Romme *Journal of Organization Design* (2019) 8:20
https://doi.org/10.1186/s41469-019-0060-y

Journal of Organization Design
a SpringerOpen Journal

RESEARCH Open Access

Climbing up and down the hierarchy of accountability: implications for organization design

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Abstract

The notion of organizational hierarchy is disputed, also in view of the rise of new organizational forms claimed to have "hierarchies without bosses." To better understand the contested nature of hierarchy, this essay provides a systemic perspective on organizational hierarchy defined as a sequence, or ladder, of accountability levels. I then argue this ladder can be used in a top-down manner (e.g., as a chain of command), but also in bottom-up ways (e.g., by employees taking charge of higher-level responsibilities). Subsequently, several propositions that may guide future work in this area are formulated, and the implications for organization design are fleshed out. Overall, the notion of hierarchy may become less contested by defining it as an accountability ladder which can be instantiated and used in highly different ways.

Keywords: Hierarchy, Organization design, Management innovation, Accountability, Authority, Responsibility, Abstraction, Holacracy

Introduction

Jaques (1990) and Simon (2002) have argued that hierarchy is a prerequisite for all organizations that grow beyond the size of a single team. By contrast, Christensen (1997) and many others have argued that the hierarchical structures prevailing in many organizations tend to stifle any dialog on ideas arising from the shop floor or the front line (see also Burkus 2016; Laloux 2014). Moreover, the rise of new organizational designs such as holacracy, which are assumed to draw on "hierarchy without bosses," has fueled the idea that organizational hierarchy is increasingly eroding (e.g., Clement and Puranam 2017; Cunha et al. 2011; Foss and Dobrajska 2015; Lee and Edmondson 2017).

The purpose of this essay is to more deeply understand the contested nature of organizational hierarchy. I start by defining hierarchy as a sequence (or ladder) of accountability levels and subsequently argue that this generic construct of hierarchy can be instantiated in fundamentally different ways: as a ladder of decision authority levels initiated at the top and as a ladder of responsibility created by any other agent in the organization. Notably, this essay focuses on organizational hierarchy, that is, hierarchy as a means to coordinate policy-making and work processes. Several other forms of hierarchy identified in the literature (e.g., Brummans et al. 2013) may be very important for understanding how organizations function, but less so for the coordination challenge in organization design. In the second part of this essay, the interplay between authority and responsibility ladders is explored to better understand whether and how organizational hierarchy is transforming. Accordingly, when the authority ladder is becoming simpler in an organization, this promotes the rise of responsibility ladders. Organizational hierarchy defined as a ladder of accountability levels thus appears to be transforming in how its instantiated.

Hierarchy and its instantiations

Hierarchy as a ladder of accountability levels

In this essay, I adopt Jaques' (1990, 1996) broad conception of *organizational hierarchy*, defined as a sequence of levels of accountability. These levels of accountability are more fundamental than domains of authority or responsibility (discussed later), because a level of accountability essentially refers to a level of abstraction at which one can engage in account-giving or can be held accountable. The various abstraction levels of an accountability ladder are constructed by separating higher-level categorical concepts from specific instances characterized by more detail and concreteness. This construction process typically leads to a ladder of low to high levels of accountability. Classic examples of such a ladder are the operational-tactical-strategic levels in large companies and the municipal-regional-national policy levels in the public sector. Another example is the hierarchy notion used in software development (Gabbrielli and Martini 2010): for example, operating systems such as Android and Apple's iOS draw on different abstraction levels of software code (e.g., program, module, submodule). Similarly, the internet operates on a hierarchy of URL levels, with the hyper-text transfer protocol (http) at the top of this ladder. This hierarchy of URLs is instrumental in orchestrating, filtering, and decomposing very large amounts of information into separate chunks of info that can be effectively created, adapted, and transformed.

