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Cascading Leadership

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Summary

Cascading leadership is defined as the co-occurrence of leaders' values, attitudes and behaviors, at different hierarchical levels within an organization. The aim of this doctoral thesis is to get a better understanding of cascading leadership as well as the mechanisms underlying the phenomenon, with special focus on perceived power. We conducted three studies, using three different research methods: a systematic literature review, a field survey study, and an experimental study.

Chapter 1 introduces cascading leadership research, exploring both societal and academic relevance, as well as the aims of our study and overview of the PhD.

Chapter 2 presents our first study. As there has not been published a systematic review on the subject before, we conducted such a literature review, resulting in a selection of 18 papers, with 19 empirical studies. These studies cover a wide array of cascading constructs and theoretical perspectives. However, all studies are cross sectional, typically survey studies. Positional power and sense of power appear to play an important role, however have hardly been studied.

Chapter 3 describes our second study, in which we investigate whether trust in leadership cascades across three hierarchical levels of leadership and whether it is directly and indirectly related to work engagement of the front-line employee. Only one other cascading leadership study to date included four hierarchical levels. A total of 1,656 Dutch military peacekeepers participated. The results demonstrate cascading of trust in leadership across three levels of leadership as well as several direct and indirect relations between trust in leadership at different hierarchical levels and front-line work engagement.

Chapter 4 presents an experimental study, testing the impact of sense of power on external or internal motivation. The results demonstrate a three-way interaction, indicating that people with a high sense of power behave more according to their own predispositions, while the behavior of people with a low sense of power is driven more by their environment. Sense of power therefore offers a theoretical frame for understanding the mechanism of cascading leadership.

Chapter 5 contains a general discussion, including theoretical and practical implications of the studies.

Samenvatting

'Cascading leadership' wordt gedefinieerd als de positieve samenhang tussen waarden, attitudes en gedragingen van leidinggevers op verschillende hiërarchische posities. Het doel van dit doctoraat is om een beter begrip te krijgen van cascading leadership en de mechanismen die ten grondslag liggen aan dit fenomeen, met een bijzondere focus op de werking van macht. Hiertoe zijn drie studies uitgevoerd: een systematische literatuurreview, een veldstudie, en een experimentele studie.

Hoofdstuk 1 beschrijft het belang van onderzoek naar cascading leadership, zowel vanuit academisch als maatschappelijk perspectief. Naast een aanzet voor de definitie van cascading leadership, beschrijven we ook de inhoud van dit doctoraat.

Hoofdstuk 2 beschrijft de eerste studie. Aangezien er nog geen systematische review over cascading leadership is gepubliceerd, hebben wij er één uitgevoerd. Achttien papers, waarin negentien empirische studies beschreven staan, zijn onderdeel van deze review. De review maakt duidelijk dat een veelheid aan constructen is onderzocht, vanuit verschillende theoretische perspectieven. De studies zijn echter alle cross-sectioneel en doorgaans beperkt tot twee hiërarchische niveaus. Positionele macht en het gevoel van macht lijken belangrijk, echter zijn tot nu weinig onderzocht.

Hoofdstuk 3 beschrijft de tweede studie. Hier onderzoeken we het cascaderen van vertrouwen in leiderschap. Daarbij kijken we naar directe en indirecte relaties tussen vertrouwen in leiderschap op drie niveaus en de relatie tot bevlogenheid van medewerkers. In slechts één eerdere studie naar cascading leadership zijn vier hiërarchische niveaus onderzocht. In totaal namen 1.656 Nederlandse militaire peacekeepers deel aan het onderzoek. De resultaten bevestigen cascading van vertrouwen in leiderschap over drie leiderschapslagen, evenals verschillende directe en indirecte relaties tussen vertrouwen in leiderschap en bevlogenheid.

Hoofdstuk 4 beschrijft een experiment waarin we toetsen of machtsgevoel van invloed is op de mate waarin mensen beïnvloedbaar zijn door anderen, zoals leidinggevers. De resultaten laten een 3-weg interactie zien, die erop wijst dat mensen met een hoog gevoel van macht meer gedreven worden door de eigen predisposities, terwijl mensen met een laag gevoel van macht meer geneigd zijn zich te gedragen naar wat er in hun omgeving gebeurt. Dit ondersteunt de gedachte dat gevoel van macht een sleutelrol speelt in cascading leadership. Hoofdstuk 5 beschrijft een algemene discussie over ons onderzoek naar cascading leadership, waarbij zowel theoretische als praktische implicaties worden besproken.

