and those higher in the chain of command.

Once you’ve started your search for mavens, leverage the trust already in the social network by starting conversations with “When I spoke with Bob he recommended I talk to you about <name of topic>.”

Once you’ve identified mavens for the topic or process you want to change, the next step is to change how the mavens think.

A model for human decision-making is the [OODA loop](#). If you want to change a process, change the people; if you want to change people, change their OODA loop. That means changing the data the person is aware of (what they observe), changing the external incentives (how they orient), and teaching them new decision frameworks (e.g., cost-benefit models).

Tactic: Approval, Forgiveness, Opposition

Bureaucracy involves decision-making. A common task for bureaucrats is seeking consensus regarding action or spending resources. There are distinct options for how to get that consensus:

- Seek approval before taking action. This approach incurs both providing justification and waiting.
- Ask forgiveness after taking action. Often viewed as being in contrast to seeking approval. Less delay, and usually works if things go well or if no one notices.
- Notification of Intent with a deadline for response. The window for a response should be sufficient to allow feedback. If no response is provided default is for action to be taken.
- Solicit opposition before taking action [87]. This is a different framing from approval or forgiveness. It decreases the risk the approver has to take on.

The best way to proceed depends on the personalities of the people involved in building consensus and their relationships.

Most organizations default to approval-based processes. Each new idea needs to be signed off as approved by a sequential list of [bureaucrats](#). The sequential (not concurrent) process may be known in advance, or it may be ad hoc if the request is novel.

Relying on approval is harmful to innovation because sign-off by each bureaucrat is interpreted as “I am 100% in agreement with this.” Each stakeholder has to bless innovation and tie their reputation to the outcome.

Flip your phrasing from “Do I have your approval to...” to “Are you opposed to...” Soliciting opposition is a more useful paradigm because the default response is “I won’t stop this.” With framing of seeking opposition then the bureaucrat reviewing the idea can avoid taking responsibility for the idea and therefore is not tying their reputation to the result.

>> Actionable
Advice

Chapter 8

Attitude of an Effective Bureaucrat

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You could operate within a [bureaucracy](#) and entirely focus on just doing the job you were hired for and ignore administrative distractions. Or you can be more effective in your job by understanding the role of engaging with other people – peer bureaucrats, supervisors, and subjects of bureaucracy.

Learning bureaucracy as a skill doesn't mean you can ignore the personalities of individuals. The skill of navigating bureaucracy is separate from and in addition to being a good person, being an effective member of a team, being a good project manager, being a good product owner, skillful writing, excellent verbal communication skills, applying technical skills, etc. The distinction from those aspects is that as a bureaucrat you understand the complications and constraints of your environment and then can more effectively operate within those conditions.

If you are new to being a [bureaucrat](#), then this book armed you with an understanding of your environment. On your first day of employment you are capable of framing new information constructively. If you are an experienced bureaucrat, it is not too late to improve. Even on your last day of employment you can learn and be more effective.

In this book I described bureaucracy and provided options for action. Concepts for improving your effectiveness like learning the history of your situation, and identifying and engaging [stakeholders](#) to learn their perspective were explained. Other techniques include brainstorming the incentives of the individuals involved, and listing what levers they have for action. What are the [dilemmas](#)? Are there feedback loops? If you can apply these generalized perspectives to your specific situation, you are applying the paradigm developed throughout this book.

The narrow scope of your role (which hopefully leverages your education or training) does not capture all relevant aspects of your job. Based on the definition of [bureaucracy](#), the critical aspects of success include having knowledge, sharing your knowledge, leveraging the knowledge of others, effective communication, working well with other people, understanding the role of both processes and social influence, and the interplay of those aspects.

The attitude of the effective bureaucrat is that of realistic optimism. A realistic optimist will occasionally be wrong but make progress, whereas a pessimist will be right (because the prediction is self-fulfilling) but not make progress.

Author Biography

Ben Payne brings his decades of experience as a professional bureaucrat to readers in “Process Empathy: The Practical Guide for Effective Bureaucrats.”

As an undergraduate at the [University of Wisconsin](#) studying Applied Math, Physics, and Engineering, Ben was an Air Force National Guard member. He served as a crew chief for [F-16](#) jets, deploying to Qatar and Iraq. He earned his PhD in Physics at the [Missouri University of Science and Technology](#). Ben joined the [United States Department of Defense](#) as a federal government employee, where he has been for more than ten years. While working for the DoD, he taught a graduate-level course on data science for two years at the [University of Maryland](#). Ben enjoys cooking and traveling.

Human Authorship

The text in this book was written manually by a single human – Ben Payne. Quotes and paraphrasing of other humans are cited. Images on the bookcover and pages [20](#), [22](#), and [81](#) were generated using Dall-E. Images on pages [14](#) and [85](#) were generated using Excel. Images on pages [206](#), [207](#), [207](#), and [209](#) were generated using the open source software matplotlib. Software specific to this book was written by Ben Payne.

Appendix A

Summaries of This Book

In this appendix summaries of various lengths are provided that distill the most relevant points. These recaps can be used as previews or reminders but do not substitute for the full text.

One Sentence Summary of This Book

You can be more effective in your role as a [bureaucrat](#) by applying [process empathy](#).

Two-Paragraph Summary of This Book

[Bureaucracy](#) is pervasive because it is crucial for society. Bureaucracy is defined by decisions originating from the management of access to [shared resources](#). The resources can be either tangible or in the form of expertise. When there are multiple bureaucrats participating in an organization, [decentralized bureaucracy](#) relies on distributed knowledge and distributed decision-making.

[Process empathy](#) is helpful in your role as a bureaucrat and when you are subject to bureaucracy. Process empathy derives from your understanding of the [dilemmas](#) and [unavoidable hazards](#) of bureaucracy, recognizing internal [motives](#) and external [incentives](#) that individuals in each role have, and your ability to reconstruct the sequence of decisions that led to the current situation.

One Page Summary of This Book

Bureaucracy is pervasive because it is crucial for society. Bureaucracy is defined by decisions originating from the management of access to shared resources. The resources can be either tangible or in the form of expertise. When there are multiple bureaucrats participating in an organization, decentralized bureaucracy relies on distributed knowledge and distributed decision-making.

There are common artifacts that stem from the coordination necessary for bureaucracy: hierarchy (which enables specialization and decision authority) and communication – verbal and written, whether for informal or formal meetings. Weak feedback loops are a crucial feature for understanding motives for decision-making in bureaucracy. A policy defines what to do in a certain context – how to make a decision. A process is the steps of enacting the policy.

Policies are typically intended to help all participants, both bureaucrats and subjects. The value of processes is that they are predictable. There's less cognitive load for bureaucrats and less emotional burden because "I'm just following the rules." For subjects the value of a process is that requirements are clear and can be deemed fair in application. There's no need to form relationships with the people administering the shared resources.

The negative effect of a process can occur in both exceptional contexts and cases where relationships already exist. Then policies and processes get in the way.

Having both relationship-based and policy-based paradigms in effect at the same time is disruptive to each paradigm. This inability of the two approaches (ad hoc versus systematic) to coexist is one reason why bureaucracy is consistently in turmoil. Therefore an effective bureaucrat learns to take advantage of the dynamics. Being a skilled bureaucrat involves forming and maintaining relationships with fellow bureaucrats and subjects, comprehending and leveraging existing policies and processes, and disrupting existing processes with innovative policies.

Process empathy is helpful in your role as a bureaucrat and when you are subject to bureaucracy. Process empathy is based on your understanding the dilemmas and unavoidable hazards of bureaucracy, recognizing internal motives and external incentives that individuals in each role have, and your ability to reconstruct the sequence of decisions that led to the current situation.

Innovation is stifled by bureaucracy (see page 100) because individual bureaucrats have incentive to adhere to existing policies and processes as a way to decrease their risk. Innovation requires adapting policies to new contexts and discarding irrelevant policies. The extended Heilmeier questions (see page 155) can be used to interrogate the relevance of policies in a specific context.

Not all challenges you encounter as a bureaucrat in an organization are attributable to bureaucracy. The distribution of tasks in an organization lacking hierarchy can induce latency when not everyone has all relevant skills for tasks – see page 201. Specialization of skills can improve task throughput when processes are stable, but specialization can hinder task throughput when task complexity requires coordination.

Appendix B

Models of Bureaucracy that are Incomplete

This Appendix is academic and does not contain prescriptions for the practicing bureaucrat. This content may be of interest to the novice theoretician.

Coming up with a holistic theory of bureaucracy is desirable but difficult. Bureaucracy exists in every society, so having an explanatory theory would help identify which aspects are essential and which are accidental. Having a theory of bureaucracy could help identify what should be improved and what should be discarded. An expectation for the existence of a theory stems from the repeated independent creation of bureaucracy in diverse societies in different time periods.

Characterizing bureaucracy is difficult because organizations comprised of humans are aware of attempts to be characterized and respond to stories told about bureaucracy; this is an instance of the [Hawthorne effect](#). As soon as a claim about aspects that characterize bureaucracy is made, then a person can respond to that claim by behaving in an opposing manner. Worse still for the theory, bureaucrats can coordinate amongst themselves to provide counterexamples.

In this appendix a few conventional ways of modeling bureaucracy are outlined to point out the shortcomings of each model. The relevance to the practicing bureaucrat of familiarity with these models is that you know the boundaries of each model. Awareness of the limitations of each model enables you to know when the model is an applicable story and when the model is not explanatory.

Bureaucracy as a Machine

Narrative: Bureaucracy is a machine that has throughput and latency and dependencies and mechanisms. Bureaucrats are cogs in that machine.

Why this model feels true: Bureaucracy can be complicated and feel mechanical with standardization, top-down dictates, and interlocking processes. There is a risk of [deindividuation](#) (a loss of self-awareness in groups) for bureaucrats.

What this model is missing: Perceiving yourself as a cog in the machine implies a loss of agency. This is a [self-fulfilling prophecy](#) – if you think you don't have agency, then you may stop acting as though you have agency.

Bureaucracy as an Economic Model

Narrative 1: Bureaucracy is a collection of individual rational actors.

Why this model feels true: Individual bureaucrats cooperate or compete to promote their self-interests. The culture of an organization is a result of individual self-interests of each bureaucrat. Individuals make decisions that promote their self-interests.

What this model is missing: This view is hard to distinguish from a marketplace.

Narrative 2: Bureaucracy is comprised of competing special-interest groups.

Why this model feels true: The observation of [Public Choice theory](#) is that a concentrated minority that stands to gain a disproportionate benefit will act in their self-interest.

What this model is missing: In a generic bureaucratic organization it is not clear which team would be more concentrated than any other team, nor is it clear what the disproportionate benefit might be. There is a concentrated minority at the top of any hierarchy, and the top of the hierarchy does act in their self-interest, though this is not particular to bureaucracy.

Bureaucratic organizations may have specific teams with access to disproportionate benefits, but this book focuses on generic bureaucratic features. Effective bureaucrats are all alike; every bureaucrat is ineffective in their own way.¹

Narrative 3: A Bureaucracy is a subcategory of a Firm.

Firms exist in a market because negotiating contracts and prices for every interaction is burdensome. A bureaucracy could be considered to be a type of firm that specializes at the organizational level in policy administration or resource management.

Assessment: This is correct.

Bureaucracy as an Emergent Phenomenon

Narrative: There is a universality to bureaucracy in both the diversity of scenarios and persistence across time that hints at [emergence](#) – complex behavior arising from a system of comparatively simple rule.

Why this model feels true: Bureaucracy as a macroscopic phenomenon is emergent when there are a sufficient number of people involved. The size of the organization is important because there is no longer dependence on individual relationships (i.e., a size above [Dunbar's number](#) – about 150 people). There are people in the organization that you don't know and therefore there is a lack of personal accountability. An organization is subdivided into teams recursively until there is local person-to-person accountability. The underlying behaviors that enable emergence are bilateral interactions among humans and a lack of feedback mechanisms.

At the scale of individual bureaucrats, each person is playing by different rules, has different goals, and meanwhile everything is changing – both the individuals and the conditions. Above the threshold for the emergence of bureaucracy there is [scale-free behavior](#). The same patterns are observable in large organizations and extremely large organizations. A bureaucrat in one organization recognizes patterns of professional life experienced by bureaucrats at another organization. The local mechanisms bureaucrats employ to enable distributed decisions using distributed knowledge include meetings, processes, and communications. While local nuances differ, a generic pattern is apparent.

The choices faced by an individual bureaucrat are interdependent with the choices made by other bureaucrats in their environment. There is a [flocking behavior](#) where your choices are informed by the choices of those around you. Unlike flocking of birds, the adjacency metric for bureaucrats is not necessarily spatial distance. Instead, visibility of the decisions and consequences inform adjacency.

¹A modified version of the first sentence of Tolstoy's novel "Anna Karenina." [102]

The relevance of claiming bureaucracy is emergent is that there is behavior occurring at the macroscopic scale. Knowing the motives and actions of every individual bureaucrat at the microscopic level is not relevant. Treating organizations as complex and adaptive systems gives insight into how to work within the dynamic environment [34].

A colloquial interpretation of emergent behavior from complex phenomena is treating the system as an entity – personification. When an organization is assigned behaviors [42], it is useful to remember that the organization is comprised of individual bureaucrats.

>> Fallacy

More formally, there are distinct categories of emergence [7, 19]. Nominal emergence names the phenomena of a thing being distinct from its constituents: a circle is emergent from a collection of points; a pile of sand emerges from grains of sand. Merely putting many bureaucrats in a room is insufficient to create bureaucracy; there's more to bureaucracy.

Weak emergence occurs when there are phenomena that are independent of the underlying interactions. Weak emergence is measurable using [Granger causality](#) or, equivalently [6], [transfer entropy](#).

What this model is missing: The problem with treating an organization as an entity is that apparent behavior is counter-intuitive [42]. Breaking the organization into individual people with motives helps clarify causes of observed behavior.

In practice, bureaucracy is worse than emergent because the rules can be altered or ignored by stakeholders. Bureaucracy is a [wicked problem](#) [92] which resists mathematical models.

Bureaucracy in Game Theory

Narrative: Bureaucracy is comprised of one or more [games](#) played by bureaucrats. Which game is applicable depends on the specifics of the situation.

Why this model feels true: Different bureaucrats have different motives in distinct situations.

What this model is missing: While interactions among bureaucrats may be describable in terms of games, that doesn't provide an underlying motive for bureaucracy.

Defining bureaucracy as distributed knowledge and distributed decision-making for the subjective management of access to shared resources does not fit as a [coordination game](#) or [competitive](#) game. Bureaucracy is in constant flux due to external conditions, externally imposed constraints, staff turnover, internal dilemmas, and disagreements among individuals.

Bureaucracy as Evolutionary Outcome

Narrative 1: Biological, Genetic evolution at the individual level.

