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# Self-Managing Organizations:
# Exploring the Dynamics and Consequences of Radically Decentralizing Authority

A dissertation presented

by

Michael Y. Lee

in partial fulfillment of the requirements

for the degree of

Doctor of Business Administration

in

Management

Harvard Business School

Boston, Massachusetts

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**Self-Managing Organizations:**

**Exploring the Dynamics and Consequences of Radically Decentralizing Authority**

## Abstract

This dissertation examines the dynamics and consequences of organizations that eschew the conventional managerial hierarchy and instead radically decentralize authority throughout the organization. While fascination with approaches that eliminate traditional managers has been longstanding, research on them has remained at the margins of scholarly and practitioner attention. Recently, however, experiments in radical and organization-wide decentralization have gained mainstream consideration, giving rise to a need for new theory and new research. This dissertation establishes the foundation for deeper study of this phenomenon by situating it within existing research, and examining the viability and consequences of organizing without traditional managers. Chapter 2 reviews existing research on less-hierarchical organizing and distinguishes efforts to radically decentralize authority throughout the organization, a phenomenon I label a *self-managing organization*, from the thrust of prior research. Chapter 3 explores the viability of self-managing organizations through an ethnographic case study of a self-managing organization that was able to foster coordination without traditional managers while simultaneously enhancing employee freedom and organizational flexibility. Chapter 4 presents data from a 12-month controlled field experiment to examine whether and for whom radical decentralization improves

employee empowerment, engagement and job satisfaction. Taken together, this dissertation provides new insights into the viability and impact of organizing without traditional hierarchy.

## Contents


Abstract ..... iii
List of Tables ..... vii
List of Figures ..... viii
Chapter 1. Introduction and Overview ..... 1
Chapter 2. Self-managing Organizations: ..... 5
Exploring the Limits of Less-hierarchical Organizing ..... 5
Introduction ..... 5
Trends that motivate the search for less-hierarchical forms of organizing ..... 7
Approaches to less-hierarchical organizing ..... 8
Recent experiments with less-hierarchical organizing ..... 9
Delineating radical versus incremental approaches to less-hierarchical organizing ..... 13
Conceptualizing self-managing organizations ..... 14
Prior Research on Less-Hierarchical Organizations ..... 15
Methodology ..... 16
Post-bureaucratic organizations ..... 17
Humanistic management ..... 22
Organizational democracy ..... 27
Toward a Model of Self-Managing Organizations ..... 33
Radical decentralization of authority ..... 34
Formal system ..... 39
Organization-wide ..... 42
Comparing prior research findings on less-hierarchical organizing with our definition of self-managing organizations ..... 43
Heterogeneity of self-managing organizations ..... 45
Implications and Research Directions ..... 46
Coordination and control in self-managing organizations ..... 47
Individual subjective experience in self-managing organizations ..... 49
Achieving and maintaining decentralization in self-managing organizations ..... 50
Organizational consequences of self-managing organizations ..... 52
Self-managing organizations as a case of institutional change ..... 52
Contingencies in the choice of self-managing systems ..... 53
Conclusion ..... 55
Chapter 3. The Dynamics of Self-managing Organizations: Organizing Through Clear and Dynamic Role Boundaries ..... 57
Postbureaucratic Organizing and the Organic Structure ..... 61
Role-based Coordination and Enabling Structures ..... 63
Methods ..... 65
Research Setting ..... 65
Data collection. ..... 67
Data analysis. ..... 68
Findings ..... 70
Establishing Clear Role Boundaries ..... 71

Flexible Coordinating by Attending to and Revising Role Boundaries ..... 76
Attending to role boundaries ..... 76
Revising boundaries of responsibility ..... 82
Enacting Freedom Through Attending to and Revising Role Boundaries ..... 87
Attending to role boundaries ..... 88
Revising role boundaries ..... 92
Understanding the Conditions Under Which Role Formalization Supports Flexible Coordination and Employee Freedom ..... 95
Roles were formalized within the context of a decentralized authority structure ..... 95
Formalized roles were made visible to the entire organization ..... 97
Formalized roles were frequently revisited and easily revised ..... 98
Trade-offs Associated with Organizing by Clear and Dynamic Role Boundaries ..... 99
The individual over the collective ..... 99
Formal roles over cultural values ..... 100
Impersonal over personal ..... 101
Change over stability ..... 103
Discussion ..... 104
Implications for theories of postbureaucratic organizing ..... 104
Implications for theories of decentralized and role-based coordination ..... 106
Implications for theories of formalization ..... 107
Limitations, Future Directions, and Implications for Practice ..... 108
Chapter 4. The Consequences of Radical Decentralization on Employee Experience at Work ..... 111
Relevant Literature ..... 113
The consequences of decentralizing authority on employee experience ..... 113
Moderators and boundary conditions for the efficacy of decentralizing authority ..... 115
Methods ..... 117
Research setting ..... 118
Research design ..... 120
Data sources ..... 123
Findings ..... 127
Variance in individual experience with decentralization ..... 127
Survey analysis ..... 134
Discussion ..... 146
Conclusion ..... 148
References ..... 150
Appendix A: Decentralized Authority by Decision Area at Self-Managing Organizations ..... 168
Appendix B. Survey Scales ..... 170
Appendix C. Regression Analysis of the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction ..... 171

## List of Tables

Table 1. Three Categories of Research on Less-Hierarchical Organizations ..... 17
Table 2. Summary of Key Elements in Each Research Category ..... 32
Table 3. *Examples from Prior Research on Less-Hierarchical Organizations* ..... 44
Table 4. Differences between SMO Case Studies and their Context ..... 55
Table 5. Meeting Observations ..... 68
Table 6. Knowledge Management Role Changes ..... 73
Table 7. Examples of Increased Formalization of Existing Work ..... 75
Table 8. Practices Supporting Flexible Coordination ..... 87
Table 9. Practices Supporting Employee Freedom ..... 94
Table 10. Variance in Individual experiences with Radical Decentralization ..... 128
Table 11. Means, Standard Deviations, and Correlations ..... 134
Table 12. Regression Analysis of Manager-Rated Job Performance as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction ..... 136
Table 13. Regression Analysis of Interest in Decentralization as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction ..... 139
Table 14. Regression Analysis of Psychological Safety as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction ..... 142
Table 15. Regression Analysis of Managerial Style as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement, and Job Satisfaction ..... 145

## List of Figures

Figure 1. Patterns of decentralized authority at self-managing organizations. ..... 37
Figure 2. Growth in formalized roles and accountabilities at CashCo. ..... 74
Figure 3. Typology of decentralized structures. ..... 115
Figure 4. Simple slopes for moderation analysis of job performance. ..... 137
Figure 5. Simple slopes for moderation analysis of interest in decentralization. ..... 140
Figure 6. Simple slopes for moderation analysis of psychological safety. ..... 143

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## Chapter 1. Introduction and Overview

As a nearly ubiquitous aspect of organizational life, the presence of hierarchy in an organization is rarely notable. Hierarchy serves as a critical mechanism for supporting coordination and control in organizations. Authority vested in a hierarchical structure provides a clear mechanism for directing work, enforcing accountability, and resolving conflicts. Hierarchy may even be a fundamental feature of human psychology. For example, research has shown that even without a formal hierarchy, informal hierarchies emerge within human collectives nearly instantaneously (Bales & Slater, 1955). Scholars argue that sorting into higher and lower status is evolutionarily adaptive, preventing conflict and violence, and satisfies basic human needs for order, dominance, and belonging (Gruenfeld & Tiedens, 2010). Organizational hierarchy also mimics the existence of hierarchy in other fields of social life, such as education and family.

Yet, increasingly, the dysfunctions of hierarchy in organizations are raising questions about its suitability for contemporary work contexts. A vast body of research has documented how hierarchy tends to inhibit those lower in rank from speaking up and sharing vital information and perspectives (Detert & Burris, 2007; Detert & Edmondson, 2011; Fast, Burris, & Bartel, 2014; Milliken, Morrison, & Hewlin, 2003), and that this tendency towards silence negatively impacts team and organizational effectiveness (Anicich, Swaab, & Galinsky, 2015; Vaughan, 1997). In addition, hierarchy leads to more errors of omission in the innovation process, i.e., good ideas missed (Csaszar, 2012; Keum & See, 2017). Finally, hierarchy breeds problematic power dynamics that lead those in power to treat others with less empathy and as a means to an end, and causes those without power to be less motivated and have lower self-efficacy (Anderson & Brown, 2010; Hackman & Oldham, 1976).

The dysfunctions of hierarchy are particularly problematic in the contemporary context, where the complexity of the environment demands diverse information to solve problems, where information and expertise are held across levels rather than just by managers, and where innovation and human motivation are critical for organizational competitiveness. As a result, organizations are increasingly seeking alternatives to the traditional hierarchical structure. In fact, according to a recent global survey of organizational leaders, 88% of leaders feel that building a more decentralized and flexible organizational structure is critical for competing in today's marketplace (Deloitte, 2017).

While many organizations have adopted forms of decentralization in certain parts of the organization, a few have gone further, adopting radically decentralized structures throughout the organization. This dissertation explores the organizational dynamics and consequences of such efforts. I label these radical approaches to organizational decentralization, *self-managing organizations*. While instances of organizations radically decentralizing authority are less common, studying these efforts is important for two reasons. First, studying extreme cases of decentralization makes the dynamics of organizing without hierarchy (or with less hierarchy) more apparent and therefore easier to observe. Second, doing so can help us better understand the nature of hierarchical organizing. Akin to Garfinkel's (1964) breaching experiments, studying organizations that eschew hierarchy can reveal aspects of hierarchical organizing that are difficult to see because of our embeddedness in hierarchical structures.

In chapter 2, co-authored with Amy Edmondson, I explore what distinguishes self-managing organizations from prior streams of research on less-hierarchical organizing and clearly define what constitutes radical decentralization. I identify three categories of related prior research: post-bureaucratic organizations, humanistic management, and organizational

democracy and argue that despite this extensive prior work, scholarly understanding of radical decentralization remains limited. Using the term *self-managing organizations* to capture efforts that radically decentralize authority in a formal and systematic way throughout the organization, we set forth a research agenda to better understand less-hierarchical organizing and its limits.

In chapter 3, I present an ethnographic study of a self-managing organization that represents a novel approach to radical decentralization. Despite being described more than a half century ago, the dominant approach to organizing less-hierarchically remains the organic structure. Such structures minimize both vertical constraints by decentralizing authority and also horizontal constraints by intentionally maintaining low role clarity and role formalization. As a result of their lack of formal structure, organic structures offer high degrees of freedom and flexibility but suffer from an inability to facilitate effective coordination. This study considers an alternative approach distinct from the organic structure: an organization that decentralized authority but dramatically increased the degree to which roles formalized. Prior theory suggests that high degrees of role formalization would limit organizational flexibility and employee freedom. Leveraging rich ethnographic data, I, in contrast, find that role formalization – in the context of decentralized authority and when made visible and easily revisable – supported both flexible coordination and employee freedom by establishing clear and dynamic role boundaries that individuals attended to in the course of doing work and revised as needed. This study reveals an alternative approach to transcending the limitations of hierarchy and bureaucracy that does not reduce formal role boundaries but rather establishes clear and dynamic role boundaries. Furthermore, this study shows how organizing through clear and dynamic role boundaries may enable organizations to resolve a core tension: how to enable freedom and flexibility without sacrificing coordination.

In chapter 4, I shift focus towards understanding the consequences of radical decentralization for employees working in such structures. I leverage a 12-month controlled field experiment in a state government agency, where the treatment was the adoption of a radically decentralized authority structure, to explore whether radical decentralization improves employee empowerment, engagement, and job satisfaction. I also examine what factors influence when and for whom radical decentralization improves employee work experience. Utilizing both qualitative and quantitative data collected during the experiment, I find that radical decentralization did not improve employee empowerment, engagement, or job satisfaction for the average employee. Rather, I find that decentralization improved employee work experience only for certain individuals: namely, high performers, those who showed initial interest in operating in a decentralized structure, and those working in a psychologically safe environment. These results reveal the mixed effects that radical decentralization can have on individuals and also highlight the human capital conditions and group climate conditions that influence when decentralization is likely to have a positive effect on employee experience.

Collectively, this dissertation deepens our understanding of what constitutes radical decentralization, as well as the dynamics and consequences of working in such structures. In doing so, it reveals the challenges and opportunities associated with less-hierarchical organizing and suggests that, while not a panacea nor for everyone, such approaches hold promise for making organizations more effective, engaging, and empowering.

## Chapter 2. Self-managing Organizations: Exploring the Limits of Less-hierarchical Organizing

### Introduction

The formal managerial hierarchy in modern organizations is as persistent as are calls for its replacement. The managerial hierarchy, which took hold in organizations in the late nineteenth and early twentieth centuries, has proved remarkably resistant to change.[1] Norms, mindsets, and cultural assumptions that pervade modern organizational life combine to reinforce an all but taken-for-granted belief in managerial power as the primary mechanism for ensuring performance. Within this institutional belief system, managerial power – or the granting of individuals in management roles formal authority to direct and evaluate the work of subordinates – constitutes the essential means of ensuring optimal results.

---

[1] There are many definitions and conceptualizations of hierarchy; thus, to define our terms clearly, we use ***managerial hierarchy*** to refer to an organizational design that emerged in the late 19th and early 20th century in large-scale capitalist enterprises and featured multiple levels of authority, in which the middle layers of managers were not owners (Chandler, 1977). This organizational design still predominates today (Gruenfeld & Tiedens, 2010; Pfeffer, 2013), and relies on two basic principles: 1) a *hierarchy of authority* – that is, individuals reporting to managers who have the authority to direct and prioritize the execution and allocation of tasks, review performance, and in many cases, hire and fire; and 2) a *hierarchy of accountability*—that is, work accountabilities roll up from direct reports to managers who hold ultimate accountability for the work of all those below in the organization chart.

The core unit of the managerial hierarchy is the reporting relationship between manager and subordinate, a relationship that has been described as operating by the principle of unity of command (Fayol, 1949), supervision of lower offices by higher ones (Weber, 1946), and obedience to superiors (Burns & Stalker, 1961). Ultimately, the manager-subordinate relationship is characterized by a "power-over" dynamic that gives managers the authority to supersede subordinates when conflicts arise. Further, subordinates lack the recourse to object to decisions made by managers. Contrast the managerial hierarchy with cooperatives that may choose to organize hierarchically by democratically electing leaders. In such organizations, leaders may make decisions with which other organizational members disagree but this authority is endorsed from below and revocable. In managerial hierarchies, managerial authority is enduring and irrevocable from below.

We use ***hierarchy*** to refer to a broader set of phenomena that include a hierarchy of formal authority, as depicted in classic pyramid-shaped organizational charts (Jaques, 1996; Weber, 1946) and a hierarchy of informal authority or status, as evidenced by dominance vs. deference behaviors and hierarchical speaking rules (e.g. Anderson et al, 2012; Bales, 1951; Detert & Edmondson, 2011). Wherever possible, we try to specify whether we are speaking of formal hierarchy or informal hierarchy. Note that managerial hierarchies are characterized by both formal hierarchy and informal hierarchy. Indeed, not only do managers have formal authority over subordinates in a variety of domains, but the ubiquity of hierarchical speaking rules, deference behaviors, and implicit voice theories in organizations indicate the correlative existence of informal hierarchy as well.

Finally, we use ***decentralization*** to refer to downward shifts in the distribution of formal or informal authority across hierarchical levels. See Aghion and Tirole (1997) or Dobrajska et al. (2015) for a discussion of differences between formal and informal authority within managerial hierarchies. Note that decentralization of authority can occur without changing the number of formal hierarchical levels.

The conviction that managerial hierarchy clarifies roles and responsibilities and thereby allows people to coordinate tasks in a large enterprise with predictability and efficiency was a key factor in its wide adoption (Landes, 1986; Perrow, 1972; Weber, 1946; Williamson, 1981). Managers, a role that did not exist before the emergence of the form, serve as essential mechanisms for ensuring that work is accomplished by direct reports and for integrating across roles (Adler, 2001; Burns & Stalker, 1961). Managerial authority provides a simple, efficient way to establish goals and to resolve disagreements (Magee & Galinsky, 2008; Nickerson & Zenger, 2004; Simon, 1947; Williamson, 2000). Finally, managerial authority helps to ensure control and accountability in situations where work cannot be perfectly contracted or specified (Ouchi & Maguire, 1975; Williamson, 1981). Still, the persistence of the managerial hierarchy may be explained as much by a belief in its effectiveness as by its actual effectiveness. Another factor is almost certainly a lack of perceived viable alternatives.

Over the last half-century, limitations of the managerial hierarchy have become increasingly apparent. A longstanding research tradition suggests that managerial hierarchy functions more effectively in stable conditions but faces serious challenges in dynamic conditions (Burns & Stalker, 1961; Mintzberg, 1979). Similarly, researchers suggest that managerial hierarchy works to ensure reliable execution of known tasks but inhibits solving complex non-routine problems, especially those that span functional boundaries (Adler, 2001; Barley, 1996; Heckscher & Donnellon, 1994). Managerial hierarchy, with its flow of directives from top to bottom, tends towards rigidity, making it best suited for the execution of plans or tasks without need of rapid change (Burns & Stalker, 1961; Hamel & Breen, 2007). Finally, managerial hierarchy creates and reinforces status differences that can stifle the developmental and growth needs of its human members (Kegan, 1998; McGregor, 1966; Weber, 1946). Several

streams of research in the management literature thus illuminate shortcomings of managerial hierarchy as an organizational design – shortcomings that seem especially problematic for modern organizations. This research, especially in its most recent threads, reflects three broad trends in business and society.

**Trends that motivate the search for less-hierarchical forms of organizing**. First, the oft-noted pace of change created by faster information flows and sudden technological developments poses obvious threats to the ostensibly rigid managerial hierarchy. Observers of both business and public sector organizations acknowledge the presence of substantial turbulence and uncertainty (Ancona, Bresman, & Kaeufer, 2002; Martin, Liao, & Campbell, 2013; Starkey, Barnatt & Tempest, 2000), and note the problematic implications of this dynamism for the managerial hierarchy. When environments or customer needs are changing quickly, organizational employees may need to respond more quickly than managerial controls and reporting relationships allow, leading to missed opportunities and other failures.

The second trend is growth in knowledge-based work. More and more organizations operate in the so-called knowledge economy, where ideas and expertise comprise the primary sources of value creation, in contrast to the production and distribution of material goods (Blacker, Reed, & Whitaker, 1993). One implication of operating in the knowledge economy is that managers rarely have the full expertise needed to solve organizational problems. Rather, individuals at all organizational levels must contribute information and ideas for their organizations to succeed. Answers handed down from above are less likely to generate the products, services, or solutions needed to succeed.

Third, a trend towards viewing work and organizations as places for personal meaning, given that some traditional sources of meaning play a declining role in many parts of society, has

fostered interest in improving employee experiences at work (Podolny, Khurana, & Hill-Popper, 2004). This trend may have gained increased attention with the entrance of so-called "millenials" into the workforce, who, according to some recent research, seek or expect personal fulfillment and mission through their work more than did prior generations (Hauw & De Vos, 2010; Ng, Schweitzer, & Lyons, 2010; Rawlins, Indvik, & Johnson, 2008). Although millennial work preferences are unlikely to be homogenous (Ng, Johnson, & Burke, 2015), subjugation to managerial power and the hierarchical speaking rules that tend to accompany formal hierarchy, such as not criticizing the manager's ideas or not bypassing one's boss upward (Detert & Edmondson, 2011), is seen by many as antithetical to millennial work preferences. Many of these new entrants see work as more meaningful when they have greater control over it (Turco, 2016).

**Approaches to less-hierarchical organizing**. These trends have put increasing pressure on the managerial hierarchy and made its limitations more apparent to both scholars and practitioners, which in turn has led to numerous and varied efforts to organize less hierarchically. For example, *self-managed teams* have been used to delegate managerial authority to groups of individuals who are close to, and expert in, the work that must be carried out on behalf of the organization and its customers (Barker, 1993; Hackman, 1986; Manz & Sims, 1987). Similarly, *participatory management* implements structures to increase worker participation, such as committees where workers can influence aspects of their work experience ranging from working conditions to the strategic direction of the company (Collins, 1997; Cotton, Vollrath, Froggatt, Lengnick-Hall, & Jennings, 1988). Employee *empowerment* initiatives, in which managers empower employees to make decisions and act within their scope of task expertise, seek to reduce informal hierarchy by instilling new cultural and relational norms (Conger & Kanungo,

1988). In some cases, alternative structures or norms combine in ways that lead to distinctly new forms of organizing. In a classic early study in this domain, Burns and Stalker (1961) observed and theorized the emergence of "organic" organizations, characterized by team-based operating that cut across functional and hierarchical lines with more horizontal patterns of communication, which they argued were better suited to dynamic contexts than traditional bureaucratic hierarchies.

Each of the above approaches describes an effort to organize less hierarchically. Less-hierarchical organizing refers to efforts to adapt the managerial hierarchy so that authority is decentralized relative to classic hierarchical principles of unity of command, supervision of lower offices by higher offices, and obedience to superiors (Burns & Stalker, 1961; Fayol, 1949; Weber, 1946). Decentralization of authority can occur in numerous ways, either by decreasing the number of levels of formal authority (i.e. "flattening" the formal hierarchy) or by creating a more equitable distribution of authority across existing hierarchical levels.[2]

**Recent experiments with less-hierarchical organizing**. In the last decade, discourse on and experiments with ways to organize less hierarchically have continued and, arguably, intensified. For example, recent works in both practitioner and scholarly literature have explored less-hierarchical forms of organizing under the aegis of the "future of work," the "future of management," and "reinventing organizations" (Hamel & Breen, 2007; Laloux, 2014; Malone, 2004; Turco, 2016). Simultaneously, a recent spate of real-world experiments with less-hierarchical organizing have gained notoriety for their efforts to not simply adjust the managerial

[2] Some early research argued that control is not a zero-sum game, and that, in more effective organizations, junior and senior members both exhibit greater influence over organizational decisions compared to in less effective organizations (Tannenbaum, 1962). Thus, even within managerial hierarchy, patterns of informal influence can vary substantially.

hierarchy but rather to depart from it altogether by severing the reporting relationship between subordinate and manager that underlies its functioning.

One recent case that has garnered considerable managerial and scholarly attention is the online retailer Zappos (Bernstein, Bunch, Canner, & Lee, 2016). In 2013, Zappos adopted an organizational system called Holacracy. Holacracy was not developed by Zappos but rather by Ternary, a software company that experimented with principles of self-management in running its own activities and then formalized the system to make it available to other organizations (Robertson, 2015). In adopting Holacracy, Zappos embraced an integrated set of detailed prescriptions that formally eliminated people managers and gave individual employees full autonomy over how each would execute their roles. Instead of managers directing the work of individuals, individuals were to be directed by highly formalized, yet flexible, role definitions. The increased formalization of work into roles is apparent in the fact that, two years after adopting Holacracy, the number of roles per employee at Zappos grew from one per employee to 7.4 per employee (Bernstein et al., 2016). This growth reflected less a drastic increase in workload than a more refined and detailed set of role definitions. Despite their increased formalization, the work roles were extremely flexible. Groups met to define and revise roles in regular "governance meetings." In governance meetings, any individual in a work group could propose changes to the way the group was organized, such as shifting any role's accountabilities, or proposing a new work group policy. All proposed changes were discussed and consented to by the group. As a result of this defined revision process, formal roles frequently evolved as new issues emerged.

Tony Hsieh, Zappos's CEO and founder, explained that he wanted to implement Holacracy because productivity per employee had decreased as the organization grew, and he

thought that making the company more self-organizing might reverse that trend. He reasoned that, in contrast to companies, cities, which are self-organizing, demonstrate increases (rather than decreases) in innovation and productivity per individual as they became larger (Reingold, 2016). Hsieh was motivated by the belief that companies might do likewise, if they were managed by self-organizing structures or systems.

Morningstar, the tomato processing company, presents another recent visible case of radical decentralization that has been studied by scholars and practitioners (Gino & Staats, 2014; Hamel, 2011). Starting in the 1990s, Morningstar developed its own system of self-management in which, rather than managers directing work, individual employees voluntarily enter bilateral contracts with other employees. These contracts, called Colleague Letters of Understanding or CLOUs, outline individual responsibilities, activities, goals and metrics for evaluating performance. These contracts are renegotiated at least once a year and form the basis of how work is coordinated. Additionally, elected committees settle compensation and also resolve conflicts between employees. The company's goal was to foster an environment where employees "will be self-managing professionals, initiating communications and the coordination of their activities with fellow colleagues, customers, suppliers, and fellow industry participants, absent directives from others" (Gino & Staats, 2014, p. 4).

Valve, one of the largest and most successful makers of computer games, serves as a third recent case of a company that has garnered scholars' attention for its radical decentralization of authority (Baldwin, 2015; Foss & Dobrajska, 2015; Foss & Klein, 2014; Puranam & Hakonsson, 2015). Founded in 1996, Valve developed a unique organizational design in which employees have full flexibility and autonomy to choose the games on which they would like to work. Rather than managers or executives determining which games should

be developed, this internal process of employees voting with their feet determines which games the company develops. As the Valve employee handbook explains to new employees, "nobody 'reports to' anybody else. We do have a founder/president, but even he isn't your manager. This company is yours to steer—toward opportunities and away from risks. You have the power to green-light projects. You have the power to ship products." (2012, p. 4)

As examples of efforts to fundamentally depart from the managerial hierarchy, Zappos, Morningstar, and Valve are neither alone nor new. Interest in new organizational forms has existed for many years. Previous efforts to reimagine conventional organizational hierarchies include well-documented examples such as Oticon, W.L. Gore, Semco, and Johnsonville Sausage (Foss, 2003; Semler, 1989; Stayer, 1990).[3] Like Zappos, Valve and Morningstar, these earlier companies discarded the traditional managerial role and gave employees autonomy to manage themselves.

Although the recent examples are not wholly new, the attention they have gained suggests a resurgence of interest among practitioners in radical alternatives to the managerial hierarchy. Notably, a global network of firms, consultants and thought leaders, called Responsive.org, has recently emerged to explore alternatives to the managerial hierarchy. Started by a successful Silicon Valley entrepreneur, the network has grown to more than 2500 individuals and holds conferences in over 40 cities around the world.[4] In addition, the development of Holacracy, as one of the first fully specified models of radical decentralization that organizations can adopt wholesale, stands as a noteworthy milestone. Hundreds of organizations have shifted to self-management by adopting Holacracy, avoiding the painful trial

[3] Organizations structured based on collective ownership, such as cooperatives and kibbutzim, have also historically eschewed the traditional managerial hierarchy organizational design (Ashforth & Reingen, 2014; Warhurst, 1998).
[4] From the Responsive.org website - www.responsive.org

and error of developing their own system (Robertson, 2015).

**Delineating radical versus incremental approaches to less-hierarchical organizing**. Given the recent surge in interest in less-hierarchical organizing, we sought to review relevant literatures to understand how recent experiments and discussions fit into prior work. Our review produced two key insights that form the basis of this paper. First, the existing literature on less-hierarchical organizing is broad and variegated, encompassing micro, meso, and macro perspectives. Despite emanating from the same basic premise – namely, that reducing the dysfunctional tendencies of managerial hierarchies is valuable – these streams of research are rarely conceptualized together. We believe that identifying and bringing together these diverse research streams helps us better understand the nature of less-hierarchical organizing.

Second, we argue that existing literatures on less-hierarchical organizing fail to make a distinction between radical versus incremental efforts to organize less hierarchically (that is, those that seek change within the contours of the managerial hierarchy versus those that fundamentally depart from it). As a result, research on real world experiments like those at Zappos, Morningstar and Valve have not been thoughtfully distinguished from other, incremental, efforts to organize less hierarchically. This is problematic for several reasons. To begin with, much of what we know about the internal dynamics of less-hierarchical organizations (e.g. coordination) comes from studies within firms that still ultimately rely on managerial authority (e.g. Burns & Stalker, 1961; Kellogg, Orlikowski, & Yates, 2006; Turco, 2016). Moving to a context without managerial authority may demand a qualitatively different and more robust set of mechanisms for coordinating work. Further, given a widespread belief that hierarchical organizing is both enduring and natural (Gruenfeld & Tiedens, 2010; Pfeffer, 2013), understanding whether and how organizations can depart from the managerial hierarchy in

reality, not just in principle, is of both scholarly and practical concern. Finally, understanding organizational systems that depart from managerial hierarchy can help us better understand the nature of the managerial hierarchy itself. Similar to the logic of Garfinkel's (1964) breaching experiments that sought to better understand social behavior by examining reactions to violations of commonly held social norms, we contend that relaxing one of the core principles of the managerial hierarchy – namely, the reporting relationship between manager and subordinate – may help us understand aspects of conventional organizations that are taken for granted or otherwise difficult to see because of our embeddedness in this system.

Thus, in this paper, after reviewing relevant prior research, we seek to delineate a distinction between radical versus incremental efforts to organize less hierarchically. We use the term *self-managing organizations* to capture attempts to radically depart from the managerial hierarchy. In this way, we hope to energize and focus research on less-hierarchical organizing and to improve specifications and theory accordingly.

**Conceptualizing self-managing organizations**. We classify radical efforts to organize less hierarchically, as exemplified by experiments at Zappos, Morningstar and Valve, as *self-managing organizations*. We define self-managing organizations (SMOs) as those that *radically decentralize authority in a formal and systematic way throughout the organization*. What distinguishes self-managing organizations from managerial hierarchies and from efforts to make managerial hierarchies incrementally less hierarchical is that SMOs eliminate the hierarchical reporting relationship between manager and subordinate that serves as the core building block of the managerial hierarchy and constitutes its key mechanism of control.[5] In self-managing organizations, all employees hold well-defined decision rights that cannot be superseded by

[5] Note that Laloux (2014) occasionally used the term "self-managing organizations," without offering a formal definition, when describing his case studies of radically decentralized organizational systems

someone simply because s/he is the "boss." In this respect, if managerial hierarchy constitutes a system of feudalism where the vast majority of employees have no land ownership, then self-managing organizations introduce a system of property rights for all employees.[6]

In the next section, we review research from several distinct literatures related to less-hierarchical organizing. Our analysis suggests that prior research – both within the individual categories of articles and across the full collection of articles – fails to adequately delineate between incremental versus radical attempts to organize less hierarchically. Following our review, we elaborate our definition of self-managing organizations, discuss its implications, and propose a research agenda for advancing understanding of efforts to radically depart from the managerial hierarchy.