Two instantiations of hierarchy: authority versus responsibility ladder

The notion of hierarchy as a sequence of accountability levels can be instantiated in two ways, that is, as (a) ladder of decision-making authority levels and (b) ladder of self-organized responsibility levels.

First, management scholars and practitioners alike tend to conceive of hierarchy as a sequence of levels of *decision-making authority* (e.g., Butler and Grahovac 2012; Dobrajska et al. 2015; Luo et al. 2018), that is, the vertical integration of official positions within a single organizational structure, in which each position is under the supervision and control of a higher one. The ladder of authority thus implies that the (underlying) accountability ladder is infused with people authorized to make decisions about various issues. For example, the authority ladder of a military organization involves a systematically differentiated authority, from commander-in-chief to soldier. The military example is, to a large extent, the historical antecedent of the ladders of authority that prevail in today's business organizations (Grant 1996).

A key assumption in this type of hierarchy is that formal authority is, at least initially, concentrated at the highest levels of the ladder, from which decision authority can be delegated to lower levels—in view of the limits to and bounded rationality of executive attention (Dobrajska et al. 2015; Levinthal and Workiewicz 2018; Simon 1991; Tirole

1986). Thus, decision-making authority is highly contingent on one's position on the ladder. The (initial) concentration of authority at the top of the hierarchy often arises from the legal ownership and constitution of the organization (Kraakman et al. 2017); the key constitutional principle here is that people at the top, as rightful holders of authority, have the right to dictate targets and processes and are entitled to be obeyed. In this respect, many organizations have an elaborate constitution that contains the fundamental principles and by-laws regarding positions, decision domains, and related issues. For example, the chain of authority in family-owned companies starts at the level of the owners (i.e., the family members that have shares in the company). Similarly, the authority ladder in a publicly owned corporation runs from the investor-owners, via the board of directors and the CEO, to lower levels of management and their subordinates.

A fundamentally different way to instantiate hierarchy is more bottom-up and emergent in nature (e.g., Ackoff 1999). This type of hierarchy arises from the assumption that agents at all levels *self-organize* their *responsibility*. A responsibility ladder thus implies that, for example, operational workers climb up the underlying ladder of accountability, to address higher-level (e.g., strategic) issues and challenges. Notably, the notion of responsibility is often considered to be almost synonymous with authority (Aghion and Tirole 1997; Bovens 1998; Dubnick 2014), but is fundamentally different. Responsibility is an expression of self-restraint and intrinsic obligation, whereas authority arises from external sources and standards and/or those who have the final say (Ansell 2011; Early 1989). The difference between responsibility and authority is also reflected in the jargon widely used in practice, involving phrases like "taking the responsibility to get this done" and "having the authority to decide" (Drucker 1995).

Examples of responsibility ladders can be found in organizations adopting a sociocratic approach, also known as circular organizing (Romme 1999), in which every employee can identify problems, raise questions, and initiate problem-solving—also at higher levels of accountability than the level implied by the current tasks of this employee (Romme and Endenburg 2006). For example, when a Dutch company applying the sociocratic approach lost more than one third of its sales, its CEO announced he saw no other solution than laying off a large number of employees (Romme 2016). The next day, an employee called a (so-called circle) meeting of his work unit to discuss an alternative: delaying the layoff for a few weeks and shifting these staff members into a concentrated sales and marketing effort. His direct colleagues asked him to pitch the proposal to the company's general management circle; this circle decided to have the proposal discussed in a meeting of the board of directors' circle, also attended by the CEO and the employee who initially raised the idea. The board authorized the proposal, and all available employees got a 1-day crash course in customer acquisition. Within several weeks, the effort had won enough new projects to make the layoffs unnecessary. While the company's largest business line was sized down substantially, growth in several other products and services led to a much more diversified customer base (Romme 2016). This example illustrates how a responsibility ladder is created at the shop floor level, when an operational employee takes charge of a higher-level challenge in his company. It also demonstrates how self-organized ladders of responsibility, especially when they arise around major (e.g., existential and/

or strategic) company-wide challenges, tend to interfere with the existing ladder of authority. (The interplay between the two ladders will be addressed in more detail later.)