There might be biological arguments for a genetic basis for bureaucracy.

Why this model feels true: For example, Zebra fish and Hyenas have a gene for dominance [52].

What this model is missing: “Genes code for proteins, so there are no ‘genes for’ phenotypes per se, including behavioral phenotypes.” [68]

Non-human animals make subjective decisions and do not get labeled as bureaucrats. Humans make decisions that are not explained by reproductive fitness.

Narrative 2: Biological, Genetic evolution by group selection.

Why this model feels true: [Hierarchy](#) is not unique to humans. Primates form social hierarchies based on dominance over shared resources like mates and food.

What this model is missing: a gene for bureaucracy. A genetic model does not explain what behaviors an individual bureaucrat can take to be more effective.

Narrative 3: Memetic – bureaucracy as a method for coordination is a better idea than *nepotism* or religion.
What this model is missing: Bureaucracy persists along with nepotism and religion, and bureaucracy occurs within religion.

Bureaucracy as Product-focused Narrative

Narrative: Ignore the bureaucrats and instead focus on how a product progresses through a process.
Why this feels true: Ignoring bureaucrats involved in processes simplifies the narrative (the product is the main character). *Example:* [School House Rock: I'm Just A Bill](#) [40].
What this model is missing: Decision-makers involved in the process exert subjective control. Outcomes depend on who participates.

Bureaucracy as Subject-focused Narrative

Narrative: Ignore the bureaucrats and instead focus on the person subjected to bureaucracy.
Why this feels true: The person experiencing bureaucracy as a subject is confused: “Why isn’t this easier?”
What this model is missing: The history of why the process exists and how it evolved (i.e., legacy), protection against malicious subjects, and protection against malicious bureaucrats.

Bureaucracy as Psychological Phenomenon

Narrative: Bureaucracy as a pure power struggle. Or the interplay of individual pathologies.
Organizations are composed of individuals with personalities, and inefficiency is attributable to a mashing together of distinct individuals with conflicting desires. While this is true, it isn’t complete.
What this model is missing: Personality-focused narrative neglects the history of processes (legacy), protection against malicious subjects, and protection against malicious bureaucrats. Analysis that stops at personalities misses emergent phenomena.

Each of the above models of bureaucracy has shortcomings. Knowing why each model is not a complete description helps you avoid the trap of thinking only in terms of a single model.

The rest of this book ignores these partial characterizations of bureaucracy. Rather than take the external (*emic*) view of bureaucracy, this book takes the internal (*etic*) perspective of a bureaucrat operating within an organization. The description of bureaucracy in this book is used to contextualize advice on how to be an effective bureaucrat.

Appendix C

Alternatives to Bureaucracy Don't Work

This Appendix does not contain prescriptions for the practicing bureaucrat. This content may be of interest to theoreticians.

A common refrain for participants in an organization is “Can’t I just do the work?” with the implicit disinterest in coordination and administrivia. This section explores a few alternatives to bureaucracy. These thought experiments illustrate the naïve intent and the practical deficiencies of each alternative.

The models of bureaucracy below are all imprecise because they are analogies. The consequence of imprecision is wasted effort. Using a precise and accurate definition of bureaucracy enables improved effectiveness for the work you invest.

Alternative: Efficient Bureaucracy

In an ideal scenario with no inefficiency, everyone comes to the same conclusion when presented with the same information regarding management of shared resources. Efficient bureaucracy requires each person to know the skills of everyone else so that anyone can act as an expert in any field.

In this scenario the [overhead cost](#) of building consensus becomes unnecessary. There is no need to fight over resources (e.g., money, staffing) and no need to fight over what the direction of the organization should be. In this model of efficient bureaucracy based on everyone having the same view, a potential problem is the lack of diverse views needed to enable resilient organizations.

While that idealized scenario is unrealistic, it points to how to improve bureaucratic efficiency. Each bureaucrat should have access to the same information (transparency). Each bureaucrat should apply the same [decision-making](#) process consistently (documented processes and policies). Each bureaucrat should have the same incentives (fair policies).

The unrealistic model of efficient bureaucracy also points to why bureaucracy is inefficient in predictable ways:

- Not everyone has the same information.
- Processes are applied inconsistently.
- [Incentives vary](#) among bureaucrats.

- Bureaucrats and Subjects use imprecise language.
- Decision-makers use opinions and experience rather than collect data and analyze data.
- People prioritize putting out fires rather than attacking critical issues.
- People do not respond quickly (or at all) to communications (e.g., email, phone, meetings). See the section on [slow communication](#).
See page 123.
- Participants are late to meetings.
- [Scope creep](#) for projects incurs unnecessary work.
See page 87.
- Planned scope and actual scope are mismatched (due to staffing or skills).
- Teams work in silos and create redundancy.
- Bureaucrats and Subjects lie and employ other dark patterns (not addressed in this book).
- People make mistakes.
- Each person's reference experiences are unique.

By identifying why bureaucracy is inefficient you can actively work to remedy each of the above aspects.

Consider the following [thought experiment](#). What if everybody in a bureaucracy had a different opinion? How would consensus be arrived at? Can an organization operate without having to agree on every decision?

>> Thought Exercise

Alternative: Perfect Bureaucracy

The definition of “perfect bureaucracy” depends on who provides the perspective. The following explores both the subject’s view and the bureaucrat’s view.

From the perspective of the subject of a bureaucratic organization, perfect bureaucracy means many things: minimizing the time a subject waits on a decision, getting perfectly correct decisions, decisions being consistent across subjects (Dilemma 3.61) and circumstances (Dilemma 3.37), decisions take into account all relevant factors, and there is zero cost to the subject (Dilemma 3.63). Any situation deviating from those expectations is a noticeable detriment to the subject, leading to a negative reference experience of bureaucracy.

See page 77.

See page 78.

Nevermind that the desires are unreasonable and conflicting. In a real (i.e., imperfect) bureaucracy, subjects have a negative or neutral experience. Positive interactions with bureaucracy are rare and are regarded as abnormal.

Perfect bureaucracy for a bureaucrat means all information is available, information is immediately available, and there is no moral ambiguity (i.e., each answer is objective). Trade-offs become trivial and the emotional toll of the work goes to zero. Then the bureaucrat can serve subjects (an emotionally rewarding prospect).

This job in a perfect bureaucracy might feel hollow if all decisions are obvious. In a real (imperfect) bureaucracy, the typical experience is negative or neutral, punctuated by glimpses of satisfaction.

Alternative: Everyone does their own thing – No Coordination, No Bureaucracy

The scenario involving minimal bureaucracy is a single person working on a single task that does not last long (a few minutes), is relatively easy (cognitively, physically, and emotionally), and does not recur. In that situation, building consensus is irrelevant and no process is required. Even then, it is often the case that this simple task involves using shared limited resources – essentials like water, air, and land. If your task involves use of those things, then how is fair use determined among consumers?

For simplistic tasks, the concept of community-imposed limits to access [shared resources](#) is not trivial. When there are no policies to constrain access, violence is used to determine allocation of shared resources.

Most of your actions occur beyond the limits of simplicity and thus incur some concept of [process](#) (breaking a task into subtasks). Staying with the context of one person, a complex task can benefit from being broken into subtasks. Sometimes the order of the subtasks matters, so we need to track the dependencies. A recurring multi-step process with documentation is starting to have features of bureaucracy but lacks the need for consensus.

If one person lacks the skills relevant to a multi-step process, they may engage another person to help. The interaction occurs on a spectrum from informal (anarchy) to formalized in a contract ([libertarian](#)). If the parties working on the task fail to reach a consensus, what is the recourse? Choices include physical violence, threats, or involving a third party (e.g., a court with lawyers and judges).

If a community wants to manage access to shared resources, how is that policy decided? Building consensus is relevant, but what is the process for establishing consensus? [Nepotism](#), cultural norms, and [religious practices](#) served this role before the dominance of bureaucracy.

Alternative: Limit Bureaucracy to a Single Decider

Since large-scale bureaucracy involves distributed knowledge and distributed decision-making, it could be replaced by centralized knowledge and centralized decision-making. If we are going to live in a society and coordinate shared resources, what if we had a single person deciding? How fast could that be? Good decisions are not instantaneous. To understand latency in decision-making let's use the [OODA loop](#) model.

OODA stands for Observe, Orient, Decide, Act. OODA applies to individuals as well as teams and organizations. The input for the OODA model is to observe and the output is to act. Observing and acting are measurable; the “orienting” and “deciding” phases are not as easy to measure. The “orient” phase requires labeling data received in the “observe” phase and connecting that information to what is already known.

How quickly could a single decision-maker apply the OODA loop for arbitrary questions about [shared resources](#) accessed by a community? Three minutes is not much time to gather information and share it with the relevant people, but let's set that as a lower bound. If a single decision takes three minutes, then in a ten-hour work day that's a max of $(10 * 60)/3 = 200$ decisions per day. If this decider works 300 days out of the year, that gets us to 60,000 decisions per year. While 60,000 decisions sound like a lot, that limits how large the community could feasibly be, and the complexity of the decisions is limited.

Everyone has to talk to this decider directly since there's no bureaucracy to gather or share the information. The diversity of questions regarding shared resources would be challenging to answer well.

Within the constraint of a single decider, we can't just automate everything because carrying out the automation requires staff to enact. Automation isn't free – it requires creation and maintenance. Unless the same person making the decisions is also creating and maintaining the system, there will be multiple people in an organization.

>> Math

[Monarchies](#) and [dictatorships](#) at first glance seem to rely on a single decider. This is a simple model to understand, but addressing all the edge cases for a large society is difficult. A single decider doesn't scale for the number of decisions needed, so the decider then appoints bureaucrats to subjectively enforce policies.

From this thought experiment we conclude that avoiding bureaucracy by relying on one person doesn't scale. More people are needed to develop and carry out policies.

If there's more than one person in an organization, then communication for coordination takes time. That's the "orient" phase of the OODA loop. Time spent orienting decreases the decision throughput of the organization.

Alternative: Avoid Bureaucracy and Just use Common Sense

Claim: Everything would go smoothly if each person used common sense.

>> Fallacy

Common sense relies on your reference experiences, cultural norms, incentives, emotional state, and a lack of psychological defects. These aspects are particular to each person in an organization. This gives rise to the observation that "common sense is not so common."

>> Folk Wisdom

There are multiple origins of what gets considered to be common sense:

- Cultural norms: "This is what I think everyone else does or thinks."
- Personal [reference experience](#): "I've done it this way before."
- A prescribed action seems obvious.

Those are typically distinct to each person.

Proponents of commonsense who work in existing hierarchical bureaucracies may advocate the removal of non-workers (i.e., management). That may sound like a worker's paradise, but then who coordinates activities when the number of people involved is more than any one member can track (above [Dunbar's number](#) of about 150 people)?

To illustrate the dissonance motivating common sense, consider the following. Changing a burnt-out light bulb at home takes me only a few minutes. I've done that many times. Why is that task so hard in an organization?

Changing a Lightbulb

In a large organization comprised of specialized roles, an office worker sees a bulb is out. Rather than go to a nearby hardware store and buy a replacement, they notify their manager who notifies the building supervisor who submits a request to the maintenance team.

The maintenance service desk team then schedules the repair. An order of 1000 replacement bulbs was made last year and there are some still available in storage. A maintenance team is assigned to the task and deployed to replace the bulb.

First the maintenance team goes to the storage facility to get a ladder and multiple bulbs of multiple models. The team has to sign out the bulbs from storage so inventory can be tracked (because of prior incidents of theft). A team is needed because solo use of the ladder is prohibited (for safety, also born out of previous incidents). Multiple bulb models are needed because which model is required is unspecified in the service ticket. Having multiple bulbs available decreases the need to go back to storage.

Once on site, the maintenance staff finds the bulb is a new type and needs to be ordered. Maintenance team notifies the supervisor. The building manager files a new maintenance request.

This is the efficiency of specialization of roles. If you don't like it, you could go to the hardware store, buy a bulb, rent a ladder, install the bulb, and return the ladder.

***Alternative:* Completely Avoid Bureaucracy**

The phrasing of avoidance is more precisely worded by replacing "bureaucracy" with "coordination of stakeholders." If you avoid coordination of stakeholders, you either are constrained to only work on tasks that involve one person, or you get random (uncoordinated) interactions.

***Alternative:* Minimize Bureaucracy**

Again, try replacing "bureaucracy" with "coordination of stakeholders." The goal of "minimizing coordination" probably isn't the real objective. To be more precise, a specific objective might be "minimize time spent executing the task" (which takes a lot of coordination before the task execution) or "minimize the level of distraction to stakeholders" (chunk the coordination time, e.g., a meeting). Another strategy for minimizing bureaucracy is to reduce the number of stakeholders involved. For a given task complexity, this means having smarter people who have more skills. See Figure 7.2 for a quantitative illustration of the trade-off.

***Alternative:* Automation of Processes to Displace Bureaucracy**

The role of automation is to make interactions more predictable, faster, and to handle more of them. Automation does not eliminate bureaucracy; automation obfuscates subjective decisions and limits the ability to negotiate with decision-makers.

Hoping that modern technology will eliminate or reduce bureaucracy is not a shortcut to progress. Even with faster decisions and fewer humans, there is still reliance on humans to make decisions and design processes.

There are benefits to automation, and automation can be enacted to minimize harm to bureaucratic subjects. Automated systems can be made more transparent by including documentation about what is happening, why, and what's next. Documentation helps bureaucrats and subjects identify when assumptions made in the automation are incorrect.

>> Actionable Advice

There are indicators of when to transition from a manual bureaucratic process to a more automated approach:¹

- The process to be automated is stable.
- The expected lifespan for the process – how long the process will be needed – is longer than the time to enact the automation.
- The process logic relies on objective evaluation criteria.
- The process is frequent.
- The cost of automating (both the initial creation cost and the maintenance cost) is a savings over the manual implementation.

***Alternative:* Market-based Approach**

There is an alternative to bureaucracy that features a decentralized approach to complex tasks and avoids reliance on consensus: [markets](#).

¹<https://xkcd.com/1319/> – the risks of investing in automation.

An oversimplified definition [61] is “A market is a medium that allows buyers and sellers of a specific good or service to interact to facilitate an exchange.” In practice, there is market friction [29, 74]: “trading is always associated with certain costs or restraints.”

The sources of friction in a market include

- Commissions on trades.
- Taxes (needed to fund contract enforcement organizations).
- Uncertainty in hiring.
- Constraints on firing labor.
- Search cost in exploring the available opportunities.
- Risk uncertainty.
- Cost of creating contracts.
- Cost of insurance.

Market friction and bureaucratic inefficiency are similar [22, 94].