**Prior Research on Less-Hierarchical Organizations**

As noted, for the better part of the last century, organizational scholars have discussed the limitations of the managerial hierarchy as a mode of organizing, and explored potential alternatives. Multiple perspectives have emerged from this work, leading to a variegated literature and myriad constructs that capture or describe different approaches to organizing less hierarchically. We thus sought to organize this prior research into a set of categories characterized by common attributes. This effort produced three categories, each encompassing a set of closely related themes, perspectives, levels of analysis and methodological approaches. We labeled the categories *post-bureaucratic organizations*, *humanistic management*, and *organizational democracy*. We then assessed how research in each category relates to our proposed concept of self-managing organizations, by exploring to what extent each category

[6] While self-managing organizations fundamentally depart from the managerial hierarchy, they do not necessarily eliminate formal or informal hierarchy. For instance, roles at Zappos are still arranged in a formal hierarchy, with some functional groups holding responsibilities that encompass the responsibilities of smaller subgroups. At Valve, informal status hierarchies hold significant sway over organizational decisions (Maier, 2010).

addresses or does not address the distinction between radical and incremental approaches to less-hierarchical organizing.

**Methodology**. To organize our review, we started with a list of familiar constructs that capture an element of, or approach to, less-hierarchical organizing. Given the breadth and variety of research on less-hierarchical organizing, the list included a variety of constructs across multiple levels of analysis. We constructed a list that included micro-level constructs such as empowerment and participation, meso-level constructs such as self-managed or self-directed work teams, and macro-level constructs such as post-bureaucratic organizations, industrial or organizational democracy and network organizations.

Using the constructs listed above, we identified theoretical and empirical articles through several approaches, including keyword searches in ABI/Proquest and Google Scholar. To make our review most relevant to scholars in organizational behavior, we prioritized articles published in leading management journals. However, in some cases, key constructs were less well represented in management journals (e.g. organizational democracy), and so we included articles from journals in related disciplines such as business history and business ethics, and articles in respected practitioner outlets such as *Harvard Business Review* and *Sloan Management Review.* These latter articles represented a small minority of the total articles reviewed.

For each construct or keyword, we sought to capture a sufficiently large sample from each stream to understand commonalities shared by articles within it. We analyzed and coded each article, with a particular emphasis on understanding how the article conceptualized its particular approach to less-hierarchical organizing, the intended benefits of the approach, and its key design features. Next, we looked for commonalities across constructs along the coded dimensions. Through conducting this analysis of each of the 95 previously identified articles, we

induced three superordinate categories to capture and organize the research on less-hierarchical forms of organizing. Although our three categories are distinct, we do not view them as mutually exclusive perspectives. Rather, they represent different lenses on the broad phenomenon of less-hierarchical organizing, which contain different emphases. Table 1 provides keywords and illustrative examples from each category.

Table 1. *Three Categories of Research on Less-Hierarchical Organizations*

| | Post-Bureaucratic Organizations | Humanistic Management | Organizational Democracy |
|---|---|---|---|
| Constructs / Keywords | Post-bureaucratic organizations; Network organizations; Organization design; Management of innovation | Empowerment; Participatory management; Participation in decision-making Self-managed teams | Industrial democracy; Organizational democracy; Workplace democracy; Democratic organizations |
| Illustrative papers | Burns & Stalker, 1961; Baker, Nohria & Eccles, 1992; Heckscher & Donnellon, 1994; Volberda, 1996; Zenger & Hesterly, 1997; Adler, 2001; Foss, 2003; Birkinshaw, Hamel & Mol, 2008; | Trist & Bamforth, 1951; Hackman, 1986; Conger & Kanungo, 1988; Cotton et al., 1988; Barker, 1993; Cohen & Ledford, 1994; Thomas & Velthouse, 1990; Spreitzer, 1996; Black & Gregersen, 1997 | Derber, 1970; Bass & Shackleton, 1979; Collins, 1995; Manville & Ober, 2003; Forcadell, 2005; |

In the remainder of this section, we summarize work in each of the three categories. We share key themes from the research in each and discuss its relevance to the phenomenon of self-managing organizations.

**Post-bureaucratic organizations**. The post-bureaucratic organizations category combines articles found using the keywords post-bureaucratic organizations, network organizations, organizational design, and management of innovation. Although the category encompasses different streams of research, Burns and Stalker's (1961) study of Scottish and English firms serves as a shared origin for much of this work. Burns and Stalker's (1961) early recognition that flatter and more fluid structures existed, which they described as the "organic" systems, spawned subsequent attention to and research on organization designs that foster flexibility rather than efficiency.

Articles in this category share several features: First, they tend to focus on how organizations can accommodate the increased rate of change in the environment, and they reflect the shift towards more knowledge work and the need for continual innovation. Research in this category thus tends to discuss less-hierarchical organizing as a means of helping organizations to be flexible, responsive and innovative. Generally employing an organization-level of analysis, many papers are theoretical, and some are empirical case studies. These papers are predominantly published in management journals.

***Intended benefits***. As noted, articles in this category address how organizations can be designed for flexibility and responsiveness (Foss, 2003; Heckscher & Donnellon, 1994; Ouchi, 1980; Torbert, 1974; Volberda, 1996), knowledge creation and learning (Adler, 1993; Nonaka, 1991) and thus for organizational effectiveness and survival in a changing environment (Birkinshaw et al., 2008; Foss, 2003; Zenger & Hesterly, 1997). For example, Volberda (1996) explored the organizational design and managerial implications of how organizations can optimize for flexibility, proposing that flexibility takes distinct forms, depending on the variety of new organizational capabilities and the speed with which they can be activated. He argued that a firm's structure, such as the level of decentralization, its technology and its culture, comprises the "flexibility mix" of a firm. Torbert (1974) outlined a stage model of organizational development that evolves from the rigidity of a bureaucratic structure to the flexibility of what he calls "openly chosen structure" that includes horizontal rather than vertical role differentiation and communication across hierarchical boundaries. Regarding knowledge creation, others discuss what organizing for knowledge creation entails, including the vital role of middle managers (Nonaka, 1991) or how the Toyota production system fostered learning in an otherwise bureaucratic setting by giving more autonomy to front line workers (Adler, 1993). Finally, this

research tends to view flexibility and knowledge creation as vital for organizational survival in a hyper-competitive or dynamic environment (Birkinshaw et al., 2008; Volberda, 1996; Zenger & Hesterly, 1997). In sum, articles in this category emphasize less-hierarchical organizing as a means of enabling organizations to survive in a new post-industrial environment in which knowledge creation and innovation serve as the key drivers of success.

Evaluative data on the success or efficacy of post-bureaucratic organizing are scarce. This scarcity is due in part to the many conceptions of post-bureaucratic organizing and to the difficulty of controlling for the myriad factors that may influence organizational flexibility and innovation. Most of the empirical research in this category thus takes a single or multiple case study approach, usually focusing on design features that enable these cases to exhibit greater flexibility or innovation (e.g., Adler, 1993; Burns & Stalker, 1961; Foss, 2003).

***Design features.*** The features of post-bureaucratic firms described by scholars in recent years continue to echo the description of the organic form offered decades ago by Burns and Stalker (1961). Notably, the organic form includes a network structure of control, authority and communication, horizontal versus vertical communication patterns, more fluid and ambiguous individual roles and greater individual commitment to the firm (Burns & Stalker, 1961). Scholars have emphasized some of the same shifts in subsequent decades, using different terms, including the network form, flat organizations, and the rise of team-based work (Baker, Nohria, & Eccles, 1992; Hamel, 2007; Malone, 2004; Romme 1996; Zenger, 2002).

Articles in this category elaborate various elements of post-bureaucratic organizations, adhering to a set of consistent themes. Volberda (1996), for instance, emphasized technology, structure and culture as influences on organizational flexibility. Notably, a combination of batch production, instead of mass production, informality and decentralization promote

experimentation and change in "the flexible form." Mintzberg (1979) and Ciborra (1996) also note the importance of less formalized structure and call for authority that is not based exclusively on hierarchy, emphasizing horizontal influence rather than vertical authority (Heckscher & Donnellon, 1994; Kellogg et al., 2006). Finally, researchers emphasize that a culture of learning and continual reflection promotes organizational flexibility and responsiveness (Hedberg, Nystrom, & Starbuck, 1976; Torbert, 1974).

Research on post-bureaucratic organizations posits and explores principles for coordinating work that are not hierarchical. One such alternative organizing principle is the market, which unlike hierarchy, coordinates dynamically through autonomous individual action, rather than through top down authority (Williamson, 1981; Zenger 2002). Some papers in this category explore the idea that organizations can incorporate elements of market control into traditional hierarchies to create a hybrid system, where market principles supplement and weaken the organization's reliance on hierarchical control (Foss, 2003; Foss & Dobrajska, 2015; Zenger & Hesterly, 1997).

A third organizing principle explored in this category, distinct from markets and hierarchy, is community (Adler, 2001; Adler & Heckscher, 2006; Ouchi, 1980). The community principle describes coordination achieved through mechanisms of trust and strong social bonds. Examples of organizations operating by the community principle include partnerships, open-source communities, and emergent communities of practice within firms (Adler, Kwon, & Heckscher, 2008; Seidel & Stewart, 2011). Adler (2001) argued that, not only does community organization hold advantages for knowledge creation compared to the impersonal mechanisms of the market and the coercive mechanisms of hierarchy, but also that community as an organizing principle is on the rise because of the increasing demands for knowledge production. Thus,

community and market forms, as alternative organizing principles that are non-hierarchical, provide insight into post-bureaucratic approaches to organizing, with substantially different implications for theory and practice.

***Relevance for understanding self-managing organizations.*** Research in the category of post-bureaucratic organizations overlaps with our concept of self-managing organizations. Articles in this category do study radical efforts to organize less hierarchically, such as at Oticon, which adopted a similar approach to Valve, giving employees full autonomy to work on any project and severing the manager-subordinate authority relationship (Foss 2003; Foss & Dobrajska, 2015). In addition, articles in this stream offer theoretical insights into the principles that guide radical efforts to organize less hierarchically, such as market and community principles.

However, in this category the distinction between radical and incremental approaches to less-hierarchical organizing generally remains ill-defined. In particular, in many studies of "post-bureaucratic organizations", manager-subordinate authority relations continue to govern members of the organization despite its deviations from an ideal bureaucratic form (e.g. Adler, 1993; Kellogg et al., 2006). In addition, a variety of organizational phenomena labeled post-bureaucratic are inconsistent with our concept of self-managing organizations, including internet start-ups (Girard & Stark, 2002; Kellogg et al., 2006), outsourced firms (Adler, 2001; Powell, 1990; Zenger & Hesterly, 1997), and, most recently, two-sided platforms such as Uber that utilize freelancers and contingent workers as a means of delivering services (Kane & Ransbotham, 2016). In general, the articles in this category exhibit greater clarity about what the concept of post-bureaucratic organization is *not* than what it is. Our review suggests that a variety of deviations from the ideal type of Weberian bureaucracy – a stable hierarchy, clear

organizational boundaries, and well-defined roles – have been presented as post-bureaucratic organizations.

In this sense, a self-managing organization certainly can be classified as a post-bureaucratic organization. The encompassing and diffuse nature of the literature on post-bureaucratic organizations, however, is not limited to the essential features of self-managing organizations. We thus argue that the work on post-bureaucratic organizations does not adequately capture a distinction between radical versus incremental approaches to less-hierarchical organizing that underlies our concept of self-managing organizations.

**Humanistic management**. The second induced category in our review combines articles identified with the keywords empowerment, participation, participatory management, self-managed teams, and self-directed work teams. The integrating theme in this category is perhaps best articulated by McGregor's (1966) seminal discussion of Theory X and Theory Y. McGregor (1966) argued that traditional hierarchical management is rooted in a set of assumptions about human nature, notably that humans are inherently lazy and require managerial oversight (Theory X). To meet the "higher" needs of individuals, McGregor (1966) proposed a contrasting set of assumptions—that individuals are intrinsically motivated—and so managers should empower individuals to manage themselves (Theory Y). McGregor (1966) was not alone in capturing the impulse towards humanism in management. Other influential voices include scholars at the Tavistock Institute whose studies of the social psychological consequences of scientific management and the mass production systems that ruled the day gave rise to self-managed teams (e.g. Trist & Bamforth, 1951).

Subsequent research on less-hierarchical work arrangements grew out of these early writings and led to research on constructs such as participatory management, empowerment and

self-managed teams. Participatory management, which reached its highest usage as a term in the 1970s and 1980s, describes efforts to increase employee participation in various types and levels of decision-making. For some time, empowerment was used synonymously with participatory management, a relational construct that refers to relative power between manager and subordinate (Bacharach & Lawler, 1980; Hinings, Hickson, Pennings, & Schneck, 1974), but eventually empowerment was distinguished from participatory management by describing it as a psychological (rather than relational) construct that measures an individual's sense of self-efficacy, self-determination and autonomy (Conger & Kanungo, 1988; Thomas & Velthouse, 1990). In this view, formal participation is neither a necessary nor sufficient condition for individual experiences of empowerment. Self-managed teams, first explored by Trist and Bamforth's (1951) study of longwall coal mining and one of the most popular approaches to empowering employees and increasing participation, have been implemented in a variety of organizational contexts (Barker, 1993; Hackman, 1986). Because of their widespread implementation by practitioners, self-managed teams have been the subject of substantial empirical research to examine their impact and efficacy (e.g. Cohen & Ledford, 1994; Cordery, Mueller, & Smith, 1991; Wall, Kemp, & Jackson, 1986)

Research included in this category shares an emphasis on shifting the hierarchical relationship between manager and subordinate to one that is more satisfying, motivating and productive for employees. These articles tend to present empirical studies (especially compared to the other two categories), and generally can be found in management and applied psychology journals that emphasize the individual and team levels of analysis.

***Intended benefits***. Articles in the humanistic management category tend to emphasize that empowering and fostering more participation among employees, whether through

empowerment programs or self-managed teams, improves individual experience at work. Several studies have empirically supported such contentions. Efforts to empower and foster the participation of employees tend to increase an employee's sense of control (Bartolke, Eschweiler, Flechsenberger, & Tannenbaum, 1982), job satisfaction (Cohen & Ledford, 1994; Cordery et al., 1991; Hodson, 1996), motivation (Hackman & Oldham, 1980), and organizational commitment (Cordery et al., 1991),

Studies in this category also have examined how these efforts impact performance, at both the individual (Seibert et al., 2004; Sexton, 1994) and team level (Black & Gregersen, 1997; Carson, Tesluk, & Marrone, 2007; Cohen & Ledford, 1994; Erez, Lepine, & Elms, 2002). These studies have generally found a positive relationship, although performance measures tend to be self-reported. Also, the efficacy of such efforts likely depends on multiple factors, including the type of change, organizational climate, employee selection, external coaching, and resources (Campbell, 2012; Cotton et al., 1988; Hackman, 1986; Kirkman & Shapiro, 1997).

On balance, from the perspective of humanistic management, moving to less-hierarchical forms of organizing improves the experience of the individual at work and, as a result, the performance of individuals and teams.[7] This emphasis on individual-level benefits differs markedly from articles in the post-bureaucratic organizations category, which emphasize organization-level benefits such as flexibility and knowledge creation.

[7] Such efforts also have downsides. One study of self-managed teams cast doubt on whether they increase employee freedom, finding instead that over time, a form of peer control emerged that was, in its own way, as coercive as managerial control (Barker, 1993). A lack of clear authority in self-managed teams to deal with conflicts can lead to new, interpersonal challenges. One study found that self-managed teams respond to conflicts in a dysfunctional manner by restructuring themselves to avoid collaboration (Langfred, 2007). Studies of firm-level performance effects have found no relationship (Staw & Epstein, 2000).

***Design features.*** Although empowerment, participatory management and self-management differ in important ways, all three are part of the humanistic tradition seeking to understand the needs of individuals and develop work arrangements that give employees greater autonomy and influence at work. Participatory management focuses on decision-making, referring to any effort that increases the influence of employees on such decisions (Black & Gregersen, 1997). Examples of participatory management vary in the formality with which greater participation is fostered (e.g. a system of rules versus a consensual agreement), the extent to which participation is direct versus indirect (e.g. direct voting versus employee representatives), and what kinds of decisions workers can influence (e.g. personnel decisions, task design and assignment, working conditions, or general company policies) (Cotton et al., 1988). With this breadth, participatory management is closely associated with techniques to increase the power of labor in industrial settings through worker committees or quality circles (Bartolke et al., 1982).

While most participatory management efforts aim to "empower" employees in some way, research in empowerment emphasizes factors affecting an individual's experience of self-efficacy (Conger & Kanungo, 1988). As a result, these scholars identify a host of factors affecting employees' perceived empowerment, going beyond increased participation in decision making. These factors include supervisorial style, the nature of reward systems (e.g. competence-based rewards, stock-based incentives), job design (e.g. role clarity, task variety, etc.), and organizational factors like culture and transparency (Conger & Kanungo 1988; Hackman & Oldham, 1980; Spreitzer, 1996).

Self-managed teams comprise a specific approach to empowerment and participatory management that decentralizes decision authority to a team rather than to an individual. In self-

managed teams, the work group, rather than the individual, is the essential unit of work, and control is exercised internally by group members rather than externally by managers (Trist, 1981). In addition, roles tend to be discretionary and fluid, allowing for greater work variety, in contrast to the prescribed and stable roles in typical hierarchies (Hackman, 1986).

In sum, this category encompasses several constructs that reduce formal and informal hierarchy. Despite studying different design features, research in this category shares a focus on adjusting the managerial hierarchy to increase employee influence, autonomy and satisfaction.

***Relevance and limitations for understanding self-managing organizations.*** Self-managing organizations share the humanistic impulse that motivates research in this category. As Chris Rufer, founder and CEO of Morningstar, explained, "Our way of doing things is driven by our philosophy: people are productive when they are happy; people are happy when they have control over what they do" (Gino & Staats, 2014). The CEO of Zappos, describing the shift to a self-managing organization, explained, "I'm personally excited about all the potential creativity and energy of our employees that are just waiting for the right environment and structure to be unlocked and unleashed" (Greenfield, 2015)

However, research in this category, for the most part, studies incremental approaches to less-hierarchical organizing. These approaches aim to increase the autonomy of individual employees but maintain the manager-subordinate authority relationship. For example, research on empowerment tends to focus on psychological perceptions of self-efficacy and may or may not involve formal changes in the authority structure. And, studies of participatory management and self-managed teams emphasize decentralizing authority for front line employees while generally leaving higher levels of management intact. In sum, humanistic management encompasses efforts that do not seek to replace the managerial hierarchy but rather soften its

edges. Radical approaches to less-hierarchical organizing, which we label self-managing organizations, eliminate the manager-subordinate authority relationship at the core of the managerial hierarchy. Self-managing organizations radically and formally decentralize authority, not just on the frontlines, but throughout the organization.

**Organizational democracy**. The third category we induced combines articles identified using the keywords organizational democracy, industrial democracy, workplace democracy, and democratic organizations. The boundary around organizational democracy is perhaps the most clearly specified of our three categories, due to the explicit reference to democracy or democratic practices in every included paper.

"Industrial democracy" emerged as a term at the turn of the twentieth century as part of a thriving union movement seeking to improve worker conditions during a period of rapid industrialization (Derber, 1970). Calls for organizational or workplace democracy have fallen quiet in recent decades. Indeed, few recent management journal articles discussing less-hierarchical forms of organizing explicitly invoke the term "democracy" (Battilana, Feuerstein, & Lee, 2016). Although researchers have remained interested in alternatives to hierarchy during this time, organizational democracy as vehicle for exploring the alternatives seems to have waned as a manifestation of this interest.

Nonetheless, more than a century after the concept first emerged, bringing principles of political democracy into the sphere of business organizations still resonates for some scholars and practitioners. The articles reviewed in this category represent a mix of theoretical and case-based empirical studies and come from management journals as well as from journals of business ethics.

***Intended benefits.*** Like their early twentieth century predecessors, the more recently published articles we reviewed in this category tend to examine manufacturing contexts where labor-management relations are a salient issue, with a few recent articles focused on more general corporate contexts (e.g. Brenkert, 1992). These articles portray the intended benefits of democratic modes as improving relations between labor and management (Bass & Shackleton, 1979; Bussell, 1997; Sankowski, 1981), improving employee motivation (Manville & Ober, 2003), and increasing autonomy and empowerment (Forcadell, 2005). Hence, unlike the articles we categorized under post-bureaucratic organizations, those in this category focus on individual rather than organizational outcomes. Like humanistic management articles, they emphasize improving relational outcomes between managers and non-managers. Though the evidence is far from definitive, the few empirical studies that exist suggest that the impact of organizational democracy on labor management relations and employee motivation has been generally positive (Strauss, 1982).

***Design features.*** The more recent literature in this category discusses three key features of organizational democracy. First and most important, democracy involves giving workers more influence and decision authority over their work and work environment. For example, consider the system of co-determination that Germany adopted in the 1970s, which required large firms to include worker representation within various management committees and the board of directors. This system gives workers an avenue for influencing decisions regarding both worker welfare and training as well as business direction and strategy (Bass & Shackleton, 1979). These joint labor-management committees form the bedrock of a variety of similar approaches to organizational democracy, which are generally aimed at increasing cooperation between unions

and managers and giving workers a voice in how the workplace functions (Collins, 1995; Forcadell, 2005; Geare, 1976).

The organizational democracy literature encompasses a range of views on how much decision authority workers must have for an organization to qualify as democratic. Most argue that the expansion of employee influence in an organizational democracy must be formalized: For example, Brenkert (1992) writes, "Employee participation cannot simply be a matter of chance, happenstance, or whim on the part of management. It must be secured and guaranteed to employees in the form of a right to participation" (p. 264). Organizational democracy scholars disagree as to how much decision authority needs to be decentralized to qualify as democratic. Some take a hardline stance, arguing that authority must be equalized in an organization to count as democratic (Sankowski, 1981). Others take a more pragmatic perspective, and consider the aforementioned approaches of providing employees some formal mechanisms for exercising influence over the organization as a type of "middle range" democracy (Collins, 1995).

The second key feature of organizational democracy discussed in the literature is a democratic culture – described as an atmosphere of full and free communication regardless of rank or power (Slater & Bennis, 1964). Such a culture contains shared values related to citizenship, meaning that individuals hold not only rights in, but also responsibilities to, the collective (Forcadell, 2005; Manville & Ober, 2003). As Forcadell (2005) writes in his case study of Mondragon, one of the largest examples of a democratic organization, "No formal system of participation works without shared values of democracy, trust, responsibility and respect, so that what is needed is a civic culture with commonly held values" (p. 269).

As noted by Battilana et al. (2016), articles on organizational democracy sometimes include employee ownership as a component of organizational democracy. Shared ownership is

viewed as further reinforcing the distribution of decision rights and the democratic culture (Sauser, 2009). However, this was not a universal criterion across the articles reviewed.

Mondragon, perhaps the best-known example of a democratic organization, combines all three aspects of organizational democracy. A cooperative of cooperatives, Mondragon operates in over 60 countries and employs over 70,000 people (Forcadell, 2005). Operating in the finance, manufacturing and retail sectors, Mondragon sells insurance, manufactures products in a variety of industries, and operates a network of consumer retail stores. Being a cooperative means that every worker holds an ownership stake in the firm. A federal structure governs and coordinates action across the cooperatives, and elections are held at each level to choose representatives at higher levels, from cooperative, to cluster, to the corporate level. Individuals at Mondragon not only participate in the execution of work, often working together in self-managed teams, but also in setting firm strategy. An elaborate bottom-up process guides how strategy is set for the whole corporation, and works to integrate the views across cooperatives and clusters. The organization also emphasizes a strong civic culture with a distinct sense of citizenship, and like many political democracies employs a process of leadership rotation to prevent status hierarchies from solidifying.

***Relevance for understanding self-managing organizations.*** The literature on organizational democracy describes certain elements included in our notion of self-managing organizations. Notably, the emphasis on formal distribution of decision authority that is definitional to organizational democracy aligns with the formalization requirement in our definition of SMOs. While democratic forms of organizing can be hierarchical – albeit comprising temporary hierarchies that shift with changes in leadership – they do fundamentally reshape the pattern of authority relationships in an organization. Organizational democracy,

however, does not adequately capture the distinction between incremental and radical approaches to less-hierarchical organizing for two reasons.

First, studies of organizational democracy encompass both incremental and radical approaches to decentralizing authority. Some present organizational democracy as incremental changes that increase employee participation without eliminating the manager-subordinate authority relationship; others use the term to describe organizations that are fully egalitarian and lack any differences in formal authority. Neither is entirely consistent with our concept of how self-managing organizations decentralize authority.

Second, even the egalitarian conceptions of organizational democracy emphasize a type of radical decentralization that precludes some types of self-managing organizations. To clarify, consider the distinction between community principles of organizing, which include interdependence and trust, and market principles of organizing, which include independence and autonomy. Market-based forms like Valves emphasize allowing employees to choose what they want; in contrast, the community-based organizing that underlies organizational democracy favors mutual influence between and by individuals. This distinction between community and market orientations highlights a key aspect of organizational democracy – notably, its emphasis on increasing employee influence over organizational decisions rather than increasing employee autonomy. This emphasis dates back to the start of the organizational democracy movement when mass industrialization was taking hold in society. In contrast, market-based forms like Valve prioritize autonomy and agility and thus, would likely not qualify as democratic. Meanwhile, democratic models like Mondragon, which encompass large-scale processes for gathering input and making company-wide decisions, are hardly optimized for flexibility.

Thus, while more radical models of organizational democracy, such as Mondragon's, would qualify as a self-managing organization, the more incremental conceptions of democratic organizations would not. In turn, some examples of self-managing organizations, such as Valve, would not be considered democratic, per se. The research on organizational democracy thus does not adequately distinguish between radical and incremental approaches to less-hierarchical organizing.

Table 2. *Summary of Key Elements in Each Research Category*

| | Post-Bureaucratic Organizations | Humanistic Management | Organizational Democracy |
|---|---|---|---|
| Intended benefits | Organizational flexibility, speed, innovation | Individual satisfaction, motivation, and performance; Team effectiveness | Improved labor-management relations and employee conditions |
| Level of analysis | Organization | Individual and team | Individual and Organization |
| Design features | ▪ Horizontal influence vs. vertical authority<br>▪ Informal, network structures vs. formal hierarchies<br>▪ Cultures of learning and experimentation vs. control<br>▪ Organized by market or community principles vs. hierarchy | ▪ Increased employee influence and autonomy<br>▪ Reward systems linked to performance<br>▪ Job design for autonomy and variety<br>▪ Culture of transparency<br>▪ Team-based work | ▪ Decentralizing some decision authority to front-line employees<br>▪ "Democratic" culture, emphasizing citizenship and balance between collective responsibility and individual freedom<br>▪ Employee ownership |
| Relationship to self-managing organizations (SMOs) | SMOs qualify as post-bureaucratic but many post-bureaucratic orgs would not be SMOs<br><br>*Post-bureaucratic organizations encompass a broader set of phenomena than SMOs, including internet / social media startups, outsourced firms, open source collaborations and two-sided platforms.* | SMOs are animated by a humanistic impulse to empower and unleash individual motivation and creativity.<br><br>*SMOs go further in decentralizing authority than most humanistic management models, which are generally incremental or only decentralized on the front lines or in certain teams.* | SMOs are also formal systems of decentralized authority.<br><br>*Models of organizational democracy encompass both incremental and radical decentralization. And, market-based models of SMOs would not qualify as democratic.* |

Our review of the existing literatures thus reveals a broad and varied set of studies on efforts to organize less hierarchically that crosses levels of analysis. A key insight that we draw

from this review is that prior research fails to adequately define and distinguish the boundary between radical and incremental approaches to less-hierarchical organizing. In the next section, we elaborate on our proposed definition of self-managing organizations and then develop a research agenda for further exploring radical departures from the managerial hierarchy.

**Toward a Model of Self-Managing Organizations**

Prior work on post-bureaucratic organizations, humanistic management, and organizational democracy offers many relevant insights for building theory on current real-world experiments in less-hierarchical organizing such as those embodied by Zappos, Valve and Morningstar. Yet, as noted, these prior streams of research do not clarify the distinction between radical and incremental approaches to less-hierarchical organizing. In this paper, we seek to draw such a distinction, in two ways.

First, radical approaches differ from incremental in how much authority they decentralize. Specifically, we propose that models can be seen as radical if they eliminate the hierarchical reporting relationship between manager and subordinate. Such approaches give individuals full autonomy and authority to execute work without allowing oversight or direction from a boss or manager. The second distinction between radical and incremental approaches to less-hierarchical organizing is the scope of decentralization. Instead of decentralizing authority only lower in the organization, such as in self-managed production teams, radical forms decentralize authority throughout the entire organization.

Self-managing organization is an apt label to capture radical approaches to less-hierarchical organizing for two reasons. First, by eliminating the hierarchical reporting relationship between manager and subordinate, individuals and groups must "manage" themselves. Second, the term appropriately emphasizes that radically decentralized organizations

necessarily operate (accomplish work) through an ongoing dynamic process rather than by building a static operating structure. In the next section we explain why each of the components of our definition of self-managing organization – 1) radical decentralization of authority, 2) a formal system and 3) being organization-wide – is important in removing the hierarchical reporting relationships between managers and subordinates.