The incubation stage of worker cooperatives, organizations that are owned and self-managed by their workers, is also a typical setting in which workers initially create a ladder of responsibility in a bottom-up manner. That is, the worker-owners elect particular colleagues, who are seeking a higher-level responsibility, to serve as managers of the cooperative (Ridley-Duff 2009; Whyte and Whyte 1991). Notably, this initial ladder of responsibility tends to be rather informal in the initial process of creating the co-operative and subsequently often transforms into an authority ladder when the corporate constitution and by-laws are designed and filed (e.g., Varman and Chakrabarti 2004; Whyte and Whyte 1991).

The emergent nature of responsibility ladders may entail a continually changing system, constituting a highly adaptive organizational mechanism for filtering environmental noise and information into chunks that can be handled effectively (cf., Jaques 1996; Simon 1973). For example, Robertson's (2007, 2015) holacracy involves a system of self-organizing circles that structure roles and work processes (Groth 2015; Mays 2013; Monarth 2014). Drawing on Jaques' (1996) notion of requisite organization, Robertson's initial conception of holacracy assumes that, at any given point in time, the organization has an ideal (requisite) structure that "wants" to emerge:

> This requisite structure is not an arbitrary choice. Finding it is detective work, not creative work – the answer already exists, it just needs to be uncovered. This discovery process feels a lot less like explicit design and a lot more like listening and attuning with what reality is already trying to tell you – what naturally wants to emerge. (…) The closer our explicit structures mirror these natural structures, the more effective and trust-inducing the organization becomes. As we align with the requisite structure, the organization feels increasingly 'natural', and self-organization becomes easier (Robertson 2007).

Notably, a self-organized ladder of responsibility should not be equated with a so-called informal or status hierarchy (e.g., Diefenbach and Sillince 2011). Informal hierarchy arises from the social construction of status differences between direct colleagues (Gould 2002), which is fundamentally different from people seeking intrinsic responsibilities at higher levels; moreover, because a status hierarchy can only arise within a team or group, it cannot serve as a mechanism for coordinating processes across units or departments.

Comparing the authority and responsibility ladder

Table 1 serves to compare the two instantiations of hierarchy in terms of their definitions, core concepts, underlying assumptions, and metaphorical images. The authority ladder is thus created at higher levels, with decision-making power (initially) concentrated at the top. Decision-making authority is *transitive* and can therefore be delegated (e.g., from A to B to C to D) to create rather deep ladders, without the need for people themselves to climb down the ladder. Authority ladders can therefore involve and reach a substantial number of layers. By contrast, the self-organized and individual nature of

Table 1 Two instantiations of organizational hierarchy defined as sequence of accountability levels

Generic definition of hierarchy	*A sequence (ladder) of accountability levels* Here, accountability level refers to an abstraction level at which one can engage in account-giving and/or be held accountable. A ladder of accountability is thus constructed by separating higher-level categorical concepts from specific instances characterized by more detail and concreteness. This construction process leads to a ladder of (low to high) levels of accountability. Examples: the operational-tactical-strategic levels in companies, the municipal-regional-national policy levels in the public sector, and the internet's URL levels.	
Instantiation	*Ladder of authority levels*	*Ladder of responsibility levels*
Definition	Sequence of (people assigned to) roles with formal authority to make decisions, as it arises from the legal structure of the organization. The ladder of authority thus implies that the underlying accountability ladder is infused with people authorized to make decisions about (e.g., strategic, tactical, or operational) issues.	Sequence of domains/levels to which people have an intrinsic sense of obligation and commitment. A ladder of responsibility thus implies that, for example, operational workers climb up the (underlying) accountability ladder, to address higher-level (e.g., strategic) issues and challenges.
Core concept	*Authority*: the legitimate power to make decisions.	*Responsibility*: the sense of intrinsic obligation to oneself, others, and/or particular challenges.
Assumptions	Decision-making authority is (initially) *concentrated* at the top, which may delegate authority to lower levels to reduce (consequences of) information overload and bounded rationality at the top. Legitimacy of authority arises primarily from the constitution (or statutes) of the organization. Given the *transitive* nature of authority, an authority ladder can have a substantial number of layers.	Responsibility is *self-organized*, that is, individual members of the organization take charge of particular challenges at higher accountability levels. Responsibility is something that people "take" rather than "get," in order to build and sustain a substantial level of intrinsic obligation and commitment. Given the *non-transitive* nature of responsibility, a responsibility ladder is unlikely to have more than two layers.
Metaphor	Authority *climbs down* (i.e., is delegated via) the ladder of accountability, from high to low abstraction levels.	Responsibility *climbs up* the ladder of accountability, from any given abstraction level to higher levels.