Complex tasks at a societal scale range from manufacturing advanced computer chips, to creating and distributing critical medicine, to immigration and border enforcement. If a society wants to carry out a complex task involving multiple people, then coordination of effort is required. The coordination can be explicit (in the form of a bureaucracy) or implicit (via a market). Bureaucracy is one response to the complexity of a problem being solved.

Regardless of whether a bureaucratic or market-based approach is used to mediate access to [shared resources](#), distributed knowledge and distributed decision-making are hindered by aspects like limited bandwidth between people participating in the coordination, non-zero latency of information between people, the cost of getting data, and the cost of analysis of data. Due to these factors, suboptimal decisions get made. See the discussion of [dilemmas](#) for specific examples of trade-offs.

See page 47.

The objective and quantified concept of money creates accountability that distinguishes commercial businesses from bureaucracy. Money as a metric is common to all participants within the business and with external stakeholders.

As with government bureaucrats, commercial businesses have employees who make subjective decisions and enforce policies. Unlike government bureaucracy, in business there is a common metric for feedback: money. This distinction between business and government is not as clear as you might expect since the feedback mechanism does not apply to all members of a business. An effective commercial bureaucrat may rely on the success of other employees rather than a direct interaction with customers. Business employees may take action that is hard to quantify with respect to profits and losses.

Companies are motivated by financial profit, whereas bureaucracies like prisons, schools, hospitals, governments, and militaries consume and spend money, but money isn’t the goal. When faced with a decision, bureaucrats are not guided by which will generate more profit [115].

Alternative: Adhocracy instead of Bureaucracy

[Adhocracy](#) (also called Tiger Teams) has been proposed in reaction to the prevalence of bureaucracy in organizations. To enact Adhocracy a team of diverse experts is assembled to tackle a complex challenge of limited duration. While this may be enough for short-duration tasks, if the challenge lasts more than a day or two there will be new issues beyond the original challenge:

- What happens to the work that was previously being done by the members of this team?
- Who pays the salary for this labor?
- Who calculates the payroll?
- Who pays the rent for facilities used by the team?
- Who does the maintenance of facilities and equipment?
- Who cleans the facility?
- Does risk incurred mean insurance is needed?

To address these questions that are out-of-scope for the complex challenge, you can either use a market-based approach or build a bureaucracy.

Alternative: Consensus Algorithms

In the description of a [single decider](#) the solution was to centralize decision-making and knowledge. The decentralized approaches are market-based or bureaucratic. Another approach to distributed decision-making is to use consensus algorithms. Modern algorithms like [Paxos](#) and [Raft](#)² are widely used for various computer-based tasks.

See page 191.

Although these algorithms are reliable even when the underlying mechanisms are faulty, the algorithms are not enacted using humans. Humans are unreliable, but more importantly humans game the rules and processes of systems rather than operate within the constraints. Also, relying on an algorithm neglects the feature that humans can adapt to unforeseen circumstances.

Alternative: Elected Representatives

Governments are composed of politicians and bureaucrats. (Government isn't the only place bureaucrats appear, but for this section we'll focus on government.)

The concept of political representatives is easier to understand. A politician is just one person acting on behalf of other people. Members of the community get a vote in who that representative is. In contrast, the emergent behavior of bureaucracy is more challenging to understand: many people are involved (which inhibits creation of an explanatory narrative) and subjects of bureaucracy do not appoint the bureaucrats.

Suppose that instead of a bureaucracy all members of an organization charged with managing [shared resources](#) were elected rather than being selected for their technical skills. This scenario eliminates one of [Weber's characteristics of bureaucracy](#) – competence for job appointments.

In the United States there are bureaucratic positions that feature a mix of election versus appointment. For example, the method of selecting judges varies widely by state [4]. In a 2017 survey, 63% of more than 1000 judges favored appointment over being elected [58].

²For a tutorial on Raft see <https://raft.github.io/>.

Attorney Generals in the United States are similarly selected by election and appointment [5]. Positions that benefit from expertise (e.g., Attorney Generals, Coroners) sometimes lack minimum qualifications when selected by election. The more positions there are to vote on, the more challenging it is to have an informed electorate capable of selecting competing candidates.

***Alternative:* Small Organizations**

Suppose you try to limit bureaucracy by imposing the constraint that teams or organizations be small.

Given three people in a team, options include:

- Split the labor among the participants; each has the same workload and same tasks. Use consensus decision-making. Do not exploit skills unique to any member. (That last concept is an inefficiency.)
- Split the labor by specialization; each person becomes dependent on the other. Specialization enabled can improve effectiveness but also incurs coordination which decreases throughput.
- Make one person the manager to oversee the other two – impose a hierarchy. This is a specific specialization where one person is not directly involved in labor central to the purpose of the team.

Organizing members into teams (teams of teams) introduces new levels of coordination and competition.

***Alternative:* Minimize Bureaucracy by Eliminating Guardrails**

Suppose you are part of an organization that doesn't have oversight processes for finances and other resources your organization is responsible for. A small percentage of the population, say 1%, will take advantage of the lack of oversight for their own gain. Those malicious actors can be either subjects of bureaucracy or bureaucrats within the organization. In his book *Liars and Outliers* [Bruce Schneier](#) calls these people defectors [93].

Similarly, suppose a small percentage of the population, say 1%, is stupid and makes mistakes. Without a review process, these mistakes will negatively impact your organization's finances and the resources your organization manages. Preventing, detecting, and correcting mistakes can be costly investments.

Appendix D

Interview Questions

The following two sections are a set of questions for interviews involving bureaucrats. The first section is for the hiring manager and the [second section](#) (starting on page 199) is for the candidate.

Interviewing a Candidate

Interviewing candidates for a bureaucratic position should involve the evaluation of skills specific to bureaucracy. For example, ask questions that lead the candidate to discuss their experience facilitating coordination, working with experts from other domains, learning from self-reflection, having an ability to professionally disagree, and practicing negotiation.

A specific phrasing I use below is “Tell me about a time you...” rather than asking the candidate to speculate about a hypothetical scenario (“What would you do if...”). The retrospective story is more concrete and shows the candidate’s ability to reflect on their behaviors.

- Tell me about a time you had competing priorities.

What to evaluate for:

- Did the interviewee coordinate a response with other people? Teamwork is an essential skill in a bureaucratic organization.
- Did the interviewee clarify a misconception?

- How does this position fit into your career goal?

What to evaluate for:

- Can the organization provide the candidate what they are seeking?

- In previous jobs, how often did you check in with your supervisor (formally or informally)?

What to evaluate for:

- Does the candidate communicate with their supervisor?
- Who starts the discussion?

- In previous jobs, how often did you check in with your coworkers (formally or informally)?

What to evaluate for:

- Does the candidate communicate with their peers?
- Who starts the discussion?

- In previous jobs, in what situations did you turn to your boss for help? Or did your boss help you?

What to evaluate for:

- When the candidate's boundary is tested, how do they engage?
 - Who starts the discussion?

- In previous jobs, in what situations did you turn to your coworkers for help? Or did your coworkers help you?

What to evaluate for:

- When the candidate's boundary is tested, how do they engage?
 - Who starts the discussion?

- How do you engage with coworkers who know something work-related that you want to learn?

- Tell me about a time you were given the wrong scope (or an ill-defined scope) for a task.

- In previous jobs, how did you evaluate the success and shortcomings of your organization?

- What are the leading indicators you look for that the team you are on is headed in a bad direction?

- Tell me about a time you started a collaboration with a coworker to leverage their expertise.

- Tell me about a time you worked with someone who had a distinct perspective from yours. How did you collaborate?

- Tell me about a time when project requirements were unclear, ill-defined, or constantly shifting.

- Describe how you responded to a mistake you made at work.

- Tell me about a time the organization you were in changed and how you navigated that.

- Tell me about a time when you, in your role as an expert, collaborated with people who didn't share your expertise. How does that compare with interacting with fellow experts?

- When you have learned a new topic in the past, what strategies did you use to balance understanding the theory and doing the practice?

- How have you assessed your progress when you were learning a new topic in the past?

- How have you structured your time when faced with a novel challenge?

- How do you distinguish between accidental complexity and essential complexity? [15]

Moving to a New Team

Before leaving the team you're on, reflect on your current role:

- What are my current care-abouts?
- What would I miss from my current role? Are there projects, tasks, responsibilities, or people that I will miss? If yes, can I change my current role to have more of what I like?

You can negotiate with your management and coworkers to address your needs. Sometimes other people are not aware of what you want.

Once you are interviewing for a position, you should consider the interactions as a chance to learn more about the work and the people. When interviewing for a new position, ask the following questions:

- Is the team growing or is the focus shifting?
(Teams hire to replace or grow. If replacing, why did the person leave? If growing, is it an increase in capacity, an expansion of scope, or a change of focus?)
- What's the turnover rate of the team I would be joining? Has anyone quit? Has anyone recently joined?
- How many members are there on the team I would be joining?
(Is the team size stable, or does it fluctuate according to changes in tasking?)
- Would I be on a single team, or would my work span multiple teams?
- How many different roles would a person in my position have?
- What would my day-to-day routine be like?
- How many meetings would I have per day? Per week?
- What indicates success in my new team?
- What indicates failure in my new team?
- How am I evaluated as an employee?
- How is my team evaluated?
- Who do I report to?
- How many bosses do I have?
- What balance of independence and collaboration is expected of me?
- Do I identify what to work on or is a task assigned to me? If a task is assigned, who assigns the work?
(the customer or a manager or another team?)
- What is the typical duration of a task I would work on?
(An hour or a day or a week or a month or a year.)
- How does my new team support my autonomy?
- What support does the organization provide a person in my role? (Training)

- In the past year, how quickly have new employees been trained in this position?
- What computer resources are available? Is there other equipment relevant to the job?
- How often would I interact with customers?
- Who are my customers? What do my customers want?
- How many customers are there?
- How often would I interact with coworkers?
- How often would I interact with the boss (or bosses)?
- What are the goals of the organization? What goals does the team have?
- What is your favorite part of working in this organization?
- What are the technical challenges?
- How does the team document shared knowledge?
- Does the team have current onboarding materials to reference? Or is the process more social?
- What are the biggest challenges someone in this role faces?
(Sometimes the challenges are political or personality rather than technical.)
- How diverse are the educational and experiential backgrounds of team members?
- What skills do other team members have?
- What gaps in skills does the team have that you are looking to fill?
- Where is the office I would be working in located?
- Is the location of the office expected to change in the next six to twelve months?
- Would I be expected to travel?
- How many different tasks would I be expected to work on in a day? In a week?
- Do you expect the answers to any of the above questions to change in the next six to twelve months?
- What are the next steps in the hiring process?
- When will a hiring decision be made?
- When would I be starting in this position?
- What ethical issues or moral challenges should I expect to face if I were employed on this team in this organization?
- What are the known conflicts of interest that exist?
- Who is working against the progress of the team?

That's a long list of questions, and it doesn't even include questions specific to the role you're interviewing for or the organization you're interviewing. Bringing a printed-out list shows you thought ahead and prepared.

Appendix E

Coordination of Tasks Causes Slowdown

Decentralized bureaucracy is part of the explanation for patterns observed when people coordinate. A separate explanatory factor is how tasks get distributed among members of an organization. These two aspects of participating in an organization are often confounded. This appendix describes a model of processes and tasks that involve only coordination. The purpose of the model in this appendix is to distinguish aspects of an organization that are not due to bureaucracy.

This model shows that task coordination can cause the difference between being busy and being productive when coordination is activity. Another conclusion from the model is that the reward for being a capable contributor is more tasks.

The model of task distribution in an organization is sufficiently detailed to illustrate commonly observed situations but is agnostic to the specific tasks or work roles. Improvements to the model intended to increase the realism could be made, but risk decreasing the clarity of the model.

E.1 Assumptions in the Model of Task Distribution

The model relies on a few concepts. These definitions are local to the model and do not apply to the rest of the book:

- **Specialization** refers to categories of ability. A person has a specialization. Completing a task requires a specialization. Practical examples of specialization include lifting boxes from the ground onto a shelf, writing a report summarizing an experiment, providing customer support, or creating a contract for a service. In the model specializations are abstracted to distinct categories.
- **Skill-level** is a ranking of proficiency for how work can be done for a task. If a task requires a skill-level higher than a person has, then that person is unable to complete the task. Practical examples of skill-levels include the ability to lift small boxes versus large boxes, a poorly written report versus a well-written report, mediocre customer support versus amazing customer support, and an acceptable contract versus a robust contract. As with specialization, in the model skill-levels are abstracted as discrete categories.
- **Person**: a member of the organization, has specializations, has a skill-level per specialization, can receive tasks, and can engage with other people in the organization. In this model a person can complete one task at a time. A person can coordinate one task at a time. A person has the following attributes:

- Person’s **contact list**: A person has a list of people they’ve previously given tasks to. When figuring out who to give a task to, they can review the list of people they already know.
 - Person’s **backlog**: Each person maintains a queue of tasks to be done.
 - Person’s **status**: A person is either idle (not assigned a task), working on a task, or coordinating with other people.
- **Organization**: a set of people who can be assigned tasks to work on.
 - **Task**: requires one specialization, has an associated minimum skill-level, and has an amount of time that the task takes. A task can only be worked on by one person at a time.
 - **Process**: comprised of one or more tasks.¹ Tasks in a process are worked on sequentially by people. At any given time the process is owned by one person who is either coordinating or working on the task. Processes are independent from other processes.
 - **Coordination** is the effort to find a person with the relevant specialization and skill-level for a task.

In the model the label task is used instead of work. In Physics the concept of work applies when there is a product that is tangible and countable. Making tacos takes work; whereas approving requests is a distinct concept because there is nothing tangible. For knowledge workers, which most bureaucrats are, the unit of tasking is more applicable. Instead of tangible work, tasks are relevant when **attention-time** is spent on an issue. Each participant in the organization has the same amount of attention-time to spend, but different specializations and skill-levels per specialization.

When a person is assigned a task they don’t have the specialization for or lack enough skill-level in that specialization, then they have to find someone else in the organization who is capable of doing the task. The task is given to the first available randomly selected sufficiently qualified person, regardless of the size of their backlog. This is consistent with organizations for which each person’s task backlog is not visible to coworkers. As a consequence, tasks are added to their backlog and they will get to the task eventually.

The model relies on a process being a sequence of tasks. That might not be realistic when branching is part of a process. Real processes feature type kinds of branching. The first kind of branching is conditional logic: “if this then something else that.” The second kind of branching is when a task is the initiation point of multiple other processes. Regardless of which kind of branching is applicable in a situation, from the perspective of individual people involved a process can be treated as an independent sequence of tasks.