**Radical decentralization of authority**. The core element of self-managing organizations is radical decentralization of the authority typically granted to managers. We define radical decentralization as the elimination of the reporting relationship between manager and subordinate. In radically shifting authority to non-managerial roles, individuals in self-managing organizations no longer report to a manager who has broad and diffuse authority to allocate work, direct execution of tasks, monitor performance, sanction or fire employees, and determine promotions or raises. Indeed the notion of "reporting to" someone who has "authority over" you becomes anathema in a self-managing organization.

In a managerial hierarchy, the authority-over dynamic comes from the nature of formal authority vested in the managerial role. Managerial authority vis-à-vis subordinates is broad and diffuse, irrevocable from below, and vested in rank even over expertise.[8] Because of the nature of this authority, direct reports in a managerial hierarchy manager are subject to the dictates, preferences, and whims of their "boss." Certainly, "enlightened" managers may aim to empower their direct reports by delegating authority. Even so, the formal authority that managers hold over their subordinates remains intact because delegated authority can be taken back at any point, and often is in times of disagreement, conflict, or crisis (e.g. Foss, 2003).

[8] Parsons (1959) observed that Weber's description of bureaucracy held an ambiguous notion of where bureaucratic authority emanated from. On the one hand, authority was vested in office or position. On the other hand, those filling these positions or offices were to have the expertise and skills necessary for the job.

Self-managing organizations avoid the authority-over dynamic by eliminating the managerial role as it exists within managerial hierarchy. Eliminating "managers" as a formal role does not mean self-managing organizations are devoid of managerial work. The work of monitoring progress towards organizational goals, allocating resources or projects, designing tasks and organizational structures, and providing feedback to individuals remain vital to effectiveness in SMOs. However, in SMOs, these authorities are formally distributed to individuals in a way that is not permanent, unbounded, or vested in hierarchical rank. The Valve Employee Handbook describes this difference well: "Valve is not averse to all organizational structure – it crops up in many forms all the time, temporarily. But problems show up when hierarchy or codified divisions of labor either haven't been created by the group's members or when those structures persist for long periods of time" (2012, p. 16-17). In self-managing organizations, authority to "manage" is distributed in a way that is either offered by revocable consent from those being managed (such as in democratic models), constrained by clear boundaries (such as at Zappos), or temporarily held (such as at Valve).

To illustrate what radical decentralization of authority looks like in practice, we examine how the three case studies of self-managing organizations introduced in Section 1 approach decentralization. Consider the range of domains of decision authority that can be held by managers in typical managerial hierarchies: 1) firm strategy; 2) organization and work design; 3) work and resource allocation; 4) work execution; 5) managing and monitoring work execution and 6) personnel and performance management (Hackman, 1986; Puranam, Alexy, & Reitzig, 2014). Firm strategy decisions are those that specify the overall direction and goals of the company and how the company attempts to achieve those goals. Organization and work design decisions specify the tasks that must be completed and how the organization shall be structured

to complete them. Work and resource allocation decisions pertain to how financial and human resources are assigned to what parts of the organization. Work execution decisions determine *how* a given task or project is to be completed. Managing or monitoring execution of work involves assessing whether work is completed in a timely and satisfactory way. Finally, personnel and performance management decisions include assessing how individuals are performing in their roles, what training might be needed to improve performance, and choosing when and whom to hire and fire.

In a typical managerial hierarchy, managers have authority over nearly every one of these domains. Managers hold decision rights over performance management, managing and monitoring the work, and, in some cases, over the execution of the work itself. Managers determine work allocation and aspects of work design and strategy, though organizational design and firm strategy decisions are typically reserved for senior-level management. In contrast, non-manager employees traditionally lack formal decision authority in all areas except work execution. However, managers still may reserve the right to overrule subordinates and direct how they should do their jobs. The ubiquity of the disparaging term micro-management provides a rough indication that managers often do exactly this.

In self-managing organizations by contrast, many of these decision rights are fully or partially decentralized – that is, granted to non-manager employees. Figure 1 highlights how the three examples of self-managing organizations and the typical managerial hierarchy handle each decision-making domain. These are intended to illustrate how radical decentralization (or the elimination of the reporting relationship between manager and subordinate) manifests in these three cases and also how each differs from the configuration of decision rights within a managerial hierarchy.

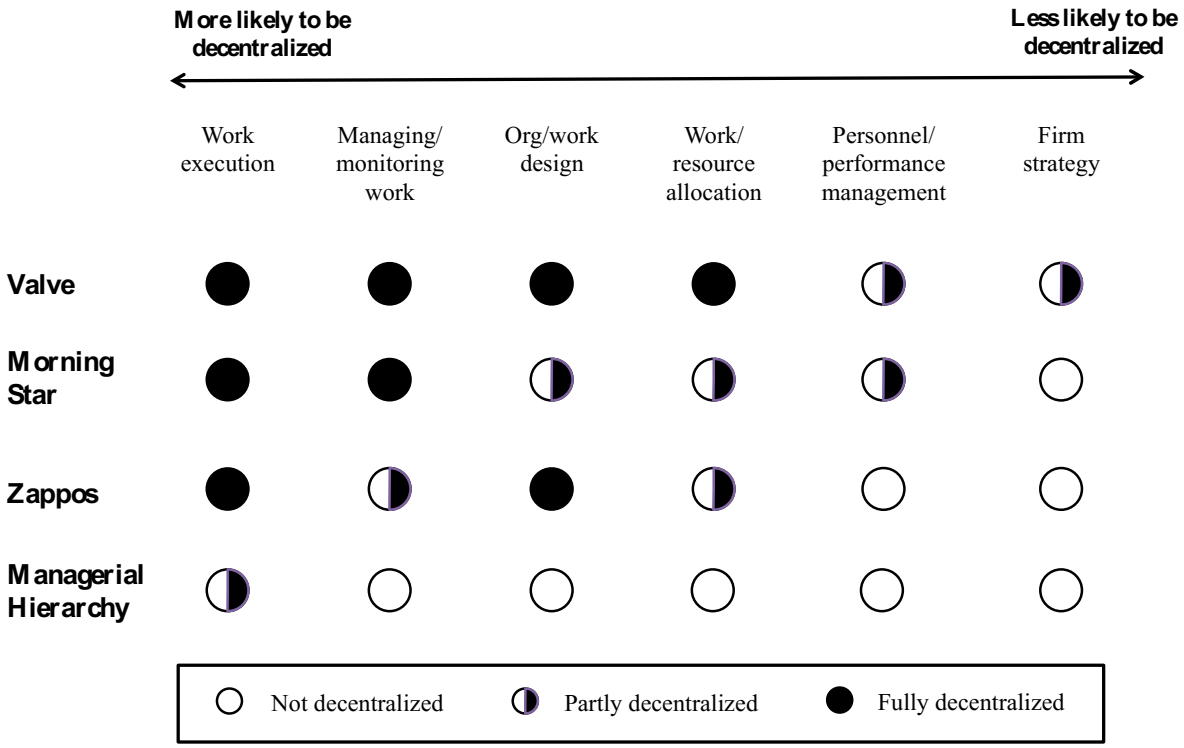



*Figure 1.* Patterns of decentralized authority at self-managing organizations.

The areas of decision authority are ordered according to those most likely to be decentralized to the least likely to be decentralized in the three empirical cases we examined. At Zappos, Morningstar and Valve, authority over work execution is fully decentralized and authority over several other domains is at least partially decentralized; for more detail see the Appendix A. We view the full decentralization of formal authority over work execution as a necessary condition for radical decentralization of authority.

What other types of decisions are decentralized, and to what extent, likely depends on the nature of the organization's strategy and work. Some organizations, like Valve, give all employees the ability to choose which projects they want to work on (work / resource allocation), employ a system of peer-driven employee evaluation (personnel / performance management) and allow the projects that garner the most interest from employees to be the games that the company builds (strategy). Additionally, at Valve, temporary role structures

emerge within each team determined by the team rather than by a formal team manager (organization / work design). Team lead roles exist as quasi-project managers within teams but in constantly shifting roles that do not present a permanent source of hierarchical authority (Bernstein, Gino, & Staats, 2013).

At Morningstar, authority is decentralized in multiple areas beyond autonomous work execution. Work design and resource allocation decisions are made in a decentralized manner using an annual process in which individuals commit to pieces of work critical to meeting the organization's goals. These voluntary commitments serve as bilateral contracts that form a network of accountabilities within the organization (organization / work design) that also defines who is responsible for what (work allocation) and enables monitoring and managing of work through the bilateral contracts. Compensation is determined through a process of peer feedback with ultimate decisions made by an elected compensation committee (personnel / performance management). Work teams initiate the hiring and firing process but generally choose to get buy-in from informal leaders who are viewed to have the expertise and perspective to weigh the needs of the work group against the needs of the broader organization. Authority over firm strategy decisions is still held by the founder and CEO.

At Zappos, in addition to enjoying full autonomy to execute the work of their role(s) as they see fit, individuals make work design decisions in collaboration with members of their work groups,. A formal governance process enables anybody, even the most junior members, to propose changes to the roles, accountabilities, policies and decision rights in their work group (organization / work design). Decisions are then made through group consent, with participants recognizing that they have the opportunity to modify them in the future, if a work design decision proves to be problematic. Authorities over other types of decisions are not specified by

the Holacracy constitution; these are left to adopting organizations to decide. At Zappos, personnel decisions, including hiring and firing, are still made by human resources leaders and senior members of the organization. What differentiates Zappos from managerial hierarchy in these instances is that decision authority is constrained by the boundaries of formal work roles. More specifically, the defined accountabilities of one's role grants specific authority to carry out the defined role, but does not grant authority beyond that which the role's accountabilities require. Note the contrast with the relatively unbounded nature of authority emanating from hierarchical rank.

Despite such different configurations, self-managing organizations have in common the elimination of managerial authority. Consider how self-managing organizations compare to incremental shifts in authority. A growing number of organizations seek to increase employee autonomy over work execution through training that encourages managers to delegate authority and avoid micro management. Similarly, 360-degree feedback systems allow increased voice in performance management. Freedom over aspects of work and resource allocation is demonstrated in practices such as "20-percent time" at Google, which give employees leeway to choose their own work for part of the work week.[9] Despite the popularity of such practices, in most organizations ultimate decision authority around work execution, work allocation, work design and performance management remains vested in the hierarchical position of the manager.

**Formal system**. The second element of our definition of self-managing organization is a formal system that codifies how authority is decentralized in the organization through a set of explicit rules or principles. Authority is thus not delegated only via an informal arrangement between managers and their subordinates, nor through a culture that fosters or celebrates

[9] Google removed the 20% time policy in 2013 but many other companies have adopted similar policies (see Subramanian, 2013)

employee empowerment. A formal system can take the form of an employee handbook, as at Valve, outlining how to navigate the company, referred to as "Flatland," with sections titled "Why do I need to pick my own projects?" and "But how do I decide which things to work on?" Similarly, the "Holacracy Constitution" outlines the rules of decentralization and is "ratified" by participating companies, such as Zappos, that adopt Holacracy as the official rule set of the organization. The constitution sets forth rules around how authority is distributed within the organization. Morningstar's system is also codified through a set of organizational principles that describe "Personal Responsibility and Initiative" and outline a process for resolving conflicts between colleagues. The annual process of developing bilateral contracts or CLOUs is formalized with templates on what each CLOU looks like and needs to include. Consistent with its adherence to a formal system, Morningstar started the Self-Management Institute, a research and education organization, to "define, refine, and propagate the principles and tools of Self-Management."

We distinguish formality of the rules for decentralization from formalization of work within the organization. Our point is not that SMOs must exhibit a high degree of formalization of work roles and processes. In fact, SMOs can vary greatly in the degree to which work is formalized. For example, Valve relies on comparatively less formal structure and Zappos exhibits relatively more formal structure. Rather, our point is that the rules for how authority is distributed in these new systems are made explicit in some way.

A formal system for decentralization is important because managerial hierarchy is a dominant and highly institutionalized form of organizing, and cannot easily be altered by simply declaring it absent. Substantive departures from the hierarchical form are unlikely to be sustained without formalization, because of powerful cognitive and social forces that reinforce hierarchy

(Gruenfeld & Tiedens, 2010; Pfeffer, 2013). Radical decentralization is therefore likely to require a formal system of rules and processes to reinforce and help institutionalize new ways of working. Formalizing may reduce the risk of reverting to hierarchical modes of operating and relating, as persistent deviation from formalized rules is more likely to trigger a crisis of legitimacy in the system. Informally delegated authority within a managerial hierarchy, on the other hand, can be reversed without fundamentally challenging the nature of the hierarchical system (Dobrajska, Billinger, & Karim, 2015). The work done to formalize a new way of organizing is also useful in helping to communicate how the system works to new organizational members who are likely accustomed to operating in a managerial hierarchy. In sum, formalization helps maintain fidelity to the principles of decentralization in the way daily work is enacted (e.g. Adler, Goldaftas, & Levine, 1999).

By emphasizing the importance of formality in decentralizing authority, we do not mean to privilege formal rules over informal behavior or interaction. Actual behavior in an organization that formally and radically decentralizes authority may fail to uphold the formal rules of decentralization. In particular, informal hierarchies may emerge that threaten or contradict the formal system of decentralization. We expect such divergences from formal rules of decentralization to occur at various points and to varying degrees in self-managing organizations; in fact, we view the dynamic process by which such rules are established, enacted, and practiced as an essential aspect of self-managing organizations. However, if divergences occur over prolonged periods of time such that the formal rules of decentralization become merely symbolic, then we contend that these particular organizations would cease to qualify as self-managing.

Lastly, while we view explicit codification of the system's rules or principles as an important component of self-managing organizations, as more experience is gained with them, the need for codification may recede. Over time, if SMOs were to become more widespread, the principles and practices that allow them to operate successfully may become more embedded and taken for granted within the broader society, or within the institutional field of organizations. However, at present, both for socializing newcomers into a self-managing organization, as well as preventing reversion to institutionalized habits of hierarchical relating, formalization of core principles and practices is posited as a key component of radical approaches to less-hierarchical organizing.

**Organization-wide**. The third component of our definition of self-managing organizations is that the decentralization of authority occurs throughout an organization. Unlike self-managed teams, decentralization in a self-managing organization is not limited to a single team, or a set of teams, nor to front line employees. The formal rules apply for everyone in the organization, from front-line employees to mid- and senior-level employees. At Zappos, for example, the formal rules governing role authority apply equally to a new employee as to senior-level executives. Similarly, at Morningstar, everyone, including the CEO enters bilateral contracts or CLOUs with other employees. Finally, at Valve, the CEO Gabe Newell has no more formal authority to determine which games are developed than does any developer in the organization.

Authority being decentralized throughout an organization does not mean authority is equalized. At Zappos, for example, formal authority is vested in roles but some individuals have roles with more responsibility and authority than others. Similarly, at Morningstar, individuals have different levels of formal accountability and authority based on their CLOUs. Also,

differences in informal authority do not disappear or become irrelevant in self-managing organizations. For example, someone who had been a senior manager may retain informal influence over a domain after a conversion to Holacracy even though his new role lacks formal authority over that domain. Similarly, at Valve, the informal influence of various individuals in gaining support for specific projects may vary considerably based on their reputation, interpersonal skill, technical skill and more. In fact, former employees have remarked on the prevalence and importance of informal status hierarchies for how decisions get made (Maier, 2013).

Thus, inequities still exist in self-managing organizations, both formal and informal. However, in self-managing organizations, formal authority is allocated in consistent ways throughout the organization and in all cases, these hierarchies do not constitute a formalized authority relationship that allows one individual (a manager) to hold fiat power over the autonomy of another. In this sense, if managerial hierarchy is akin to a feudal system in which most citizens are denied property rights, self-managing organizations offer a system of property rights and due process for all employees.

**Comparing prior research findings on less-hierarchical organizing with our definition of self-managing organizations**. To further sharpen our definition of self-managing organizations, we examine common examples of efforts to attenuate hierarchy that do not satisfy our definition of a self-managing organization. Table 3 highlights notable examples of efforts to organize less hierarchically that do not meet at least one component of our definition.

Table 3. *Examples from Prior Research on Less-Hierarchical Organizations*

| Category | Example | Why not an SMO | Part of definition not met |
|---|---|---|---|
| Post-Bureaucratic Organization | "Organic" forms (Burns and Stalker, 1961) | • Authority relations exercised less hierarchically due to culture or work type<br>• Hierarchical authority relations exist<br>• Managers may override decisions – likely less frequently than in mechanistic organizations). | Not radical decentralization; Not a formal system |
| | The "conversational firm" (Turco, 2016) – which decentralizes voice rights, allowing individuals at all levels to give input into decisions, even high level strategic decisions | • Decisions made hierarchically<br>• Hierarchical pattern of authority between manager and subordinate | Not radical decentralization |
| | Cross-functional self-organizing teams with fluid authority relations (e.g. Kellogg et al., 2006) | • Pockets of decentralized authority but not organization wide nor formalized. Functional specialists still exist within functional hierarchies. | Not radical decentralization; Not a formal system; Not organization-wide |
| Humanistic Management | Self-managed teams (e.g. Hackman 1986) | • Decentralizes authority for front line work teams<br>• Teams situated within a managerial hierarchy at mid and upper levels. | Not organization-wide |
| | Empowerment programs (e.g. Conger & Kanungo, 1988) | • Decentralizes authority for some decisions but retains formal hierarchical authority relationships.<br>• Manager may delegate or empower subordinates, retaining authority to over-ride decisions. | Not radical decentralization; Not a formal system; Not organization-wide |
| | Results Only Work Environment (Kelly, Moen & Tranby, 2011) - organization-wide effort to allow individuals can choose where and how they work as long as they complete their work | • Increases flexibility in where and when individuals work<br>• Does not extend to all areas of work execution<br>• Decentralization not extended to other areas of decision authority | Not radical decentralization |
| Organizational Democracy | Gainsharing systems (e.g. Collins, 1995) – non-management committees are elected and given a budget to make production changes | • Committees only have ability to decide on production related improvements within specified budgetary constraints.<br>• Other decisions made by management. | Not radical decentralization; Not organization-wide |

For example, many efforts that we would categorize as humanistic management either do not decentralize authority radically enough - such as empowerment programs (e.g. Argyris,

1998) or results only work environments (e.g. Kelly et al., 2011), or only decentralize within a certain portion of the organization, such as self-managed teams (e.g., Barker, 1993), Efforts to organize post-bureaucratically, such as those described by Turco (2016) or Kellogg et al. (2006), represent major deviations from the classic managerial hierarchy, but retain the manager-subordinate authority relationship. Gainsharing programs, once at the forefront of efforts to bring "democracy" to industrial workplaces, brought greater influence to frontline workers but did not eliminate the manager-subordinate authority relationship. In sum, only a few case studies in prior research on less-hierarchical organizing qualify as self-managing organizations based on the three criteria in our definition.

**Heterogeneity of self-managing organizations**. Having proposed three features to define self-managing organizations, we note that SMOs still can exhibit substantive differences in their approach to self-management. We have discussed how the patterns of decentralized authority differ across our three cases. In addition, the types and formality of the coordination mechanisms governing the organization's work can differ. Valve, for example, represents an archetypal organic structure, using minimal formal structure outside of project teams, such that coordination primarily occurs informally via mutual adjustment within project teams. At Zappos, in contrast, the adoption of Holacracy involved formalizing roles and responsibilities with a high level of precision and comprehensiveness to enable coordination across Zappos's thousand-plus employees. Morningstar's bilateral contracts represented a different, equally formal, mechanism of coordination.

Related to differences in coordination mechanisms, SMOs may vary in how much authority and control emanate from impersonal sources such as rules and formal roles versus from personal sources such as status, popularity or social influence. To illustrate, Zappos sits on

one end of the spectrum. Adopting Holacracy required a shift to impersonal forms of authority vested in formally-defined roles and responsibilities. On the other end of the spectrum, Valve emphasizes personal authority and control; key product decisions are largely determined by who can convince enough people to work on a given project. One former employee at Valve expressed that working at Valve "felt a lot like high school. There are popular kids that had acquired power in the company, then there's the trouble makers, and everyone in between." (Maier, 2013). Morningstar utilizes a mix of personal and impersonal forms of control. CLOUs function as a formal source of control. But, given its lack of titles and formal roles, informal leaders play a vital role in making critical decisions and resolving conflicts.

SMOs also differ in the degree to which they utilize team-based versus role-based structures. At Zappos, the role is the primary unit of organization. Roles are clearly defined, and come with distinct accountabilities. At Valve, the project team that forms to develop a particular game is the primary unit. Thus, while all SMOs radically decentralize authority in a systematic way throughout the organization, heterogeneity in specific practices remains. We explore the implications of these differences in the section below.

**Implications and Research Directions**

In this section, we return to a core premise motivating this article—that clearly distinguishing radical versus incremental approaches to less-hierarchical organizing can help shape new directions for research to advance organizational theory and practice. As discussed, disparate streams of research have explored antecedents, dynamics, and consequences of less-hierarchical organizing. In general, this work investigates or advocates models that retain managers and hierarchical reporting relationships between managers and subordinates. Defining self-managing organizations as those that formally and radically decentralize authority

throughout an organization, thereby eliminating the manager-subordinate authority relationship, opens new lines of inquiry that may deepen understanding of less-hierarchical organizing and offer new possibilities for practice.

The relative paucity of self-managing organizations has implications for the types of research questions and methods that are likely to be most tractable. Argyris (2002), in studying organizational learning, argued that the phenomenon he wished to study, "double-loop learning" – in which individuals and groups are able to alter underlying values and assumptions to solve complex and ill-structured problems – was so rare that it was necessary to work with organizations to create it in order to study it. In short, the research topic necessitated the "action research" that Argyris and his colleague vigorously pursued (Argyris & Schon, 1989). Studying self-managing organizations involves a similar challenge. At the same time, the evidence from several sources, including Laloux (2014), suggests that there is a growing number of self-managing organizations with which scholars may pursue some of the lines of research we discuss below, related to work execution, individual experience, organizational change, organizational performance, industry context, and institutional change. Simulation and computational modeling on the dynamics and limits of self-managing organizations may also yield insights that would be difficult to produce through empirical work.

**Coordination and control in self-managing organizations**. The first area of research suggested by our review relates to understanding how complex interdependent work can be accomplished effectively at scale in the absence of managerial authority. Relying on managerial authority alone has long been recognized as poorly suited to the task of coordinating complex interdependent work (Appelbaum & Batt, 1994; Heckscher & Donnellon, 1994; Piore & Sabel, 1984; Thompson, 1967). Scholars have explored the utility of mechanisms other than

hierarchical authority—such as protocols, shared representations and practices of display, representation and assembly—that enable coordination across boundaries (Faraj & Xiao, 2006; Gittell & Douglass, 2012; Kellogg et al., 2006; Okhuysen & Bechky, 2009). However, these studies examined contexts where hierarchical authority could still be relied upon when needed, such as in cases of conflict or disagreement. We know little about whether and how complex, emergent coordination can be accomplished in contexts where managerial authority has been eliminated altogether (Foss & Dobrajska, 2015; Okhuysen & Bechky, 2009). In this sense, self-managing organizations constitute an extreme case in which to explore key mechanisms for ensuring work's quality and consistency. Are SMOs capable of achieving the same level of control and reliability as managerial hierarchies? If so, what mechanisms of control and coordination do SMOs utilize to ensure the accomplishment of complex work?

We also know little about how to foster self-management while coordinating complex work in *large* organizations. Zappos and Semco are some of the visible instances of organizations that have adopted self-managing designs, and neither is extremely large or complex. Existing research highlights the centrality of peer influence for fostering control in self-managed teams (Barker, 1993). Whether and how peer-based sources of authority scale to large-scale collective action remains an open question, although limitations to scalability should be expected. Given the role that information technologies have played in enabling coordination across distances (Hinds & Bailey, 2003; Sole & Edmondson, 2002), technology may play a role in enabling peer control at scale. At Zappos and Morningstar for instance, online platforms make work responsibilities and progress visible to the entire organization, enabling, in theory, scalable oversight by peers and coworkers. Theory and research are needed to identify the limits of self-managing organizations.

Relatedly, research on decision-making processes in self-managing organizations is needed to shed light on how self-managing organizations handle conflict and crisis. Maintaining a decentralized, empowered work environment when organizations are stable and successful is one challenge. But existing research suggests that conflicts and crises tend to lead to centralization and concentration of authority (Edmondson & Smith, 2006; Pfeffer & Leblebici, 1973; Staw, Sandelands, & Dutton, 1981). Thus, understanding whether and how SMOs can effectively handle significant conflict or crisis will help us understand the degree to which radically decentralized systems can survive through high levels of internal or external turbulence.

**Individual subjective experience in self-managing organizations**. A second important line of inquiry relates to individuals' experiences in a self-managing organization. Interest is growing in how the changing nature of work affects how individuals experience work. For example, a recent special topic forum in the *Academy of Management Review* focused on the changing nature of work relationships. Given that self-managing organizations represent an extreme case of the evolution towards less-hierarchical and more networked organizational designs, understanding the experiences of individuals in self-managing organizations may yield important insights about how people experience different workplace contexts. Much practitioner rhetoric related to flattening hierarchies can be hyperbolic, promising occupational nirvana. Research on self-managed teams indicates that the reality of self-management is more complicated than the rhetoric. For example, while some research found that self-managed teams improves employee work outcomes such as engagement and satisfaction (Cohen & Ledford, 1994; Wall et al., 1986), other work suggests that peer control in self-managed teams can lead to stress and burnout over time (Barker, 1993). These issues need to be explored in self-managing organizations. Are individuals' jobs and lives enriched by greater autonomy and a lack of

subordinate status to other people? What are the potential unintended consequences of such systems on individual well-being? Do people find the challenges of self-management worthwhile especially over longer periods of time?

Existing accounts of self-managing organizations suggest that individuals vary in the degree to which they are drawn to and feel comfortable in radically decentralized organizational systems (Bernstein et al., 2016; Hamel, 2011). Understanding who thrives and who struggles in such organizations can help us understand who will benefit from these organizational shifts and who is at risk of being left behind. Research might investigate personality traits, such as proactivity or need for control, that predict satisfaction in such systems. What demographic variables, such as age, organizational level, education or gender correlate with effectiveness or satisfaction in self-managing organizations? What interventions help employees adjust to or operate more effectively in self-managing organizations?

The shift from a managerial hierarchy to a radically decentralized model profoundly affects those who hold managerial positions, and research is needed to understand how managers experience this shift. How do they make sense of this shift from the standpoint of their career progression given the elimination of a traditional corporate ladder? What adjustments must they make to operate effectively in a self-managing organization? What factors predict how well a manager adapts to the new system and learns to wield influence without formal authority? More broadly, how is leadership and influence exercised in such organizations?

**Achieving and maintaining decentralization in self-managing organizations**. A third issue relates to the challenges of shifting power in a significant way. Scholars have long explored the challenge of changing power relationships. Empowerment programs often fail due to mixed messages and competing business imperatives (Argyris, 1998). Self-managed teams can lead to

the resumption of informal power differentials among peers (Barker, 1993). Efforts to involve workers in decision making often plateau or become co-opted by existing power holders (Strauss, 1982). Others have argued that fundamental drives (for survival, for power, for self-enhancement) and psychological processes (the desire to be with high status members and post-hoc rationalizations that attribute positive traits to those in power) contribute to the emergence and endurance of informal and formal hierarchies (Gruenfeld & Tiedens, 2010; Pfeffer, 2013).

One consequence of enduring psychological forces that bend human organization towards hierarchy is that effective self-management is difficult and requires a higher level of psychological development and interpersonal skill (Argyris, 1998; Kegan, 1998). Kegan (1998), an adult learning psychologist, argues that self-managing requires a stage of mental complexity that has the capacity to hold multiple concepts of power and authority simultaneously and to distinguish between the social power in an organization and "the psychological power to define who owns the work" (Kegan, 1998, p. 157). Argyris (1999) similarly, noted the "defensive routines" that can re-emerge when trying to organize less hierarchically but pointed to the rare moments when such defensive routines can be disrupted through different values, assumptions and mindsets.

The challenge of sustaining self-management creates opportunities for scholars to explore whether and how SMOs sustain formal decentralization in the face of obstacles. Also, to what extent and through what processes does authority re-concentrate even in self-managing organizations? One way to gain analytic traction on these questions would be to analyze patterns of formal decision rights compared to real or informal decision rights and explore how these patterns change over time in self-managing organizations (see Dobrajska et al., 2015). We also need to better understand how individual-level factors, such as mental complexity or mindsets,

enhance successful shifts in power given the well-established tendency for power to concentrate? Conversely, does the experience of practicing self-management, itself, enhance individual psychological development over time by forcing individuals to confront the complexity of self-managing, given our many tendencies towards hierarchical organizing?

**Organizational consequences of self-managing organizations**. A fourth topic concerns the consequences of self-managing organizations. While the stated rationale for adopting self-managing organizations is often to increase organizational responsiveness and improve the employee experience at work, assessing the causal impact of organizational designs is notoriously challenging (Hackman, 1986). Nonetheless, exploring how to design studies in new and creative ways to understand the consequences of these radical new forms is both possible and necessary. Scholars can utilize case studies to explore consequences at a micro qualitative level, examining the processes and mechanisms by which outcomes such as responsiveness or innovation are facilitated by decentralized authority in individual cases. Beyond individual case studies, scholars might be able to run field experiments in organizations by assigning self-management as a treatment to organizational subunits and exploring the impact of these designs on individual, team or unit-level outcomes. Alternatively, given the growth in the number of organizations adopting self-managing designs such as Holacracy, it may soon be possible to identify a sample of firms adopting Holacracy paired with a matched sample of firms operating hierarchically to be able to infer causal effects of adopting such systems.

**Self-managing organizations as a case of institutional change**. A fifth line of inquiry relates to the macro-level institutional implications of departing from the managerial hierarchy. Given the dominance of the managerial hierarchy in large organizations across public, private, and non-profit sectors, understanding how the growth in SMOs proceeds could shed light on how

institutions change. The introduction of Holacracy gained widespread attention as one of the first fully specified self-managing designs, made available to any organization interested in adopting it, in contrast to "home grown" models. Understanding the role that this kind of full specification may play in generating adoption of self-managing designs could inform our understanding of institutional change. More broadly, what is the process by which self-managing organizations spread in the institutional field of organizations? And how are institutionalized approaches to compensation, titles, and career progression adapted to accommodate (or not) self-managing organizations?