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1. General Introduction

Introduction

“A leader leads by example, whether he intends to or not.”

—Anonymous

“A leader leads by example, whether he intends to or not.” When we apply this wisdom to organizations, it might explain why leaders often share similarities across hierarchical levels. If a lower-level leader imitates a higher-level leader, they effectively become more alike. Cascading leadership research is concerned with similarities between leaders at separate hierarchical positions and how they come to exist.

This dissertation aims to contribute to a better understanding of cascading leadership. More specific we want to answer the following questions: (a) how is cascading leadership defined; (b) what leadership characteristics are known to cascade, and (c) what explanations are given for cascading leadership; (c) to what extent is leadership cascading over different levels of hierarchy; (d) can theory of personal power offer an explanation for differences in cascading leadership?

Cascading leadership is also referred to as the “trickle-down effect” (e.g., Ambrose, Schminke, & Mayer, 2013), and the “falling dominoes effect” (e.g., Bass, Waldman, Avolio, & Bebb, 1987). These terms express the classic view of organizational structuring, with a chain of command from the top of an organization all the way downward till the shop- or work floor. Such chains can be long. For example, in the US military there are 11 officer ranks (see Figure 1), and 11 ranks of enlisted staff. From the five-star general to the private is a long ladder. So, to what extent is the leadership of such a five-star general impacting on lower levels of leadership, not to mention on enlisted men and women? Does the courage at the top make lower-level officers and soldiers more courageous?



Figure 1. U.S. army, air force, and marines officer ranks insignia. June 12 2016, retrieved from <https://www.army.mil/>

Leaders at separate hierarchical levels in organizations do sometimes show similarity. The first paper on cascading leadership demonstrated the co-occurrence of transformational leadership at two adjoining levels of leadership (Bass et al., 1987). Since then, several other constructs have been found to cascade. Both desirable factors, such as ethical leadership (e.g., Hansen, Alge, Brown, Jackson, & Dunford, 2013; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009), as well as less favorable characteristics, such as abusive leadership appear to cascade (Liu, Liao, & Loi, 2012; Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012).

Not only in the military, however in many organizations, public and private, we find a hierarchical structure, a chain of command, with several levels of authority. How one level of leadership is related to other levels of leadership is therefore an important and relevant question. There is a lot of anecdotal evidence that top-level leaders have impact on lower levels indeed. Many heroic stories about great and inspiring leaders are told. Even more stories, particularly with recent scandals such as in the financial industries, make showcases of the influence of top-level leaders on malpractices. In June 2016, the French ex-trader Jérôme Kerviel, who was convicted to five years of imprisonment in one of the most notorious financial scandals in France, won a victory in court. The judge decided that he should not have been fired by his former employer Société Générale. Jérôme Kerviel argued that different levels of leadership knew what he was doing and pushed him to take excessive risks, leading to the dramatic losses for which he was held responsible and was convicted. Apparently Jérôme Kerviel was not the only one taking risks.

The high-risk-behavior by Société Générale's leaders might have cascaded to employees like Kerviel, causing serious consequences for institutions and society as a whole. On the other hand, within the military, courage is very important and consequently

making sure that it is present throughout the chain of command is a good practice. Many constructs potentially cascade and depending on their characteristics can have serious consequences. In Belgium the shoe retailer Torfs has been awarded several times as employer of the year, with the CEO clearly being recognized of inspiring lower level management to adopt his values and transformational leadership behaviors.

Cascading leadership is a phenomenon which manifests itself across hierarchical levels. However, scholars have mainly focused on the lowest levels of leadership. For example, Li and Sun (2015) investigated the relation between supervisor authoritarian leadership and manager authoritarian leadership. Yet most organizations, such as the military with 11 officer ranks, are organized around much more hierarchical levels. This raises the question how and to what extent and under what conditions leadership at the top indeed trickles down to lower levels.

Although the idea of cascading desirable constructs such as courage is appealing, cascading leadership does come with potential downsides. Depending on what cascades, cascading leadership can have both positive and negative effects. An important question is how one can enhance the chance of cascading desirable constructs, however preventing cascading of undesirable attitudes or behaviors at the same time. No matter what cascades, similarities between leaders at different hierarchical levels contain another risk. Increased similarities decrease diversity and thereby can lead to groupthink, which has serious adverse consequences for decision making (Janis, 1982). This leaves leadership in organizations with a challenging task how and to what extent creating a shared form of leadership, while simultaneously incorporate diversity.