The following simplifying assumptions are used in the model. The list of what isn’t in the numerical model of tasks includes:

- There is nothing in the model about policies, decision-making [65], shared resources, or subjects of bureaucracy. This model is included in a book about bureaucracy to show that not all patterns observed in an organization should be blamed on bureaucracy.
- Specializations are discrete. The justification is that there are tasks that one person see as infeasible and someone else sees as straightforward.
- Skill-levels are discrete. The justification is that there are tasks that are inaccessible to some skill-levels. For example, 10 high school students are unlikely to be able to complete a task that one PhD physicist can do.

¹See Wikipedia entry on [Queueing Theory](#).

- There's no hierarchy in the model. The model assumes people are cooperating in the organization. Unlike the rest of the book, this model does not use the distinction of organizations being comprised of teams.
- People in the model don't get to initiate tasks of their own volition. They work on tasks that are either from their personal backlog or from an infinite set of tasks.
- People in the model don't get to refuse any task that is assigned to them for which they have the specialization and relevant skill-level.
- No overtime. Every person gets the same amount of time to do work.
- No support staff. No delegation.
- No prioritization of tasks in the backlog. Tasks in the backlog are completed in the order in which they were added.
- Infrastructure needed for communication works without failure. Infrastructure needed for completion of a task works without failure.
- No dark patterns. Everyone does the task assigned promptly and correctly.
- No turnover of staff during the simulation. See page 165 for an accounting of new people in a process.
- No improvement of skill-level per person and no expansion of specializations. No training or learning happens.

The complexities above are not included in the model because the point of the model is to show what arises from simple constraints.

Within the constraints, improvements could be made to the model. However, conclusions drawn from the model map to real-world organizations even without these features:

- Use realistic distributions (e.g., power law) instead of uniform distributions for parameters like skill-level, specialization, and task duration.
- When a person is not qualified to do a task, instead of searching randomly, search second-order contacts. The current (unrealistic) implementation is that a person sends their request for help to random members of the organization.

Adding nuance for realism would increase the complexity of the model but is not expected to alter the conclusions.

Examples of Tasks and People

Suppose the model is configured to simulate three specializations (A, B, C) and three skill-levels (1, 2, 3). A higher number for a skill-level indicates more skill.

Example People

A person with skill-level 3 in specialization A and skill-level 1 in specialization C is labeled “A3,C1”. A visualization of their capabilities is the following table:

	Specializations		
	A	B	C
1	X		X
2	X		
3	X		

Because this person has skill-level three in specialization A, that means they can also work on tasks that require skill-level two or skill-level one.

People can be characterized by the depth and breadth of their skills. For example, a “expert specialist” (e.g., “B3”) is good at one thing,

Expert:	Specializations		
	A	B	C
1		X	
2		X	
3		X	

while a “general specialist” (e.g., “A1,B3,C1”) has **T-shaped skills**:

Generalist Expert:	Specializations		
	A	B	C
1	X	X	X
2		X	
3		X	

A generalist (here “A1,B1,C1”) is not an expert at anything but is capable in multiple specializations.

Generalist:	Specializations		
	A	B	C
1	X	X	X
2			
3			

A unicorn (here “A3,B3,C3”) can do everything well.

Unicorn:	Specializations		
	A	B	C
1	X	X	X
2	X	X	X
3	X	X	X

There are many more unskilled specialists (e.g., “A1”) than unicorns.

Unskilled Specialist:	Specializations		
	A	B	C
1	X		
2			
3			

Tasks and Processes

A task that requires skill-level 2 in specialization B is labeled “B2.” The assumption that a task requires one specialization is based on the idea that a process can be broken into a sequence of atomic tasks, and that one person can do an atomic task.

A process is a sequence of tasks. For example, the list “B2:10, A1:5, C3:7” describes three tasks:

1. Task requiring specialization B and skill-level 2; duration of 10 minutes.
2. Task requiring specialization A and skill-level 1; duration of 5 minutes.
3. Task requiring specialization C and skill-level 3; duration of 7 minutes.

In this model tasks can be done by more skilled people faster. If a task requires skill-level 2 and takes 10 minutes, then

- A person with skill-level 2 completes the task in 10 minutes.
- A person with skill-level 3 completes the task in 7 minutes ($=10/(3/2)$).
- A person with skill-level 1 is unable to complete the task.

In the rest of the discussion the time unit is referred to as a “tick” since the time scale for tasks is arbitrary.

Configurations of the Model

Comparing different configurations of the model requires a metric. Task throughput (number of tasks completed per unit time) is a way to characterize the productivity of an organization.

Scenario: Everyone is an A1

Suppose every person in the organization is an A1 and every task is an A1.



As a consequence of this configuration, no coordination is required because each person can do every task. Observations about this configuration include:

- The number of people each person knows is irrelevant because coordination is unnecessary.
- This configuration yields the maximum throughput tasks for the organization.
- Adding more people increases the throughput.

These same conclusions hold for any configuration of an organization comprised exclusively of unicorns. The concept of every member being able to do any task is the concept of [Adhocracy](#). The feasibility of gathering people with relevant talents becomes challenging as the task complexity increases or increased throughput is needed. That is part of why organizations hire people who are not unicorns.

The distribution of skills and specializations of people in an organization is set by the hiring process. Hiring less qualified people is easier than finding highly skilled people. Other motives for hiring non-unicorns include being able to pay non-unicorns less money, non-unicorns are easier to find, and the possibility of on-the-job training.

Scenario: A1,B1 or A1,B0 or A0,B1 or A0,B0

The simplest non-trivial scenario occurs when not every member of an organization can do every task. For example, suppose there are two specializations (A, B) and one skill level:

	A	B
1	X	

1

A	B
	X

1

A	B
X	X

1

A	B

In this configuration, the person qualified as A1,B1 is labeled a unicorn – they can do any task. Whether you consider inclusion of A0,B0 (a person who does no work and can only coordinate) to be relevant depends on your personal experience. Most organizations label these members as “managers” because they are focused on task coordination.

When a person does not have all the specializations, then a task randomly assigned to one person may need to be given to someone else in the organization. For example, when a person qualified as A1 is given a B1 task, that person needs to find a coworker who is either qualified as B1 or A1,B1. Distributing tasks among members of the organization requires coordination.

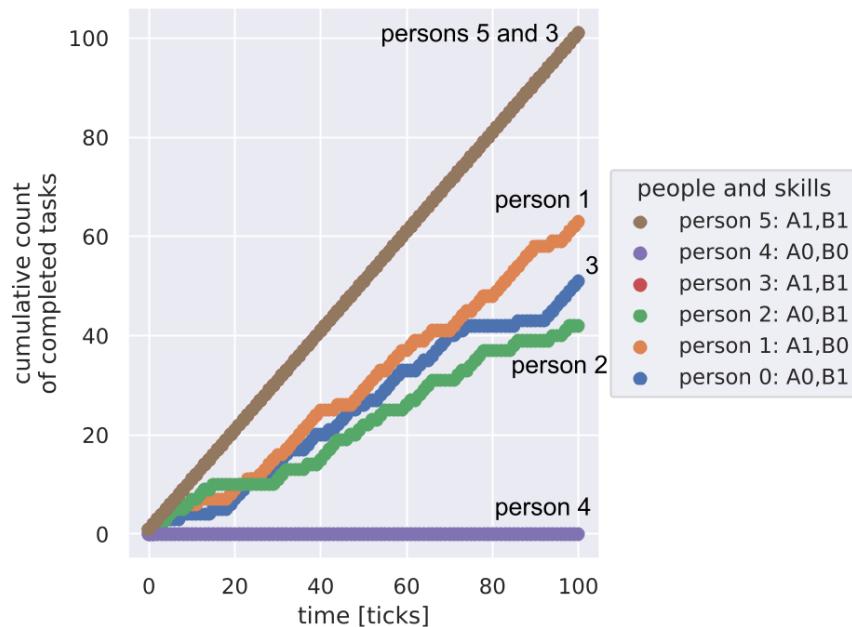


Figure E.1: Number of tasks completed by each person in an organization with six people over the course of 100 ticks, and each task duration is 1 tick. This diagram captures the distinction between being busy and being productive. Persons 3 and 5 both have the maximum throughput of tasks since they are unicorns. Person 4 has no throughput and only delegates tasks. Everyone is busy (no one is idle since coordination is an activity), but the level of productivity (tasks completed per time) varies.

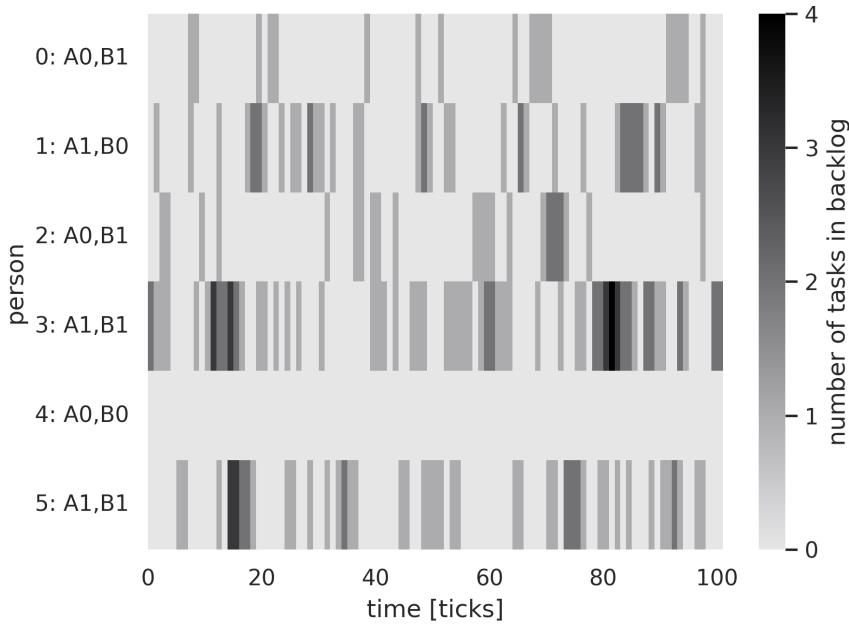


Figure E.2: The length of each person's backlog (for the same six people) as a function of time. This is the same simulation as shown in Figure E.1. The backlog of person 4 is empty because they are always delegating and no one assigns them tasks. Person 3 and person 5 have longer backlogs because they are capable of doing any task.

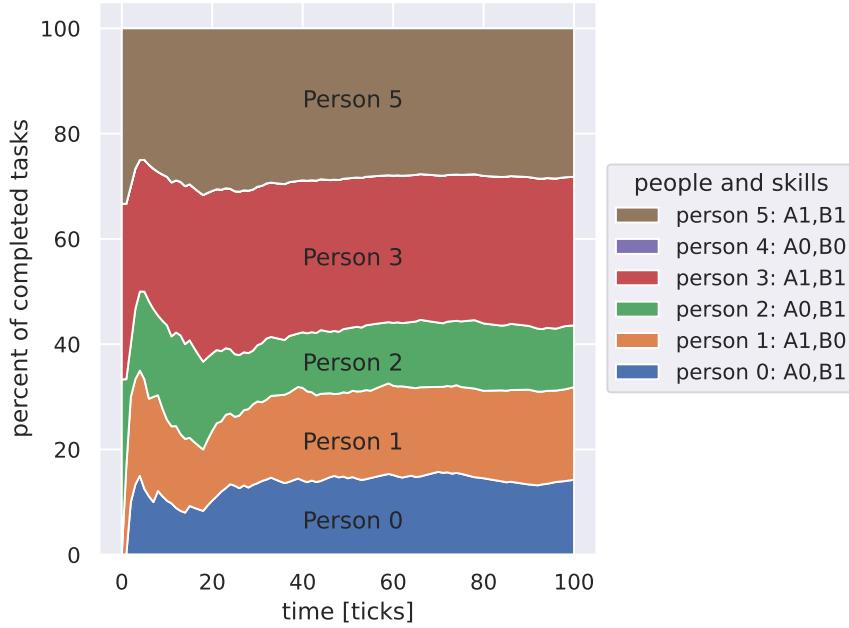


Figure E.3: This is the same simulation as shown in Figures E.1 and E.2. The steady-state distribution emerges around 50 ticks. Person 3 and person 5 are both unicorns and have similar task throughput. Person 4 does not appear in this figure because they completed no tasks.

The need for coordination is due to the random initial delegation of tasks not being aligned to the specializations and skill-levels of the workers. Alignment of tasks with the skills people have could be made systematic by introducing a person whose sole focus is assignment of tasks. That person would be the manager.

Conclusions from this configuration of the model:

- The reward for good work is more work. People with more specializations and more skills do more work than their coworkers.
- Time spent coordinating results in lower throughput of tasks.

The last question for this configuration is how the throughput scales as the number of people in the organization is increased. The overhead of coordination among less-skilled people means that doubling the number of participants does not double the task throughput. This observation was made by [Brooks](#) in his book *Mythical Man Month* [14].

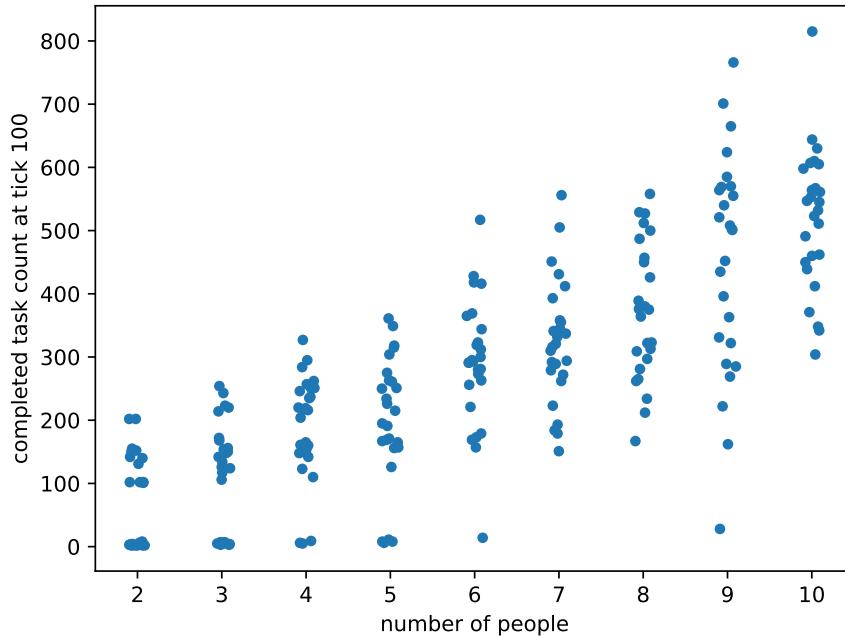


Figure E.4: Task completion after 100 ticks versus number of people in the organization. Dividing the values on the y-axis by 100 yields throughput. 25 simulations were run for each organization size. Adding people does increase throughput, but the variance of throughput increases due to dependence on the distribution of specializations and skill-levels of the participants. With 10 people the average task throughput is between 5 and 6 tasks per tick even though each task takes one tick. The suboptimal throughput is due to time spent coordinating tasks. The instances where task completion is near zero occur when no members of the organization have enough skills to address tasks. That condition is less likely as the number of people increases.