**Contingencies in the choice of self-managing systems**. A sixth line of inquiry relates to the implications of the different approaches to self-managing organizations described above. As noted, case studies of SMOs differ in type of coordination mechanism, source of authority, and primary unit of organization. Existing organizational theory suggests that such differences likely have implications for the types of interdependencies, knowledge demands, and scale supported by each approach. For example, organizations that rely on informal processes of mutual adjustment and team-based coordination, as exemplified by Valve, likely function most effectively in a context where intensive coordination is required within projects but not across projects (Foss & Dobrajska, 2015). Other work suggests that a reliance on team-based structures comprised of specialists is the ideal structure for dynamic learning and the processing of novel information (Edmondson, 2002; Romme, 1996). At the same time, such systems rely on conversation and face-to-face interaction and are unlikely to scale to large complex organizations (Mintzberg, 1979).

In contrast, approaches that utilize highly formalized mechanisms of coordination and individual-role based structures, as typified by Zappos's system, may better accommodate

complex interdependencies across functional units and scale more easily than organic, team-based structures (Mintzberg, 1979; Weber, 1946). Prior research on formalization offers differing predictions as to the level of dynamism supported by role formalization. Most research finds that greater formalization leads to formalism and rigidity (Davis, Eisenhardt, & Bingham, 2009; Merton, 1940; Volberda, 1996), but some studies suggest that formalization can accommodate and even foster flexibility (Adler et al., 1999; Bigley & Roberts, 2001). The governance process embedded in Holacracy, which serves as a meta-routine to change formal structure, provides at least moderate flexibility, but how this compares to the flexibility afforded by Valve's organic approach remains an open question.

Table 4 highlights key differences between the approaches to self-management exhibited in three case studies, alongside the differences in the organizational context. Future research should further explore and refine our understanding of the different approaches to self-managing organizations as well as the contingent relationship between the system design and the nature of the work and organizational context.

Table 4. *Differences between SMO Case Studies and their Context*

| | | Zappos / Holacracy | Morningstar | Valve |
|---|---|---|---|---|
| **Features of system** | **Formality of coordinating mechanisms** | Formal<br>Use of governance process to formalize roles, responsibilities, policies and decision rights | Mix of formal / informal<br>Use of formal bilateral contracts to specify responsibilities and outcomes; informal authority to settle conflicts and make significant decisions | Informal<br>Team-based collaboration and mutual adjustment; Decisions made based on popularity of projects |
| | **Primary form of authority / control** | Impersonal / bureaucratic | Mix of impersonal/bureaucratic and personal/peer | Personal / peer |
| | **Primary organizing unit** | Individual role | Bilateral contract | Project team |
| **Features of work / context** | **Complexity of interdependencies** | Complex multi-functional interdependencies | Moderately complex multi-functional interdependencies | Complex interdependencies within teams, Minimal interdependence across teams; no functional departmental structures |
| | **Knowledge demands** | Medium | Low | High |
| | **Dynamism of environment** | Medium | Low | High |
| | **Size of organization** | Large | Medium | Small |

## Conclusion

A growing number of organizations are seeking ways to organize less hierarchically in the hopes of becoming more innovative, nimble, and enriching places to work. A select few are not content to simply experiment within the contours of the managerial hierarchy, but aim instead to radically depart from it. The time is ripe for renewed and focused research and theory to better understand and guide these efforts. Despite the varied streams of organizational research

that relate to the theme of less-hierarchical organizing – from both macro and micro perspectives - none adequately captures the distinction between radical and incremental approaches. We hope that by more clearly delineating a specific and extreme class of efforts to organize less hierarchically, we can encourage and guide future research on this important phenomenon.

As organizational scholars, we are trained to look at the world dispassionately. Yet, our research is also guided by a belief that we can generate practical and positive value in the world. Studying whether and how organizations can be designed to be more empowering and effective places for work is of great interest to many organizational scholars. After all, we too – not just those we study – spend a great portion of our waking lives in organizations. Furthermore, since self-managing organizations represent organizing at the boundaries, studying such efforts allows us to understand the limits of less-hierarchical organizing, and holds the promise of revealing something more fundamental about human nature. We hope this article will encourage organizational scholars to heed this call.

## Chapter 3. The Dynamics of Self-managing Organizations: Organizing Through Clear and Dynamic Role Boundaries

Becoming agile and transcending bureaucracy have become watchwords for the modern organization. Bureaucracies, with their clear hierarchies and highly formalized job descriptions, are universally viewed as an ill-fitting solution to the contemporary work context. Interest and belief in a "postbureaucratic" future is driven by multiple factors, among them, demands for professional autonomy and freedom from post-industrial knowledge workers, as well as pressures to become flexible to compete in an increasingly complex and dynamic marketplace.

Despite a proliferation of distinct constructs aimed at capturing the shift away from traditional bureaucratic structures, scholarly descriptions of the postbureaucratic organization bear remarkable similarities. From "network organizations" to "organic structures" to "adhocracies," these constructs describe an essentially similar conception of the future of organizing as one that minimizes formal structural constraints – both the vertical constraints of hierarchical authority structures and the horizontal constraints of role specification and formalization (e.g. Baker, 1992; Birkinshaw et al., 2017; Burns & Stalker, 1961). Instead of formal controls, these scholars describe the postbureaucratic future as one where informal interactions and relationships propel and guide the successful coordination of work (Krackhardt, 1994).

This essentially organic conception of the postbureaucratic future rests on the notion that loosening formal structural boundaries by making boundaries both informal and ambiguous facilitates greater freedom for individuals to shape their own experience and as a result, greater flexibility (Burns & Stalker, 1961; Foss, 2003; Tan, 2014). From this perspective, hierarchical authority and role formalization have the effect of constraining individuals and reducing the

capacity of the organization to adapt by drawing rigid boundaries within which individuals must remain.

Yet, the same features of organic structures that facilitate flexibility and freedom – the emphasis on informal and lateral relations over formal and hierarchical controls – also limit the ability of such structures to secure the coordination of collective work. Given the fundamental need for organizations to successfully coordinate work effort, scholars have argued that "pure" organic structures exist more in theory than in practice (Heckscher & Donnellon, 1994). Furthermore, empirical studies of attempts to adopt an organic structure reveal that such experiments often fail to live up to the ideal type described by scholars (e.g. Foss, 2003; Turco, 2016). Given the limitations of the organic structure, this chapter explores whether the dominant conception of postbureaucratic organizing as organic requires rethinking.

The current study investigates whether and how organizations can structure themselves to avoid the rigidifying and coercive tendencies associated with bureaucratic structures while also avoiding the coordination losses associated with organic structures. I explore this question by leveraging the analytical power of a "deviant case" (Ragin & Becker, 1992) – an organization that was able to introduce greater freedom and flexibility without sacrificing coordination by adopting a novel structure that runs counter to the dominant conception of postbureaucratic organizing as organic. The focal organization in this study, a rapidly growing technology firm pseudonymously called CashCo, adopted a new management system that, in line with the organic structure, decentralized decision authority to frontline employees and eliminated traditional management positions. Yet, in contrast to the organic structure, this organization dramatically increased the degree of role specification and formalization.

In this study, the increase in role formalization did not reduce freedom and flexibility as existing theory would predict because role formalization occurred under different conditions than is typically assumed. Fundamental to the notion that organic structures can help organizations transcend the limitations of bureaucracy is the well-accepted view that greater degrees of role formalization introduce overly binding constraints and rigidity that are inconsistent with a desire for greater freedom and flexibility. Yet, an unstated assumption of this literature is that role formalization occurs within the context of a hierarchical authority structure. That is, formal role definitions are defined by superiors and do not grant equivalent authority to carry out responsibilities. In addition, this literature generally assumes that formal role definitions are not widely accessible in the organization and are infrequently revisited. Given these conditions, the presumption that formalization of roles would not permit freedom and flexibility is understandable. This article considers formalization of roles under conditions of decentralized authority and where roles were made visible to the entire organization and frequently and easily revised through an established process.

Drawing on twelve months of ethnographic data, I find that roles formalized under these conditions were able to help the organization effectively coordinate work without traditional managers by serving as clear and dynamic boundaries of responsibility, boundaries that individuals attended to in day-to-day work to collectively enact their roles. In addition, contrary to the dominant view of formalization within the literature, rather than these boundaries restricting freedom and flexibility, they enabled freedom by establishing clear boundaries of authority within which individuals could exercise discretion and providing the ability for these boundaries to easily evolve through a decentralized process. However, the increased salience and flexibility of formal role boundaries involved trade-offs: it impeded collaboration, reduced the

salience of cultural values, made work relationships less personal, and introduced uncertainty and stress.

In documenting the implications of organizing by clear and dynamic role boundaries, this dissertation integrates and extends research on role-based coordination as well as on enabling bureaucracy. Recent research on role-based coordination highlights how roles can be used as a coordinating mechanism in less-hierarchical contexts (e.g. Bechky, 2006; Bigley & Roberts, 2001; Valentine & Edmondson, 2011. However, this research has been limited to settings where role expectations are pre-defined in the broader organizational context, such as through professional groups or industry associations, and where the roles themselves remain relatively stable (Bechky, 2006; Faraj & Xiao, 2006). This article extends this literature to show how role-based coordination is possible in settings where shared understanding of role expectations are not already established in the institutional environment and where roles must evolve to address emergent circumstances. Furthermore, existing research on formalization has highlighted the enabling possibilities of formalization and how formalization can *coexist* with employee freedom. I build on this work by showing how formalization can support greater employee freedom and identifying how formal roles are used in practice to expand employees' discretion.

In doing so, this article proposes that addressing the limitations of bureaucracy does not necessarily mean minimizing formal structural boundaries within the organization. Rather, this study's key insight is that the creation of clear and dynamic boundaries of responsibility and authority can help organizations resolve a core tension: enabling freedom and flexibility without sacrificing coordination.

**Postbureaucratic Organizing and the Organic Structure**

Within organizational theory, the dominant archetype of the postbureaucratic organization remains the organic structure. Burns and Stalker (1961) provide the classic description of the organic structure: in contrast to bureaucratic structures, which combine strict hierarchical authority with high degrees of formalization, organic structures exhibit decentralized authority and fluid and ambiguous roles. More recent alternatives to the bureaucratic structure have come in many flavors and names but they capture an essentially organic structural configuration that minimizes formal structural differentiation – both vertical differentiation of hierarchical authority and the horizontal differentiation of role formalization. For example, postbureaucratic organizations exhibit "decentralized decision making" with "fuzzy" boundaries and "blurred" role differentiation (Kellogg et al., 2006, p. 23); network organizations are characterized by "vague roles and responsibilities" where "organizational members autonomously work out relationships" (Baker, 1992, p. 404); adhocracies have **"**little formalization of behavior" and "a good deal of decentralization" (Mintzberg, 1980, p. 337); and project-based organizations contain "decentralized teams" and an "underspecification of structure" (Lindkvist, 2004, p. 14).

The core premise of the organic conception of the postbureaucratic organization is that the removal of formal structural boundaries—both vertical and horizontal—enables greater freedom and flexibility. Mintzberg (1979) articulated this premise: "Ambiguous authority structures, unclear objectives, and contradictory assignments of responsibility can legitimate controversies and challenge traditions….Incoherence and indecision can foster exploration, self-evaluation, and learning" (p. 433). This emphasis on decentralization of authority and role ambiguity as paths to greater freedom and flexibility are also evident in the emphasis on teams as

a foundational structural unit for postbureaucratic organizing (Barker, 1993). The superior responsiveness of teams, scholars argue, derives from the absence of traditional superior-subordinate reporting relationships and from fluid roles that are negotiated informally through mutual adjustment (Romme, 1996; Tan, 2014).

Yet, the same features of the organic structure that support freedom and flexibility also introduce substantial coordination costs and inefficiencies. Hierarchical authority and clearly defined roles are fundamental mechanisms of coordination as they provide, respectively, vertical and horizontal differentiation of responsibilities and authority (McEvily et al., 2014; Okhuysen & Bechky, 2009). Absent both of these formal structural boundaries, coordination can suffer. Burns and Stalker (1961) captured this dynamic: "The organic form, by departing from the familiar clarity and fixity of the hierarchic structure, is often experienced by the individual manager as an uneasy, embarrassed, or chronically anxious quest for knowledge about what he should be doing, or what is expected of him, and similar apprehensiveness about what others are doing" (pp. 122-123). As a result, the organic structure is considered inefficient and often rife with interpersonal conflict and politics (Mintzberg, 1979).

Empirical case studies of organizational attempts to adopt organic structures reveal that the organic form may work better in theory than in practice. In a recent study of a social media organization that sought to transcend the limitations of bureaucracy, Turco (2016) found that the organization could only modestly decentralize authority in part due to the difficulty of ensuring alignment and control. In another study of an organization that adopted an organic structure, Foss (2003) detailed how senior managers intervened on project greenlight decisions in unpredictable ways. This "selective intervention" undermined the espoused principles of the new structure and eventually led to a return to a more traditional bureaucratic structure (Foss, 2004). Thus, the

dominant conception of the postbureaucratic organization as organic poses a trade-off between freedom and flexibility on the one hand and coordination and control on the other.

The present study builds on this stream of literature by analyzing a postbureaucratic alternative to the organic structure – an organization that decentralized authority but increased role formalization. In contrast to what most literature would predict, the increase in role formalization supported both flexible coordination of work as well as a certain form of employee freedom. To make sense of this puzzle, I draw on and extend research on role-based coordination and enabling bureaucracy.

**Role-based Coordination and Enabling Structures**

Research on role-based coordination provides insight into how roles would be relevant as a mechanism for enabling both coordination as well as freedom and flexibility. Research has established roles as a powerful mechanism of coordination in complex, uncertain settings where centralized planning is not possible (e.g. Bechky, 2006; Faraj & Xiao, 2006; Valentine & Edmondson, 2011). Roles, by establishing clear boundaries of responsibility, enable individuals to enact and coordinate behaviors so as to reliably accomplish collective work without resorting to hierarchical authority. In addition, while roles constrain individual behavior by delineating responsibilities, they also allow some room for "constrained improvisation" (Bigley & Roberts, 2001; Valentine & Edmondson, 2011). Studies that take an interactionist perspective on roles highlight how roles cannot be specified completely and therefore must be negotiated through interactions (Bechky, 2006; Graen, 1976). Thus, existing research has highlighted this dual nature of roles – that they can constrain while also enabling some individual discretion.

However, this study raises two questions unanswered by research on role-based coordination. First, the research that establishes roles as a mechanism for coordination in less-

hierarchical settings has been conducted in contexts where basic understanding of roles is assumed or established in the organization's environment and are relatively stable. For example, Bechky's (2006) study of coordination in film crews identified how a generalized role structure, established throughout the film industry by union rules, provided the basis for coordination. Other studies examined coordination in industries (e.g. medicine) where professional role expectations are enduring and deeply institutionalized (e.g. Faraj & Xiao, 2006; Valentine & Edmondson, 2011). We know little about how role-based coordination can be facilitated without hierarchical authority and when shared understanding of role expectations is not institutionalized or pre-established and must evolve in response to changing work demands. Second, while recent studies have alluded to how roles can enable some individual freedom in interpreting and revising work responsibilities, they do not explain the process or practices by which roles can enable freedom and flexibility. This study addresses both of these questions – first, by showing how shared understanding of role expectations can be created and revised in situ through a regular process for revising formal roles as well as a digital platform for making roles visible to everyone in the organization. Second, the present study extends our understanding of the enabling possibility of roles by showing how roles can serve as visible and clear boundaries of discretion that help individuals exercise their authority and mitigate the tendency of power to recentralize authority into the hands of senior leaders.

This study also draws on and extends research on enabling bureaucracy. Dominant perspectives of formalization describe it as a laborious and time-intensive process, requiring a long time to study and perfect (Burns & Stalker, 1961). Furthermore, once expectations are formalized, these definitions typically resist change. The heavy-weight nature of formalization, scholars have argued, makes it unsuitable for the uncertainty and dynamism of contemporary

organizational contexts (Griffin, Neal, & Parker, 2007). In addition, formalization tends to be overly binding and restrictive, which is anathema to the autonomy demands of contemporary knowledge workers. However, the dominant, pejorative view of formalization has been challenged by scholars who argue that formalization need not always be inflexible or experienced as rigid. Instead, high formalization can coexist with employee motivation and commitment and can permit flexibility (Adler & Borys, 1996; Stinchcombe, 2001).

The present study leverages and extends research on the enabling possibilities of formalization by highlighting how, under certain conditions, formalization can not only coexist with employee autonomy and empowerment, but can strengthen employee autonomy. Furthermore, this research identifies the conditions and processes associated with these surprising effects of formalization.

## Methods

The study examines an organization, CashCo, that adopted a new management system that reflected an attempt to transcend the limitations of bureaucratic structure but without opting for an organic structure. I was interested in the work dynamics associated with this theoretically-novel approach to postbureaucratic organizing. A case study approach was fitting for exploring this question because I was interested in understanding a novel phenomenon and *how* it worked (Yin, 2003).

**Research Setting.** CashCo is a company located in the eastern United States that engineers, produces, markets, and services integrated hardware-software products related to payments, such as the secure storage and accounting of physical currency as well as the processing of digital payments. CashCo's primary product was a cash recycler, a product that secures, counts, and disburses physical currency, and is used by banks, retail stores, and casinos.

CashCo was founded in 1998 and grew organically over many years. CashCo hit an inflection point in its growth and over the course of 2012-2014, doubled in revenue and headcount. CashCo employed approximately 125 people when the study began in 2014.

CashCo adopted an organizational system called Holacracy that was developed externally by another company and had been adopted by numerous other organizations (Robertson, 2015). In adopting the system, CashCo decentralized authority by giving employees authority to take any action to fulfill their role responsibilities without needing approval. In doing so, the organization eliminated traditional management positions. Instead, managers of each functional group became "Lead Links," a pre-defined role that had partial oversight and administrative authorities but crucially did not have the authority to intervene in or supersede the work decisions of others. The Lead Link could assign and remove individuals from roles, but individuals could decline role assignments, and because most individuals held multiple roles, removal from a role did not necessarily mean one was fired. In addition, Lead Links could set priorities, develop metrics and allocate resources within the group. However, Lead Links did not have authority to tell individuals how to do their jobs, hire or fire individuals from the organization, or conduct formal employee evaluations.

The new system also decentralized authority for who could define and make changes to formal work roles. While managers previously made these decisions, the new system decentralized this authority to all group members. The new system also established a process whereby groups met to propose and discuss changes to formal work roles. Called "governance" meetings, anybody could propose a change to the formal roles within the group, such as adding, changing, or deleting a role or its accountabilities or creating or removing groupings of roles. All proposed changes to the group's formal role structure required the consent of all group members

to be adopted. The resulting formalized role structure for each group was displayed on an online platform that was visible to the entire company. Governance meetings were held regularly by each group.

The decision to move to the new system was made by CashCo's founder and CEO, in consultation with his executive team. After a soft launch with the executive team, the new system was rolled out to the entire company.

**Data collection.** I made contact with CashCo one month before they formally adopted the new system. My data collection began two months after adoption of the system and ended 12 months later. I visited my site every month in the first six months and every two months in the last six months. I was onsite for a week at a time, adding up to two months total onsite.

I conducted 125 interviews with 60 different employees using the logic of theoretical sampling (Pratt, 2009; Strauss & Corbin, 1998). Given that the new system shifted formal authority in the organization, I interviewed individuals from different organizational levels, i.e., frontline, mid-level, and senior employees. Each interview lasted 30-105 minutes with the vast majority lasting between 60-90 minutes. Interviews were semi-structured and initially focused on "grand tour" questions about individuals' day-to-day experiences at CashCo and with the new system (Spradley, 1987). As specific themes emerged, I asked questions to explore themes more deeply. While the vast majority of interviews were conducted while I was onsite, a small number were conducted virtually via video calls. All interviews were audiotaped and transcribed.

I also conducted observations of 78 work meetings. Because I was interested in how work was accomplished, I focused my meetings on the core functional groups (e.g. Sales, R&D, and Operations) as well as the General Company Circle (GCC) group, which comprised the Lead Links of the major functional groups. I observed both operational meetings as well as

governance meetings with each lasting anywhere from 30 minutes to four hours and the vast majority lasting between 60 and 120 minutes. Table 5 shows the breakdown of meetings by type, functional area, and level. I took field notes of my observations of all meetings. In addition, nearly all meetings were recorded via the video conferencing software tool that CashCo used for most meetings and transcribed (some were not recorded due to technology errors or because the meeting did not require a video conferencing dial in).

Table 5. *Meeting Observations*

| **Type of meting** | | **Functional area** | | **Hierarchical Level** | |
|---|---|---|---|---|---|
| Governance | 44 | GCC | 28 | GCC-level | 28 |
| Operational | 34 | Operations + subgroups | 23 | Functional group level | 19 |
| **Total** | **78** | R&D + subgroups | 15 | Subgroup of functional | 31 |
| | | Sales + subgroups | 9 | **Total** | **78** |
| | | Shared Services | 3 | | |
| | | **Total** | **78** | | |

I observed monthly organization-wide presentations on the state of the business and trainings related to the new system. When not observing meetings or conducting interviews, I shadowed individuals and "hung out" in common spaces. I had access to several sources of archival data, including outputs of governance meetings, employee demographic data, and email messages from organizational leaders to the entire company. I also had access to results of weekly voluntary anonymous surveys that CashCo sent out to employees related to their satisfaction and work experience. These data served useful in supplementing what I was learning in my interviews and observations.

**Data analysis.** My approach to data analysis was inductive (Strauss & Corbin, 1998), intended to generate insights on how work was accomplished within this new structure. In the first stage of analysis, I wrote lengthy memos to explore emergent themes in, and make sense of,

my data. Given the theoretical uniqueness of the formalizing process and its intention to clarify roles rather than keep them ambiguous, I focused on the governance meetings and the implications of the resulting formalized roles while remaining open to emergent phenomena. Initial memos explored the desire of individuals and groups to codify as completely as possible the work responsibilities of each person, how the employees liked the "clarity" that the formalized roles provided, and how this clarity supported the accomplishment of work without being experienced as coercive. However, in subsequent memos, a surprising insight emerged that not only were the formalized roles used in the completion of collective work, but that they were also serving to reinforce the shift in authority.

Surprised by this finding, in the second stage of analysis, I conducted open coding of raw observation and interview data to explore the different ways employees engaged with the formalized roles in the course of doing their work. These practices naturally clustered into those that supported the coordination and those that pertained to the shift in power. For the coordination practices, these initial codes included "using online platform to know what role fit a work request," "staying in role," "using role names when making a work request," and "changing roles to address work breakdowns." With respect to the practices related to the shift in power, initial codes included "taking ownership of your role," "exercising authority within the boundaries of your role," "using role names when turning down work that fell outside of one's role", and "defining roles to not get run over." I then grouped these first-order codes into second-order categories – "attending" to roles and "revising" roles. The notion of role boundaries, which I discovered while reviewing the literature, helped capture that the employees were engaging with the roles in a way that implicated the boundaries of responsibility and authority each role demarcated. From this analysis emerged the practices of attending to role boundaries and

revising role boundaries that form the basis of this paper.

In the final stage of analysis, I focused on examining the conditions that explain why this case diverges from theoretical predictions. I reviewed the literature on formalization to identify how the context at CashCo differed from the conditions assumed by existing theory in ways that helped explain my findings. I also analyzed data on the trade-offs associated with organizing around clear and dynamic role boundaries and identified four trade-offs. The trade-offs reaffirmed that the formalized roles had become an integral part of everyday life at CashCo, while highlighting potential dark sides to relying on formalized roles so heavily. Throughout my analysis, I moved iteratively between analyzing data, situating the emerging findings in existing theory, and returning to the field armed with a new set of questions related to the incipient themes. What emerged from this process was an understanding of how the creation of clear role boundaries and the practices of attending to and revising role boundaries in the course of doing the work supported both flexible coordination and employee freedom.

**Findings**

Below, I first describe how the organization engaged in a process of dramatically increasing role formalization under a different set of conditions and using a different process than theory typically assumes. I draw on the notion of role boundaries as "whatever delimits the perimeter—and therefore the scope—of a role" (Ashforth, Kreiner, & Fugate, 2000, p. 474) and argue that formalization at CashCo helped establish clear boundaries of responsibility and authority. Then, I show how employees engaged in the practices of attending to and revising the role boundaries in day-to-day work to support flexible coordination and employee freedom. I finish by identifying the conditions that explain why role formalization had different

consequences than existing theory would predict and examining the tradeoffs associated with organizing through clear and dynamic role boundaries.

**Establishing Clear Role Boundaries**. Two months after adoption of the new system, twelve members of the Product Engineering group sat around a large conference table for their group's governance meeting. The group's facilitator stood at the front of the room while the group's secretary sat at a laptop recording the meeting agenda and proposals with her screen projected for the entire group to see. The meeting started and the facilitator asked for agenda items from the group. Ira, a member of the group who worked on the CashCo's knowledge management portal, chimed in, "Knowledge role proposal." After two other members added their own agenda items, the facilitator started with Ira and asked him to introduce his proposal.

Ira explained that the Knowledge Management role that he shared with another employee was too broad and should be split into two distinct roles that would capture what they do more precisely. The existing Knowledge Management role included responsibility for both managing the architecture of CashCo's knowledge management portal and also developing the portal's content. While he was responsible for the former, his partner, Holly, was responsible for the latter. Ira explained to the group,

> Holly and I have been running the knowledge base initiative. We wanted to enhance our current accountabilities in the group. The current accountabilities are lacking in scope. We also want to…break apart the accountabilities into fixed roles to make them more modular based on job duties done by ourselves and others involved in the process.

To accomplish this objective, Ira proposed splitting their current shared role into two distinct roles called Knowledge Portal Architect and Knowledge Portal Content Writer. In addition, his proposal elaborated on some of their role's existing "accountabilities" or responsibilities, eliminating some, rewriting others, and adding accountabilities that were not reflected in the prior version. The secretary logged Ira's proposal on the online platform for the group to review.

After making the proposal, the facilitator invited questions about the proposal. One group member asked about an accountability that Ira proposed eliminating: “Is that being tracked elsewhere or is that work just going away?” Ira responded, “That is being automated. It's redundant to what is done nightly on the servers.” The Lead Link of the group asked Ira if the two roles he proposed are expected to collaborate with the R&D group. Ira responded, “Yes, that was one of the reasons I wanted to do this because that wasn’t clearly defined.” One of Ira’s proposed changes was adding an explicit accountability to involve subject matter experts from the R&D group in the process of developing the portal’s content.

The facilitator then gave each member the opportunity to share his or her reactions to the proposal. One member said, “My impression is that you’ve spent a lot of time getting your arms around it. You guys know it better than anyone. It’s worth trying so I’m okay with it.” A few members provided feedback on how the accountabilities could be made clearer. Several members provided short assenting responses.

After hearing these reactions, Ira made a few minor edits to the accountabilities to address the feedback. Then, the facilitator asked if anyone objected to the proposal. No one in the group objected, and the proposal was adopted. Afterwards, Ira explained the motivation and consequence of the change,

> [Holly and I] agreed that it would be helpful to identify which one of us is accountable for what in a more structured way – for our own sake, to protect us, so that we’re not accountable for something that the other person is better at, but also if someone from outside our group needed something, they knew which one of us did what.

Thus, the change more clearly aligned the formal role structure with their actual work responsibilities.

Ira’s adopted proposal took what was one role with four accountabilities and made it two roles with eight accountabilities. Table 6 summarizes the changes made in this particular

instance. These changes were immediately published in an online platform that was accessible to the entire organization, and individuals from any group could subscribe to the Product Engineering group and receive email updates whenever roles were changed. The discussion lasted 25 minutes in total. In the rest of the 90-minute meeting, the group considered four other proposals, two of which led to changes to the group's formal role structure. The other two were withdrawn by the proposers after receiving feedback from the group.

Table 6. *Knowledge Management Role Changes*

| **Old** | **New** |
|---|---|
| Knowledge Management role<br>- Establishing Knowledge base content strategy and subject mapping<br>- Converting of legacy content formats to align with standards developed for Knowledge Base web portal content management system and developing strategies for handling legacy content<br>- Establishing and maintaining content policies, standards and guidelines that align with User Experience goals<br>- Designing content structure for display within the Knowledge Portal | Knowledge Portal Architect<br>- Developing Knowledge Portal site functionality utilizing Drupal administrative interface<br>- Developing presentation views and blocks for Knowledge Portal utilizing Drupal administrative interface<br>- Creating and maintaining strategy and subject mapping for taxonomy within Knowledge Portal<br><br>Knowledge Portal Content Writer<br>- Creating content utilizing content standards and expectations developed by subject matter experts<br>- Creating content sourced from legacy and other "hard copy" documentation<br>- Creating content sourced from submissions via established feedback methods<br>- Maintaining content for accuracy and standard adherence as advised by established feedback methods<br>- Establishing and maintaining content policies, standards, and guidelines in alignment with user experience goals |

Over the first three months, the number of formalized roles and accountabilities nearly tripled – the former grew by 2.4 times, and the latter grew by 2.6 times (See Figure 2). The amount of text used in the role definitions nearly quadrupled in the same period (grew by 3.5 times).

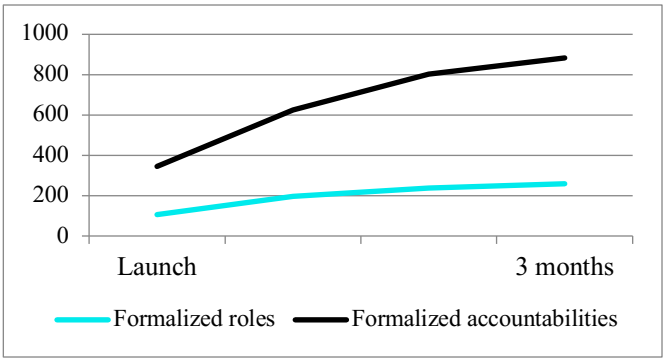



*Figure 2.* Growth in formalized roles and accountabilities at CashCo.