To be able to actively arrange cascading leadership, we first need to understand what underlying mechanisms explain similarities between leaders across the chain of command. To explore a few examples of the mechanisms that might cause similarities between higher and lower levels of leadership, we discuss here a hypothetical case about how competitiveness might cascade. In a Belgian investment bank a CEO, Philippe, and vice president, Rick, are the top management now for more than five years. Both leaders are very competitive, and are perceived as very much alike, aligned and in fact always back up each other's decisions. How to explain this co-occurrence of competitiveness and similarities? Philippe recruited Rick five years ago. He instructed the search committee to look for a talented person, with a strong competitive drive. As the executive board believed matching of the top team was a condition for effectiveness. Though relative

young, Rick was perceived as an excellent candidate. Less competitive colleagues had left the organization, because they didn't fit in. Once started, Philippe took the task of mentoring Rick in the job. Rick admired Philippe who had a long and successful career in finance, and still was dedicated to his job, though financially independent.

Rick started to imitate Philippe, so as to gain his approval, as well as the related financial incentives. Philippe appreciated the strong drive and ambitions of Rick, and they socialize, become friends and start sharing more and more also in their social live. Philippe sees Rick as his perfect successor, and almost familial relations develop. They share the interest in a glamorous life style and promote this. More and more, they are perceived by the organization as 'two of one kind'.¹

Several of the mechanisms described in our example have been suggested to cause similarities between leaders, such as selection effects (e.g., Yang, Zhang, & Tsui, 2010; Li & Sun, 2015), or sharing the same environment (Bass et al., 1987). Yet the majority of scholars argue that cascading leadership is a top-down process in which leaders demonstrate certain behaviors, which are imitated by lower-level leaders for several reasons such as admiration, conforming to norms (Ambrose et al., 2013) and for the sake of impression management (Wu, Lee, Hu, & Yang, 2014).

The imitation perspective on cascading leadership is most often applied in the literature. It interprets cascading leadership as a causal process in which lower-level leaders model higher-level leaders (note that we use the word modeling as synonymous with imitation). This indeed is one possible explanation for cascading leadership. However, is it also true? What empirical evidence is there for such causality? And what about the alternative explanations for the co-occurrence of leadership values, attitudes and behaviors at different levels. In order to be able to answer these questions, instead of taking a causal imitation approach, in this doctoral dissertation we approach cascading leadership as a phenomenon: the co-occurrence of leaders' values, attitudes and behaviors, at different hierarchal levels within an organization. We will explore the literature to see if there is any evidence for causal relations that explain the phenomenon.

According to the imitation explanation of cascading leadership, change in top-level leadership would also trickle-down to lower levels of leadership, all the way to

¹ Many of these elements can also been seen in the movie "The Wolf of Wall Street" (Scorsese, Winter, Belfort, 2014), which is based on autobiographical work.

having an effect on front-line employees. When higher-level leaders change, it can be expected that lower-level leaders will change in a similar vein. However, if selection effects account for similarities between leaders, a change in the behavior of a top-level is not likely to affect the behavior of extant lower-level leaders. Hence, the distinction between different causes of cascading leadership has important implications for HR policies and practices, for example regarding the subject of selection and development. Does training top-level leaders also alter how lower-level leaders behave?

In addition to exploring the extant literature, we also take a new perspective to get a better understanding of how leadership cascades. Our perspective is primarily based on the intertwined relation between the concepts of cascading leadership, power and hierarchy, which has received little attention in the extant literature. We reason that, by nature, cascading leadership cannot exist without a formal hierarchy containing different levels to cascade across. In turn, higher-level leaders have the task to influence employees positioned at lower hierarchical levels, to achieve shared objectives. To be able to exert influence, leaders need power and the amount of power leaders have is often related to their hierarchical position. So, formal position is related to the sense of power. There is ample evidence that hierarchical, or positional power, is related to a stronger personal sense of power (Anderson & Brion, 2014).

First we explore the cascading leadership literature for cues on the role of power in cascading leadership. Next we investigate the influence of power on whether people are driven by environmental factors versus personal predispositions. As we will argue, based on personal sense of power theory, a low sense of power causes people to focus on what happens in their environment, while a high sense of power causes behavior that is relatively strongly driven by people's own predispositions (Anderson & Galinsky, 2006; Van Kleef, De Dreu, Pietroni, & Manstead, 2006; Galinsky, Magee, Inesi, & Gruenfeld, 2006; Brinol, Petty, Valle, Rucker, & Becerra, 2007; Van Kleef, Oveis, Homan, van der Löwe, & Keltner, 2015; Kifer, Heller, Perunovic, & Galinsky, 2013). We investigate these effects of power and apply insights to cascading leadership.