When people in an organization are not unicorns (there are some tasks a person is unable to do), then the task throughput is lower. If an organization comprised of unicorns would operate faster, why distribute work to people who lack the skills and rely on coordination? Because the specialization of skills is too diverse for any one person to master everything. This is easy to understand when the organization is society. It would be faster for you to inspect the meat you eat for food safety, monitor the emissions of the coal-fired power plant that powers your house, build the semiconductor chips you use, and manufacture the airplane you fly. However, you don't have all those skills and you want the results quicker than you can complete the tasks yourself. Therefore, the tasks are distributed among an organization of people with different skills. The cost of coordination is that the throughput is lower.

When the number of people is held constant (e.g., 10), there is only 1 skill-level, the task duration is 1 tick, and the number of relevant specializations is increased, then the task throughput is unchanged. That

may be surprising, but the cause is that the probability of a person having a specific skill or not is 50%. As a consequence, the need for coordinating a task insensitive to the number of specializations.

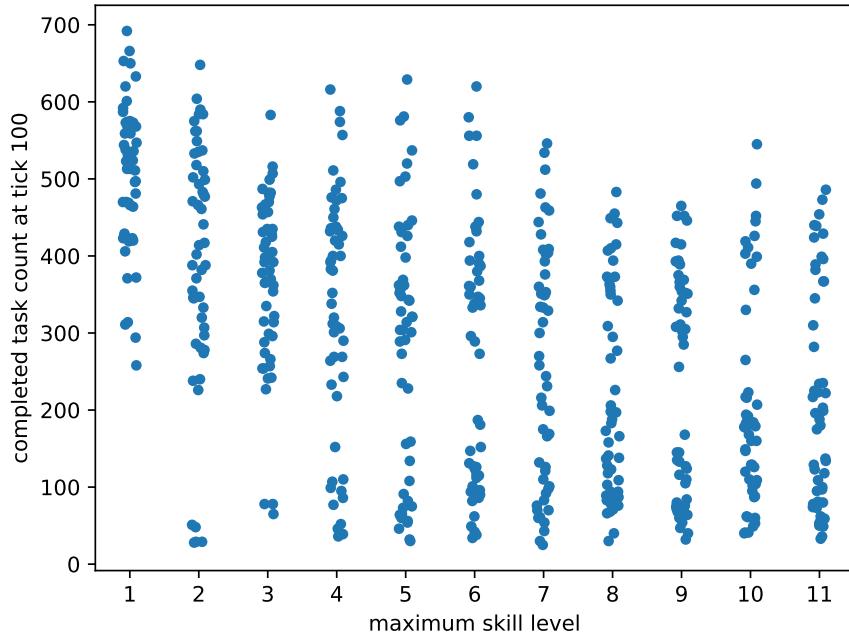


Figure E.5: Task completion after 100 ticks versus number of skill levels. Dividing the values on the y-axis by 100 yields throughput. 50 simulations were run for each skill-level, with number of people held constant at 10, task duration 1 tick, and number of specializations of 2. As the number of skill-levels is increased the task throughput decreases due to more time spent finding a person with the necessary skills.

In Figure E.5 the primary observation is that increasing the number of specialization levels decreases task throughput. A separate trend is visible that starts when there are a small number (2 or 3) skill levels for the 2 specializations. When none of the 10 people have one of the highest skill-levels (in this configuration, A3 or B3) then a task requiring the highest skill-level results in the person being unable to find someone else to give the task to. When no person has the highest skill level task completion is low because eventually everyone ends up with a task they can't hand off to someone else. As the number of skill-levels is increased, reaching the situation where no member can hand off a task takes longer.

E.2 Complexities Beyond the Model

Selection of Tasks is Complicated

An assumption in the model is that each person has a backlog of tasks they work on sequentially. If that assumption is violated and the person gets to choose their next task then negotiation and [decision-making](#) are invoked. The outcome of a task may be unclear (great results, mediocre results, or a dead-end), and the benefits of completing a task may be informed by relationships with team members. A person in an organization is informally bartering for attention of other members they rely on. Prioritizing the backlog of tasks involves an implicit quid pro quo with other people.

Having a backlog of tasks and not being constrained to serial completion opens another question. Should you take a breadth-first approach (do a little exploration of each) or a depth-first approach (exhaust one option at a time before moving on to another)? The answer depends on a few factors, like whether task

switching is beneficial (e.g., break in the monotony, or waiting for something else) or detrimental (e.g., increased cognitive load, or decay of perishable result).

E.3 What to Do about Too Many Tasks

Because unicorns can do any task, one way to improve throughput is to invest in training people. Training in the context of this model has the purpose of increased breadth (added specializations) or increased depth (improved skill-level for a specialization). One reason there are not more unicorns in an organization is that not everyone wants to know and do everything. Knowing how to create a webpage, analyze data, manage a server, initiate a contract, interact with customers, gather requirements, and run a team can feel overwhelming. Another reason unicorns are rare is turnover. When a person outgrows their assigned role, they may look to other opportunities to feel more fulfilled. Retaining unicorns is challenging.

A separate approach to having too many tasks relative to the number of people in the workforce is to prioritize the work. Prioritization doesn't necessarily increase task throughput, but without prioritization, tasks get started and may not get completed. (The problem of "start a task but don't finish it" isn't part of the numerical model but does happen in real organizations.)

Prioritization requires sacrifice (what tasks are you not doing) and induces risk (there are consequences to not doing tasks) and spends your reputation (not doing tasks affects other people).

There are two conditions under which prioritization becomes important:

- The number of tasks is less than or equal to the amount of staff attention available and skill. Then prioritization is merely ordering the sequence of tasks.
- When the number of tasks exceeds staffing capacity and skill-level per person, an oversubscribed person won't get to every task. Saying no is important but harms your reputation.

Prioritization strategies options

- Don't prioritize. Work on tasks as they are identified and don't complete anything because it gets interrupted by the next task Static prioritization that is exclusive. Only work on one thing to the exclusion of everything else.
- Shifting prioritization (prioritization changes over time); either:
 - Prioritization evolves slower than tasks can be completed.
 - Prioritization shifts faster than tasks can be completed is ineffective because it is indistinguishable from responding to tasks as they arise.
- Static prioritization by category. Likely to harm your reputation with people come to you with tasks that aren't in your primary category.
- Prioritization within proportionally allocated task categories. For example, suppose you have three categories of tasks. You allocate 10% of your time to the first category, 20% of your time to the second, and your remaining time to the third category.

E.4 Software Implementation of the Simulation Model

The model referenced in this Appendix is implemented in [Python 3](#). The primary functions used to generate data used for figures in this appendix are below. The complete source code for this book is available at <https://github.com/processempathy/bureaucracy-guidebook>.

The entity in this [agent-based model](#) is a person. For more description and context, see page 203.

```

1  class CreatePerson():
2      """a person is a member of an organization and has characteristics
3      """
4
5      def __init__(self,
6                  unique_id:int,
7                  skill_set_for_people:list,
8                  max_skill_level_per_person:int):
9          self.unique_id = unique_id
10         self.backlog_of_tasks = []
11         self.status = "idle"
12         self.assigned_task = None
13         self.contact_list = []
14         self.skill_specialization_dict = {}
15         self.work_journal_per_tick = {}
16         for skill in skill_set_for_people:
17             self.skill_specialization_dict[skill] = random.randint(0,
18                                         max_skill_level_per_person)
19
20     return
21
22
23     def add_person_to_contact_list(self,
24                                     person_id: int,
25                                     social_circle_size: int) -> None:
26
27         """Intended to capture
28         https://en.wikipedia.org/wiki/Dunbar%27s_number"""
29         self.contact_list.append(person_id)
30         if len(self.contact_list)>social_circle_size:
31             self.contact_list.pop(0)
32
33     return

```

The simulation depends on the following helper functions.

```

1   def show_all_people(list_of_people: list):
2     """assessment of whether `list_of_people` is correct"""
3     for person in list_of_people:
4       print('id=' ,person.unique_id,
5             ' ; skill matrix=' ,person.skill_specialization_dict)
6     return
7
8   def get_aggregate_person_dict(list_of_people:list,
9                                 skill_set_for_people:list,
10                                max_skill_level_per_person: int):
11     """create data structure for visualization of the population"""
12     # initialize data structure
13     aggregate_person_dict = {}
14     for specialization in skill_set_for_people:
15       aggregate_person_dict[specialization] = [0 for _ in range(max_skill_level_per_person)]
16     # populate the data structure
17     for person_id, person in enumerate(list_of_people):
18       for specialization, skilllevel in person.skill_specialization_dict.items():
19         #print(person.id, specialization, skilllevel)
20         if skilllevel>0:
21           aggregate_person_dict[specialization][skilllevel-1] += 1
22     return aggregate_person_dict
23
24   def check_population_for_capability(list_of_people: list,
25                                       skill_set_for_people,
26                                       max_skill_level_per_person):
27     """Due to random initialization of skill-levels,
28     some populations may be incapable of certain tasks"""
29     max_skill_per_specialization = {}
30
31     # initialize to -1
32     for specialization in skill_set_for_people:
33       max_skill_per_specialization[specialization] = -1
34
35     for person in list_of_people:
36       #print(person.skill_specialization_dict)
37       for persons_specialization, persons_skilllevel in person.skill_specialization_dict.items():
38         if persons_skilllevel>max_skill_per_specialization[persons_specialization]:
39           max_skill_per_specialization[persons_specialization] = persons_skilllevel

```

```

40
41     for specialization, skilllevel in max_skill_per_specialization.items():
42         if skilllevel < max_skill_level_per_person:
43             print("WARNING: population lacks max skill-level for", specialization)
44             print("As a consequence, some tasks cannot be completed by this population")
45             return
46
47     # use defaults to avoid having to specify variables each time
48     def new_task(task_id:int,
49                 skill_set_for_tasks: list,
50                 max_skill_level_per_task: int,
51                 max_task_duration_in_ticks: int,
52                 tasks_dict: dict) -> dict:
53         """Create a task and modify the dict that tracks all tasks"""
54         duration = random.randint(1,max_task.duration_in_ticks)
55         tasks_dict[task_id] = {'task ID': task_id,
56                               'specialization': random.choice(skill_set_for_tasks),
57                               'skill level': random.randint(1,max_skill_level_per_task),
58                               'duration': duration,
59                               'remaining': duration}
60
61     return tasks_dict
62
63     def current_status_of_people(list_of_people: list):
64         """what is each person doing?"""
65         for person in list_of_people:
66             print('person id', person.unique_id,
67                  'has status', person.status,
68                  'with task= ', person.assigned_task,
69                  'and has', len(person.backlog_of_tasks),
70                  'tasks in backlog')
71
72     def cumulative_task_backlog_size(list_of_people):
73         """value needed to create visualization of backlog versus time"""
74         backlog_count = 0
75         for person in list_of_people:
76             backlog_count += len(person.backlog_of_tasks)
77         return backlog_count
78

```

```
79 def pick_a_random_person(person_index: int,
80                         contacts: List,
81                         list_of_people: List):
82     """find someone who is not myself and is not someone I already know"""
83     try:
84         len(contacts)
85     except TypeError: # contacts is None
86         contacts = []
87     attempts = 0
88     list_of_person_ids = [person.unique_id for person in list_of_people]
89     while (attempts<100):
90         another_person = random.choice(list_of_person_ids)
91         attempts+=1
92         if ((another_person not in contacts) and
93             (another_person != person_index)):
94             return another_person
95         #print("failed to find another person who is not a contact")
96     return person_index
```

The simulation loop.

```

1   def simulate(skill_set_for_tasks:list,
2           max_skill_level_per_task: int,
3           max_ticks_to_simulate: int,
4           max_task_duration_in_ticks:int,
5           social_circle_size: int,
6           list_of_people: list,
7           show_narrative:bool,
8           work_journal:bool):
9       """primary function for time evolution of model
10      https://en.wikipedia.org/wiki/Agent-based-model"""
11     tasks_dict = {}
12     tick=-1
13     while ((tick<max_ticks_to_simulate)):
14         tick=tick+1
15         if show_narrative: print(' \n===== tick',tick,'===== ')
16         if show_narrative: print(" ===== status at the leading edge of this tick: =====")
17         if show_narrative: current_status_of_people=list_of_people
18         if show_narrative: print(" ===== updates happening in this tick: =====")
19         # each person looks in their backlog for work
20         for person_index in range(len(list_of_people)):
21             skill_dict = list_of_people[person_index].skill_specialization_dict
22             if show_narrative: print("person",person_index,'has skills',skill_dict)
23
24             # initialize the work journal
25             if work_journal:
26                 list_of_people[person_index].work_journal_per_tick[tick] = {'number of tasks in backlog':0}
27
28             if show_narrative: print(" person",
29                                     person_index,"has backlog length",
30                                     len(list_of_people[person_index].backlog_of_tasks))
31
32             # make sure the idle people get assigned work
33             if list_of_people[person_index].status=="idle":
34                 if work_journal:
35                     list_of_people[person_index].work_journal_per_tick[tick]['status was']= "idle"
36                     assert(list_of_people[person_index].assigned_task is None)
37                     if len(list_of_people[person_index].backlog_of_tasks)>0:
38                         # new tasks get appended, so the oldest task is at position 0

```

```

list_of_people[person_index].assigned_task = list_of_people[person_index].backlog_of_tasks.pop(0)
 40   if show_narrative: print(" person",
 41     person_index,"got task from their backlog")
 42   if show_narrative: print(" task is",
 43     list_of_people[person_index].assigned_task)
 44
 45   if work_journal:
 46     list_of_people[person_index].work_journal_per_tick[tick]['task from'] = 'my own backlog'
 47   else: # pop from empty list
 48     if len(tasks_dict)==0:
 49       task_id = 0
 50     else:
 51       task_id = max(tasks_dict.keys())+1
 52       tasks_dict = new_task(task_id,
 53         skill_set_for_task,
 54         max_skill_level_per_task,
 55         max_task_duration_in_ticks,
 56         tasks_dict)
 57       list_of_people[person_index].assigned_task = tasks_dict[task_id]
 58   if show_narrative: print(" person",
 59     person_index,"had no tasks in backlog; got new task from infinite queue")
 60   list_of_people[person_index].work_journal_per_tick[tick]['task from'] = 'infinite backlog'
 61
 62   if work_journal:
 63     # at this point, regardless of status, the person has a task
 64     if not list_of_people[person_index].assigned_task:
 65       Print('social_circle_size:',social_circle_size)
 66       print('max_task_duration_in_ticks:',max_task_duration_in_ticks)
 67       print('tick:', tick)
 68       print('tasks_dict:', tasks_dict)
 69       for person in list_of_people:
 70         print('ID:', person.unique_id)
 71         print('backlog',person.backlog_of_tasks)
 72         print('task:', person.assigned_task)
 73         print('status:', person.status)
 74         print('skill_specialization_dict:', person.skill_specialization_dict)
 75       raise Exception("person",person_index,"should have a task")
 76