The increase in the number of formalized roles and accountabilities was not a product of growth in headcount, which remained relatively stable during this time. Nor did the growth in formalized roles and accountabilities represent substantial growth in the work for which each individual was responsible. Instead, the increase in role formalization came from efforts to represent what each individual was already responsible for more clearly. A frontline employee at CashCo remarked a few months after adopting the system:

> My job hasn't changed much. I'm still doing the same thing as before, it's just spelled out now. We had a job description previously but it really didn't address everything. It was just a general job description. Now, with [the new system], we're getting specifics - What's your role? What are your duties on a daily basis? It's all written out what you do.

A mid-level employee described the change in the organization:

> Just defining accountabilities to specifics, rather than just this role with a general purpose and some vague accountabilities, which is kind of what the whole company started as [in the new system]…Most of the outputs from governance meetings are that – just getting more specific or changing wording to better reflect what is actually happening.

This increase in formalization also meant that most individuals then held multiple roles, which was due primarily to the codification of secondary work that individuals were fulfilling outside of their primary role. Table 7 highlights examples of adopted proposals that formalized existing work responsibilities more fully.

Table 7. *Examples of Increased Formalization of Existing Work*

| Workgroup | Proposal | Proposer's Rationale |
|---|---|---|
| Software Development | Made changes role: "Agile Development Coach"<br>Accountability added:<br>"Forecasting story points for upcoming sprints" | One of the things that is missing [from the agile development coach role] is we need someone to maintain metrics - story point estimation, task hour estimation metrics. It might be covered by the agile development process domain but it's not explicitly covered [in the role]." (Mid-level employee) |
| Sales | Added a role called "Financial Indirect"<br>Accountabilities added<br>1. "Creating and Presenting quotes to FIN IN accounts"<br>2. "Documenting pricing rules for FIN IN accounts" | "My tension is nowhere is it defined who does the work for quoting for financial indirect customers. I want to create a role to capture the work that's being done." (Frontline employee) |
| Shared services | Added a role called "Administrative Assistant"<br>Accountabilities added:<br>1. "Supporting the work of employees who may need additional administrative resources"<br>2. "Acting as CASHCO's in-house concierge service for CASHCO employees and guests" | "There's an opportunity for a new role. As someone in the group, I'm obligated to do work that I'm doing that doesn't have a home. I still do some support work for [the former CEO and the former President of CashCo]. They're not in this [group] but where does that work live?...I'm going to propose a role." (Frontline Employee) |
| Production | Added a purpose to role called "Planner"<br>Purpose added: "Balance build capacity with customer demand"<br><br>Added a purpose to role called "Test Technician"<br>Purpose added: "All products tested for defects"<br><br>Added a purpose to role called "Documentation Specialist"<br>Purpose added: "Assist with accurate documentation of processes" | "I would like to propose that every role in the group to have a purpose for the sake of clarity. I think having a blank purpose - as the Lead Link of the group, I feel tension around that." (Mid-Level Employee) |

Thus, after decentralizing authority and eliminating traditional management positions, CashCo dramatically increased the degree to which roles were defined and made explicit. In doing so, CashCo exhibited a different structural configuration from the organic conception of the postbureaucratic organization. Like the organic structure, CashCo decenralized authority. However, unlike the organic structure, with its minimal role formalization and ambiguous role boundaries, CashCo dramatically increased role formalization and established clearer and more visible boundaries of responsibility and authority. Highlighting this point, a mid-level employee

in the organization said, “To me, the most important thing we get out of it is or should be getting out of it is clarity about where work lives about who’s doing what and about the boundaries of what individual authorities are.”

Existing theory would view reduction in hierarchical authority and the dramatic increase in role formalization as unlikely to support coordination except in very stable and routine contexts, as well as likely to introduce rigid and binding constraints, which would be antithetical to the goals of postbureaucratic organizing. However, below I describe the how employees attended to and revised the formal role boundaries in ways that supported flexible coordination as well as individual freedom.

**Flexible Coordinating by Attending to and Revising Role Boundaries**. Below, I show how role boundaries, which were clarified and made visible through the governance meeting process, manifested in day-to-day work to support coordination through two ongoing practices. First, individuals attended to role boundaries by regularly visited the online platform to learn their role and others’ roles and being mindful of role boundaries in daily work interactions by acting and interacting within the boundaries of their roles. Second, individuals revised role boundaries as needed to address emergent coordination issues. Notably, the resulting pattern of coordination was flexible, decentralized, and depersonalized relative to conventional bureaucratic forms of coordination.

***Attending to role boundaries.*** Individuals regularly visited the online platform to better understand their own role responsibilities and the roles of others. Most individuals I interviewed described regularly visiting the online platform and subscribing to email alerts that notified them whenever roles were changed. One individual said, “I’m in [the online platform] all the time looking up roles in the R&D and other groups.” Another individual said, “I pretty much

subscribe to most groups in the building. I look at [the online platform] once a day." In the first three months of adoption, individuals visited the online platform more than 30,000 times, or more than 300 page views per day. In the 12 months after adoption, the online platform was visited more than 100,000 times.

Visiting the online platform enabled individuals to learn who was responsible for what work. For instance, a frontline employee said,

> Anybody can go in to [the online platform] and say, hey, I want to know who has the accountability for whatever. And [the online platform] will show you who you can go to. It might be a list of a few names. But at least you know you can go to this person and it points you in the right direction.

The increased clarity and visibility of the role boundaries revealed work that others were doing that was invisible before the new system.

> One of the benefits of the new system is that it brings out a lot of different things that were done in the past that people probably didn't understood were done or who was doing them or why they were doing them…We have a broad brush of tasks and roles… I had [the roles] before but it was somewhat hidden, nobody knew about it. Now it's more out there. Some people have come to me and ask me questions regarding that.

Not only did individuals visit the online platform to learn about others' responsibilities, they also would occasionally check the platform to better understand their own responsibilities. While individuals typically knew most of their day-to-day responsibilities, they could review their roles to ensure they were fulfilling all of their role's responsibilities. A member of the Software Development group said, "Sometimes, I'll go back [to the online platform] and take a look at my accountabilities. I'm still trying to figure out a couple of my accountabilities for the UI Liaison role." Another frontline employee said that the governance meetings and the resulting outputs were helpful for making sure she knew what was expected of her: "I think the governance meetings are really valuable [for] knowing what you're responsible for, what you're being held accountable for, what's expected of you." Thus, by visiting the online platform and

reviewing the formalized role definitions, individuals learned where the boundaries of responsibility resided in the organization – both pertaining to their own roles as well as the roles of others.

The deeper understanding of the boundaries of responsibility supported individuals in attending to the boundaries of roles in the course of day-to-day work. This attention to role boundaries often manifested as individuals volunteering for work that fit "within" the boundaries of their responsibility. For example, in the Product Engineering group, an individual was concerned about the Marketing group not being sufficiently involved in product launches. Another group member, who held a role responsible for defining the process of product launches, volunteered,

> I can make that a checklist item for the Marketing group to make sure we have a plan for that type of communication for the introduction . . . If you want to create an action for me…I would accept that.

When asked by another group member, "It's in the Tech Intro Project Manager role?", this group member responded, "Yes." Notably, individuals would often preface these actions by referencing the role that fit the task or project for which they were volunteering, such as in an Operations group meeting, where one group member volunteered for a task by saying, "In my Forecast role, I can take an action to pull that together by the end of the week."

Attending to role boundaries fostered a sense of separateness between one's self and the role. This distinction between role and self was partly a result of individuals now holding multiple roles, and partly connected to the existence of explicit and visible role boundaries. A senior employee described his intention to bring awareness of his role more deeply into his work experience in a way that could guide his actions and interactions:

> I constantly think - what role am I doing this in?... I try to think about that not only in the meetings but in my daily work and whatever projects I'm doing and whatever

> interactions, I try to focus on - why am I even here? Why am I involved in this conversation? What role am I representing and bringing to this? And I try to stay true to that role, to the accountabilities it has.

Here, the employee speaks about how he first tries to identify which of his roles he's "representing" in a given situation. The term "representing" implies a distinction between his role and his self. The notion of "staying true" to the role suggests how the boundaries of the role serve as a guide for action.

Given that coordination is a collective accomplishment, individuals not only attended to the boundaries of their own roles, they also attended to the boundaries of others' roles. This typically manifested as individuals identifying the appropriate role from which to request help with a task or project. For example, a frontline employee explained that she was in the online platform "pretty much every day" in order to know "if I go to that person they would help me out."

Using the online platform to identify the relevant role for a given work need was especially pertinent for work needs that crossed group boundaries. In an Operations meeting, to address an issue with customers experiencing long wait times when calling the main phone line, the group consulted the online platform to determine which role had responsibility for the company's phone systems. One group member said, "If you look [in the online platform] in Shared Services, you'll see a couple of potentially relevant roles – a Facilities role and a Technology Infrastructure role." Another individual chimed in: "The person filling that Technology Infrastructure role set up our current phone tree. So that would be a good starting point. We can look at the specific accountabilities and see if any of the accountabilities fit." They then reviewed the accountabilities for the role in the online platform and saw that this issue fit within the boundaries of the role's responsibilities. In this way, attending to role boundaries

enabled individuals to identify interdependent roles that were relevant for a given issue and to direct work requests accordingly.

This process of attending to role boundaries and making work requests directly to a role differed from the typical process of channeling requests through a manager in conventional bureaucratic organizations. One mid-level employee explained:

> I needed to ask somebody about new product implementation on the scanner product… Before [the new system], if you needed it, you went to their manager…With the new system and the online platform you can go directly to the role…It got me to the right role, then I emailed that role a question…It was faster and got me directly to the right place rather than just going to the manager.

As this quote suggests, contrary to the prior system where understanding of who did what was implicit and highly localized to individual group members, the clarity and visibility of the role boundaries, as well as the elimination of traditional management positions, enabled individuals to identify the relevant role that fit the work and to reach out directly to that role holder.

The way that individuals attended to role boundaries in support of coordination was perhaps most clearly highlighted by the way employees invoked the names of roles when making work requests. For example, a frontline employee said she made work requests by saying, "Can you help me in your role as [role name]." Another employee explained, "When asking somebody to do something, it's really helpful to be able to point to [formal role] accountabilities. To do that, you have to frame it in the role." This employee felt that referencing roles when making a request helps because *"*[i]t makes it seem like you're not pushing them to do something that they don't want to do." Referencing the corresponding role in making requests established that the request fit within the boundaries of the role, making the request feel more legitimate and less personal. In doing so, such requests served as a way of establishing accountability, a fundamental component of successful coordination (Okhuysen & Bechky, 2009).

A notable example of invoking a role name to support accountability came in an Operations group meeting, where Cameron, who held the Technical Services role, initially resisted a request from Edward, the Lead Link of the group, to investigate the status of invoicing on service contracts and questioned whether this project fit any of his roles:

> Edward (Lead Link): I'm looking for a report that gives us an overall status of our current invoicing for service contracts. Are we behind? Current? Do we need to beat up Finance? I'd like for Technical Services to take that project.
>
> Cameron (Technical Services): I don't have a role in that. I don't have access to invoices anymore.

Note Edward's initial request included reference to the role of Technical Services rather than Cameron the individual. In response to Cameron's resistance to the request, Edward suggested reviewing the Technical Services role in the online platform and pointed to a specific accountability that he felt fit the request.

> Edward: Let's just go and see what accountabilities the Technical Services role has…The one I'm looking at – third accountability – 'Fulfilling service contract expectations in a profitable manner.' Do you think it fits into that third accountability?

Following this exchange, Cameron accepted the request. Edward reflected on the power of invoking the formalized roles for establishing accountability:

> You have to do a little digging to understand what's there but the basic foundation to get the work done is there…Normally, the things that you struggle with as a leader to get somebody to do – set priorities, set goals -– I'm convinced you do all of those things in the new system. You just need to learn the language… Instead of telling someone what to do, I look at what they're accountable for and use that.

Edward's statement highlighted his belief that the roles came to serve a legitimating function in the organization, but the example could also reflect the maintenance of informal power in the hands of those who held formal power before the shift to the new system. After all, Edward used to be a member of the executive team prior to the new system and held the role of Lead Link in the Operations group, a role that while limited in its administrative authorities, still conferred

status to those who held the role. For example, a front-line employee in Customer Service described an instance where she copied-and-pasted a role in an email request to a mid-level employee in another group:

> I made a request to Bill in Engineering. He was saying it wasn't his role and so I copied the role and accountability that I thought fit the request and gave it to him and he never responded back. That's the one time that I had to copy and paste the accountabilities… With Bill, he did it, he just didn't respond. Work is work and personal is personal.

As the employee indicates, these instances of overt resistance were not common. However, by attending to role boundaries and referencing the appropriate role when making work requests, individuals could leverage the legitimacy of the roles to lend weight to their requests, supporting accountability. Thus, the clear and visible role boundaries served as a source of social power in the organization that, unlike legacy hierarchical power, could be invoked by anyone in the organization to support coordination.

***Revising boundaries of responsibility.*** Existing theory suggests that formalization cannot adapt to changing circumstances, making it a poor mechanism for coordination in conditions where new work challenges emerge (Burns & Stalker, 1961; Griffin et al., 2007). In such settings, informal mechanisms of coordination are viewed as more suitable (Okhuysen & Bechky, 2009). However, many coordination issues that theory suggests would be addressed informally were addressed at CashCo by revising formal role boundaries. For example, in the Sales group, sales people were frustrated with not having a standard price list of various products and features easily accessible to quote to customers. Not having this list was causing delays in getting price quotes to potential customers. Rachel, who raised the issue, said, "Pricing is not visible to other departments that may need to use it." She also said, "I honestly don't know how to process it. I don't know where [the pricing work] lives or who it lives with." In response, another member of the Sales group pointed to a role called Pricing and Quote Rules and

suggested, “Possibly, this just needs to be a more robust role with more accountabilities.” Rachel agreed and proposed a new accountability for that role for “Documenting and publishing various pricing for items / parts.” The group accepted this new accountability with minor revisions.

Another example of groups revising formal role boundaries to address coordination issues came in the Shared Services group where a frontline employee who had a role in the employee onboarding process felt that the process was not effective, in part because of a lack of clarity and agreement about who was responsible for what portions of the process. To address this, she successfully proposed adding new accountabilities to a role called Technology Infrastructure to clarify that this role was responsible for creating email accounts, training new employees on the company’s technology tools, and informing her admin role about new email and phone extensions so she could add them to the employee directory. She explained:

> I added accountabilities to…the Technology Infrastructure role because I felt like onboarding process was really not being done in an organized way. It was leading to a lot of holes…[As a result of adding the new formal accountabilities,] I’m less anxious about other people’s work and what is getting done and what is not getting done...Before, I felt it was harder to hold the Technology Infrastructure role accountable for things I wanted them to be doing. And now, I feel like it’s clear that they’re accountable.

Thus, coordination issues that emerged through the course of doing the work were not just addressed informally, they were now also being addressed through revision of formal role boundaries.

Revising formal role boundaries, while enabling flexibility, was not without cost. Doing so required time to develop a proposal for the role change and time for the group to consider and decide on the proposal. Initiating changes formally often took longer than simply making changes informally. For example, a senior employee added a new role to capture a two- to three-month project to manage a customer relationship management (CRM) implementation with an external vendor. The individual described how before the new system, he would have simply

informally assigned the project to someone, and that adding a role through the governance meeting required more time and thought. He said, "[Adding a role in governance] is a more formal process. You have to be a little more thoughtful. Normally,…I would just say, 'We gotta get this done, let's just go do it.'"

While initiating change through formal role revision rather than through informal negotiation took more time, the senior employee felt that it led to a more thoughtful decision about what the project entailed and increased clarity and visibility of the project within the group and organization. He said,

> We discussed why we needed that role. I think we ended up with a better proposal…Now we have a record of that work and a container for that work that we can put some metrics around, and keep it visible. So it's a better end result than me just going to somebody asking them to do it.

In addition, the fact that roles were now explicit made it easier to change. Echoing the lean mantra that you can only change something that has been defined or standardized, the existence of clear and visible role boundaries made it easier for groups to understand how roles needed to be changed when encountering coordination issues. One individual said, "The fact that the new system can make those things explicit in a very healthy way that allows people to understand it and begin to change it where it needs to be changed, is a good thing."

Changes to role boundaries occurred frequently. After codifying existing work roles in the early few months, 1,739 changes were made to the formal roles, or about six to seven changes per day, in the latter months of the first year with the new system. One employee described the frequency of the role changes:

> Probably the biggest part is the meetings that we have and the constant change with what we're doing. With the way that it is, every governance meeting, something you do one certain way could change and somebody else could be doing or it could be done differently, and all it takes is one governance meeting for that change to happen…You really have to keep up with the online platform.

As this individual indicates, while this amount of change could be overwhelming, the clarity and visibility of the changes facilitated a shared understanding of them. One employee—in describing a situation where his group had shifted a responsibility back and forth between roles, not being sure where it should live—said,

> You can pass [the responsibility] back and forth, with clarity…I think the ability to do that was really good. Even though we hadn't figured out the best way to do it. At least we all understand where it was or where we thought it was.

Thus, the high degree of role formalization did not prevent adaptation; rather, groups frequently revised role boundaries in order to address coordination issues. Adapting through formal role changes entailed tradeoffs. On the one hand, formal adaptation often required more time than informal adaptation. On the other hand, individuals appreciated the thoughtfulness and visibility of the formal changes, and the existence of clear and visible role boundaries made it easier to identify how the boundaries needed to change when coordination issues arose.

These data indicate how the clear role boundaries established through the governance meetings supported flexible coordination through two practices: attending to role boundaries and revising role boundaries. CashCo's ability to effectively coordinate even without traditional management positions was evident in the continued positive performance of the company after adopting the new system. In a company all-hands meeting eleven months after adoption, an employee presented the company's quarterly financial performance:

> The numbers are still looking really good…. Extraordinarily good job of staying right on our budget numbers for expenses and revenue...We're ahead of budget on EBITDA. All in all a good news slide...This is something that everybody can be very proud of**.**

Given that sales tended to come in large chunks that were difficult to predict, and the organization's recent scaling, meeting revenue and cost targets without traditional managers was a non-trivial accomplishment.

Role boundaries served as a substitute for traditional managers in many ways. However, as is evident in these data, the resulting coordination achieved by attending to and revising role boundaries was more decentralized and depersonalized than traditional bureaucratic coordination patterns. One mid-level employee and former manager remarked on how accountability was now more peer-to-peer than top-down:

> When what your job is and what you're responsible for is put into a system that the entire organization can see, people work differently. They're not just accountable to me now…They have to be accountable for themselves. Because otherwise, somebody can go directly to them.

In addition, the increasing salience of role boundaries within day-to-day work interactions and the way individuals acted and interacted in roles supported a partial depersonalization of work relations. One employee described how attending to role boundaries made work feel less personal:

> I see it as a way to make it not personal and to make it about the role and the business and not about any of the things that I'm bringing or the influences I have because of my position or formal position or personality or any of those kinds of things.

Table 8 provides additional data documenting the practices of attending to role boundaries and revising role boundaries that supported flexible coordination at CashCo.

Table 8. *Practices Supporting Flexible Coordination*

| Practice | Examples |
|---|---|
| Attending to role boundaries | "In the new system, there are these roles and accountabilities and they are all over the planet. Now when I want something, I still want it. I go look at who has the role or accountability…I go seek out the person who's supposed to be doing it and I request it. I truly mean, request it. I don't tell them." (Mid-level)<br><br>"It took me awhile to grasp it. I was worried about what I should be doing…Now that I have my roles and know what I need to do." (Frontline)<br><br>"What I see the benefit is – the accountabilities are developed by the circle lead links. . . If somebody can't fulfill those accountabilities, it's very clear." (Mid-level)<br><br>"Somebody was terminated from the company today. First termination we've had since [the new system was adopted]. It's a big deal – we have low turnover. The Lead Link of the Customer Service group was able to make a decision with the HR folks quicker than feeling scared to bring it up, worrying about the ramifications. It was just a much easier thing to do for her. She did it in a very compassionate way. She said that talking about her role and fit for her role depersonalized it a bit so that the person could hear this a lot better than they could have heard it in the previous environment." (Senior) |
| Revising role boundaries | "[A useful governance change has been] adding a Purchase Order Processor role. So we can clearly define what [purchase order information] we're receiving from customers, what's holding up orders for customers, whether it's a training need for customers. Just to ensure that purchase orders are accurate and there's no missing information or customers has accurate pricing on their purchase order." (Frontline)<br><br>"We had also created a role called CashCo IT Product Deployment. The person now filling that role is doing some work that was falling through the cracks. It was a need that existed but because there was no role and no one specifically taking the lead on it. It was getting left behind. He is investigating hardware recommendations for deployment of CashCo software…So he's documenting all of that and putting some costs to all of that." (Mid-level) |

Next, I describe how the existence of clear and visible role boundaries and the practices of attending to and revising role boundaries facilitated the enactment of a certain form of freedom and served as a bulwark against the tendency for authority to recentralize.

**Enacting Freedom Through Attending to and Revising Role Boundaries**. As the previous section illustrates, the formalized roles served a constraining function in establishing responsibilities for employees. However, as I show below, the formal role boundaries also supported employee discretion and reinforced the shift in power. By attending to and revising

role boundaries, employees, especially less senior employees, were better able to enact the freedom afforded by the new system.

***Attending to role boundaries.*** Because role responsibilities granted individuals authority to take any action to carry out those responsibilities, reviewing one's role responsibilities in the online platform also helped individuals better understand the boundaries of their authority. A frontline employee said,

> What I like about [the new system] is what is defined for me are my accountabilities and my purpose which even I have control over…The only thing I need to concern myself with is am I working towards my goals and purposes? If I think it does, then I take action and get it done.

A mid-level employee described how understanding his role boundaries provided a sense of the authority he had: "No matter what role you're in, you have the ability to take ownership of that role and bring it to fruition."

Researchers have established the difficulty of changing power in organizations. Individuals given new power may still perceive risks in exercising this power for many reasons, such as overt resistance from defenders of the status quo or subtler signals from organizational leaders that exercising power is not truly welcome (Argyris, 1993; Kellogg, 2009). Attending to role boundaries helped frontline and mid-level employees overcome the perceived risks of exercising their newfound authority. For example, Amber, a frontline employee, encountered a conflict with her Lead Link and former manager. The Lead Link had tried to make a unilateral change to the group's formal roles even though such changes were only to be made through the group's governance meeting process. As the elected Secretary of the group, a role that had responsibility for enforcing the rules of the new system, Amber overruled her Lead Link. She described the fear she felt going against her Lead Link and how the clarity of the authority in her Secretary role helped her overcome this fear:

> It was very intimidating for me because I'm like – here sits the person who used to be my manager…I realized that as Secretary, my role was to make that decision…It's my role. I control it. And I have to make this decision.

Similarly, the Lead Link of the GCC noted how clear role boundaries helped empower a mid-level employee, Ronald, to enact greater autonomy in leading a new construction project.

> One example of positive self-sufficiency would be the way that Ronald has managed the construction project on the other side of the building. That's something that previously [to the new system], I think I would have been more dragged into, and making a lot of detailed decisions around. But under the new system, we made it very clear [in a governance meeting] that they had the authority to make decisions related to that. So that's something that is continuing without me as a bottleneck which is really good.

Thus, by attending to role boundaries, frontline and mid-level employees gained clarity around their boundaries of authority. This clarity, in turn, provided confidence in exercising their newfound authority.

Attending to role boundaries also manifested in individuals referencing role names to legitimate their right to make a decision. One mid-level employee said:

> If I'm sending out an email to make a decision, I often will go back to the online platform and figure out what role I'm in when I'm making a decision. I use the online platform to remind me what role or accountabilities I have. [For example, I will write] "I'm entitled to do this because as a software engineer, I'm required to write good code."

Individuals also attended to role boundaries in turning down work requests that did not fit their role. For example, a frontline employee who had taken on new roles across multiple functional groups, discussed how the existence of clear and visible role boundaries enabled him to turn down requests from more senior employees that no longer fit one of his roles. He explained:

> I think it's also helpful as the demands on my time have gotten more intense and as the organization has grown, to be able to show the boundary and limits on that stuff… If Tech Services needs something written about describing a service plan, they might have asked me to do that, which probably fit the scope of what I was supposed to be doing a year and a half ago. But it probably doesn't anymore and it would have been difficult to communicate that, like 'Hey [Tech Services Lead Link], I don't have time for you anymore, isn't a comfortable thing to say. I'm not even really sure formally how I would have gotten away from that kind of thing.

Turning down work requests from individuals higher in the hierarchy, even those who do not fit one's role, is difficult in a traditional hierarchical authority structure where obedience to superiors is expected. Because the role boundaries were clear and visible to everyone at CashCo, individuals could point to them as a way of legitimating such actions. In doing so, those lower in the organizational hierarchy enacted a form of freedom not typically available in a traditional structure – the freedom to say no to work requests that fell outside of one's role.

Attending to boundaries not only helped frontline and mid-level employees exercise their newfound power, it also provided guardrails that helped to limit senior employees from going beyond their role authority and recentralizing power in their own hands. One way that role boundaries provided such guardrails was by senior employees becoming mindful of not exercising authority beyond their role. For example, a frontline employee who held the Forecast role, Olivia, went to Edward, a senior employee, to ask him what numbers she should use in the forecast she was putting together. Recognizing that Olivia's role gave her authority to make this decision, Edward avoided making the decision for her. He explained:

> Because I happened to be on the exec team [before the new system]…I always had an opinion because I always have opinions as most people do, and I would always be glad to share them. But this [system] is holding me tight to stay in the role that I'm in. So when Olivia was saying, what should I report, what numbers should I report? My response was, well I don't know. You know the numbers and you know what you want them to be. I'm not going to tell you but I'll tell you how to get them and I'll help…So that was good learning all around. Definitely an example of role to role play in a new structure that wouldn't have been there before.

Edward talked about how his awareness of his role's accountabilities helped him "stay in the role," that is, to not cross the boundaries of authority delineated by his role and to respect Olivia's role authority. Despite Olivia asking him to make the decision, he made it clear that the

decision was ultimately up to her. Attending to role boundaries helped former managers regulate their own behavior, reinforcing the decentralization of authority.

The existence of and attention paid to role boundaries did not prevent all senior employees from exercising authority beyond the boundaries of their roles. However, attending to role boundaries made senior employees more conscious of their own transgressions. One senior employee talked about an incident with an employee where he felt he went beyond the boundaries of his role's authority. He said,

> Before [the new system], I would have said, "Change it." Today, I didn't say "Just do it" but that's what I felt. I tried to stay in role. It was one of those situations where I was so frustrated. They're not using their brain… I crossed some lines in a pure holacratic process. There's a fine line between attempting to stay in role and staying in role that we haven't mastered yet.

Here, this senior employee described how, in contrast to the way he would have approached the situation before the new system, he tried to stay within the boundaries of authority granted by his roles in the new system. Notably, he recognized that he "crossed some lines" in exerting power beyond these boundaries.

Similar to frontline and mid-level employees, senior employees also occasionally referenced their role(s) when making a decision to legitimate their authority to do so. For instance, a senior employee said that he referenced his role when making controversial decisions:

> I'm sure there are some people who think I do some things out of role. I'm very careful to say, "In my role as…" I'm kind of averse to conflict anyways. If I'm asking something unpleasant, it's always going to be in my role.

Senior employees referencing their roles in this way indicates recognition that, though others might still defer to them if they exercised authority outside of their role boundaries, decisions made with authority that fell within their role boundaries would be perceived as more legitimate by others.

Thus, individuals across the organizational hierarchy attended to role boundaries in ways that supported employee freedom, especially for less senior employees. Role boundaries supported employee discretion by clearly demarcating zones of authority for each employee. Before the new system, individual boundaries of authority were more ambiguous, which fostered conservatism by frontline employees. One employee explained,

> I was realizing later that the benefits of distributed authority are really just about clarity to me. Prior to the new system at CashCo,…it was really unclear who had what authority. There was no real way to know if you were acting within your authority or not. So you acted within what you expected what your authority likely was. You probably generally erred on the side of caution and occasionally exceeded it.

Attending to role boundaries brought the salience of these boundaries into daily work. These boundaries supported individuals in exercising their full zone of authority and provided guardrails to protect against the recentralization of power by powerful senior employees.

***Revising role boundaries.*** Another way employee freedom was evident in the new system was in the way individuals revised role boundaries to reinforce or enhance their authority. For example, Iris, a frontline member of the Marketing group who held the role of Trade Show Manager, was told by senior employees to bring more units of CashCo's products to a trade show than she thought was appropriate. Even though she felt as if this should have been her decision, out of fear of disagreeing, she went along with what the senior employees wanted. Iris explained,

> We end up with seven machines in a tiny booth and it was too much but I couldn't say no. We need to change that in our next governance meeting. Because the way the new system is designed, you're not supposed to get run over on those types of decisions.

In the group's next governance meeting, Iris proposed a new accountability to her Trade Show Manager role for "determining which products will be displayed at a given show" to clarify that her role had the authority to make decisions around what products to bring to trade shows. She

explained her intent: “Basically, so the line was drawn. Because there was no line. [Before, the role] just said ‘manages trade shows.’ That doesn’t give a clear picture.”

Employees also proposed changes to the formal role boundaries in order to establish new authority to take action. For example, a frontline employee was concerned about the representation of women and minorities within CashCo’s leadership ranks and proposed a new role called the CashCo Statistician to address her concern. The role she proposed was responsible for “Generating statistics regarding CashCo's adoption of the new system that track implementation progress, and address questions including power distance, status, and diversity.” She explained, “I recently became disturbed by the lack of women in leadership roles… I feel really good about passing that [role]. Felt awful about [the issue] before and [passing the role] made me feel more empowered.” A few weeks later, at a company all-hands meeting, this employee posed a question to members of the GCC about the company’s lack of diversity and what the company was doing about the issue. Another group member remarked,

> I thought it was really amazing. It certainly seems that the new system made her feel comfortable asking that question… I think it’s interesting that she’s pushing that envelope and has this role [of CashCo Statistician] and is carrying it out.