responsibility implies that ladders of responsibility are unlikely to have more than two layers, because intrinsic responsibility can hardly or not be delegated or transferred to other people and therefore is *non-transitive*. So to speak, individual X has to climb up the ladder of accountability to take charge of a higher-level challenge.

As already illustrated, the two ladders may *co-exist* in organizational practice, with one possibly prevailing over the other. For example, the ladder of authority is likely to prevail in established companies, whereas ladders of responsibility often prevail in newly created organizations. In both settings, however, the prevailing instantiation of hierarchy can be assumed to co-exist with its, possibly dormant, counterpart. In this respect, studies of delegation demonstrate that many organizations managed via an authority-based hierarchy are not best served when a few people at the top make all decisions: "On the one hand, there is a limit to how many decisions senior managers can make, and on the other hand, it is not guaranteed that formal authority holders have sufficient (expert) knowledge to make effective decisions" (Dobrajska et al. 2015: 688). As a result, even in organizations ruled as a "command and control" hierarchy, people self-organize their activities in ways that may be hidden from the leaders (D'Antonio 1994; Leeson 2007). When people take responsibility by making decisions and acting on a particular issue, they typically draw on individual experience and expertise, often involving tacit and specialized knowledge (Aghion and Tirole 1997; Hempel et al. 2012). A key challenge thus is how the formal ladder of authority enables and complements self-organized ladders of responsibility, and vice versa, rather than one type of ladder exclusively prevailing at the expense of the other.

In the remainder of this essay, I will often talk about a single ladder of authority (per organization), but multiple ladders of responsibility. In this respect, the emergent nature of a responsibility ladder implies it is largely created in a bottom-up manner, with many of them (possibly) arising simultaneously.

Interplay between authority and responsibility ladders

This section serves to explore the interplay between authority and responsibility ladders.

Interplay between the two ladders

Given that authority and responsibility ladders often co-exist, it is important to understand the interaction between them. For one, studies of distributed and emergent leadership have explored how a relatively simple authority ladder (created by top management) enables unit managers, project teams, and others to self-manage their work (Druskat and Wheeler 2003; Guastello 2007; Levinthal and Workiewicz 2018). These self-managing teams possess high levels of emergent leadership, that is, team members ascribe social influence or informal leadership responsibilities to each other—and do so significantly more than teams that are low on emergent leadership (e.g., Carte et al. 2006; Taggar et al. 1999). This literature thus suggests that a simple, enabling ladder of authority promotes the rise of responsibility ladders.