```

```

78 my_task = list_of_people[person_index].assigned_task
79     if show_narrative:
80         print(" Person", person_index, "has an assigned task", my_task)
81
82     if work_journal:
83         list_of_people[person_index].work_journal_per_tick[tick]['task'] = my_task
84
85         # can the person do the task, or do they need to coordinate?
86         if (my_task['skill_level'] <= skill_dict[my_task['specialization']]): # person can do task
87             if show_narrative: print(" Person", person_index, "can do the task!")
88
89             if work_journal:
90                 list_of_people[person_index].work_journal_per_tick[tick]['status was'] = "idle"
91
92                 list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = "working"
93
94             else: # person doesn't have sufficient skill for task; person needs to find someone else
95                 if show_narrative: print(" Person", person_index, "does not have sufficient skill")
96
97             list_of_people[person_index].status="coordinating"
98
99             if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status was'] = "idle"
100
101             if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = "coordinating"
102
103             if list_of_people[person_index].status=="working":
104                 speedup = skill_dict[my_task['specialization']] / my_task['skill_level']
105
106                 if show_narrative: print(" speedup for person", person_index, "is", speedup)
107
108                 list_of_people[person_index].assigned_task['remaining'] = my_task['remaining'] - speedup # doing the work
109
110                 if (list_of_people[person_index].assigned_task['remaining']<=0): # task was completed
111                     if show_narrative: print(" task completed!")
112
113                     list_of_people[person_index].assigned_task = None
114
115                     list_of_people[person_index].status="idle"
116
117                     if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['outcome'] = "task completed"
118
119                     if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = "idle"
120
121                     else: # update the task to reflect there being less work remaining because the person did some work
122
123                     if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['outcome'] = "worked but task remains"
124
125                     if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = "working"
126
127                     pass

```

```

117     if list_of_people[person_index].status=="coordinating":
118         contacts = list_of_people[person_index].contact_list
119         show_narrative: print("    person",person_index,"contacts=",contacts)
120         if len(contacts)>0: # I know people!
121             if show_narrative: print("        person",person_index,"looks in contact list")
122                 for contact_id in contacts: # do the people I know have the skills to do this task?
123                     contacts_skill_dict = list_of_people[contact_id].skill_specialization_dict
124                     if (my_task['skill_level'] <= contacts_skill_dict[my_task['specialization']]): # contact can do task
125                         list_of_people[contact_id].backlog_of_tasks.append(list_of_people[person_index].assigned_task)
126                         list_of_people[person_index].assigned_task = None
127                         list_of_people[person_index].status = "idle" # next tick will get new task from
128                                         # my own backlog or infinite backlog
129                         show_narrative: print("        person",person_index,"gave task to person",
130                                         contact_id,"from contact list")
131                         if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['outcome'] = (
132                                         "gave task to person "+str(contact_id)+" from contact list")
133                         if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = "idle"
134                         break
135                         # after looking through contacts, if the status is still "coordinating",
136                         # then person didn't have a contact who could do the work
137                         if list_of_people[person_index].status=="coordinating":
138                             another_person_id = pick_a_random_person(person_index, contacts, list_of_people)
139                             another_person.skill_dict = list_of_people[another_person_id].skill_specialization_dict
140                             if (my_task['skill_level'] <=
141                                 another_person.skill_dict[my_task['specialization']]): # another_person can do task
142                                 list_of_people[another_person_id].backlog_of_tasks.append(my_task)
143                                 list_of_people[person_index].assigned_task = None
144                                 list_of_people[person_index].status = "idle"
145                                 show_narrative: print("        person",
146                                         person_index,"gave task to person",
147                                         another_person_id,"from random search")
148                                 if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['outcome'] = (
149                                         "gave task to person "+str(another_person_id)+" from random search")
150
151                         list_of_people[person_index].add_person_to_contact_list(another_person_id, social_circle_size)
152                         if show_narrative: print("        person",person_index,"added",another_person_id,"to list of contacts")
153                         if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = "idle"
154
155                         if show_narrative: print("        person",person_index,"not able give to",

```

```
156     another_person_id, "from random search")
157     if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['outcome'] = (
158         "not able to give to person "+str(another_person_id)+" from random search")
159     if work_journal: list_of_people[person_index].work_journal_per_tick[tick]['status is now'] = (
160         "coordinating")
161
162     return list_of_people, tasks_dict
```

Glossary

attention-time Attention can be at various levels, from distracted to intensely focused. The amount of time you spend can be quick or long. The concept of attention-time is the product of those two variables. Spending lots of time but with low-engagement is probably not equivalent to a short duration of focused attention – the concept is not [ergodic](#). [107](#), [202](#)

bikeshedding The recipient of a question or request focuses on unimportant details relative to the primary topic. See Wikipedia entry for [Law of Triviality](#). [123](#)

bureaucracy The process of enacting policies through subjective decisions made by individual participants, typically in the context of overseeing a [shared resource](#). The resource can be either tangible or in the form of expertise or information.

Managing access to shared resources does not require bureaucracy (e.g., if there is consensus, or through the use of violence) and bureaucracy can exist without a shared resource being managed (e.g., malicious processes inflicted by (threat of) violence.)

Bureaucracy is a [wicked problem](#) [\[92\]](#) because bureaucracy necessarily involves humans.

There are two subtopics that depend on the number of people involved: [core bureaucracy](#) and [decentralized bureaucracy](#). [iv](#), [1](#), [3](#), [36](#), [115](#), [180](#), [183](#), [184](#)

bureaucrat The person responsible for enacting someone else's policy for access to [shared resources](#). Conventional examples of roles filled by bureaucrats: teacher, police, government employee. [1](#), [5](#), [162](#), [175](#), [176](#), [179](#), [180](#), [183](#)

bureaucratic debt The cost of work needed to change a [process](#) caused by choosing an easy solution now instead of using a better approach that would take longer or cost more money. Bureaucratic debt is a trade-off of what work to do and risks to take. The trade-off can be intentional or can go unrecognized. More effort (work, time) could be spent building a better product, but subjects want solutions for access to the shared resource now. [175](#)

core bureaucracy The separate roles of [policymaker](#), [bureaucrat](#), and [subject](#). A minimum of three separate people occupy the three roles. The relevance of three different people is the inability of the subject to directly negotiate with the policymaker. The separation of roles introduces frustration for the subject. Examples not meeting the definition of core bureaucracy due to the lack of separate bureaucrat:

- The manager of swimming pool that has no other staff.
- A “no parking” sign.

Each of the above two scenarios have a shared resource, policymaker, and subject. [3](#)

culture also known as norms. Expectations each person has regarding interactions with other people. [102](#)

decentralized bureaucracy Within an [organization](#) comprised of multiple [bureaucrats](#) the concept of [core bureaucracy](#) applies. A bureaucrat may set policy for other bureaucrats, and that policy is inflicted on other bureaucrats.

Arises when different bureaucrats work in opposition because they are referencing different policies. As a consequence, the [subject](#) is burdened with resolution but doesn't have the authority to resolve the dissonance. Processes can appear nonsensical from the holistic perspective. Large bureaucracy is necessary when no one bureaucrat can carryout the relevant policies (due to complexity or size). In the situation distributed knowledge and distributed decision-making are essential. [1](#), [8](#), [11](#), [34](#), [66](#), [119](#), [121](#), [146](#), [183](#), [184](#), [201](#)

decision archaeology Identifying the evolutionary sequence of decisions that started with a specific issue and led to the current situation. Each successive contributor may have had good intentions, but their improvement may add complexity by introducing new dependencies. There are things that you might know that the original decision maker did not, and vice versa. People with good intentions who don't know what they are doing or have limited context create suffering and waste. In [Chesterton's fence](#) the admonition to, "Go away and think" should be to go do decision archaeology. [44](#)

emotional empathy Feeling how another person feels. This form of [empathy](#) is concerned with emotions like sadness, happiness, anger. See also [intellectual empathy](#). [2](#)

essential bureaucracy The minimum [processes](#), staffing, and skills necessary to address the complexity, latency, and scale of the challenge. In contrast to accidental and legacy bureaucracy. [35](#)

feedback loop Consequences for the decision-maker. Also known as "[skin in the game](#)". [12](#)

incentive What other people can offer you to change your behavior. For example pay, promotion, titles, stability, and awards. In contrast to [motives](#). [2](#), [183](#), [184](#)

intellectual empathy Thinking about how another person thinks. If you possess a capacity for [Theory of Mind](#), you can predict another person's actions. [114](#)

invisible bureaucracy [Processes](#) are known to some [stakeholders](#) and are conveyed verbally to some of the other stakeholders. In contrast to [visible bureaucracy](#). [104](#)

motives Internal motives are chosen by you. For example, fear, social recognition, predictability. [183](#), [184](#)

org chart [Organizational chart](#) identifies formal roles and the formal relations among roles. The consequence of these relations is delegation of action and decision authority. [18](#), [21](#), [34](#), [92](#), [164](#)

organization An assembly of teams, with teams being comprised of people. Alternative names for the concept might be a corporation, an agency, a department, a bureau, or any other aggregation of smaller organizations. [174](#)

participant A person who is expected to take action or make a contribution. [81](#)

policy Formalized opinion that can be applied uniformly and impersonally across scenarios with particular conditions. Used in bureaucracy to adjudicate access to [shared resources](#). Every policy used in a [bureaucracy](#) is subjective because policies are made up by humans. The subjectivity of human-made policies is distinct the subjective enactment by bureaucrats. [3](#), [5](#), [158](#)

policymaker The person who determines access to a shared resource by setting a [policy](#). [vi](#), [3](#)

Prisoner's dilemma Two or more people with incomplete information of a situation will make suboptimal choices compared to someone with perfect knowledge of the situation. [120](#)

process A sequence of tasks for the subject of bureaucracy. Each task is associated with the application of [policies](#) enforced by [bureaucrats](#). Also known as a procedure, as in “policies and procedures.”

Two common tasks in the context of bureaucracy are getting authorization and providing justification. A process has inputs and outputs. A process can be decomposed into other processes. Processes can operate on both information and tangible objects. Processes require [work](#) and time. Processes are carried out by people or machines. [158](#), [160](#), [162](#), [175](#), [176](#), [191](#)

process empathy Cultivating process empathy requires considering factors like

- Internal [motives](#) and external [incentives](#) that each person in each role has.
- What information each person has.
- The dilemmas that each person faces.
- The interplay of motives, incentives, and information manifests as actions by the team or organization.
- The [decision archaeology](#) of determining why things are the way they are, what is the overarching intent.
- How to modify existing processes and create new processes for diverse stakeholders and complicated constraints.

Your process empathy rests on the definition of [bureaucracy](#). [2](#), [42](#), [46–48](#), [85](#), [183](#), [184](#)

process friction Caused by the oversimplification of assumptions and the neglect of specific circumstances. Process friction results in the waste of resources (tangible or expertise), temporal inefficiency, emotional frustration, and social distrust of institutions. [159](#), [162](#)

red herring You send a message to another person and their response to your message is misleading, whether intentional or not. The respondent provides what looks like a reasonable answer but results in unproductive work. [123](#)

reference experience Something you have done or observed in the past that informs your current decision-making. [192](#)

reputation Your reputation as a [bureaucrat](#) is what other people expect from you. [112](#)

ripple A decision-maker selects an option and that propagates to schedule, what is possible, and dependent tasks. There is no or very little consequence felt by the decision-maker. [23](#)

shared resource A community resource – either tangible items (e.g., land, air, water) or intangible concepts like expertise and information. Access to the shared resource is constrained by subjective policies and enforcement.

Notably, shared resources do not have to be scarce. For example marriage licenses are not constrained by scarcity. Because marriage licenses confer special privileges legally and financially, access is limited. The label of “shared resource” is used here even when the status of whether the resource is shared is contentious. For example, a private property owner of land may view their land as not-shared, but

another person may walk across that land. This may invoke involvement of the police to arrest the trespasser. There's contention for access to the resource.

More examples of shared resources:

- A play put on by actors for an audience. The play is the shared resource; the norms of watching a play are the informal policies. This is not a bureaucracy because violations are addressed by the policymakers – the actors. There are also policies set by the theater. Theater policies form a bureaucracy because ushers are the bureaucrats and the audience are subjects.
- A road used by cars, trucks, and buses is a shared resource. Police are bureaucrats and drivers are the subjects.
- Safety of cars and trucks on a road is a shared resource. Police are bureaucrats, drivers are subjects.
- A parking lot – public or private. Formal policies set by the owner are inflicted by tow truck drivers; vehicle owners are the subjects.
- You are a shared resource. That applies physically – you can do manual labor, or mentally – your attention. You set policies regarding access like “I don't work for free.” This does not constitute bureaucracy because the roles are not held by different people.
- A kitchen with multiple users. In a residential apartment with a few roommates there is fluidity of roles between policymaker, bureaucrat, subject. At small scale this is just a negotiation amongst stakeholders rather than bureaucracy.
- A prison is a bureaucracy; guards are bureaucrats enforcing policy. The shared resource is the space and food and noise of the prison. Inmates are the subjects.
- A viewing platform overlooking a waterfall is a shared resource. Policies are stated by signs (an artifact of bureaucracy) and enforced by park staff (the bureaucrats) on visitors (the subjects).
- A server hosting a webpage accessed publicly or only available internally to members of an organization. The subjects are visitors to the webpage. When policy for access is set by the server's administrator and users negotiate with the administrators then there is no bureaucrat so this is not a bureaucracy.
- Education is a shared resource. Teachers are bureaucrats when applying the school's policy. Students are subjects. The teacher enforcing a policy they made is not a bureaucracy.
- In the education system a teacher's expertise is a shared resource, and there are policies made regarding access to the teacher's expertise.
- A bulletin board for community announcements is a shared resource. Policies about what can be posted are enforced by the owner. Because users negotiate directly with the owner this is not bureaucracy.
- Health care is a shared resource; specifically Doctors and Dentists are experts accessed by the community. Bureaucrats in the health care provider system mediate access.
- Insurance is a shared resource. Claims adjusters are bureaucrats.
- A hiking trail is a shared resource. The norms associated with passing and overtaking on a hiking trail relies on social convention and is informal.
- Law enforcement for a safe and just society is a shared resource. Law enforcement officers (e.g., police) are bureaucrats. Even though laws are written down (anyone could read them), there's distributed knowledge and distributed decision-making since no one person knows all the laws. Decisions are made by a sprawling workforce.