In this way, employees established new formal roles to establish the authority to address issues of concern to them.

In an anonymous survey conducted four months after adoption of the new system, 83% of respondents said they felt more empowered or the same as prior to the new system, with a majority saying they felt more empowered (44%). In 21 interviews conducted between months four and eight of the new system, 81% said they felt more empowered or the same (57% said they felt more empowered). One frontline employee elaborated on his increased autonomy, “I do

feel more empowered that I can make calls. I can prioritize what I feel is right, as long as I'm meeting my goals."

Thus, despite theoretical suggestions to the contrary, the existence of a high degree of role formalization did not create overly binding or oppressive constraints on individual freedom. These data indicate how the existence of clear role boundaries and the practices of attending to and revising role boundaries supported greater employee discretion. Table 9 provides additional data documenting the ways that employees attended to and revised role boundaries in support of employee freedom.

Table 9. *Practices Supporting Employee Freedom*

| **Practice** | **Examples** |
|---|---|
| Attending to role boundaries | "I just see that the way to lead is different now. Authority is not given from your manager or your manager's manager. Authority is given from your peers. Because your peers help craft your responsibilities for your role." (Mid-level)<br><br>"The biggest temptation when people who have been managers are looked to for a leadership decision, we tend to take them. It's a matter of self-control, saying I don't know. What role should make that decision? Who's in that role? It's easy to say, we should go this way." (Senior)<br><br>"Whereas before I would just sit back and – okay, yeah, I'll do that – instead of asking why are you asking me to do this? That's not my role. If I'm the only person that can do it, yes I'll do it, but technically, that person should be doing it. That would be the biggest change that's happened with me with the new system. ..I went from being the quiet, reserved, I'll do whatever you ask me to do, to the, wait, let me ask you a question, where does this fall? Why am I the one getting put in this position, standing up for myself." (Frontline employee) |
| Revising role boundaries | "Adding these accountabilities to myself and the Technology Infrastructure role made me feel comfortable to create this shared google doc that does hold me accountable….I felt like it gave me confidence and feel like I had more of a right to create a more specific employee onboarding google doc." (Frontline)<br><br>"[Governance meetings are] really interesting in the ability to shift authority around in an organization. I feel like power is one of these base desires. The new system tries to defuse it in an interesting way by spreading out to roles instead of people…But it's really interesting to sit there and watch Bryant and Ryan have this power struggle. I want authority for this. You couch it in this belongs in Marketing and this belongs in Sales. I want you to have to take on these projects. It's a group of people pushing and pulling." |

**Understanding the Conditions Under Which Role Formalization Supports Flexible Coordination and Employee Freedom**. Contrary to theoretical prediction, the data presented above illustrates how decentralizing authority but increasing role formalization were able to facilitate flexible coordination and employee freedom. Understanding how and why this case diverges from theoretical prediction requires understanding how the conditions under which roles were formalized differed from traditional perspectives on the effect of role formalization.

***Roles were formalized within the context of a decentralized authority structure.*** Most perspectives on role formalization take for granted that roles are formalized within a hierarchical authority structure. Only managers get to define and change roles, and, once defined, roles establish responsibilities but rarely grant equivalent authority to execute against those responsibilities. As a result, roles are an extension of hierarchical control rather than a substitute for it.

At CashCo, roles were formalized within the context of a decentralized authority. This decentralized context manifested in two ways. First, roles were formalized via a participatory rather than top-down process. Because any individual could propose a change to the formal roles, this allowed those closest to the work to participate in defining the roles, which enabled the roles to reflect what each person was doing in greater detail and breadth. In the governance meeting described above, Ira's proposal to more precisely delineate his work responsibilities from Holly's responsibilities would have been difficult for an outsider, even a manager, to initiate. In other cases, individuals made proposals to codify work they were doing that was largely invisible and not known by others. For example, in a governance meeting of the Sales group, a frontline employee proposed a new role to, as she put it, "capture work" that she was doing but that hadn't been codified yet. She explained, "It's currently work that [another employee] and I do…but it

doesn't fall into one of our existing roles." From the discussion of the new proposed role, most members of the Sales group clearly did not know that this work was even being done. For instance, one group member said, "After hearing this, I definitely feel like we need this to be clarified." Another member said, "Yeah, if this role existed, it would have saved me time the last two weeks."

Another aspect of the participatory nature of the process was that each proposal received feedback from the group and required consent of each group member in order to be adopted. The fact that every group member had the opportunity to ask questions, provide feedback, and object or consent to the proposed role formalization fostered agreement within the group about what was to be captured in the formalized role. One employee said, "There's a lot of value around the team deciding [on proposals]. When a group decides on a [proposal], there's a lot of adoption. There's buy-in." The high level of agreement around the roles gave them social power in day-to-day work to establish and enforce accountability as well as to legitimate authority.

The second way the decentralized context manifested was that each role responsibility also granted equivalent authority to execute against the responsibility. In a traditional hierarchical authority structure, roles or job descriptions typically define boundaries of responsibility but not authority. Managers largely hold the power to choose how much authority or discretion to grant to subordinates. Typically, the boundaries of delegated authority are circumscribed within boundaries of responsibility, leading to the experience of having responsibility without authority (Hackman & Oldham, 1976).

At CashCo, the boundaries of responsibility and authority were identical. As a result, individuals were motivated to define and change formal roles in part to gain authorization to carry out certain actions. This motivation is revealed in the data presented above showing

frontline employees proposing new roles and responsibilities for themselves in order to establish their authority. This feature of the context made role formalization not a purely constraining function, establishing accountability, but also an empowering function, granting authority.

***Formalized roles were made visible to the entire organization.*** Second, rather than roles being visible only to one's manager and HR specialists, all roles were made visible to the entire organization via the online platform. Aiding visibility, the online platform had a search function that allowed individuals to look up who held what role or which role held responsibility for a given piece of work, and individuals could also subscribe to email alerts for each group whenever the formalized roles were changed.

The visibility of the role boundaries was critical to what I observed in two ways. First, visibility enabled a shared understanding to emerge about where the role boundaries in the organization were located. When roles are not visible, individuals can understand their own role boundaries but not others' role boundaries. Visibility enables individuals to understand others' roles and allows for these understandings to be shared and aligned across individuals in the organization. Shared understanding, in turn, is a fundamental enabler of coordination (Okhuysen & Bechky, 2009)

Second, the role boundaries on the online platform served as concrete and tangible representations of role boundaries that enabled individuals to engage with the roles intersubjectively, such as referencing them in interactions and discussing changes to them in governance meetings. Ultimately, by making role boundaries visible, individuals could attend to the boundaries in a collective way and collectively discuss how they could change when issues arose.

***Formalized roles were frequently revisited and easily revised.*** In contrast to conventional organizations, where formal roles are infrequently revisited, at CashCo, formalized roles were revisited frequently in regular governance meetings. Across the organization, groups held governance meetings recurrently, every two to four weeks in the first six months after adoption and every four to six weeks after the first six months of adoption, to discuss changes or additions to the group's formal roles. If issues arose between scheduled governance meetings, individuals could propose formal role changes via email.

In addition, the threshold for making changes to the formal roles in governance meetings was low. In meetings, proposals were adopted unless individuals had a valid objection. Objections were only valid if the proposal was likely to cause harm. Objections based on differences of opinion or because there was a preferable option were not reasons to reject the proposal. As a result of this threshold, the vast majority of proposals I observed were adopted. This created a bias towards change and enabled a sense that all aspects of the formal roles were provisional rather than final. One senior employee articulated this view,

> If somebody comes up with a proposal that I don't agree with, or there's a better way but not vastly better, this thing will work itself out over time. I don't have to jump up and down and say, we can't do that. I can let it go knowing that there's a process in place that if it starts causing problems that we'll be able to come back to it.

Thus, the frequent revisiting of formal roles and the ease of revising them enabled the formal role boundaries to keep up with changing circumstances and coordination needs. It also gave frontline and mid-level employees the ability to define and redefine their role boundaries in ways that increased their freedom to take action in the organization.

Thus, the three conditions under which roles were formalized at CashCo – a decentralized context, technology to make roles visible, and regular revisitation of roles – account for why the

configuration of decentralized authority and high role formalization were able to support flexible coordination and employee freedom when existing theory would suggest otherwise.

**Trade-offs Associated with Organizing by Clear and Dynamic Role Boundaries**. While drawing clear role boundaries and engaging in the practices of attending to and revising those boundaries enabled CashCo to resolve one core tension—how to enable freedom and flexibility while maintaining coordination—organizing in this way introduced other trade-offs.

***The individual over the collective.*** While the increased attention paid to individual role boundaries supported both coordination and individual freedom, it also led at times to a myopic attention on one's individual roles at the expense of the broader collective. One Lead Link said, "We have focused a little bit more on outlining what roles we have rather than outlining our main focus of making the team stronger. It hasn't necessarily weakened the team but it hasn't made the team stronger." Similarly, a mid-level employee who was leading an effort to help CashCo enter a new industry vertical expressed frustration that the finely drawn role boundaries made galvanizing collective action more challenging:

> I would suggest that before, in a traditional hierarchy, if I needed to wrestle authority to the ground, work the system to effect change,…I could make an articulate case to a couple of stakeholders, get them on board and that would disseminate downstream and we'd start to execute. In this environment, I have 40 people that I need to get on board…I'm finding it difficult with the new system to develop shared resources and meaning. It's difficult as a group to develop a strategy or direction that cuts across groups, or even roles.

As both of these quotes indicate, the increased salience of individual role boundaries reduced the salience of team and organizational boundaries. This can be contrasted with the organic structure, which reduces the salience of individual role boundaries and focuses attention on team boundaries (Barker, 1993; Burnst & Stalker, 1961). Thus, while the formalized roles enabled a clearer collective understanding of who was responsible for what and who had authority for

what, it also fragmented attention and authority, impeding the mobilization of collaborative effort across roles.

***Formal roles over cultural values.*** Second, the attention paid to formal role boundaries as a way of legitimating actions involved a trade-off with the salience of cultural values at CashCo that placed the customer first. Some individuals expressed concern that the company's cultural values had become less important following adoption of the new system as attention to formal role boundaries had increased. One individual said,

> We used to run things by the core values, which were, do what you have to do to help the customer, make things right for the customer, and don't be afraid to change…I felt like I could push against anyone if I felt they were violating the core values…Whereas now you can say that, but the response is, "That's my role," or "What role are you coming to me in this?"

An associated shift away from cultural values of doing what's right for the customers was the emergence of individuals turning down extra role requests. A Product Manager in the R&D group explained:

> Some of the adopters of the new system seem to be unwilling to take on something that is not a very clearly defined accountability. That is a very different experience to my startup background where everyone pitches in and does everything. There was a task that needed to be taken on to support my product and the most logical person for that to fall to said it's not an accountability of theirs. So we had to create a role with an accountability to get them to take it on…it seemed like more effort than it required to get it done.

On the one hand, this example highlights how formal role boundaries could be redrawn to address these situations. On the other hand, it illustrates how the attention paid to formal role boundaries could lead to excessive preoccupation and adherence to these boundaries, reminiscent of classic descriptions of bureaucracy (Merton, 1940). These complaints tended to be directed towards individuals who were perceived as less motivated and lower performing employees but not in all cases.

In order to combat the emergence of this behavior, senior employees started re-emphasizing the cultural values of the organization, which they felt attenuated this issue somewhat. However, these data suggest that organizing by clear and dynamic role boundaries involved a shift from normative forms of control towards a more bureaucratic basis of control. This is the opposite shift that research on postbureaucratic organizing typically assumes (e.g. Barker, 1993; Kunda, 2009).

***Impersonal over personal***. As described above, attending to and revising role boundaries fostered a depersonalization of work and work relationships. This depersonalization manifested in individuals using the names of roles when speaking and making work requests, engaging with each other as representatives of roles, and focusing attention on the roles and the work rather than the people filling the roles.

Depersonalization involved trade-offs and tensions in the way individuals experienced work. Some individuals reported that being able to point to a clear role made it easier to hold others accountable. One individual described work requests with role names as "cleaner." Also, when coordination issues arose, the practice of revising role boundaries oriented attention on the role itself rather than the person filling the role. This made it easier to focus on addressing work issues without blaming individuals. One individual explained,

> It's no longer about assigning blame. It's where are the gaps in our processes, accountabilities, policies that allowed this type of an outcome? That's a whole different way of problem solving. That allows people to say, I've got a problem.

Depersonalization also led to less attention paid to how role changes would affect the individuals involved. Instead of worrying about individual feelings, more attention was given to whether a change would improve the structure and the organization. For instance, in one governance meeting of the R&D group, an individual successfully proposed creating a product

management subgroup that would increase focus on the product management process, but that also meant that several individuals' roles were moved into this subgroup and they no longer attended the R&D meetings. After the proposal, one individual remarked, "This is my last meeting in this group," but the comment was largely ignored. Thus, while formal role changes often elicited emotions, the process put focus on what role structure made the most sense for coordination, not on the emotions of those affected.

The focus on work over people elicited complaints about lost connection and weakened relationships in the new system. One individual said, "The new system is pretty cold," while another remarked that, "It was much more of a team environment, family environment [before adopting the new system]." Individuals complained that organizing around roles rather than people ignores the humanness of the individual. One Lead Link said,

> As a middle manager, you hire people who have certain strengths. You find that they are really good at some things but not others. You play to their strengths. You give them those things to do….He's a person—he has strengths and weaknesses. He's not a role with accountabilities.

In addition, others thought that while many role-based interactions could seem impersonal on the surface, personal feelings were often in play. An individual said,

> You go into a meeting and add an accountability on a role. You've probably asked that person filling the role to do that and not been successful in getting what you need…I think it often comes across as personal and sometimes it is personal.

Another individual similarly complained that individuals often addressed issues through role changes that would have been better addressed through a direct conversation with the individuals involved. "[There are] lots of examples where role-to-role big people adult conversations could have prevented lots of wasteful governance." These comments reveal how the ease of revising formal role boundaries led some to avoid difficult conversations and instead try to address issues through role changes.

Thus, the depersonalization of work and work relations fostered by the increasing focus on role boundaries introduced new trade-offs. On the one hand, it helped focus attention on the work, which supported easier accountability, less personal blaming, and more rational role structure. On the other hand, by ignoring the emotional impact of role changes, the new system fostered a greater feeling of disconnect between individuals and introduced a new way for individuals to engage in passive-aggressive conflict avoidance.

***Change over stability.*** As shown above, the ability to regularly and easily revise roles shifted the organization towards greater formal structural change. This shift along the stability/change continuum involved trade-offs. On the one hand, this enabled high degrees of structural flexibility and opened the door for experimentation. For example, in the R&D group, within the first three months of adopting the new system, they reorganized the group into product lines rather than functions. However, three months later, they switched back to a functional division of roles in the group. As Oren, the former CEO said,

> I've seen the most experimentation in R&D. And I don't think we would have seen as much without the new system…I don't think every innovation they've tried has worked. But it's a helpful experimentation that could lead to insights and could be used in other parts of the company.

The frequent role changes within the governance meetings allowed for incremental improvement and rapid iteration of the formal role structure.

In addition, the new system enabled easier and more frequent role switching. For example, several months into the new system, the Lead Link of the Marketing and Sales group switched roles without any forewarning. Others commented on the frequency of role switching:

> I think [the new system] makes [role switching] easier to do. In a traditional system, there would be more questions about why is this happening? Why is this person moving from here to there? But in [the new system]…it's very easy to do.

Some felt confused, anxious, and overwhelmed by the degree and pace of change. Compounding this anxiety, the results of a structural change were transmitted via email alerts typically without any prior warning or communication. One member of the R&D group said, "We move [groups and roles] around here so much. It's like follow the ball under the cup. What cup is the ball under now?" In addition, the switching of people between roles also took its toll on some individuals who thought it introduced greater ambiguity and uncertainty in the organization.

> What makes it less clear today is that role fillers change constantly…The area of work changes on a 90-day basis. Since April, I've been in 9 roles in 3 or 4 groups…The pace of change and the lack of well thought out or forecasted consequences of change has made it a lot less clear.

Thus, while the frequent and easy revision of roles enabled flexibility and experimentation, it also at times introduced uncertainty, anxiety, and confusion.

Thus, the shift towards organizing by clear and dynamic role boundaries, while enabling flexible coordination and employee freedom, also involved other trade-offs. These trade-offs included a decreased focus on collaboration across roles, the emergence of formalism in the process of attending to role boundaries, less attention to personal and emotional facets of work interactions, and increased uncertainty and stress from frequent and continuous role changes.

## Discussion

**Implications for theories of postbureaucratic organizing.** Past work on postbureaucratic organizing has focused on one particular approach to transcending the limitations of bureaucracy: namely, the organic structure (Burns & Stalker, 1961; Foss, 2003; Mintzberg, 1979). The essential finding of this past work is that by reducing formal structural constraints, both the vertical constraints associated with hierarchical authority, along with the horizontal constraints associated with role formalization, organizations can enable greater

employee freedom and organizational flexibility. However, this research has also established the difficulty of sustaining coordination and control in an organic structure (Foss, 2003; Mintzberg, 1979; Turco, 2016).

The present study explores an alternative approach to transcending bureaucracy: rather than decentralizing authority and reducing role boundaries, the organization I studied decentralized authority but created clear and dynamic role boundaries to compensate. In doing so, these role boundaries provided direction and protection: direction by establishing clear responsibilities, and protection by demarcating clear zones of authority within which employees could exercise discretion. In addition, the role boundaries enabled flexibility by establishing a shared understanding of work responsibilities that served as a common starting point from which to discuss changes to the role structure.

This research proposes that freedom and flexibility need not come through greater ambiguity in role boundaries (e.g. Mintzberg, 1979; Tan, 2014). Rather, clear role boundaries can enable freedom by serving as a bulwark against the tendency of power to centralize. In addition, clear role boundaries can provide a common understanding and language that collectives can use to interrogate and change how they are organized.

Notably, these data reveal that organizing by clear and dynamic role boundaries introduced some dynamics reminiscent of classic descriptions of bureaucracy and other dynamics that diverged strongly from these descriptions. First, the increasing formalization of roles and the depersonalization of work relationships characterized both the new system at CashCo and theories of bureaucracy (Perrow, 1972; Weber, 1946). Bureaucracy is based on rational-legal authority, or a system of authority in which legitimacy comes from impersonal rules and formal offices rather than from personal sources such as charisma or social status.

In some ways the system at CashCo, by eliminating hierarchical rank as a legitimate basis of authority, went further than traditional conceptions of bureaucracy in shifting towards impersonal forms of authority. Scholars note that Weber's (1946) description of bureaucracy represents a mix of impersonal and personal forms of authority. Whereas authority is ordered by impersonal rules, the supervision of lower offices by higher ones allows for personal authority that is dictated by personal whims rather than rational rules (Edwards, 1979; Gouldner, 1954; Perrow, 1972). The system at CashCo, in contrast, by defining legitimate authority as that which came from a formal role and eliminating hierarchical rank as a legitimate basis for authority, went further than most descriptions of bureaucracy.

However, unlike classic conceptions of bureaucracy, the highly formalized roles at CashCo were highly dynamic and changed frequently. In addition, individuals had high levels of autonomy and discretion over how they did their work and the opportunity to expand their authority through role revision. From this perspective, the approach to postbureaucratic organizing at CashCo represents not an antithesis of bureaucracy but rather a dynamic and empowering variant of bureaucracy.

**Implications for theories of decentralized and role-based coordination.** This study also has implications for our understanding of how coordination can be achieved in decentralized contexts. Recently, coordination scholars have called for research that explores mechanisms for fostering accountability without centralized planning or hierarchies (Okhuysen & Bechky, 2009). Past work has established role-based coordination as a potentially powerful mechanism of coordination in less-hierarchical and less-bureaucratic settings (Bechky, 2006; Faraj & Xiao, 2006; Valentine & Edmondson, 2012). Roles provide clear and common understanding of accountability that facilitates the collective performance of interdependent work (Okhuysen &

Bechky, 2009). When roles are well understood, through professional training or via institutionalized role structures, they can enable coordination without relying on hierarchical authority or centralized power (Bechky, 2006; Faraj & Xiao, 2006). However, this past work does not explain how role-based coordination can substitute for centralized planning when role understanding is not already institutionalized or otherwise established in the organizational context.

This study shows how common understanding of who does what can be established, transmitted, and continually revised through a participatory process for defining and changing role boundaries and using technology to make these roles visible to the entire organization. Furthermore, this study sheds light on the micro-dynamics of how individuals attend to and revise role boundaries in day-to-day work in ways that enable flexible coordination.

This study also has implications for our understanding of emergent coordination. Coordination theory typically contrasts formal, planned, top-down mechanisms of coordination, such as organizational design and formal structure (Fayol, 1949; Thompson, 1967), with informal, emergent, bottom-up mechanisms, such as communication and knowledge sharing (Bechky, 2003; Faraj & Xiao, 2006). However, this study highlights how emergent bottom up processes of coordination can leverage formal roles. Coordinating through clear and dynamic role boundaries exhibit the benefits of both formal mechanisms of coordination—their clarity and visibility—and also emergent mechanisms of coordination—their flexibility and dynamism.

**Implications for theories of formalization.** Finally, this study has implications for our understanding of the enabling potential of formalization. In contrast to classic studies of organizational formalization that have emphasized its coercive and rigid character (e.g. Burns &

Stalker, 1961; Weber, 1946),[10] scholars in the last two decades have sought to reclaim the enabling possibilities of formalization and have examined the conditions under which formalization can foster positive organizational outcomes (e.g. Adler & Borys, 1996; Bigley & Roberts, 2001; Briscoe, 2007; Bunderson & Boumgarden, 2010). While scholars note that formalization can coexist with individual freedom and autonomy, this case study takes this insight a step further by highlighting how formalization can actually support individual freedom. Formalized roles at CashCo helped reinforce the shift to a more empowered work context by establishing clear boundaries of authority and allowing individuals to participate in the formalizing process. Clear boundaries of authority provided transparent guidelines that helped junior employees feel comfortable exercising power while also serving as guardrails limiting senior employees from recentralizing their power. A converse of this finding is the recognition that informality and ambiguity, though typically associated with employee freedom (e.g. Baker, 1992; Kellogg et al., 2006), can often be the most coercive of all social environments (Freeman, 2013; Stinchcombe, 2001). Without adequate safeguards and boundaries, informal social life will often exhibit institutionalized patterns of power and hierarchy.

**Limitations, Future Directions, and Implications for Practice**

This case study serves, in many ways, as a demonstration proof that a configuration of low hierarchical authority and high role formalization exists and the implications of such a configuration. As such, it enables the development of a preliminary theory. However, because it is a single case study, the generalizability of the findings and the ability to delineate precise boundary conditions are limited. Future research should explore what conditions are needed to successfully organize by clear and dynamic role boundaries. What level of employee

[10] Gouldner's (1954) notion of representative bureaucracy is a notable exception

engagement and organizational commitment is needed? What size and types of work are more or less conducive to organizing this way? Are there scale limits to such approaches?

Future research should explore the consequences of organizing through clear and dynamic role boundaries on outcomes other than flexible coordination and employee freedom. For example, one of the primary motivations for adopting postbureaucratic forms of organizing is to foster creativity and innovation (Hamel, 2007; Lee & Edmondson, 2017). Data from this case study suggests that such a configuration may have negative consequences for collaboration, a key antecedent to innovation (Singh & Fleming, 2010; Wuchty, 2007). More generally, future research should compare organizing through clear and dynamic role boundaries with conventional organic structures and explore the conditions under which organizational designers should choose one versus the other.

Another limitation of this study is the time frame of data collection. Because data were collected for 12 months, this study cannot establish whether the dynamics described persisted over a longer period of time. It is possible that individuals become desensitized to formal role boundaries, and over time, rely increasingly on implicit understandings of role responsibilities in their day-to-day work, rendering formal role boundaries less salient and less powerful. Future research should explore these types of systems longitudinally and examine how the dynamics described here persist or evolve over time.

These finding have a number of implications for practitioners. For managers, even those operating in traditional managerial hierarchies, this study suggests that one way to foster greater empowerment is by increasing clarity of role boundaries, making these role boundaries visible, and granting authority to execute against role responsibilities. For organizational designers looking to reduce top-down hierarchical decision-making, this research suggests that one should

not instinctually throw formalized roles out with the hierarchical bath water. Instead, one should carefully consider how to incorporate alternative mechanisms of coordination that can compensate for the loss of hierarchical authority. Finally, these findings may have relevance for inter-organizational collaborations. Such collaborations typically feature autonomous agents and the absence of hierarchical authority (O'Mahony & Ferraro, 2007). Such collaborations may be able to foster accountability without hierarchical authority by clearly defining roles and responsibilities, making these roles visible, and regularly revisiting roles as conditions change.

This case study shines light on the power of making understandings of responsibility and authority in an organization clear and revisable. The clarity of collective understanding can reduce the need for managerial direction, enabling greater self-management, and the revisability of these understandings can enable dynamic adaptation as conditions change. This study points to the existence of a third way of organizing between the control of traditional bureaucracies and the freedom of conventional organic designs. These findings suggest the possibility of enabling freedom and flexibility without sacrificing coordination.

## Chapter 4. The Consequences of Radical Decentralization on Employee Experience at Work

Organizations are increasingly interested in adopting decentralized authority structures, or those that shift authority down the hierarchy. According to a global study conducted by Deloitte (2017), 88% of organizational leaders responding to the survey said that making organizations less hierarchical and more empowered was important for the future success of their business.

Organizations have many motivations for adopting decentralized structures, but among the most salient is creating a workplace that motivates and engages its employees and empowers them to contribute to their full potential. The popular rhetoric related to decentralization proclaims its value for creating a workplace that engages and empowers employees (Hamel, 2007, 2011; Laloux, 2014). From a theoretical perspective, decentralized authority structures improve employee work experience because they satisfy basic human needs for control and autonomy (Deci, Connell, & Ryan, 1989; McGregor, 1966).

Yet, research on the effects of adopting decentralized authority structures (such as participatory management or self-managed teams) remains mixed at best. The balance of research on the effects of decentralizing authority reveals mostly positive effects on individual work experience. Studies have found improved job satisfaction with the adoption of self-managed teams (Cordery et al., 1991) and worker participation initiatives (Hodson, 1996). Research has also established the benefits of decentralized structures for other employee outcomes such as motivation and commitment (Cordery et al., 1991; Cotton et al., 1988; Hodson, 1996).

However, studies have also found null or even negative effects of decentralized structures on work experience (Barker, 1993; Cotton et al., 1988). In addition, scholars have noted that efforts to decentralize authority often fail to achieve their intended effect (e.g. Argyris, 1998). These cases point to the difficulty of changing power in an organization and the variance in individual experience that naturally occurs when pursuing the decentralization of authority in a hierarchical organization. As a result, some have argued that scholars should be less interested in whether or not decentralized structures improve work outcomes but under what conditions and for whom it does (Hackman, 1986).

Understanding the effects of decentralizing authority is further complicated by the practical difficulty of studying the adoption of decentralized structures in a methodologically rigorous way. Decentralization initiatives are costly and risky in organizations and difficult to study through experimental designs that allow for causal inference (Hackman, 1986). Most studies in this body of research measure decentralization (or empowerment or autonomy) as a naturally occurring variable in an otherwise hierarchical structure and use a cross-sectional design where causal direction must be interpreted (e.g. Langfred, 2000; Kirkman & Rosen, 1999). Such studies do not really examine the effects of a decentralized structure but rather exploit variance in how authority is informally delegated and enacted in a hierarchical structure. Furthermore, many studies of self-managed teams examine student teams that have no pre-existing hierarchical relationship – raising nagging questions of external validity.

This research examines two questions prompted by existing theory and research on decentralizing authority in organizations: 1) what are the effects of adopting decentralized structures on employee work experience?, and 2) what factors account for variance in individual experiences with decentralization? This study examines these questions by conducting a

controlled field experiment in a state government agency where the treatment was the adoption of a decentralized structure called Holacracy. Leveraging interviews, observations, and diaries as well as survey data, I find that adopting a decentralized structure had highly varying effects on individual empowerment, engagement, and job satisfaction with no main effect overall. Furthermore, I examined factors that moderate the effects of a decentralized structure and find that decentralization had positive effects for those individuals high on three factors: job performance, interest in operating in a decentralized structure, and psychological safety. These findings deepen our understanding of the consequences of decentralizing authority and provide novel insights into when and for whom decentralizing authority improves empowerment, engagement and job satisfaction.

## Relevant Literature

**The consequences of decentralizing authority on employee experience.** Current knowledge of the effects of adopting decentralized structures on individual work experience draws from separate streams, among them the literature on self-managed teams, empowerment, participatory management, and high involvement work systems and strategic human resource practices.

However, not all decentralized structures are the same. Rather, they differ along two key dimensions. First, decentralization can differ by degree – incremental to radical. Incremental decentralization shifts some authority down the hierarchy but retains the essential hierarchical authority structure where managers have authority over subordinates. Examples of incremental decentralization include empowerment initiatives and programs that give employees the freedom and flexibility to choose work hours and work locations (e.g. Kelly et al., 2011). Radically decentralized structures eliminate the authority relationship between manager and subordinate so

that individuals no longer have a manager in the traditional sense. Instead, they become self-managing. Examples of radical decentralization include self-managed teams (e.g. Barker, 1993) as well as self-managing organizations (Lee & Edmondson, 2017). Second, decentralization can differ in its locus – either the individual or the group. The former shifts authority downward to individuals, whereas the latter shifts authority downward to groups. For example, programs that give individuals flexibility to choose work hours and locations represents decentralization to individuals, whereas self-managed teams represent decentralization to groups.