The authority ladder also appears to affect *how* people take responsibility for various tasks and challenges. Previous studies demonstrated that organizations largely drawing on decision-making authority tend to reduce intrinsic motivation, engagement, and responsibility among employees (Saks 2017; Wiersma 1992). Similarly, Aghion and Tirole (1997) observed that the more lenient the rules defined by superiors are, the more likely subordinates are to claim more responsibility. An interesting case is Oticon, a Danish producer of hearing aids that engaged in a major transformation of its management and governance approach, when it faced a dramatic decrease of its market and financial performance in the late 1980s (Foss 2003; O'Keefe and Lovas 2002). Before this transformation toward a so-called "spaghetti organization," Oticon had long relied on authoritative task allocation by assigning tasks to specialized departments, via an authority ladder involving seven levels (O'Keefe and Lovas 2002). Around 1989, a new CEO embarked on a restructuring of Oticon's activities, resulting in two remaining hierarchical levels of authority, giving each employee the opportunity "to work on at least two strategic initiatives at any given point in time" (Lovas and Ghoshal 2000: 888). This self-selection into projects appeared to allow for more empowerment of employees (Foss 2003). Although Oticon partially abandoned the spaghetti model in the late 1990s (Foss 2003), the Oticon case illustrates how a very detailed and penetrating ladder of authority tends to demotivate self-organizing activity by employees (before 1989) as well as how the transformation toward a more simple authority ladder enables and motivates people to take responsibility and self-select into various activities (after 1989).

The complex nature of the interplay between responsibility and authority ladders can therefore be outlined as follows. An authority ladder involving a rather low number of rules and layers is likely to promote the emergence of responsibility ladders, which serves to exploit expertise and leadership potential distributed across the organization. By contrast, a very extensive ladder of authority, characterized by a large number of rules (and possibly also layers), tends to suppress the rise of responsibility ladders. Thus, I posit:

> *P1* The simpler the ladder of authority (in terms of the number of rules and layers defining it) is, the more people throughout the organization will be able to self-organize their ladders of responsibility.

Notably, P1 does not imply that the authority ladder can best be entirely eliminated. Some minimal structure in the form of an authority ladder and the underlying organizational constitution is a prerequisite for people taking responsibility throughout the organization. In the absence of any authority ladder, bottom-up initiatives and interactions are thus prone to decline (Clement and Puranam 2017).

Despite calls for more self-management and emergent leadership (e.g., Laloux 2014; Oh 2012), the vast majority of organizations continue to operate on the basis of an extensive chain of authority. Accordingly, when self-managing teams, quality circles, or similar practices are introduced, the interplay between responsibility and authority ladders often becomes problematic. For example, to enable more self-management at the operational level, many companies introduced and implemented quality circles in the 1970s and 1980s. Over time, many of these circles started encountering difficulties, especially because of the insecurity experienced by middle managers who perceived the rise of a "parallel hierarchy" of circle leaders and facilitators, who were not accountable to middle management and often secured direct access to top management (Denham et al. 1997; Holden and Roberts 2004; Psychogios et al. 2009). Middle managers therefore actively blocked changes toward more self-management by their subordinates, thereby attempting to protect their formal authority (Denham et al. 1997; Fenton-O'Creevy 2001). The phenomenon of a parallel hierarchy apparently arises when top managers change the ladder of authority to allow (more) ladders of responsibility to emerge at operational levels, which makes middle managers feel they are no longer in control. Luo et al. (2018) observed a similar problem in a Chinese firm, where the ladder of authority was largely abandoned and replaced by a market-based platform, leaving many people confused about the roles they should play and which activities they can or cannot control. The literature thus suggests that responsibility ladders can create substantial tensions and conflicts with the chain of authority:

> *P2* The rise of responsibility ladders throughout the organization may create tensions and conflicts (e.g., role confusion, parallel hierarchy, loss of control) with the prevailing ladder of authority.

Are organizational hierarchies eroding or transforming?

The theoretical framework developed thus far serves to assess whether organizational hierarchy is eroding or, instead, is merely transforming. One possible interpretation of the erosion thesis (e.g., Cunha et al. 2011) is that the ladder of authority is *becoming* *simpler* in many organizations, that is, it involves less rules and possibly also less layers. In this respect, interesting examples of rather simple ladders of authority are the communities developing the Linux operating system and Wikipedia online encyclopedia (Garud et al. 2008), while changes toward simple authority ladders have also been observed in Morning Star, Valve, Zappos (subsidiary of Amazon), 3M, and many other companies (Foss and Dobrajska 2015; Garud et al. 2011; Lee and Edmondson 2017; Romme and Endenburg 2006).