In sum: the goal of this doctoral dissertation is to get a better understanding of the phenomenon called cascading leadership. We primarily aim to achieve this goal by exploring the concept of cascading leadership on a descriptive level. How is cascading leadership defined? Which constructs cascade? How many hierarchical levels are involved in cascading leadership? Besides our descriptive approach we also aim to

investigate *how* leadership cascades by looking at the extant literature and by shedding a new light on the role of power in cascading leadership.

The remainder of this chapter will set the stage for the succeeding chapters by discussing what, in our perception, are core ingredients of cascading leadership: leadership, hierarchy, power, and sense of power. We conclude this chapter with an overview of our studies.

Leadership, Hierarchy, Power, and Sense of Power

Leadership is defined in many different ways. Within the context of this dissertation the leadership definition of Yukl (2006) is suitable: “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives.” (p. 8). In turn influence can be defined as “a change in the belief, attitude, or behavior of a person (the target of influence), which results from the action of another person (an influencing agent).” (p. 1, Raven, 2008). To be able to influence, one needs power, or “the ability of the agent or power figure to bring about such change, using resources available to him or her.” (p. 1, Raven, 2008). In other words, leaders need a certain amount of power to be able to influence followers. In effect, without power leaders are unable to accomplish shared objectives and therefore understanding the role of power in leadership is of great importance. Power can be rooted in several of so called power sources. The frequently applied typology by French and Raven (1959) distinguishes between six power sources that are: legitimate, reward, coercive, expert, referent, and informational power. Legitimate, informational, reward, and coercive power are forms of organizational power, also called formal or positional power. Positional power is especially important for leadership roles within organizations, because this form of power comes with the position. Expert and referent power are forms of personal power.

Raven (2008) describes sources of power in relation to the context of the relation between a supervisor and a subordinate as follows: “One basis of power, which the supervisor might use, then, is Informational Power. The supervisor carefully explains to the subordinate how the job should be done differently, with persuasive reasons why that would be a better and more effective procedure.” (p. 2); “Reward Power stems from the ability of the agent to offer a positive incentive, if the target complies (a raise in pay, a promotion, special work privileges...). In Coercive Power, the agent brings about

change by threatening the target with negative, undesirable consequences (demotion, termination, undesirable work assignments...), if the target does not comply” (p. 2); “Legitimate Power stems from the target’s accepting the right of the agent to require the changed behavior, and the target’s obligation to comply...Terms such as “obliged” or “obligated,” “should,” “ought to,” “required to,” may signal the use of legitimate power. Expert Power results from the target’s faith that the agent has some superior insight or knowledge about what behavior is best under the circumstances...“Understanding the reason,” then, is what distinguishes Informational Power from Expert Power. Referent Power stems from the target identifying with the agent, or seeing the agent as a model that the target would want to emulate.” (p. 3). Since the original typology, development continued and resulted in further differentiation of the power sources, however the core is largely still the same (Raven, 1992; Raven, Schwarzwald, & Koslowski, 1998).

Almost without exception front-line leaders are dependent on their own leaders, who in turn have to report to their own leaders, who often have even more levels of leadership above them. Together the front-line employees and all the levels of leadership within an organization constitute the organizational hierarchy. Formal power is largely related to one’s hierarchical position within an organization. Most of the time people higher up in the chain of command have more formal power. However, hierarchical position does not equal total power. For example, people on lower levels can have more expert power than their superiors. Besides, it might be that people are unaware of the power they have, which makes it impossible to turn power into influence.

Power and related constructs are frequently mentioned in the cascading leadership literature, but barely investigated. For example, Ambrose et al. (2013) suggest that “SLT [social learning theory] posits that individuals learn norms for appropriate behavior by witnessing and then striving to emulate the behaviors of credible and legitimate models (Bandura, 1977, 1986).” (p. 680). Mawritz et al. (2012) suggest that “individuals are likely to model the aggressive behavior of those in positions of higher status” (p. 330) and note that “Research has shown that negative workplace events, specifically abusive behaviors, “flow downhill” to affect less powerful others (e.g., Hoobler & Brass, 2006).” (p. 331). Chen, Friedman, and Simons (2014) reason that “...due to the different hierarchical status and positions between supervisor and subordinate, senior managers are usually deemed to be powerful, credible and highly visible to middle managers (Brown et al., 2005). Therefore, middle managers are very likely to attend to senior