The primary streams of research on the effects of decentralizing authority can thus be arrayed on a two-by-two graph depicted in Figure 3. Whereas the existing research on the effects of decentralization falls under the incremental-individual quadrant and the radical-group quadrant, the present study examines a decentralized structure called Holacracy that falls in the radical-individual quadrant. Unlike many participation initiatives which decentralize some authority, Holacracy radically decentralizes authority so that individuals no longer had to consult with managers about any decision related to their jobs. In addition, unlike self-managed teams, which radically decentralize authority to groups, this intervention radically decentralized authority to individuals.

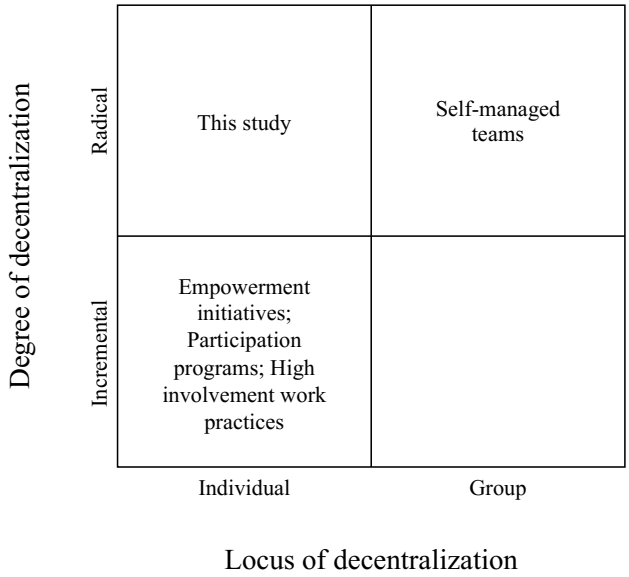



*Figure 3.* Typology of decentralized structures.

Thus, little research has been done specifically on the effects of decentralization structures that radically decentralize authority to individuals on employee outcomes. Existing research suggests that individual vs. group decentralization can have different effects on group functioning (Langfred, 2000). However, whether or not different forms of decentralization have different implications for individual experience outcomes is unknown. Thus, one impetus of this study is to examine the effects of a unique form of decentralization that has not been studied in prior research – namely, radical decentralization to individuals.

**Moderators and boundary conditions for the efficacy of decentralizing authority.** A second impetus of this study is to better understand when and for whom decentralization has positive effects on employee empowerment, engagement, and job satisfaction. Evidence on effects of decentralizing authority on employee experience is not conclusive – mixed results have been found. Some prior research has found a positive relationship between decentralizing authority and job satisfaction and organizational commitment (Cordery et al., 1991; Hodson, 1986; Jackson, 1983; Jenkins & Lawler, 1981; Lawler, Mohrman, & Benson, 2001). However,

in a review of empirical studies of participation initiatives, Cotton et al. (1988) concluded that research on the effects of participation initiatives on job attitudes is mixed:

> The effects participation in work decisions has on job attitudes are inconsistent. Although four of six studies found improvements in satisfaction, this improvement was statistically significant in only two. Latham and Yukl (1976) found a decrease in job satisfaction.

Furthermore, in Barker's (1993) ethnographic study of a manufacturing organization that adopted self-managed teams, while the adoption of self-managed teams did produce notable improvements in employee motivation and engagement, over time, it led to an increasingly pressurized work situation driven by peer pressure that created high levels of stress and emotional exhaustion. Quantitative field studies have similarly found that decentralization can lead to increases in stress and ultimately turnover (Cordery et al., 1991; Wall et al., 1986).

These mixed results, as well as the challenges associated with adopting decentralized structures, has led some scholars to suggest that the effects of decentralization are likely to be complex and multi-faceted and to encourage research into the conditions under which decentralization has positive effects. For example, Hackman (1986) wrote about self-managed teams that:

> My observations of self-managing units suggest that they frequently are found at both ends of the effectiveness continuum… Self-managing units, then, are somewhat akin to audio amplifiers: Whatever passes through the device-be it signal or noise-comes out louder. Thus, a question of potentially greater practical and conceptual interest presents itself: What factors account for the difference between those self-managing units that perform superbly and those whose performance is abysmal? (p. 100)

This research takes up this call. Leveraging a 12-month controlled field experiment in a state government agency and utilizing multiple methods, this study examines the effects of adopting a structure that radically decentralizes authority to individuals and examines the factors that predict when and for whom such a decentralized structure supports greater empowerment, engagement, and job satisfaction.

## Methods

To study the effects of radical decentralization embodied by Holacracy, I leveraged an opportunity to conduct a quasi-experiment in the field using Holacracy as the treatment. This new system decentralized authority in three primary ways. First, it gave formal authority to each non-manager member of the group to make any decision related to his/her role(s) without needing to ask for managerial approval. Second, it replaced the typical manager-led structure of the group's meetings with a more participory structure where a non-manager member facilitated meetings and any group member could raise an agenda item to be discussed in the meeting. Third, it allowed any group member to propose a change to the group's formal roles. All proposals were discussed by the group and had to receive the consent of everyone in the group in order to be adopted. In these ways, the treatment eliminated the superior-subordinate authority relationship and constituted a form of radical decentralization.

While previous literature has investigated the effects of varying forms of decentralization, such as empowerment programs, self-managed teams, and participatory decision making, the intermediate state of the theory and the fact that Holacracy was sufficiently different from the forms of decentralization in prior studies meant that I drew from but could not build directly off of prior work. As a result, I entered the field with general propositions rather than precisely-formed hypotheses. I utilized multiple methods, combining qualitative data collection (interviews and observations) with quantitative survey data, which is appropriate for developing intermediate theory (Edmondson & McManus, 2007). Once collected, I used the qualitative data to develop insight into how individuals were experiencing radical decentralization, what variance, if any, existed in individual experiences, and what possible factors were driving variance in experience.

I used the insights developed from my qualitative data to refine my theoretical propositions into specific hypotheses, which I then tested using the survey data.

**Research setting.** This research took place at the State of Washington's chief information technology agency, Washington Technology Solutions, also known as WaTech. WaTech serves as the state's central provider and procurer of technology projects and services. It was created in 2015 as a consolidation of three existing state departments and employed approximately 500 people at the time of the study in 2016-2017. The goal of the consolidation was to centralize the state's IT services to improve coordination and efficiency. WaTech contracts with other state agencies to provide phone, email, VPN, and other technology-related services. In addition, WaTech also manages state technology infrastructure and provides development and support for enterprise applications, such as human resources and payroll applications, that are used by the state government. At the time of the study, WaTech provided services to about 100 state agencies as well as more than 200 other government organizations, such as counties, cities, and tribes. WaTech's operating budget in 2016, the year the experiment launched, was approximately $175 million.

My contact at WaTech was the agency's deputy director who oversaw the agency's "e-government" services. My contact had recently piloted Holacracy in his organization, a group of about 15 people. As a result of the group's success with this small pilot, my contact sought to pilot this same system in a broader subset of the organization. He felt that in order to compete for the talent, state government needed to innovate on creating a workplace that empowers people to contribute to a higher purpose. He also felt it was important to collect rigorous data about the efficacy of the pilot so that it could inform future decisions about how the organization would be structured.

I made contact with the deputy director as he was starting to plan the larger pilot. He allowed me to design the pilot as a field experiment to maximize the ability to draw casual inference from the results. We spent ten months designing and preparing for the experiment and launched in May of 2016. The experiment ran for twelve months and ended in May of 2017. The agency's director supported the experiment and emailed the entire staff to encourage them to participate. However, no one was forced to participate. In addition, my contact was not the hierarchical superior of anyone outside of his e-government organization, which reduced the likelihood that individuals felt coerced or pressured to participate.

Two aspects of the organizational context are notable as they relate to the experiment. First, the agency was going through a period of change during the experiment. Because multiple agencies had recently merged to form WaTech, structural changes and consolidation were ongoing during the experiment. This led to a few teams and individuals moving within the organization during the experiment. More broadly, the recent and ongoing organizational changes created a sense of uncertainty, fear, and at times, frustration in the agency's employees. It was not uncommon in my interviews to hear that people wished the three agencies had not merged and complained that they didn't have a sense of what the leadership was envisioning with the new consolidated agency. Second, these thoughts were compounded mid-way through the experiment when an external audit of the agency revealed a $10M budget shortfall. While this did not lead to any substantial layoffs in the organization (and no layoffs in experimental teams), I did encounter some expressions of increased frustration and concern in my interviews during this period. These factors point to the fact that this experiment occurred in an organization context not particularly conducive to radical decentralization of authority, and as a result, can be considered a conservative test of the effects of decentralizing authority.

**Research design.** The focus of the study was to explore the consequences of decentralization on employee outcomes and the factors that might make decentralization more or less effective at improving employee work experience. I leveraged a quasi-experimental field experiment with a comparison/control group and used qualitative and quantitative data collection in order to examine both the effects of decentralizing authority as well as the factors that might drive variance in the effect of decentralizing authority on employee empowerment, engagement, and job satisfaction.

Condition assignment for the experiment was made by formal group, defined as a manager and each of his/her direct reports. The treatment involved adopting a modified version of Holacracy, which is typically adopted by an entire organization or organizational unit. We modified it so that it could be adopted by a single group. The treatment involved the same three forms of decentralization used in the initial pilot by my primary contact.

Because we could not force a group to adopt the treatment, before assigning groups to experimental conditions we asked each manager and his/her direct reports whether or not they wanted to opt in or out of the experiment as a group. My contact gave a formal presentation to the entire agency about the experiment, its aims, and what participation in the experiment would entail, including the surveys that would be conducted. I reviewed the presentation to ensure that it remained neutral on the effects of decentralization and emphasized that the goal of the experiment was to learn about the effects of decentralization rather than validate that they were positive. Each group was asked to discuss the experiment as a group and to decide if they wanted to participate in the experiment; 39 formal groups comprised of 265 individuals, or about half of the agency, decided to opt into the experiment. We did not closely monitor how groups came to these decisions, but anecdotally I learned that in some cases groups decided as a whole whether

to participate. In other cases, managers decided on their own with little input from the group. In at least one case, group members pushed reluctant managers to opt into the experiment.

After determining the experimental participants, I administered a baseline survey to participants prior to treatment assignment measuring our focal variables. I conducted the baseline survey before condition assignment so that the data from the survey could be used during the condition assignment process.

Condition assignment was made with two basic aims. First, we assigned groups to ensure that no individual was part of both the treatment and comparison condition. The hierarchically-linked nature of groups in the organization – i.e., the manager of a lower-level group is also a non-manager member of a higher-level group – made this a non-trivial concern. To accomplish this, experimental groups linked hierarchically were included in the same experimental condition. This rule also served to reduce spillover between experimental and control conditions, which was a concern given that all individuals worked in the same building.

The second aim of treatment assignment was to minimize concerns about selection bias. I utilized the baseline survey and other data to test for balance across condition on key observables. I utilized survey data to ensure that the condition assignment did not produce differences on key outcomes of interest—empowerment, engagement, job satisfaction—as well as the desire to operate in Holacracy and education level. I also ensured that the resulting condition assignment did not reveal noticeably different types of work represented by condition. The agency's sole focus on providing information technology services mitigated this concern somewhat. However, one distinction meaningful inside the organization was between technical roles such as software development and non-technical roles such as business support,

communications, and customer service. Both conditions contained a mix of individuals doing technical and non-technical work.

These two rules served to limit the number of possible condition assignments. Thirty of the 39 groups formed four clusters that within each cluster were hierarchically linked. Thus, all groups in a given cluster had to be assigned to the same condition. The remaining 9 groups were randomly assigned to one of the two conditions to achieve balance in total numbers of individuals and on observable characteristics. In the resulting assignment, 131 individuals and 21 groups were assigned to the treatment, and 134 individuals and 18 groups were assigned to the comparison group.

Once assigned to a condition, my contact emailed all experimental participants to notify them of their condition assignment. I helped craft the emails to ensure that the tone was unemotional for both groups and designed to minimize feelings of resentment toward those in the comparison group or feelings of being chosen by those in the treatment group. For example, the email to participants from both groups said, "You shouldn't read anything into the group assignments - our only goal was to create the most scientifically valid experiment we can." In addition, communication to the comparison group included emphasis on how they were to play a crucial role in the experiment:

> Although your team won't be operating in Holacracy during the experiment, in many ways you will play the most important part in the yearlong experiment. Your continued engagement, by completing the follow-up surveys as well as participating in experiment-related trainings, are critical for making this experiment a success.

Once assigned, individuals in both groups received training that represented the launch of the experiment. The treatment condition received training on the rules of decentralization in Holacracy. Individuals in the comparison condition received training on the benefits of managers encouraging participation from their direct reports. We offered this training to the control

condition to provide both conditions with exposure to the research team and to ensure that any differences we observed between the conditions were the result of actual decentralization and not knowledge about the benefits of decentralization.

Following the initial training, participants in the treatment condition also received external facilitation support to help them learn the new decentralized meeting format. This facilitation support came from external trainers and occurred only during weekly meetings (about 1-2 hours a week). This support lasted one to two months depending on the comfort of the group. Also, these external trainers offered periodic trainings (once every 2 months) to help individuals who were interested in further support in adapting to the system of radical decentralization.

The experiment lasted 12 months. Follow-up surveys were administered at 6-month and 12-month intervals to individuals in both experimental conditions. In addition, I conducted interviews and observations throughout the experiment. At the end of 12 months, groups in the treatment category were allowed to continue utilizing the system of radical decentralization or could return to their previous mode of operation.

**Data sources.** The study involved two different streams of data collection that occurred simultaneously: one qualitative and one quantitative. Qualitative data collection involved conducting interviews and observations of individuals and teams in both conditions, as well as inviting participants to complete a weekly online diary entry about their work experience. I simultaneously conducted quantitative data through surveys at baseline, 6 months postlaunch and 12 months postlaunch.

***Interviews and observations.*** Interviews and observations were conducted directly before the experiment started and throughout the 12-month experiment. I observed 71 meetings across eight groups (six from the decentralization condition and two from the comparison condition)

though the vast majority of the observations (66 meetings) focused on four groups from the decentralization condition. Groups were selected to achieve variety on group task type (technical vs. non-technical). Meetings were tape recorded and transcribed where possible. For meetings that could not be recorded (due to seating arrangements not conducive to capturing audio of the entire group), I took detailed notes.

I conducted 86 interviews across eight groups (65 interviews of decentralization condition members and 21 interviews of comparison condition members). Interviews were semi-structured: my protocol included a consistent set of question prompts but allowed room to probe for emergent themes. I consistently asked each individual to describe their experience at work and probed specifically on how empowered they felt in their jobs. For those in the decentralization condition, I also asked what, if any, changes they had experienced in their work experience as a result of Holacracy. I also asked each interviewee about their relationship with their managers and overall job satisfaction. All interviews were taped and transcribed.

***Online diary.*** Six weeks after the launch of the experiment, I began sending out a weekly link to a short online survey that served as a work diary. The short survey asked open-ended questions about their feelings of empowerment that week and (for those in the treatment condition) any thoughts about the treatment intervention. A total of 1767 entries were logged across both conditions over the course of 46 weeks.

***Survey.*** For my analysis of the effects of decentralization, I focused on three key employee outcomes that decentralizing authority is purported to effect: empowerment (Spreitzer, 1995), engagement (Green, Finkel, Fitzsimons, & Gino, 2017), and job satisfaction (Cordery et al., 1991). I measured empowerment using the scale developed by Spreitzer (1995). Instead of including all 12 items, I shortened the scale to include all three items from the autonomy

subscale, two items from the impact subscale (e.g. “My impact on what happens in my team is large”), and one item each from the competence scale (“I feel I have mastered the skills necessary for my job”) and meaning subscale (“The work I do feels meaningful to me”). Engagement was measured using two items from the Utrecht Work Engagement Scale (Seppala et al., 2009): “I am enthusiastic about my job” and “I am immersed in my work.” Job satisfaction was measured with two items: “I am satisfied with my job” and “I feel that I am able to use my full expertise and talent at work.”

To assess possible moderators of the effects of radical decentralization, the existing research on decentralization was not mature enough to enable precisely-drawn hypothesis testing of specific moderating variables. Instead, I drew on my prior experience studying radical decentralization in other organizations to identify variables that capture characteristics of individuals or their context that could plausibly explain differences in individual experiences with decentralization. I included standard individual difference and demographic measures such as the big 5 personality traits, education level, and race as well as individual different measures related to power and hierarchy, such as proactive personality (Thompson, 2005), assertiveness (Randolph & Sashkin, 2002), authoritarian personality (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), power distance orientation (Kirkman & Shapiro, 2001). In addition, I included an item measuring their interest in operating in a decentralized structure which ended up serving as a key moderator. I also included measures of group dynamics that have been implicated by previous research on decentralization and empowerment at work, including psychological safety (Edmondson, 1999), group cohesion (Langfred, 2000), relational and task conflict (Langfred, 2007), team performance (Cohen & Ledford, 1994), team coordination (Barker, 1993), and

managerial style (Conger & Kanungo, 1988; Wageman, 2001). I also had managers rate each of their direct reports on job performance, job ownership, proactivity, and voice.

The qualitative analyses revealed four potential moderating factors that closely matched variables measured in the survey: job performance, interest in operating in a decentralized structure, psychological safety, and managerial style. To assess job performance, managers were asked to rate their direct reports' "overall job performance" on a scale from 1 to 10. I measured interest in decentralization through the survey item, "How much would you like your team to operate in Holacracy?" (5-point scale). I measured psychological safety using three items adapted from the scale developed by Edmondson (1999). I measured managerial style with four items such as "My manager micro-manages me" and "My manager requires getting his/her approval before I make decisions in my job," where higher scores indicate greater control and micro-managemnet. Unless otherwise indicated, all survey items used a 7-point scale with 1 labeled "strongly disagree" and 7 labeled "strongly agree." A full list of relevant survey items is presented in Appendix B.

Once developed, I cognitively tested the survey with three individuals at WaTech suggested by my contact, two of whom were in the e-government organization and not participating in the experiment, which is important for ensuring that survey questions make sense for the local context (Alaimo, Olson, & Frongillo, 1998). Small edits were made to improve clarity but all items were maintained.

Aside from a few survey items added to the follow-up surveys midway through the experiment, each survey assessed all outcome and independent variables. The response rate for the baseline, 6-month, and 12-month surveys were 90%, 81%, and 66% respectively. The

sample size of individuals who took the baseline and 12-month surveys was n=130 while the size of the sample that took all three surveys was n=123.

**Findings**

**Variance in individual experience with decentralization.** In the interviews and observations I conducted during the course of the experiment, I observed a great deal of variance in the experience of individuals in the decentralization condition. There was a fairly even split between those who expressed positive sentiments about how decentralization had impacted them, and others who felt that either nothing had changed or their work experience had worsened.

Some individuals reported a noticeable shift in their work experience and empowerment. For example, one individual talked about how he no longer asked his manager for approval for things that he would have in the past:

> Being the junior – it was always check before you do something, either out of insecurity or what. Respect the hierarchy. Now I can just do things. There's no real consequence for things if you know what you're doing. Eliminating that was nice.

Another individual spoke about how the decentralization had improved multiple aspects of her work experience, from empowerment to engagement to her relationships.

> I guess the biggest [changes] for me have been really that breaking down of the hierarchy and feeling like I'm on a cohesive team. I think it probably helped interpersonal relationships and conversations as well because I felt more empowered than the typical admin role would be, both outside of the meetings and in the meetings. And felt like I could, maybe ask more questions, get more insight onto different topics, just because of how the Holacracy meetings were set up. Outside of it, I felt more successful at my job, more purposeful, and genuinely more happy to be on the team, and feeling more invested.

However, other individuals thought that their work experience and levels of empowerment had not changed. One individual said, "We are not doing anything differently than we were prior to Holacracy. I don't feel any more empowered and am highly skeptical that

Holacracy will improve anything at this agency." Another individual thought that his experience had worsened since the launch of the experiment,

> I have seen destructive and morale impacting issues coming out of Holacracy. Team members are trying to change how they work for personal reasons that would have negative impact to the team. This 'experiment' has me the closest I have been to looking for a new job in my 25+ years with the state.

Table 10 includes additional qualitative data highlighting variance in individual experiences with decentralization.

Table 10. *Variance in Individual experiences with Radical Decentralization*

| **Positive** | **Negative** |
|---|---|
| I'm encouraged by the open-mindedness and empowerment that comes with trying Holacracy. | I feel that Holocracy is just a label for the way we have always worked as a team |
| I am glad that we're trying Holacracy because the process brings transparency to what folks are doing or not doing at WaTech | We are not doing anything differently than we were prior to Holacracy. I don't feel any more empowered and am highly skeptical that Holacracy will improve anything at this agency. |
| Working within Holacracy is empowering but I have to work outside of the groups in the hierarchy a lot and there not so much... | We had two holacracy meetings. We will never get that time back and the taxpayers will never get their money back. |
| I am glad we are trying Holacracy. Government workers, even the best producer, can tend to become complacent. This week I witnessed a co-worker stepping up and getting engage in getting things done instead of complaining about how things are not happening. I think this is thanks to her involvement in Holacracy. | I defend the Holacracy experiment. Lots of outside folks don't understand it. I am still concerned that [my manager] doesn't understand her role. We continue to get help that is not her accountability or in her role. Most days it feels like nothing has changed. |
| Meetings are going well, we cover a lot of ground and more information is shared then before. I feel like I can bring up any topic in our meetings. | It seems like we only practice Holacracy in the meetings - it's status quo otherwise. |

**Sources of variation in individual experience.** I analyzed the qualitative data to identify insights into what factors drive variance in individual experience with decentralization. Analysis of the qualitative data revealed that factors influencing variation could be categorized into two types: those that reflected differences in individual characteristics and those that reflected differences in group context.

***Individual characteristics – job performance.*** I observed that certain employees appeared to be more capable and ready to run with the newfound authority the treatment had given them. Many of the employees who seemed most comfortable in the new system were individuals who, based on my interviews with managers and others on the team, were highly motivated in their jobs and also highly competent. For instance, in one group, one employee, Jim, who seemed less engaged in his job and was viewed as a mediocre performer by his manager, complained frequently about how his manager was micro managing and how that impacted his ability to feel empowered. He said in his diary, "I was questioned extensively about how much time I took to do a task. If this continues, I may have to get another job." Karen, on the other hand, was considered a high performer in her group and even though she also felt her manager was micro-managing, believed that the onus was also on them as group members. She thought that decentralization had pushed her to act with greater empowerment:

> Some of our old habits are waiting on approval, trying to get manager support. Another one I would like to break free from is trying to get everyone's buy in and support before you take an action. For example, there was a task that one of our team members was working on. Outstanding for 6 months. He was looking at the task and asked, what do you think you should do? [One group member] suggested to do it like this, but I'm thinking this and [another group member] is thinking something else. I finally said, you're doing the task – do what you think you should do. It was really uncomfortable…I think that's another habit we need to break from.

In another group in the decentralization condition comprised of many individuals who seemed disengaged in trying to exercise their new authority, one of the group's non-manager leads thought very differently. Even though she was already empowered before, she believed decentralization was pushing her to act with even greater autonomy:

> What's probably changed the most would be – even before I didn't ask for permission so much but I would run things by [my manager]. Whereas now, I would just more tell her. There's a difference. Back then, I wasn't asking for permission but it was making sure it was within the bounds, so in a sense it was asking for permission. I wanted to make sure I

> wasn't stepping over bounds. Now, I'm not asking for permission anymore….It feels great, because I'm not asking permission. I'm just doing it.

Thus, the qualitative data suggest a relationship between those who benefited most from decentralization and job performance.

***Individual characteristics – interest in decentralization.*** Although all teams had opted into the experiment, the qualitative data reveal that some individuals were more open to operating in a decentralized structure than others. For example, in an early meeting of a group in the decentralization condition, one individual who seemed fairly disengaged in the decentralized meeting format, asked how much the experiment was going to cost the agency and expressed that he didn't think the agency should be spending money on this.

Meanwhile, other individuals in the decentralization condition were enthusiastic and engaged in exploring how their work experience could be different with decentralization. For example, one individual who reported believing her work experienced had noticeably improved as a result of the decentralized structure noted,

> I'm glad were trying Holacracy because personally I like challenge. I like trying something different…I think there's a bit of a culture change. I think people who are really giving it a try with Holacracy and trying to adopt the practice are more willing to make change, are more willing to speak up and talk about the issues that bug them.

In general, individuals spoke about the difficulty of shifting to a decentralized environment. It required a shift in mindset from the previous hierarchical mode of operating which could be uncomfortable and entailed risks. One individual said,

> Some people don't want to shift their mindset, because once you shift that mindset, you take on full responsibility for yourself, your tasks, etc…There's a cushion if you ask for it but nobody is going to oversee you. I think that's a little scary.

Those who reported benefits from decentralization also seemed the most interested in and open to making the shift to a decentralized structure.

***Group context - psychological safety.*** A third source of variance in employee experience with decentralization suggested by the qualitative data implicated the local group context in which individuals were operating. I found that individuals in some groups reported that it was too risky to exercise the newfound authority they were given, generally because they felt their manager was not actually receptive to such behaviors. For example, in one group in the decentralization condition, the manager communicated in exasperated and frustrated tones that made group members feel defensive and afraid to take risks. In a meeting of the group I observed, the manager asked a group member why a task was not completed earlier. She said,

> I'm trying to figure out why this [task] took us the whole day. I never saw any communication. I had an assumption that this was going to be done at noon. I'm trying to figure out why we lost a whole day.

In response, the group member who worked on this task replied,

> I didn't realize that's what I was agreeing to. I thought it was something that I could do at 6 pm after people have left which I'm willing to do. I wasn't able to do that before I left for lunch.

After further back and forth, with the manager getting increasingly agitated, the group member said, "I wasn't aware that I had made a commitment or noon. I thought it was a choice. I keep hearing that it was a disappointment. It feels like there is some blaming going on," to which the manager replied, "I'm not blaming anyone. I'm asking for open honest communication." The group sat in silence after this statement and no resolution was achieved.

Multiple members of this group described the group climate as one that pre-dated the experimental launch and that made it difficult for feeling empowered. One member said, "I'm trying to feel empowered, by taking actions without asking permission. And on a number of occasions there have been complaints about actions I take…This clearly makes me not feel empowered."

In other groups, there was a sense of open communication and connection between group members that translated to energy and engagement within the new decentralized structure. A member of one group where this openness existed chimed in,

> We have weekly ops meetings. We process a lot of things. We get a lot done. I can contribute. I can bring up stuff and ask others to work on things…It just seems to work so well and we often get done early with a lot of information exchanged.

This same individual said the group's members were exercising more authority with decentralization than before. He said, "Before, on a scale from 1-10, if it was 3, they'd ask for approval. Now they do things up to 7 or 8 [without asking for approval]." Another member of this group, who joined the group after the experiment had begun, described the energy and openness she observed upon joining the group:

> It was very different [from my meetings with other groups] and seeing the energy from the group. They had experienced so much success from Holacracy. We had canceled so many of [the manager]'s 1-1s with her direct reports because they were having such great conversations and even more success within the Holacracy meetings.

While members of this group reported that communication and openness had improved since the experiment launched, they also acknowledged that it was positive before the experiment. This aligned with my observations of the first decentralized meeting of this group after the experiment's launch. After this meeting, I wrote in my field notes how open and engaged the group was: "I thought this was a really well functioning meeting. There were a lot of agenda items and they seemed to be substantive and required other people in the room." Thus, the qualitative data suggest a positive relationship between psychological safety and individual experience with decentralization.

***Group context – managerial style.*** A final source of variation that I identified in my qualitative data was the role of the manager and his or her managerial style following adoption of decentralization. Radical decentralization meant that managers were being asked to shift the way

they engaged with their group members. Individuals reported widely different experiences with how their managers were adapting to this new environment.

Some individuals reported that their managers, while struggling at times, were starting to change the way they interacted with them. For example, one individual said,

> I think that my legacy manager is cognizant of, and attempting to be, a Holacracy practitioner. She is still figuring out what this means on the whole, but she is on the right path. This reinforces the liberty I already have to do my job.

Another individual who reported feeling "very empowered" talked about his manager's style as "Not a lot of hands on management. She'll come by when she needs something. It's fairly hands off."

Other individuals reported that their managers continued to micro-manage after adopting decentralization. One individual wrote in a diary entry, "[My manager] needs to learn what it really means to be empowered and let us do our work. If we need help, we will ask for it. Unsolicited help can be a barrier to moving forward." Another individual wrote,

> I don't know if you've noticed but we haven't let go of the hierarchy model. There's still – people look to [the manager] for her approval but I also think [the manager] does expect that. I don't think there's been a shift there in terms of level trust.

In summary, these the qualitative data revealed a high degree of variance in individual experience with decentralization, which suggests that we should expect to find a small or null main effect of decentralization on employee empowerment, engagement, and job satisfaction in our survey data. In addition, the qualitative suggest four factors that help explain when and for whom decentralization improves individual experience outcomes: job performance, interest in operating in a decentralized structure, psychological safety, and managerial style. Next, I test these insights from the qualitative data using the survey data.

**Survey analysis.** Means, standard errors, and correlations for the focal variables appear in Table 11.

Table 11. *Means, Standard Deviations, and Correlations*

| | Mean | s.d. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| 1. Empowerment (12 months) | 4.98 | 1.03 | | | | | | |
| 2. Engagement (12 months) | 5.14 | 1.20 | .71** | | | | | |
| 3. Job satisfaction (12 months) | 4.64 | 1.50 | .69** | .75** | | | | |
| 4. Manager-rated job performance (baseline) | 7.58[a] | 1.85 | .10 | .18 | .14 | | | |
| 5. Enthusiasm for decentralization (baseline) | 3.27[b] | 1.15 | .04 | .13 | .08 | .07 | | |
| 6. Psychological safety (baseline) | 5.51 | 1.16 | .42** | .32** | .38** | .28** | .02 | |
| 7. Managerial style (baseline) | 2.65 | 1.27 | -.21* | -.24** | -.22* | -.31** | -.09 | -.50** |

[a] 10-point scale

[b] 5-point scale

* p<.05

** p<.01

***Testing for main effects.*** To test for main effects of decentralization on the individual employee outcomes of empowerment, engagement, and job satisfaction, I conducted ordinary least squares (OLS) regressions. Using baseline values of the relevant outcome variable as a control (i.e. empowerment, engagement, job satisfaction), I regressed the 12-month value of each outcome on the dummy variable indicating whether the participation was in the decentralization condition. I clustered the standard errors by group.