For example, Garud et al. (2011) observed that 3M Corporation thrives on a relatively simple set of decision-making rules, which effectively limits any dysfunctional micro-management of work done by engaged employees. This simple ladder of authority appears to enable the emergence of thousands "ladders of responsibility" at any point in time, also known as 3M's so-called 15% culture, which enables employees to "set aside a portion of their work time to proactively cultivate and pursue innovative ideas", which provides them with "the space to try something new and different, think creatively and challenge the status quo" (3M 2019). 3M's chairman summarized this culture as follows:

> Those men and women to whom we delegate authority (...) are going to want to do their jobs in their own way (...). Mistakes will be made, but if a person is essentially right, the mistakes he or she makes are not as serious in the long run as the mistakes management will make if it is dictatorial and undertakes to tell those under its authority exactly how they must do their job. Management that is destructively critical when mistakes are made kills initiative, and it is essential that we have many people with initiative if we are to continue to grow (Garud et al. 2011: 749).

The opposite pattern can be inferred from studies of organizations that attempt to promote empowerment and self-organization at local levels, but ultimately fail because top managers are unable to effectively simplify the authority ladder from a restrictive to an enabling force (e.g., Appelbaum et al. 2015; Burton et al. 2017; Foss 2003; Moe et al. 2009).

All these examples reflect the causal mechanisms outlined in proposition P1, which suggests that simple versus extensive ladders of authority imply fundamentally different outcomes, in terms of fueling or constraining the self-organizing process of responsibility throughout the organization. This adds another insight to the "erosion of hierarchy" thesis: when authority ladders are becoming simpler, the organization will *increasingly* thrive on *responsibility ladders* self-organized by many agents (also at the operational levels).

The "erosion of hierarchy" phenomenon can now be reassessed as follows. For one, authority ladders may indeed become simpler in some organizations, while never entirely being eliminated. Second, when the authority ladder is becoming simpler in an organization, efforts to make policy decisions and coordinate work also increasingly draw on responsibility ladders that are self-organized throughout the organization. As a result, organizational hierarchy appears to be transforming in how it is instantiated, rather than merely eroding.

Implications for organization design

The conception of organizational hierarchy as a ladder of accountability has, thus far, served to identify two ways in which it can be instantiated. As such, this fundamental concept of hierarchy appears to apply to any type of organization and thus is independent from time and context, while it can be instantiated in a particular form (e.g., as a chain of authority) that is contingent on a particular setting. As such, I have distinguished two types of instantiations: the authority ladder and responsibility ladder. The interplay between the two, outlined in P1 and P2, gives rise to major design challenges—especially for managers that want to energize ladders of responsibility by simplifying the extant ladder of authority (Accard 2015; Burton et al. 2017; Laloux 2014). In this section, I explore several implications for organization design.

For both scholars and practitioners, the idea of hierarchy will remain highly ambiguous when related constructs such as accountability, authority, and responsibility are used as largely interchangeable. Here, the taxonomy in Table 1 helps resolve a longstanding dispute on hierarchy, by uncovering the implicit assumptions made by scholars arguing that hierarchy is a structural characteristic of any organization that grows beyond the size of a single team (e.g., Jaques 1996) and those advocating non-hierarchical structures (e.g., Burkus 2016). The former perspective aligns well with the generic definition of hierarchy as a sequence of accountability levels, whereas the advocates of non-hierarchical approaches tend to assume that hierarchy by definition implies a chain of authority levels, thus ignoring other instantiations of hierarchy. In this respect, the perspective on hierarchy developed in this paper can inform organizational design projects by both management practitioners and scholars. For example, future work on efforts to implement self-managing teams (Carte et al. 2006), enhance empowerment throughout the organization (Courpasson et al. 2012; Hempel et al. 2012), or create new organizational forms (Gulati et al. 2012; Puranam et al. 2014) can greatly benefit from a more differentiated understanding of how hierarchy can be shaped.