- The judicial system is a shared resource. Judges are bureaucrats and sometimes policymakers. Defendants and plaintiffs are the subjects.
- A library space is a shared resource, as are books in the library. Librarians are bureaucrats, patrons (readers) are subjects. Books in a personal library are not a shared resource since no access policy is needed.
- A swimming pool with staff is a shared resource. If there is a single person managing the pool there is no bureaucracy since the **policymaker** role and bureaucrat role are one person – then there is no room for conflict or confusion in the interpretation of the policy regarding access to the pool. If the pool has multiple staff and one person makes rules and another person administers the rules for swimmers, then bureaucracy exists.
- In the military, the warfighter is a shared resource. The equipment (tanks, guns, planes, boats) is the shared resource. The subject is the country's citizens.
- A church building is a shared resource among the congregation.
- Religion is a bureaucracy premised on constrained access to expertise concerning what God wants you to do. The shared resource is the expert's insights.
- A stairwell is a shared resource. Example policy: don't sleep in the stairwell; don't sell items in the stairway. Here the bureaucrats are the building manager and the fire marshal.
- A hallway used by renters in a multi-unit building or used by hotel guests.
- A house for a family. For example, a policy of taking your shoes off when you enter. The policymaker is the homeowner.
- Parks – public (city, county, state, national) or private (e.g., paid access).
- Safety of passengers on a plane, bus, or train.

Private or public is irrelevant; commercial or non-profit is irrelevant.

Not a shared resource: personal property, both durable and consumable, that no one is contesting access to. If no one is seeking access, then no policy is needed.

Bureaucracies typically manage more than one shared resource. As an example, the **Department of Transportation** manages transit systems like roads and railways, the expertise to manage those resources, and money to fund the development and maintenance of transit systems. [1](#), [3](#), [8](#), [10](#), [12](#), [27](#), [29](#), [35](#), [100](#), [112](#), [174](#), [183](#), [184](#), [191](#), [194](#), [195](#)

simple decision Has one correct or beneficial choice and one or more wrong or harmful choices. [13](#)

slow-rolling You get a response to your request or question, but the response isn't helpful. There is a delay in the outcome because you have to iterate to get an answer. [123](#), [133](#)

stakeholder A person who cares about the **process** or the outcome; distinct from a **participant**. Stakeholders can be subdivided by who is affected and who has control. [27](#), [178](#), [180](#)

stonewalling The recipient of a request or question doesn't reply. [123](#), [133](#)

subject The person experiencing **bureaucracy**. The subject participates because they are seeking a shared resource and are coerced (through threat of violence or sanction) to participate. See page XIV of Lipsky [70]. [3](#), [5](#), [27](#), [173](#)

thought-terminating **Thought-terminating statements** at first sound reasonable but, upon reflection and analysis, are incorrect. [35](#), [128](#)

visible bureaucracy [Processes](#) are written down and can be discovered by [stakeholders](#). [104](#)

Bibliography

- [1] S. Adams. *The Dilbert Principle: A Cubicle's-Eye View of Bosses, Meetings, Management Fads and Other Workplace Afflictions*. Business, 1997.

“The most ineffective workers will be systematically moved to the place where they can do the least damage — management.”

82

- [2] M. Albrow. *Bureaucracy*. Macmillan Publishers Limited, 1970.

- [3] Y. Y. Ang. *China's Gilded Age*. Cambridge University Press, 2021.

Identifies four types of corruption: petty theft, grand theft, speed money, and access money.

vii

- [4] Ballotpedia. Breakdown of judicial selection by state in the usa, 2015. [ballotpedia.org/Judicial_selection_in_the_states; accessed 2023-11-16]. 195

- [5] Ballotpedia. Breakdown of attorney general offices, 2022. [ballotpedia.org/Attorney_General_office_comparison; accessed 2023-11-16]. 196

- [6] L. Barnett, A. B. Barrett, and A. K. Seth. Granger causality and transfer entropy are equivalent for gaussian variables. *Physical Review Letters*, 103(23), 2009. 187

- [7] M. Bedau. Downward causation and the autonomy of weak emergence. *Principia*, 6:5–50, 2002.

Discusses nominal and weak emergence. Cited by [41].

187

- [8] D. Beetham. *Bureaucracy*. University Of Minnesota Press, 1996.

- [9] L. Beresford. Ask-tell-ask: Simple technique can help hospitalists communicate difficult messages. *The Hospitalist*, 2012. [www.the-hospitalist.org/hospitalist/article/125126/qi-initiatives/ask-tell-ask-simple-technique-can-help-hospitalists; accessed 2023-11-16].

“Start in an open-ended way, asking questions and listening to the response. Then you can tailor the information you provide to what they have told you.”

130

- [10] P. Blau. *Dynamics of Bureaucracy*. University of Chicago Press, 1955.

- [11] P. Blau. *Bureaucracy in modern society*. Crown Publishing Group/Random House, 1956.

- [12] R. Brandon and M. Seldman. *Survival of the Savvy*. Free Press, 2004.

A guide for people working within an organization. The thesis is that organizational politics can be conducted ethically by balancing ideas and relationships.

- [13] F. C. Brodbeck, R. Kerschreiter, A. Mojzisch, and S. Schulz-Hardt. Group decision making under conditions of distributed knowledge: The information asymmetries model. *Academy of Management Review*, 32:459–479, 2007.

Abstract: “a theoretical model that ... [explains] the failure of decision-making groups to effectively use information that is distributed among their members.”

- [14] F. Brooks. *The Mythical Man-Month*. Addison-Wesley, 1975.

A classic guide to project management. Project management is a learnable skill relevant to every bureaucrat.

[37](#), [87](#), [208](#)

- [15] F. Brooks. No silver bullet—essence and accident in software engineering. *IEEE Computer*, 20(4):10–19, 1986.

Describes two types of complexity: accidental complexity and essential complexity

[11](#), [198](#)

- [16] T. Burnham and B. Hare. Engineering human cooperation. *Human Nature*, 18:88—108, 2007. [17](#)

- [17] S. Carroll. Mindscape 113: Cailin O'Connor on game theory, evolution, and the origins of unfairness, 2020. [www.preposterousuniverse.com/podcast/2020/09/07/113-cailin-oconnor-on-game-theory-evolution-and-the-origins-of-unfairness/; accessed 2023-11-16].

- [18] S. Carroll. Mindscape 161: W. Brian Arthur on complexity economics, 2021. [www.preposterousuniverse.com/podcast/2021/08/23/161-w-brian-arthur-on-complexity-economics/; accessed 2023-11-16].

- [19] S. Carroll. Mindscape 168: Anil Seth on emergence, information, and consciousness, 2021. [www.preposterousuniverse.com/podcast/2021/10/11/168-anil-seth-on-emergence-information-and-consciousness/; accessed 2024-05-01]. [187](#)

- [20] S. Carroll. Mindscape 220: Lara Buchak on risk and rationality, 2022. [www.preposterousuniverse.com/podcast/2021/10/11/168-anil-seth-on-emergence-information-and-consciousness/; accessed 2024-05-01].

- [21] Chesterton. The drift from domesticity. In *The Thing*. S&W, 1929.

“There exists ... a fence or gate erected across a road. The more modern type of reformer goes gaily up to it and says, ‘I don’t see the use of this; let us clear it away.’ To which the more intelligent type of reformer will do well to answer: ‘If you don’t see the use of it, I certainly won’t let you clear it away. Go away and think. Then, when you can come back and tell me that you do see the use of it, I may allow you to destroy it.’”

- [22] R. Coase. The nature of the firm. *Economica*, pages 386–405, 1937. [8](#)
[194](#)
- [23] H. Cohen. *You Can Negotiate Anything*. Bantam, 1982. [41](#)
- [24] M. J. F. Cooper, S. Sornalingam, and C. O'Donnell. Street-level bureaucracy: an underused theoretical model for general practice? *British Journal of General Practice*, 65:376–377, 2015.
- [25] A. K. Daniels. Invisible work. *Social Problems*, 34:403–415, 1987. [105](#)
- [26] A. K. Davis. Bureaucratic patterns in the navy officers corps. *Social Forces*, 27:143–153, 1948.
- [27] T. DeMarco and T. Lister. *Peopleware*. Dorset House, 1987. [49](#), [58](#)
- [28] T. DeMarco and T. Lister. *Waltzing with Bears*. Dorset House, 2003.
An analysis of risks relevant for bureaucrats. Risk is typically diffused from individuals rather than being considered from the holistic systemic perspective.
- [29] L. Downey. Frictionless market: What it means, how it works. Technical report, Investopedia, 2021. [www.investopedia.com/terms/f/frictionlessmarket.asp; accessed 2023-11-16].
“A frictionless market is a theoretical trading environment where all costs and restraints associated with transactions are non-existent.”
- [30] A. Downs. A theory of bureaucracy. *American Economic Review*, 55:439–446, 1965. [194](#)
- [31] A. Downs. Bureaucratic structure and decisionmaking. Technical report, Rand Corporation, 1966. [www.rand.org/content/dam/rand/pubs/research_memoranda/2007/RM4646-1.pdf; accessed 2024-05-01].
The customer of an organization is not who consumes the product (i.e., report readers). Instead, the survival of a bureau is dependent on its ability to “demonstrate that its services are worthwhile to some group with influence over sufficient resources to keep it alive.” – From page 27 of 185.
- [32] J. Duffy. Personal communication, 2017.
- [33] Editor. Policy basics: Where do our federal tax dollars go? Technical report, Center on Budget and Policy Priorities, 2023. [www.cbpp.org/research/policy-basics-where-do-our-federal-tax-dollars-go; accessed 2023-11-16].
“In fiscal year 2023 the federal government is estimated to spend \$6.3 trillion.”
- [34] K. M. Eisenhardt and H. Piezunka. Complexity theory and corporate strategy. *Sage Handbook of Complexity and Management*, pages 506–523, 2011. [108](#)
[29](#), [30](#)
- [35] S. N. Eisenstadt. Bureaucracy, bureaucratization, and debureaucratization. *Administrative Science Quarterly*, 4, 1959. [187](#)

- [36] A. Farazmand. *Handbook of Bureaucracy*. Routledge, 1994.
- [37] R. T. Fishall. *Bureaucrats: How to Annoy Them*. Arrow Books, 1982.
 “A now-classic text on how to flummox and discomfit bureaucrats, widely rumored to be by British astronomer and BBC host Sir Patrick Moore.” – From Graeber [46].
- [38] UCSF Center for Excellence in Primary Care. The 10 building blocks of primary care: ‘Ask Tell Ask’ sample curriculum. Technical report, The Regents of the University of California, 2014. [cepc.ucsf.edu/sites/cepc.ucsf.edu/files/Curriculum_sample_14-0602.pdf; accessed 2023-11-16].
 Advocates “the paradigm shift from a directive paradigm (telling what to do) to the collaborative paradigm (asking what they are willing to do and working collaboratively).”
- [39] J. Freeman. Tyranny of structurelessness. Technical report, none, 1972. [www.jofreeman.com/joreen/tyranny.htm; accessed 2023-11-16].
 Explores consequences of avoiding hierarchy.
- [40] D. Frishberg and J. Sheldon. I’m just a bill, 1975. [www.youtube.com/watch?v=OgVKvqTItto; accessed 2024-05-01]. 130
- [41] J. Fromm. Types and forms of emergence. *Arxiv*, 2005. [arxiv.org/abs/nlin/0506028; accessed 2023-11-16].
 “This paper specifies a universal taxonomy and comprehensive classification of the major types and forms of emergence in Multi-Agent Systems, from simple types of intentional and predictable emergence in machines to more complex forms of weak, multiple and strong emergence.”
- 18, 235
- [42] J. Gall. *The Systems Bible*. General Systemantics Press, 2002.
 External perspective of organizations pointing out illogical and absurd behaviors. Humans have [OODA loops](#). A system, here a collection of people, is an abstraction which seems to have an OODA loop – all the elements of OODA appear to be present in the abstraction. However, the reality is that each participant in the system has an OODA loop and there is an emergent phenomenon.
- 188
- [43] P. Du Gay. *Values of Bureaucracy*. Oxford University Press, 2005.
 Each chapter is from a workshop on “Defending Bureaucracy” held in 2003. Each chapter has a different author.
- 226
- [44] A. W. Gouldner. *Patterns of industrial bureaucracy*. Free Press, 1954. 2, 187

- [45] D. Graeber. In regulation nation. *Harpers Magazine*, 2015. [harpers.org/archive/2015/03/in-regulation-nation/; accessed 2023-11-16].

[46](#)

- [46] D. Graeber. *The Utopia of Rules: On Technology, Stupidity, and the Secret Joys of Bureaucracy*. Melville House, 2015.

See [Wikipedia entry](#). Written by an anthropologist. An outsider's view on the experiences of a subject of bureaucrats. Introduction gives a good history of modern bureaucracy.

[229](#)

- [47] A. Grove. *High Output Management*. Vintage, 1995.

Even if you're not a manager, understanding what good management is and why management is difficult are relevant to your role as a bureaucrat. [Grove](#)'s view from the top of [Intel](#), having started as employee number three, is surprisingly relatable and timeless.

[19, 74, 147](#)

- [48] R. Haass. *The Bureaucratic Entrepreneur: How to Be Effective in Any Unruly Organization*. Brookings Institution Press, 1999.

Books on bureaucracy are typically written either from an academic perspective or from the view of someone at the top of an organization; this is the latter. By the time a person thinks they have wisdom to share, they have forgotten the details of what a novice's experience is like.

- [49] K. J. Haley and D. Fessler. Nobody's watching? Subtle cues affect generosity in an anonymous dictator game. *Evolution and Human Behavior*, 26:245—256, 2005. [17](#)

- [50] R. H. Hall. The concept of bureaucracy: An empirical assessment. *American Journal of Sociology*, 69, 1963.

Hall treats bureaucracy as a quantifiable model.

- [51] F. Herbert. *Heretics of Dune*. Penguin, 1987. page 201.

Science fiction novel describing power struggles. Source of the quote, "Bureaucracy destroys initiative. There is little that bureaucrats hate more than innovation, especially innovation that produces better results than the old routines. Improvements always make those at the top of the heap look inept. Who enjoys appearing inept?" – From page 201.

[101](#)

- [52] K. E. Holekamp, J. E. Smith, C. C. Strelifoff, R. C. Van Horn, and H. E. Watts. Society, demography and genetic structure in the spotted hyena. *Molecular Ecology*, 2012. [187](#)

- [53] P. Hupe. *Research Handbook on Street-Level Bureaucracy: The Ground Floor of Government in Context*. Edward Elgar Publishing, 2019.

- [54] Hyrum. Hyrum's law. [www.hyrumslaw.com/; accessed 2023-11-16].

“With a sufficient number of users of an API, it does not matter what you promise in the contract: all observable behaviors of your system will be depended on by somebody.”