Decentralization was not a statistically significant predictor of the dependent variables in any of these models. These models are included in the Appendix C. These results suggest that we cannot reject the null hypothesis that formal decentralization had no effect on 12-month employee empowerment, engagement, or job satisfaction controlling for baseline empowerment, engagement, and job satisfaction, respectively. In other words, as expected based on the qualitative data, there was no main effect of decentralization on empowerment, engagement, or job satisfaction.

***Testing for moderation – job performance***. To test whether baseline job performance (as rated by a supervisor) moderated the relationship between decentralization and employee experience outcomes, I controlled for the baseline empowerment (or engagement or job satisfaction) and then regressed the 12-month empowerment (or engagement or job satisfaction) on decentralization and job performance (measured at baseline), as well as the interaction between the two.

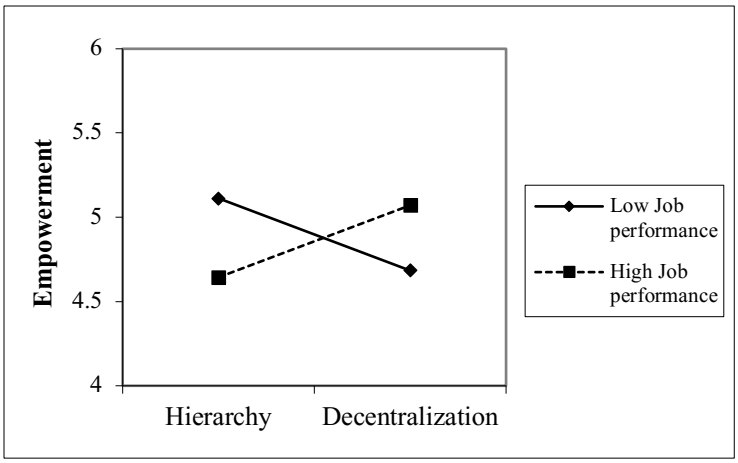
The results, which are displayed in Table 12, indicate a statistically significant interaction between decentralization and baseline job performance in predicting all three employee outcomes. These results indicate that job performance level moderates the effect of decentralization on employee empowerment, engagement and job satisfaction.

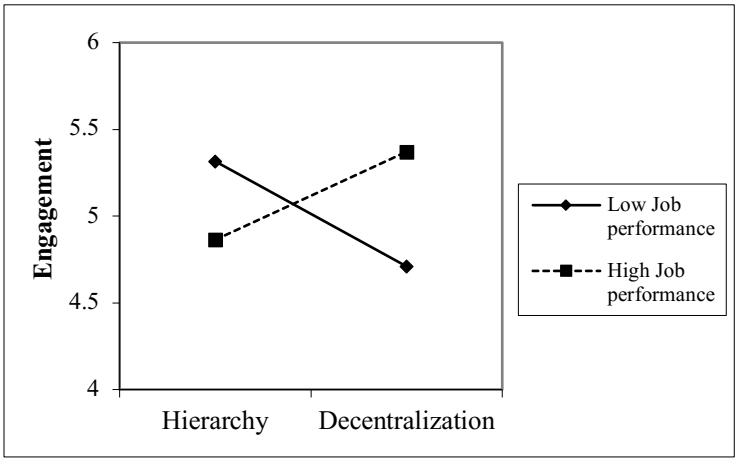
To aid with interpreting this interaction, I plotted the simple slopes of one standard deviation above and below the mean level of job performance for each regression (Aiken & West, 1991). As Figure 4 indicates, decentralization improves empowerment, engagement, and job satisfaction for high performers but appears to negatively impact these same outcomes for low performers. To test this interpretation statistically, I compared each of the simple slopes to zero. For each employee outcome, the t-tests reveal that the simple slopes for the relationship between decentralization and each outcome for both high performers and low performers was different from zero.

Table 12. *Regression Analysis of Manager-Rated Job Performance as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction*

| Empowerment | | | | Engagement | | | | Job Satisfaction | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** |
| Baseline empowerment | .75 | .07 | 10.92** | Baseline engagement | .72 | .09 | 7.78** | Baseline job satisfaction | .70 | .06 | 10.83 |
| Job performance | -.12 | .07 | -1.85 | Job performance | -.12 | .06 | -2.03 | Job performance | -.18 | .09 | -2.13* |
| Decentralization treatment | -.00 | -.09 | -.01 | Decentralization treatment | -.05 | .15 | -.32 | Decentralization treatment | .19 | .17 | 1.12 |
| Decentralization x Job performance | .23 | .08 | 2.66* | Decentralization x job performance | .29 | .09 | 3.27** | Decentralization x job performance | .32 | .11 | 2.97** |
| $R^2$ | .55** | | | $R^2$ | .49** | | | $R^2$ | .49** | | |
| F(df) | 36.96 (4, 27) | | | F(df) | 21.31 (4, 27) | | | F(df) | 35.9 (4, 27) | | |

* $p < .05$
** $p < .01$



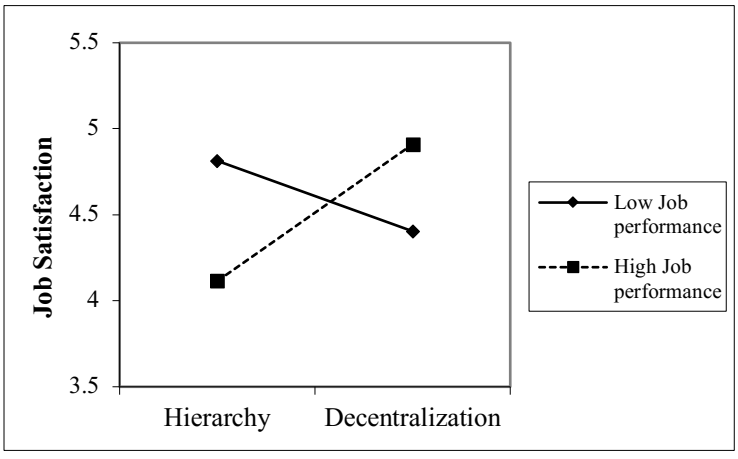




*Figure 4*. Simple slopes for moderation analysis of job performance.

***Testing for moderation – interest in operating in a decentralized structure***. To test whether interest in operating in a decentralized structure moderated the relationship between decentralization and employee experience outcomes, I controlled for the baseline empowerment (or engagement or job satisfaction) and then regressed the 12-month empowerment (or engagement or job satisfaction) on decentralization and interest in decentralization (measured at baseline), as well as the interaction between the two.

The results, which are displayed in Table 13, indicate a statistically significant interaction between decentralization and interest in operating in a decentralized structure in predicting all three employee outcomes. These results indicate that interest in decentralization moderates the effect of decentralization on employee empowerment, engagement, and job satisfaction.

To aid with interpreting this interaction, I plotted the simple slopes of one standard deviation above and below the mean level of interest in decentralization for each regression (Aiken & West, 1991). As Figure 5 indicates, decentralization improves empowerment, engagement, and job satisfaction for those who are interested in operating in a decentralized structure but appears to negatively impact these same outcomes for those who are less interested. To test this interpretation statistically, I compared each of the simple slopes to zero. For empowerment, the t-tests comparing the simple slope for low performers was statistically significantly (p=03) and marginally significant for high performers (p=.053). For engagement, the t-tests comparing the simple slopes to zero for low performers was significant (p=.01), but it was not significant for high performers. For job satisfaction, the t-tests indicate that the simple slopes were positive and different from zero for high performers (p=.048) but not different from zero for low performers.

Table 13. *Regression Analysis of Interest in Decentralization as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction*

| | **Empowerment** | | | | **Engagement** | | | | **Job Satisfaction** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | ***b*** | **s.e.** | ***t*** | | **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** |
| Baseline empowerment | .72 | .06 | 11.46** | | Baseline engagement | .69 | .08 | 8.53** | Baseline job satisfaction | .68 | .06 | 10.56** |
| Interest in decentralization | -.09 | .05 | -1.65 | | Interest in decentralization | -.12 | .09 | -1.30 | Interest in decentralization | -.05 | .07 | -.66 |
| Decentralization treatment | -.72 | .24 | -3.01** | | Decentralization treatment | -1.17 | .40 | -2.92** | Decentralization treatment | -.83 | .42 | -1.95 |
| Decentralization x enthusiasm | .22 | .07 | 3.04** | | Decentralization x enthusiasm | .33 | .13 | 2.58* | Decentralization x enthusiasm | .27 | .11 | 2.42* |
| $R^2$ | .51** | | | | $R^2$ | .46** | | | $R^2$ | .46** | | |
| F(df) | 46.30 (4, 29) | | | | F(df) | 28.53 (4, 29) | | | F(df) | 39.64 (4, 27) | | |

* $p < .05$
** $p < .01$

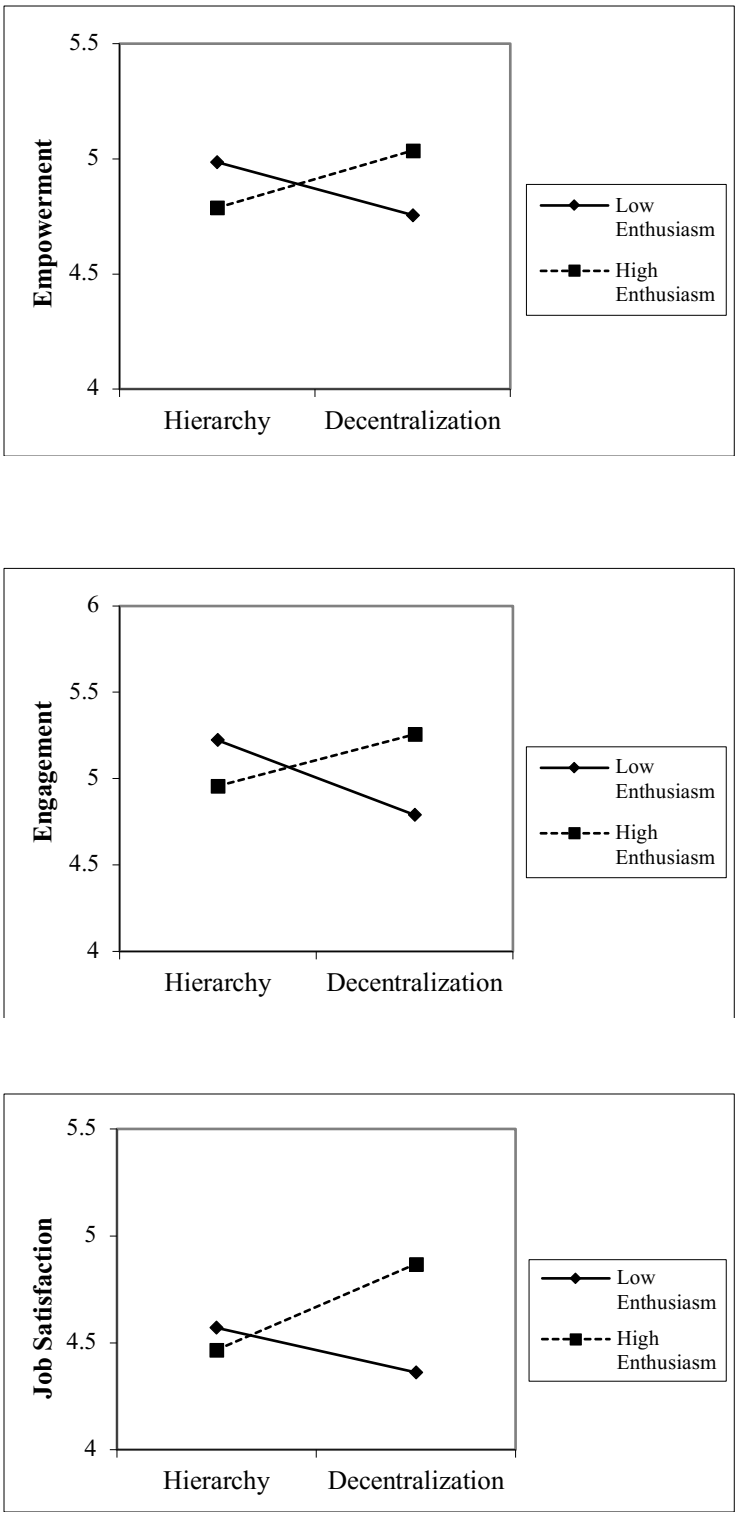



*Figure 5.* Simple slopes for moderation analysis of interest in decentralization.

***Testing for moderators - perceptions of group psychological safety.*** To test whether baseline psychological safety moderated the relationship between decentralization and employee experience outcomes, I used the same procedure, controlling for the baseline empowerment (or engagement or job satisfaction) and then regressing the 12-month empowerment (or engagement or job satisfaction) on decentralization and perception of group psychological safety (measured at baseline), as well as the interaction between the two. I also restricted this regression to those who remained on the same team from the baseline survey to the 12-month follow-up, which reduced our sample size somewhat.

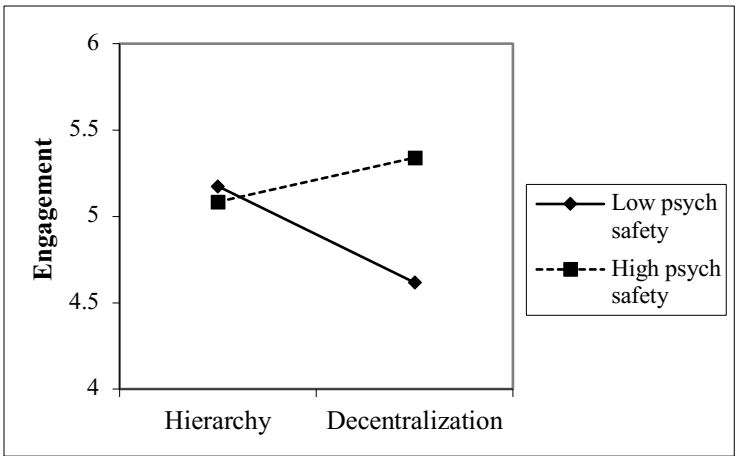
The results, which are displayed in Table 14, indicate a statistically significant interaction between decentralization and psychological safety in predicting employee engagement and job satisfaction. The same interaction was not significant in predicting employee empowerment ($p=.09$).

To aid with interpreting this interaction, I plotted the simple slopes of one standard deviation above and below the mean level of psychological safety for the outcomes of engagement and job satisfaction (Aiken & West, 1991). As Figure 6 indicates, decentralization improves engagement and job satisfaction for those who feel psychologically safe in their groups but appears to negatively impact these same outcomes for those who are less interested. To test this interpretation statistically, I compared each of the simple slopes to zero. For engagement, the t-tests comparing the simple slopes to zero for those with low psychological safety was significant ($p=.02$), but it was not significant for high performers. For job satisfaction, the t-tests indicate that the simple slopes for both those with low and high psychological safety were different from zero ($p=.02$ for high and $p=.04$ for low).

Table 14. *Regression Analysis of Psychological Safety as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction*

| Empowerment | | | | Engagement | | | | Job Satisfaction | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** |
| Baseline empowerment | .75 | .08 | 9.04** | Baseline engagement | .72 | .10 | 7.43** | Baseline job satisfaction | .68 | .09 | 7.74** |
| Psychological safety | -.05 | .10 | -.45 | Psychological safety | -.04 | .11 | -.32 | Psychological safety | -.09 | .15 | -.64 |
| Decentralization treatment | -.09 | .11 | -.81 | Decentralization treatment | -.15 | .19 | -.80 | Decentralization treatment | -.01 | .20 | -.03 |
| Decentralization x psychological safety | .20 | .11 | 1.76[a] | Decentralization x psychological safety | .32 | .13 | 2.45* | Decentralization x psychological safety | .44 | .16 | 2.68* |
| $R^2$ | .55** | | | $R^2$ | .50** | | | $R^2$ | .52** | | |
| F(df) | 37.09 (4, 25) | | | F(df) | 30.07 (4, 25) | | | F(df) | 31.67 (4, 25) | | |

[a] p =.09
* p < .05
** p < .01



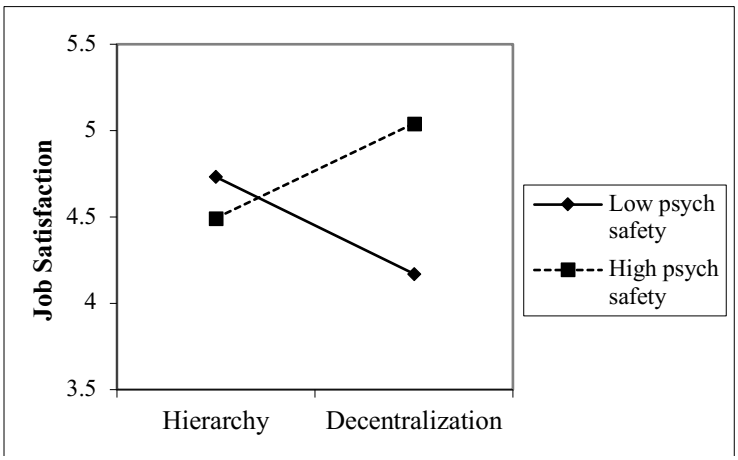




*Figure 6.* Simple slopes for moderation analysis of psychological safety.

***Testing for moderators – managerial style.*** To test whether baseline managerial style moderated the relationship between decentralization and employee experience outcomes, I used the same procedure, controlling for the baseline empowerment (or engagement or job satisfaction) and then regressing the 12-month empowerment (or engagement or job satisfaction) on decentralization, managerial style (measured at baseline), as well as the interaction between the two.

The results for these regressions are displayed in Table 15. The coefficients in these regressions were in the expected direction—the negative coefficient on the interaction indicates that for individuals with managers who were more controlling and micro-managing, the effect of decentralization on empowerment, engagement, and job satisfaction decreases. However, the coefficients on the interaction term were not significant for any of the interactions.

Table 15. *Regression Analysis of Managerial Style as a Moderator for the Effects of Decentralization on Employee Empowerment, Engagement, and Job Satisfaction*

| | **Empowerment** | | | | **Engagement** | | | | **Job Satisfaction** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | ***b*** | **s.e.** | ***t*** | | **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** |
| Baseline empowerment | .75 | .08 | 8.48** | | Baseline engagement | .80 | .10 | 7.69** | Baseline job satisfaction | .80 | .09 | 9.36** |
| Managerial style | .12 | .13 | .97 | | Managerial style | -.14 | .12 | -1.12 | Managerial style | .12 | .15 | .78 |
| Decentralization treatment | -.15 | .14 | -1.10 | | Decentralization treatment | -.25 | .21 | -1.18 | Decentralization treatment | .01 | .22 | .03 |
| Decentralization x Managerial style | -.20 | .15 | -1.32 | | Decentralization x Managerial style | -.21 | .16 | -1.32 | Decentralization x Managerial style | -.14 | .21 | -.67 |
| $R^2$ | .53** | | | | $R^2$ | .54** | | | $R^2$ | .55** | | |
| F(df) | 34.30 (4, 17) | | | | F(df) | 29.95 (4, 17) | | | F(df) | 55.46 (4, 17) | | |

* p < .05
** p < .01

## Discussion

This study examined the consequences of radical decentralization on employee empowerment, engagement, and job satisfaction, as well as the factors of when and for whom decentralization had positive effects. Leveraging a controlled field experiment and utilizing multiple methods, I find first that contrary to most existing research on the effects of decentralization, there was no main effect of the radical decentralization intervention on employee outcomes. Rather, individuals varied greatly in the impact that the decentralization treatment had on their work experience.

Triangulating between qualitative data and survey data, I found that three factors help explain variance in the effects of decentralization. Namely, the effect of decentralization on empowerment, engagement, and job satisfaction was stronger for individuals with higher job performance, stronger interest in decentralization, and greater psychological safety. Qualitative analysis suggested that managerial style moderates the effects of decentralization, but the survey analysis was inconclusive.

Surprisingly, the moderation analysis also revealed a negative effect of decentralization on employee experience under conditions of low job performance, weak interest in decentralization and less psychological safety. In other words, decentralization reduced employee empowerment, engagement, and job satisfaction under some of these conditions.

Qualitative data provide two possible reasons for these surprising negative effects. First, for some, the experiment seemed as if it added work and complexity to their lives. Many people thought that the decentralized meeting structure was more onerous, more time consuming, and less efficient. “We have gotten many months into Holacracy and it is still extremely time consuming and not very efficient in this environment. I believe it is more a hindrance then being

any type of helpful in day to day production." This added complexity was also, in part, an artifact of the experimental design. The fact that the experiment was run within a single organization with co-located members meant that individuals in the decentralization condition were still operating within a broader hierarchical structure. Since individuals interacted with others beyond their group, this led some individuals to feel as if they were operating in two different systems at once. For example, one individual wrote in a diary entry that, "It is really hard to practice holacracy when only half the agency is practicing it. We still have to work under the hierarchy aspects of the rest of the agency." In addition, in a few cases, individuals worked closely with other individuals who were not in the decentralization condition. This led to frustration about the experiment. One individual wrote, "Starting to feel like this is just extra work that takes extra time. I believe this is from this being an experiment with only 'partial' teams involved." For those in the treatment condition not interested in decentralization to begin with, these costs likely far outweighed the potential upside of engaging in the change process.

Second, the negative effect could also reflect that for some individuals, the experiment raised their hopes of a change in their experience. When they encountered negative responses to their efforts to exercise authority, they felt more demoralized than they would have if no change had occurred. One individual described this demoralizing effect,

> It's a little more demoralizing. There's a trick to working in state government where you force yourself to forget what things could be like to a certain degree. For instance, really staring in the face that you have no authority to fire anybody. That you are stuck with these people day in and day out. You better learn to deal with them. That is something if I were to think about everyday, it would be very depressing. Once in awhile, you get reminded like a splash of cold water. But in general day to day, you learn to put those things out of your head. So with this Holacracy on the one side, which is an idealist idea for me, it feels very aspirational – it starts to get my hopes up. On the other side, you have reality that can hit at any time and pull me back down to the ground.

In essence, the experiment raised expectations for some without changing their reality, leading them to feel worse off.

This study is subject to a number of limitations that point to avenues for future research. While care was taken to design the experiment in a way that would address concerns about internal validity, several concerns remain. First, there was not complete comparability between the two conditions in access to the research team. While I made an effort to increase comparability by providing a launch training to the comparison group and by interviewing and observing individuals and groups in both conditions, the decentralization condition received more training and more exposure to the researcher than the comparison group, which could have biased the results. Second, given that all organizational members were co-located, individuals from the comparison condition had exposure to individuals in the decentralization condition. Participants in the decentralization condition were instructed not to speak about the experiment with those in the comparison condition, but it is likely that this communication about the experiment happened. Third, there was attrition in survey response rates. While the attrition rates were not statistically different across conditions, it's possible that those who responded to the survey were different from the experimental pool as a whole. I conducted attrition analysis to see if any of the baseline demographics predicted attrition, and no statistically significant correlations were found.

**Conclusion**

This research deepens our understanding of both the effects of decentralizing authority on employee empowerment, engagement, and job satisfaction and the factors that influence when and for whom decentralization has positive effects. While the popular rhetoric generally takes a

uniformly positive view of efforts to decentralize authority, this research suggests a more nuanced picture of decentralization and its effects.

First, it provides novel theoretical insight into the conditions under which decentralization improves employee engagement, empowerment, and satisfaction at work. It suggests that decentralization does not lead to individual flourishing in any environment. Instead, certain human capital conditions (employee performance/motivation and interest in operating in a decentralized structure) as well as conditions of the local group climate (psychological safety) are important for decentralization to have its desired effect on employee work experience.

Second, this research reveals that efforts to adopt decentralized structures can do harm as well as good. It highlights the risks of adopting such structures without considering the human capital or group climate of the organization. Decentralization can lead to disempowered and disengaged employees under the wrong conditions.

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## Appendix A: Decentralized Authority by Decision Area at Self-Managing Organizations

| Area of decision-authority | Managerial Hierarchy | Select Cases of Self-Managing Organizations |
|---|---|---|
| Work execution<br>E.g. How a software feature should be coded or a sales target met | Partly decentralized. Employees vary in leeway and managers hold ultimate authority | ▪ Fully decentralized at Zappos, Valve and Morningstar. |
| Monitoring / managing work<br>E.g. when work needs to be completed, to what level of quality, by when and how well | Held by managers | ▪ Partly decentralized at Zappos. Lead link role is responsible for work of the entire group including developing metrics, but individual role holders and peers are also to monitor and manage each other's work.<br>▪ Fully decentralized at Morningstar. Responsibility for monitoring / managing the work is done by each individual and his/her peers. This monitoring is aided by setting clear measurable targets for each individual and making progress towards targets transparent.<br>▪ Fully decentralized at Valve. Responsibility for monitoring / managing the work is done by each self-organizing project team. |
| Work / resource allocation<br>E.g. deciding who holds what roles and who is to work on which projects, as well as deciding how budget is allocated to various groups and individuals | Held by managers | ▪ Partly decentralized at Zappos. Work / resource allocation decisions are made by a lead link role but individuals can resign or turn down a role at any time.<br>▪ Partly decentralized at Morningstar. Individuals voluntarily enter into bilateral contracts that determine responsibilities, goals, and metrics – within the bounds of existing expectations of what individuals will do.<br>▪ Fully decentralized at Valve. Individuals choose the games on which they want to work. |
| Org / work design<br>E.g. determining how the organization should be structured (e.g. functional vs. divisional vs. matrix), defining the responsibilities or charters of various work groups, defining individual roles and responsibilities, determining specific targets or goals to reach, and even determining projects that need to be completed | Workgroup design decision authority held by managers. Org design decision authority typically held by senior executives | ▪ Fully decentralized at Zappos. Individuals can propose any change to work or org design and all changes must gain the consent of the relevant workgroup.<br>▪ Partly decentralized at Morningstar. Work design decisions are made through the process of negotiating bilateral contracts. Some broader org design decisions are made by the CEO.<br>▪ Fully decentralized at Valve. Work and org design is built around self-organizing project teams. Within teams, roles are fluid and determined by consensus. |
| Personnel / performance management<br>E.g. assessing how well individuals are performing in their roles, what training might be needed to improve | Held by managers and HR specialists | ▪ Not decentralized at Zappos. Compensation set by an HR specialist group based on peer and Lead Link feedback; Performance evaluation process is set by each area, but typically held by quasi-manager role; Hiring and firing are not decentralized. |

| Area of decision-authority | Managerial Hierarchy | Select Cases of Self-Managing Organizations |
|---|---|---|
| performance, promotions and whom to hire and fire | | ▪ Partly decentralized at Morningstar. Feedback is given to each employee by CLOU partners. Compensation is set by a locally elected compensation committee. Hiring and firing decisions are driven by workgroups but generally after consulting with influential leaders.<br>▪ Partly decentralized at Valve. Individuals are assessed by peers. Hiring and firing decisions are ultimately made by the CEO. |
| Firm Strategy<br>e.g. setting annual goals, choosing between acquiring versus building new products or capabilities, and determining new market entry or market growth plans | Strategy decision authority held by senior executives | ▪ Not decentralized at Zappos. Set by the CEO.<br>▪ Not decentralized at Morningstar. Set by the CEO.<br>▪ Partly decentralized at Valve. Company-wide strategy is a product of many bottom-up decisions around about which games to build. Occasional firm-wide strategy decisions, such as deciding whether to go into hardware, are made by executives. |

## Appendix B. Survey Scales

**Empowerment (from Spreitzer, 1995)**

1. I have autonomy in deciding how I fulfill my work responsibilities (autonomy)
2. I can decide on my own how to go about doing my job without anyone else interfering (autonomy)
3. I have independence and freedom in how I do my job (autonomy)
4. I feel I have mastered the skills necessary for my job (competence)
5. The work I do feels meaningful to me (meaning)
6. My impact on what happens in my team is large (impact)
7. I have control over what happens in my team

**Engagement (Utrecht Work Engagement Scale - Seppala et al, 2009)**

8. I am enthusiastic about my job
9. I am immersed in my work

**Job satisfaction**

10. I am able to use my full expertise and talent at work
11. I am satisfied with my job

**Job performance**

12. On a scale from 1 - 10, please rate this individual's overall job performance

**Interest in operating in a decentralized structure**

13. How much would you like your group to operate in Holacracy?

**Psychological safety (Adapted from Edmondson, 1999)**

14. I feel able to bring up even the toughest issues in this group
15. If you make a mistake on this group it's held against you
16. It is safe to speak up in this team

**Managerial style**

17. My manager micro-manages me
18. My manager tells me how to go about doing my job
19. The manager on this team does not want his/her "view of the world" to be questioned
20. My manager requires getting his/her approval before I make decisions in my job

## Appendix C. Regression Analysis of the Effects of Decentralization on Employee Empowerment, Engagement and Job Satisfaction

| Empowerment | | | | Engagement | | | | Job Satisfaction | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** | **Variables** | ***b*** | **s.e.** | ***t*** |
| Baseline empowerment | .74 | .06 | 11.72** | Baseline engagement | .72 | .08 | 8.50** | Baseline job satisfaction | .68 | 07 | 10.30** |
| Decentralization treatment | -.01 | .12 | -.06 | Decentralization treatment | -.10 | .19 | -.54 | Decentralization treatment | .08 | .20 | .40 |
| $R^2$ | .49** | | | $R^2$ | .43** | | | $R^2$ | .44** | | |
| F(df) | 84.69 (2, 29) | | | F(df) | 40.88 (2, 29) | | | F(df) | 54.50 (2, 29) | | |

* $p < .05$
** $p < .01$