Moreover, elaborate process theories of the interaction between the two ladders can help better understand why and how perceptions of a "parallel hierarchy" (Psychogios et al. 2009) arise and how this affects the (often low) success rates of efforts to stimulate and implement self-managing teams or empower members of the organization in any other way (Bunderson and Boumgarden 2009; Lee and Edmondson 2017). Similarly, top managers seeking to implement new organizational designs such as holacracy would greatly benefit from deeply understanding what hierarchy is and how it can be instantiated. Some managers apparently believe that holacracy means abandoning the corporate hierarchy (Mays 2013), but this appears to be a misconception (Robertson 2015; Romme 2015). In organizational designs such as holacracy and sociocracy, self-organized ladders of responsibility coexist with and complement a robust ladder of authority; intrinsic responsibility and decision-making authority can thus freely flow in any direction, but "with an eye to maximizing efficiency, the hierarchy (…) establishes an unambiguous sequence of levels of accountability" (Romme 2015).

Notably, especially in large corporations, top managers may not have any interest in adopting a novel perspective on hierarchy. In this respect, CEOs and other executives often seek to reduce the accountability and transparency of their rung of the hierarchy. This "covering-up" process has been extensively studied by Argyris and Schön (1978) and Argyris (2004) in terms of the inconsistency between theory-in-action and espoused theory, that is, between what managers actually do and what they say they are doing. For instance, covering up one's actual behaviors, or those of others, can be done by endorsing and talking extensively about broad ideas such as "transparency," "empowerment," or "employee voice" (Argyris et al. 1985). An example is how the CEO of

Zappos attempted to get his employees to embrace holacracy, by setting an ultimatum to all employees ("embrace holacracy or accept a buyout and get out"). This "hit and run" approach toward empowerment appears to have created a major misalignment between the CEO's empowerment rhetoric and the reality of his arbitrary use of absolute authority. It left many employees in utter confusion, which is likely to prevent the company from fully implementing the intended change (Romme 2015). This example also underlines the complex challenges arising from any deliberate combination of the two ladders identified in this essay.

Therefore, both practitioners and scholars need to develop a better understanding of how the ladder of authority can truly enable responsibility ladders to emerge and thrive—in the interest of organizational performance and resilience. This raises the question how this type of organizational transformation can be done in ways that acknowledge the challenges arising from the coexistence of two types of hierarchy and the resulting need to create synergies between the two. One way is to create a simple, broadly applicable recipe or guideline that informs everyone in the company about how to easily and effectively switch between the individual responsibilities claimed by individual staff members and the ladder of decision-making authority (Romme 1996). The 15% principle used in 3M (2019), described earlier, is a good example of such a simple heuristic, one that informs everyone within the company about the individual autonomy to freely address any particular problem or challenge using up to 15% of his/her work time, while operating within 3M's authority ladder for all other purposes.

Another example is the interaction between the two ladders at Valve (Puranam and Håkonsson 2015). Valve has a relatively simple authority ladder, primarily operated by the owner-entrepreneur, who holds the final authority to decide on key issues like wages, recruitment of new employees, and dismissal of redundant employees, while employees have substantial discretion to initiate, execute, monitor, and terminate projects (Foss and Dobrajska 2015) and can therefore create their own project-related ladders of responsibility accordingly.

