Hasinoff, S. & Mandzuk, D. (2018). *Navigating uncertainty: Sensemaking for educational leaders*. Leiden, The Netherlands: Brill. Pages: 82. ISBN: 9789004368477

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Navigating Uncertainty: Sensemaking for Educational Leaders by Hasinoff and Mandzuk (2018) provides a comprehensive overview of strategies educational leaders can utilize to navigate the uncertainty of complex adaptive systems. Complex adaptive systems are defined by the inter-connectivity between elements within a system and their environment. Diverse and dynamic in nature, the interaction of the elements can become unpredictable when they change their behaviour in response to other elements and the environment. The cycle of disequilibrium, adaptation, equilibrium, and action frames the uncertainty of the system, in which uncertainty is defined as "the inability to make sense of, assign value to, or predict outcomes of events" (p. 1). Sensemaking (Weick, 1995), the social psychological process that enables individuals to construct understanding in the midst of uncertain and ambiguous environments, is used to navigate the uncertainty of complex adaptive systems. Shifting from the use of traditional scientific principles to address leadership challenges, the authors assert that relationships are a central component to understanding uncertainty and reach common goals that confront these challenges. A variety of visualization tools such as relationship maps, network pictures, and the Certainty Matrix are presented in this book to help leaders understand the relationships that exist in their professional social networks, how to leverage social capital, and how to apply these tools to establish a future plan of action. The authors introduce a 5-step sensemaking approach that is replicated by analyzing scenarios from 15 superintendent, principal, and dean interviews.

Chapters are organized to address the concept of uncertainty and are titled accordingly: Chapter 1: Exploring uncertainty; Chapter 2: Understanding uncertainty; Chapter 3: Making sense of uncertainty; Chapter 4: Grappling with uncertainty; and Chapter 5: Responding to cases of uncertainty.

Organization and Key Features of the Book

Chapter 1 lays the foundation for the book by introducing and defining the concept of uncertainty as it relates to educational leadership practices. This chapter situates uncertainty as neither positive nor negative but a necessary function of complex adaptive systems (Dewey, 1933). The authors aim to shift contemporary perspectives from the linear thinking of organizations that guided traditional industrial management. This traditional perspective of organizations followed Descartes' (1701/1954) analytical approach, according to which problems can be understood by reducing them to their simplest parts. Instead, the authors propose a multimodal perspective that accounts for uncertainty and disequilibrium as the norm of complex systems. To regulate the disequilibrium that emerges in complex adaptive systems, self-organization is highlighted as a central feature to governing the interaction of multiple dynamic components. The authors assert that order does not always trump chaos as challenges enable the system to regenerate and progress. Here, the authors introduce the building block of their framework, the Certainty Matrix. The Certainty Matrix consists of warranted and unwarranted certainties and uncertainties that influence educational leaders' decisions. For example, warranted certainties are the information leaders know on the basis of peer-reviewed empirical research, verifiable facts, and evidence-based conclusions, while unwarranted certainties are based on assumptions and unsupported theories. The Certainty Matrix challenges educational leaders to reflect on the information they already know, as well as the information they are seeking

to find out about a dilemma, in order to navigate the challenges faced in educational environments.

Chapter 2 serves to affirm that uncertainty is an inevitable feature of complex adaptive systems where contemporary organizations are characterized with ambiguity and interdependencies. Hasinoff and Mand-zuk's (2018) emphasis of Complexity Leadership Theory presents the foundation for analyzing education-al leadership and the conditions that enable problem solving using social capital, namely, the norms, trust, and networks that reside between multiple individuals (Putnam, 1993), instead of human capital, that is, the knowledge and skills that reside in one individual. The premise of social capital is that individuals' friends, family, and associates are critical resources that can be called upon in dilemmas and used for both enjoyment and material gain. Social capital can appreciate if used as an investment but can also depreciate if it is neglected or misused. It is important to note that not all educational leaders take advantage of their social capital as various institutional and personal factors can inhibit accessibility. However, once under-stood and cultivated, educational leaders can use their social capital to develop social networks rooted in trust relationships. Social networks are presented as the central building blocks for navigating leadership challenges enabling individuals' access to new insights through norms that are transmitted and reinforced in the relationship building process.