- [55] R. Jackall. *Moral Mazes: The World of Corporate Managers*. Oxford University Press, 2009. [177](#)
[vii](#)

- [56] H. Jacoby. *The Bureaucratization of the World*. University of California Press, 1973.

- [57] E. Jacques. *A General Theory of Bureaucracy*. University of Michigan Press, 1976.

Jacques' “time span of discretion” are what I call feedback loops.

- [58] B. Johnson. The age-old question: Should judges be appointed or elected? Here's what you said, 2017. [www.judges.org/news-and-info/the-age-old-question-should-judges-be-appointed-or-elected-heres-what-you-said/; accessed 2024-05-01].

“More than a thousand judges voted, and 63 percent indicated they preferred appointments (they had to choose one or the other).” ... “Of the majority in favor of appointments, many cited ethical concerns with elections and campaigning. They argued that fundraising can create conflicts of interest, particularly when the sources of those funds are law firms and attorneys.”

- [59] H. Jorgensen, O. Bruehl, and N. Franke. Making change work...while the work keeps changing; how change architects lead and manage organizational change. Technical report, IBM, 2014. [www.ibm.com/downloads/cas/WA3NR3NM; accessed 2023-11-16].

Source of managing “bottom-up, top-down, sideways.”

- [60] J. R. Katzenbach and D. K. Smith. *Wisdom of Teams: Creating the High-Performance Organization*. Harvard Business Review Press, 2015.

Teams are the building blocks of successful organizations.

[195](#)

- [61] W. Kenton. Market: What it means in economics, types, and common features. Technical report, Investopedia, 2023. [www.investopedia.com/terms/m/market.asp; accessed 2023-11-16].

“A market is where buyers and sellers can meet to facilitate the exchange or transaction of goods and services.”

- [62] Life Kit. How to talk to customer service – and actually get what you want, 2022. [npr.org/2022/03/16/1086915600/get-what-you-want-customer-service; accessed 2023-11-16]. [33](#)

- [63] E. Klein. The book I wish every policymaker would read, 2023. [nytimes.com/2023/06/06/opinion/ezra-klein-podcast-jennifer-pahlka.html; accessed 2023-11-16].

- [64] E. Klein. There's been a revolution in how China is governed, 2023. [nytimes.com/2023/01/24/opinion/ezra-klein-podcast-yuen-yuen-ang.html; accessed 2023-11-16].

[194](#)

- [65] P. Klimek, R. Henel, and S. Thurner. To how many politicians should government be left? *Physica A: Statistical Mechanics and its Applications*, 388(18):3939–3947, 2009. [46](#)

- [66] A. Kollontai. The workers' opposition. *Pravda*, 7, 1921. [\[www.marxists.org/archive/kollonta/1921/workers-opposition/index.htm\]](http://www.marxists.org/archive/kollonta/1921/workers-opposition/index.htm); accessed 2023-11-16].

“Some third person decides your fate: this is the whole essence of bureaucracy.”

- [67] L. Koshgarian and A. Siddique. Where your tax dollar was spent in 2018. Technical report, National Priorities Project at the Institute for Policy Studies, 2019. [\[www.nationalpriorities.org/analysis/2019/tax-day-2019/where-your-tax-dollar-was-spent-2018/\]](http://www.nationalpriorities.org/analysis/2019/tax-day-2019/where-your-tax-dollar-was-spent-2018/); accessed 2024-05-01].

“Of every dollar taxpayers pay in income taxes, \$0.24 goes to the military.”

- [68] S. O. Lilienfeld, K. C. Sauvigné, S. J. Lynn, R. L. Cautin, R. D. Latzman, and I. D. Waldman. Fifty psychological and psychiatric terms to avoid: a list of inaccurate, misleading, misused, ambiguous, and logically confused words and phrases. *Frontiers in Psychology*, 6, 2015. [202](#)
[43](#)

- [69] C. Lindblom. The science of muddling through. *Public Administration Review*, 19:79–88, 1959.

“Instead of comprehensive analysis of every policy option, a much more constrained process of ”successive limited comparison” is really how policies are developed, insists Lindblom. According to this ”branch” method, administrators usually look only at policies that differ in relatively small degree from the policies currently in effect, thereby reducing the number of alternatives to be investigated while simultaneously narrowing the scope of investigation.”
– From texaspolitics.utexas.edu

[29](#)

- [70] M. Lipsky. *Street-Level Bureaucracy: The Dilemmas of the Individual in Public Service*. Russell Sage Foundation, 1983.

Insightful perspectives on structural incentives driving government bureaucrats. [Lipsky](#) empathizes with the behaviors of bureaucrats but the book isn't aimed at bureaucrats who want to improve.

[187](#)

- [71] M. Lopp. *Managing Humans: Biting and Humorous Tales of a Software Engineering Manager*. Apress, 2012. [51](#)

[23, 224](#)

- [72] M. A. Lutzker. Max Weber and the analysis of modern bureaucratic organization: Notes toward a theory of appraisal. *American Archivist*, 45(2):119–130, 1982.

- [73] L. D. Marquet. *Turn the Ship Around*. Portfolio, 2013. [39, 76](#)

- [74] N. Matouschek, Paolo Ramezzana, and F. Robert-Nicoud. Adding friction to the market. Technical report, Kellogg School of Management, 2011. [insight.kellogg.northwestern.edu/article/adding_friction_to_the_market; accessed 2023-11-16].

In employment, making hiring and firing easier is not always the way to go.

- [75] E. McCarthy. People. In *Time*, page 67. Time, Feb 1979. [time.com/vault/issue/1979-02-12/page/83/; accessed 2023-11-16]. 194

- [76] T. McDowell and J. Radin. It's your decision. Technical report, Deloitte, 2011. [www2.deloitte.com/content/dam/Deloitte/us/Documents/human-capital/us-cons-organization-decision-making-051111.pdf; accessed 2023-11-16]. vi

- [77] L. McGahey. The logic of strategic ignorance. *British Journal of Sociology*, 63:533–576, 2012.

18

- [78] L. McGahey. *The Unknowers: How Strategic Ignorance Rules the World*. Zed Books, 2019. 18

- [79] M. W. Meyer and M. C. Brown. The process of bureaucratization. *American Journal of Sociology*, 83:364–385, 1977.

- [80] H. Mintzberg, D. Raisinghani, and A. Theoret. The structure of “unstructured” decision processes. *Administrative Science Quarterly*, pages 246–275, 1976.

- [81] E. E. Morison. *Men, Machines, and Modern Times*. Massachusetts Institute of Technology, 1966.

Chapter 3 addresses bureaucracy.

8

- [82] R. G. Mulligan. The evolution of the nasa organization. Technical report, National Aeronautics and Space Administration, 1985. [history.nasa.gov/orgcharts/evol_org.pdf; accessed 2024-05-01]. 74

- [83] W. A. Niskanen. The peculiar economics of bureaucracy. *American Economic Review*, 58:293–305, 1968.

Mathematical model of economic incentives of bureaucrats.

- [84] Bureau of Labor Statistics. Employee tenure in 2022. Technical report, U.S. Department of Labor, 2022. [www.bls.gov/news.release/pdf/tenure.pdf; accessed 2023-11-16].

“The median number of years that wage and salary workers had been with their current employer was 4.1 years in January 2022.”

- [85] D. O’Hearn. *Bureaucrat’s Handbook: A Step-by-Step Guide to Mastering the Art of Bureaucracy*. Createspace Independent Publishing Platform, 2015.

Setting aside the bad advice and harm in this book, the author’s view is that a bureaucrat is a government employee. The author advocates working in Human Resources or a budget office since those are stable jobs. The book does contain some valid observations about life as a bureaucrat; however, the valid insights are outweighed by the number and importance of incorrect explanations.

165

- [86] J. P. Olsen. Maybe it is time to rediscover bureaucracy. *Journal of Public Administration Research and Theory*, 16:1–24, 2006.

- [87] J. Perr. “Unless otherwise directed” in Iraq. *Daily Kos*, 2009. [www.dailykos.com/stories/2009/2/11/696188/; accessed 2024-05-01]. 179

- [88] C. Perrow. The bureaucratic paradox: The efficient organization centralizes in order to decentralize. *Organizational Dynamics*, 5:3–14, 1977.

- [89] L. J. Peter. *Peter Principle*. William Morrow and Company, 1970.

Source of the observation that “employees are promoted based on their success in previous jobs until they reach a level at which they are no longer competent.” (source of the quote is the Wikipedia entry for the [Peter principle](#)).

82, 99

- [90] T. R. Raghunandan. *Everything You Ever Wanted to Know about Bureaucracy But Were Afraid to Ask*. India Penguin, 2019.

Bureaucracy in India.

- [91] V. Rao. The Gervais principle, or the office according to The Office, 2009. [www.ribbonfarm.com/2009/10/07/the-gervais-principle-or-the-office-according-to-the-office/; accessed 2023-11-16]. 82

- [92] H. W. J. Rittel and M. M. Webber. Dilemmas in a general theory of planning. *Policy Sciences*, 4:155–169, 1973.

Definition of “wicked” problems, with 10 characteristic aspects.

187, 220

- [93] B. Schneier. *Liars and Outliers*. Wiley, 2012.

Schneier “explain how society induces trust. He shows the unique role of trust in facilitating and stabilizing human society.” – From [summary](#) on Amazon.com

196

- [94] Schumpeter. Why do firms exist? *Economist*, 2010. [www.economist.com/node/17730360; accessed 2024-05-01]. 194

- [95] M. Schwartz. *The Delicate Art of Bureaucracy: Digital Transformation with the Monkey, the Razor, and the Sumo Wrestler*. IT Revolution Press, 2020.

Former CIO in the US Federal government provides actionable advice for bureaucrats. Schwartz’s definition of bureaucracy is, “immovable obstacles to what I am trying to accomplish that come from somewhere else in the enterprise and frustrate me.” Schwartz’s path to better bureaucracy is to be lean, learning, and enabling.

[96] P. Selznick. An approach to a theory of bureaucracy. *American Sociological Review*, 8:47–54, 1943. 164

[97] L. Spaeder. The principles of bureaucratic leadership. *Marine Corps Gazette*, 2021. [mca-marines.org/wp-content/uploads/The-Principles-of-Bureaucratic-Leadership.pdf; accessed 2024-05-01].

[98] J. Sterman. *Business Dynamics: Systems Thinking and Modeling for a Complex World*. McGraw-Hill Education, 2000.

Visual diagrams that describe systems of coupled differential equations.

50

[99] M. Suchak, T. M. Eppley, M. W. Campbell, R. A. Feldman, L. F. Quarles, and F. B. M. de Waal. How chimpanzees cooperate in a competitive world. *Proceedings of the National Academy of Sciences*, 113(36):10215–10220, 2016. 26

[100] M. Tedesco. *The Official Bureaucrat's Guide for Navigating Bureaucracy (OBGNB)*. CreateSpace Independent Publishing Platform, 2011.

Fictionalized account from author's experience.

[101] V. A. Thompson. Bureaucracy and innovation. *Administrative Science Quarterly*, 10:1–20, 1965.

[102] L. Tolsty. *Anna Karenina*. The Russian Messenger, 1878. 186

[103] G. Tullock. *Politics of Bureaucracy*. Public Affairs Press, 1965.

[104] Strategic Services Unit. *Simple Sabotage Field Manual*. United States War Department, 1944. vii

[105] unknown. Teaching is a slow process of becoming everything you hate. [dynamight.net/teaching/; accessed 2023-11-16].

“No one will thank you for policing cheating. Not the cheaters, not the honest students who feel inconvenienced and mistrusted, and certainly not the school administration who have to process academic dishonesty paperwork.”

[106] unknown. The BS attitudes: How things work in bureaucracies. Technical Report 4, Department of Defense, 1996.

FOIA request 51633 filed by Philip Clark based on [this record](#).

[107] unknown. Valve handbook. Technical report, Valve, 2012. [cdn.akamai.steamstatic.com/apps/valve/Valve_NewEmployeeHandbook.pdf; accessed 2023-11-16].

An Employee Handbook for a flat organic organization. Contrast with [39].

[108] unknown. Physician orders priority, 2018. [[docport.columbia-stmarys.org/EHR/PhysicianOrdersPriorityandDeptServiceHours.aspx](https://stmarys.org/EHR/PhysicianOrdersPriorityandDeptServiceHours.aspx); accessed 2020-01-01].

80

- [109] unknown. Demographics of the U.S. Military. Technical report, Council on Foreign Relations, 2020. [www.cfr.org/backgrounder/demographics-us-military; accessed 2024-05-01].

“There are about 1.3 million active-duty personnel, or less than one-half of 1 percent of the U.S. population.”

- [110] unknown. Priority definitions, 2022. [www.unitypoint.org/peoria/services-priority-definitions-and-critical-values.aspx; accessed 2022-01-01]. 87, 178

- [111] T. Vine. *Bureaucracy: A Key Idea for Business and Society*. Taylor and Francis Group, 2020. 18
169

- [112] L. von Mises. *Bureaucracy*. Libertarian Press, Inc., 1996.

Libertarian take on relevance of government. See [Wikipedia entry for Bureaucracy](#).

29

- [113] Y. Wang. Ethical dilemmas of the modern bureaucracy and its solution. *Proceedings of the 2019 3rd International Seminar on Education, Management and Social Sciences*, 2019. 169

- [114] M. Weber. *Rationalism and Modern Society: New Translations on Politics, Bureaucracy, and Social Stratification*, chapter Bureaucracy, pages 73–128. Palgrave MacMillan, 2015.

- [115] C. M. Wilson. Market frictions: A unified model of search costs and switching costs. *European Economic Review*, 56:1070–1086, 2012.

12

- [116] J. Q. Wilson. *Bureaucracy: What Government Agencies Do and Why They Do It*. Basic Books, 1991.

An academic’s external perspective on how government works. [Wilson](#) says on page 115 that feedback loops and self-determination of scope distinguish business bureaucracy from government bureaucracy.

194

- [117] S. Yegge. Google platforms rant, October 2011. [gist.github.com/bhpayne/49c8379a3ea880b7cc079fc8d32c87a7; accessed 2023-11-16]. vii

- [118] B. Zacka. *When the State Meets the Street: Public Service and Moral Agency*. Belknap Press, 2017.

Similar to Blau’s embedding in an organization. Focused on the moral puzzles of street-level government bureaucrats. Primary claim is that “moral disposition” guide an individual bureaucrat’s actions.

169

- [119] A. Zaleznik. *Power and Politics in Organizational Life*. Harvard Business Review, 1970. 47

- [120] J. Zhuo. *Making of a Manager: What to Do When Everyone Looks to You*. Portfolio, 2019.

Due to the hierarchical structure of organizations, many bureaucrats are managers. This book provides a useful guide for being a good manager.

[146](#)

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