A third example is the sociocratic set of principles for circular management, adopted in a number of companies in the Netherlands, Canada, and elsewhere (Romme and Endenburg 2006). These principles align the bottom-up process of taking responsibility with the top-down nature of the authority ladder; a key principle here is that (the so-called circle at) level X appoints the functional leaders at the layer below this level, while each circle at the latter level appoints a delegate in the circle at level X; another principle is that all participants in a given circle are equivalent in decision-making on policy issues, taken by informed consent (Romme 1999; Romme and Endenburg 2006). Case studies of companies and other organizations that have adopted this management system demonstrate how delegates, who typically only join the decision-making process at the next higher level, can even move up to the rungs of the executive and supervisory boards—for example, to pitch and defend their ideas about increasing the company's resilience and performance (Romme 2016). The latter example appears to be exceptional, even in sociocratic companies, which underlines the non-transitive nature of responsibility, in the sense that it cannot be transferred from one person to another. Therefore, individuals claiming any higher-level responsibility need to climb up the accountability ladder themselves.

While various ways to align both ladders have apparently emerged in practice, the body of theoretical knowledge in this area is rather weak. Some preliminary implications for organization design arising from this section are the following:

P3 Managers that seek to effectively energize ladders of responsibility by simplifying the extant ladder of authority need to (a) deeply understand what organizational hierarchy in a more generic sense is, that is, a ladder of accountability (i.e., abstraction) levels, and (b) develop a more differentiated understanding of how hierarchy can be instantiated.

P4 Managers that seek to effectively energize ladders of responsibility by simplifying the extant ladder of authority have to focus on enhancing the synergy while reducing tensions between the two by developing a simple, broadly applicable guideline that informs everyone in the organization about how one switches between individual responsibilities claimed and the ladder of decision-making authority.

The novel perspective on hierarchy developed in this essay has major implications for management practice. The need to craft relatively simple ladders of authority implies, in Robertson's (2015) words, that companies should develop a governance system that runs like a smooth (cf. Android) operating system: in its most ideal form, this is a simple system that is completely transparent and reproducible in terms of its rules and procedures. In the case of sociocratic and holacratic organizations, it means that managers (at all levels) spend less time on implementing strategies and policies, because the commitment of other staff members is already obtained when these strategies and policies are initially crafted (Romme and Endenburg 2006; Romme 2016). They thus have more time available for creative thinking, discussing ideas and proposals (e.g., raised by colleagues taking responsibility for particular problems/ideas), coaching colleagues, and other activities that are critical for the company's performance and future.

Concluding remarks

The purpose of this essay is to more deeply understand the contested nature of hierarchy as a key dimension of organization design. Drawing on organizational hierarchy as a ladder of accountability levels, I identified two distinct instantiations: a ladder of decision-making authority and a ladder of self-organized responsibility. These two instantiations do not form an exclusive set, that is, the generic construct of hierarchy as a ladder of accountability may possibly also be instantiated in different ways (e.g., Brummans et al. 2013; Gould 2002). Moreover, the complementary role of non-hierarchical (e.g., network) mechanisms for coordinating and managing organizational processes (Gulati et al. 2012) was not addressed in this essay that focuses on organizational hierarchy.

By exploring the interplay between two instantiations of organizational hierarchy, a theoretical framework in the form of several propositions was developed. Finally, I discussed the implications for researching and practicing hierarchical mechanisms in organization design. Overall, any future work on organization design drawing on some notion of hierarchy would greatly benefit from a more differentiated understanding of how hierarchy can be shaped. That is, a hierarchy may become less contested by defining it as an accountability ladder that can be instantiated and used in fundamentally different ways.

Abbreviations
CEO: Chief Executive Officer; URL: Uniform Resource Locator, also known as a web address

Acknowledgements
Not applicable.

Authors' contributions
GR is the single author of and contributor to this manuscript. The author read and approved the final manuscript.

Funding
Not applicable.

Availability of data and materials
Data sharing is not applicable to this article, as no datasets were generated or analyzed during the current study.

Competing interests
The author declares that he has no competing interests.

Received: 6 May 2019 Accepted: 16 October 2019
Published online: 14 November 2019

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