managers' attitudes and behaviors..." (p. 839). Chen et al. (2014) also describe the role of hierarchy, power, credibility, and status: "In organizational settings, due to the different hierarchical status and positions between supervisor and subordinate, senior managers are usually deemed to be powerful, credible and highly visible to middle managers (Brown et al., 2005). Therefore, middle managers are very likely to attend to senior managers' attitudes and behaviors and have constant interaction with them, as senior managers are their immediate supervisors. These constant interactions not only provide middle managers with opportunities to observe senior managers' attitudes and behaviors, but also serve as stimuli to reinforce and reproduce those observed behaviors and attitudes." (p. 839). What these citations illustrate is that the modeling of behavior is assumed to be driven by differences regarding several power bases. However, the underlying mechanisms are barely discussed. Because of the hierarchical nature of cascading leadership, with hierarchical position being related to formal power, we pay special attention to the role of hierarchy and power in cascading leadership.

Like Anderson, John and Keltner (2012) we make a distinction between the power one has in the form of power sources, which Anderson et al. (2012) call sociostructural power, and sense of power, which is defined as "the perception of one's ability to influence another person or other people." (p. 316). Anderson et al. (2012) make two important points regarding the distinction between the two: "First, individuals' personal sense of power is distinct from sociostructural indicators of their power. Sometimes individuals' personal sense of power coincides with their control over resources, position of authority, or status in the eyes of others, and sometimes it does not (Anderson, Srivastava, Beer, Spataro, & Chatman, 2006; Fast & Chen, 2009). Second, individuals' beliefs about their power can shape their actual influence over others, above and beyond the effects of their sociostructural position. Those who perceive themselves as powerful behave in more effective ways that increase their actual power (Bandura, 1999; Bugental & Lewis, 1999; Mowday, 1978)." (p. 314).

In short: sense of power is not the psychological equivalent of hierarchical position and has distinct effects from the formal power that comes with hierarchical position. Although someone is positioned high up in the chain of command, he or she might still have a low sense of power. In effect, front-line employees arguably can have a higher sense of power than their leaders. In other words, powerful positions and high sense of power do not necessarily co-occur. However, in general they will, because hierarchical

position, power sources, and sense of power are (at least) partially related to each other.

Overview of Studies

The field of cascading leadership is still young: the vast majority of cascading leadership articles have been published in the past five years. In effect it is not surprising that a lot of questions are still unanswered. Before answering new questions, we wish to get a good grasp of the field by investigating what is already known about the topic. We have done this by conducting the first systematic review on the topic with the aim of understanding how cascading leadership is defined, which constructs cascade, and to explore what explanations and evidence are offered for cascading leadership (see chapter 2). A total of 18 papers containing 19 studies were selected. The review leads to several suggestions for future research. One of these suggestions is to investigate more than the usual two levels of leadership in cascading leadership studies. Another suggestion is to investigate the role of power in cascading leadership. We will follow up both suggestions in chapter 3 and chapter 4 respectively.

In our second study (chapter 3), we examine cascading leadership across four hierarchical levels (including front-line employees) in a field study. We investigate the cascading of trust in leadership, and the direct as well as indirect relation between trust in leaders at different hierarchical positions and employee work engagement at the front-line employee level.

Regarding the number of hierarchical levels included in cascading leadership research, our systematic review illustrates that most of the time two levels of leadership are investigated. Yet most authors also investigate the association between middle-management and front-line employees being mediated by front-line leaders. For example, Yang et al. (2010) investigated whether front-line level transformational leadership could explain the association between middle level transformational leadership and front-line employee performance. Note that, in this extended cascading leadership model, three hierarchical levels are present. Sometimes the cascading of top-level leadership is investigated (e.g., Mayer et al., 2009), but when this is done, levels of leadership in between front-line leaders and top-level leaders are left out of account. Although presented as a phenomenon happening across hierarchical levels, only one of the studies to date has incorporated more than three hierarchical levels, including

front-line employees (Schaubroeck et al., 2012). Investigating four hierarchical levels contributes to our understanding of the hierarchical nature of cascading leadership. In addition, this is the first time that trust in leadership and work engagement are examined in cascading leadership research.