In Chapter 3, the authors introduce a 5-step systematic approach to guide educational leaders in asking critical questions for problem-solving the leadership challenges they encounter. Fostering, repairing, and sustaining trust relationships are the foci of this approach where retrospective (i.e., what has happened in the past and the present) and prospective (i.e., what will happen in the future) analysis and sensemak-ing are considered pivotal for future action. A significant feature of sensemaking is the experiences that shape personal and professional identities, and their implications for interpreting the challenges faced by educational leaders. Enacted at the individual level, sensemaking is explained as a social process where reciprocity shapes leaders' behaviours.

To better understand the interconnectedness of the social networks discussed in Chapter 2, the authors present the concept of relationship maps (see figure 3.2)—a visual representation of every actor involved in educational dilemmas, their relationships, and the degree of trust between those relationships. Visual-ization is used to explicate the intricate yet multifaceted depth of the social networks that exist in complex adaptive systems. The 5-step sensemaking approach asks leaders to engage in the following: (1) Identify the problem, (2) players involved, (3) the relationships between players and the level of trust in each re-lationship (relationship map), (4) information known and unknown (Certainty Matrix), and (5) the next steps. The first step involves asking key questions about the factors that precipitated the problem and its categorization as a dilemma. The second step asks leaders to identify actors who are directly and indirectly involved in the dilemma by drawing circles that signify those individuals and labeling each circle with the actors' names for use in developing a relationship map. The third step is the process of connecting the circles to one another using a one way or reciprocal line and arrow denoting the level of trust existing in each relationship. The levels of trust are denoted using three distinct lines: a thick line to signify relation-ships that have profound trust, a thin line to identify relationships with provisional trust, and a dashed line to indicate relationships with trust that is breaking down or has broken down completely. Profound trust signifies authentic trust and "takes into account the capabilities and history of the person being trusted, recognizes a risk, and makes the conscious choice to trust anyways" (p. 30). Provisional trust rests on the understanding that individuals may be "willing to trust people up to a certain point or under certain circumstances, but not at other times or in other circumstances" (p. 31). This is commonly seen in rela-tionships with colleagues and acquittances in which familiarity and long histories are lacking. Trust that is breaking down or has broken down means that the expectation that one can "rely on another person's actions and words and that the person has good intentions to carry out their promises" has been violated (p. 31). A key feature sparingly discussed by the authors is the notion that relationship maps are subjec-tive, thus the trust relationships portrayed may not be an authentic representation of each relationship. The fourth step involves completing the Certainty Matrix by answering the following questions: what do I know? what do I think I know? what don't I know? and what ought I to know? Finally, the fifth step is the biproduct of the first 4 steps, where leaders outline their options and select the best plan of action.

Chapter 4 serves to illustrate the application of the 5-step sensemaking approach to real educational problems by different educational leaders. The authors emulate the role of an educational leader and coach readers through the analysis of three case scenarios using the 5-step sensemaking approach. The scenarios relate readers to common dilemmas experienced in a complex adaptive system with sparse focus on the

educational setting or leadership role of each scenario. Each feature is detailed while making connections to concepts presented in Chapters 1 to 3. In this chapter, the authors do not address situations where the complexity of relationships hinder the visual representation of a social network in a relationship map. For example, a principal facing a dilemma as a result of changes to the sex education curriculum may find themselves interacting with multiple actors such as religious community groups, parents, students, teachers, administrators etc. The case scenarios Hasinoff and Mandzuk (2018) examine using the 5-step sensemaking approach are limited to social networks consisting of five actors which may not illustrate the complexity of dilemmas involving a significant amount of actors. The political implications of power and legitimacy are not always represented in relationship maps as they forgo the explicit display of the educational hierarchy. For example, figure 3.2 (p. 47) indicates that the profound trust built between a superintendent and a director of maintenance can also be found between a clerk and sales rep of the same system, thus negating the influence of positional power in relationships. Since the generalizability of dilemmas to any educational setting is the central aim outlined in the book's introduction, the framework presented would benefit from incorporating dilemmas with large social networks. As well, discussion on the impact that changes in one trust relationship will have on the remaining connected relationships would add value to the praxis of the 5-step sensemaking approach in everyday leadership situations.

Chapter 5 presents readers the opportunity to navigate nine complex problems using the 5-step sensemaking approach. Utilizing the guidance provided in Chapter 4, readers are encouraged to draw a relationship map, complete the Certainty Matrix, and answer critical questions to exercise their problem-solving skills. The authors propose that the 5-step sensemaking approach is a valuable resource for all educational dilemmas despite the specific settings portrayed in the case scenarios. Educational institutions are constructed as complex adaptive systems yet, the generalizability of leadership challenges is assumed to be applicable to all educational environments.

Value for Scholars and Practitioners

Catered to educational leaders, this book was written to support the leadership practices of current and future administrators in diverse educational settings. The book makes contributions to contemporary discourses on educational leadership by examining the multifaceted components that influence leaders' sensemaking in complex adaptive systems. Embedded in Chapters 4 and 5 are select case scenarios from 15 superintendents, deans, and principals that used the 5-step sensemaking approach in their leadership practices. The case scenarios draw connections between the contextual application of the 5-step sensemaking approach and real educational dilemmas, providing readers the opportunity to engage in critical analysis and reflection. The book is a valuable resource that encourages critical thinking by engaging in rich discussion centered on the case scenarios that are intended to inform educational leaders' professional development.

Concluding Comments

Hasinoff and Mandzuk (2018) present a logical construction of the 5-step sensemaking approach and its value to educational leadership. I suggest that the authors expand discussion on the sequence in which the steps should be followed. Complex adaptive systems are presented in this book as fluid systems that continuously evolve and develop. As they evolve, the dilemmas that educational leaders face may also evolve indicating that a leader may not be able to complete steps 1 to 5 in sequence. Instead, a leader may have to revert to step 1 during the process and repeat the steps as new information is acquired and social networks adapt to the changes. It may be beneficial for case scenarios to showcase relationship maps with more than five actors since visualization tools are widely used in this book and for the authors to discuss whether or not a large number of actors may muddy the sensemaking process. The addition is hoped to further the book's discussion on the strategies that inform educational leaders' practices in their professional development.

References

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Figures
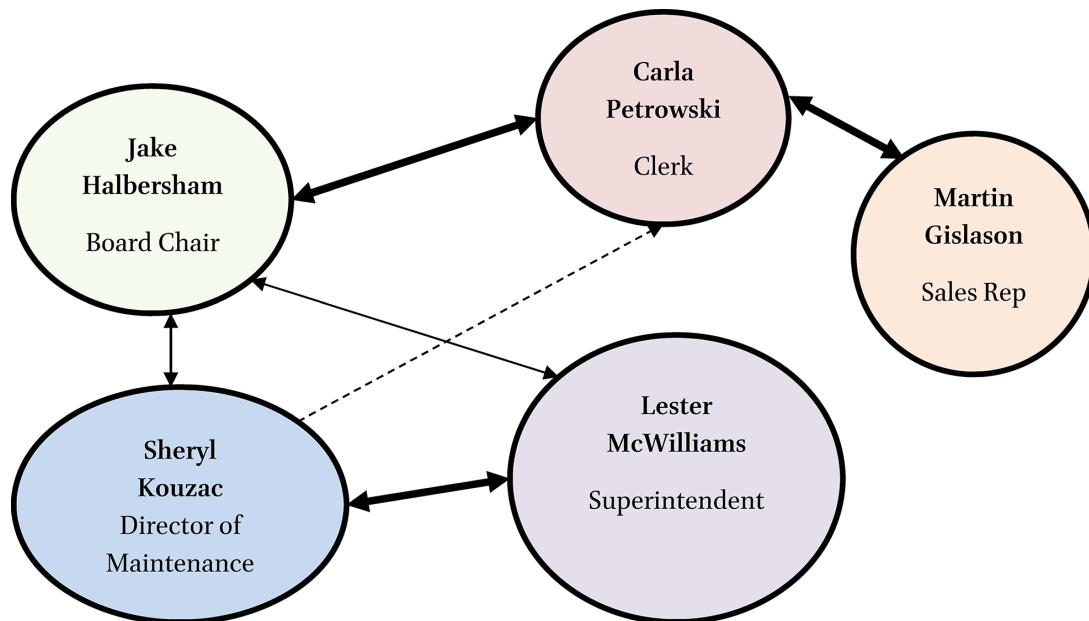
Example of a Relationship Map.
Figure 3.2 in Hasinoff & Mandzuk, 2018, p. 47