In our third study (chapter 4) we investigate the role of power in cascading leadership. As our systematic review (chapter 2) illustrates, the role of power is not directly accounted for as a mechanism explaining cascading leadership. However, several studies present moderation effects, which illustrate that cascading leadership is stronger when lower-level leaders are in disadvantageous situations (Chen et al., 2014; Simons, Friedman, Liu, & McLean Parks, 2007; Wu, Lee, Hu, & Yang, 2014). We argue that a disadvantageous situation can be a proxy for a lowered sense of power. In addition, based on previous research (e.g., Anderson & Galinsky, 2006; Galinsky, Magee, Inesi, & Gruenfeld, 2006; Van Kleef, De Dreu, Pietroni, & Manstead, 2006; Brinol, Petty, Valle, Rucker, & Becerra, 2007) we theorize that leaders with a lower (sense of) power are more inclined to look at their superior to learn how to behave, while leaders with a high sense of power are more inclined to behave according to their own preferences. Where Lewin (1951) states that behavior is a function of person and environment, we add power to the equation. Our last study is therefore an experiment in which we look at the influence of power on the effect of environment versus person-related factors on behavior. The experiment demonstrates that power decreases whether people are driven by their environment while it increases whether people are driven by the person part of Lewin's equation

In the general discussion of this dissertation, presented in chapter 5, we will elaborate on the role of power in cascading leadership. Furthermore, in chapter 5 the theoretical as well as practical implications of our studies will be discussed. We will broaden the scope and also suggest explanations for cascading leadership that have received little attention thus far, for future studies to investigate.

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2. Cascading Leadership: A Systematic Review

Largely based on: Jeuken, E., & Euwema, M. (2016). *Cascading leadership: A systematic review*. Manuscript submitted for publication.

Introduction

“Example is leadership.”

—Albert Schweitzer

Leaders set examples for their followers to model. However, most leaders are also followers themselves. Cascading leadership research is concerned with similarities between leaders at separate hierarchical levels and how these similarities arise. Recently, cascading leadership, also called the trickle-down effect (e.g., Ambrose, Schminke, & Mayer, 2013) and the falling dominoes effect (e.g., Bass, Waldman, Avolio, & Bebb, 1987), became the subject of renewed interest. As our review indicates: since 2010 a total of 13 quantitative empirical papers have been published on the topic, while before 2010 we were able to find only 5 papers published on the topic. Different perspectives on cascading leadership exist. Authors differ in how they define cascading leadership, different constructs are investigated to cascade, and also the theoretical framing of how and under which conditions leadership cascades varies by author. To progress the field of cascading leadership research we conduct the first systematic review on the topic, with the goal to present a coherent overview of quantitative empirical cascading leadership research to date.

In this review we will refer to hierarchical levels in the following way. Front-line employees and their teams are labeled L1 (level one). L2 refers to the direct leader of L1. With L3 we refer to whom are sometimes called skip-level leaders (e.g., Li & Sun, 2015), and positioned one hierarchical level above L2 and two levels above L1. LX refers to a (top) management leader of whom the exact hierarchical level is unknown, but is higher up in the chain of command than L2 (e.g., Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Ruiz, Ruiz, & Martínez, 2010; Ling, Lin, & Wu, 2016).

Papers by Bass et al. (1987) and Yammarino (1994) are at the root of cascading leadership literature and are for that reason the starting point of this systematic review. Bass et al. (1987) were the first to use the term “cascading leadership” along with one of its synonyms “the falling dominoes effect”. They do not give a strict definition, however describe the phenomenon. They aimed to determine “Whether and how the leader’s own behavior influences the leadership behavior of his or her followers” (p. 73), and examined whether “... patterns of leadership cascade from one management level to another as a

consequence of selection, modeling, and other processes.” (p. 73-74). From these citations it is clear that cascading leadership happens across multiple levels of leadership. We note that in the research question the focus is on “leadership behavior” while the second citation refers to “patterns of leadership”. Bass et al. (1987) investigated the cascading of dimensions of transformational and transactional leadership. Their study confirmed the cascading of the three investigated transformational leadership dimensions: charisma, individualized consideration, and intellectual stimulation. Transactional leadership showed a significant correlation between levels of leadership for contingent reward, but not for management by exception. Bass et al. (1987) focus on these behaviors, however cascading of other constructs is not excluded.

Bass et al. (1987) appear cautious in assuming causal relations in cascading leadership, and present findings as correlational: “A cascading effect of transformational leadership emerged in this investigation. The degree of transformational leadership behavior observed at one level of management tended also to be seen at the next lower level of management. The leadership patterns of subordinate-superior dyads somehow tended to match each other.” (p. 84). Confirming the correlational perspective Bass et al. (1987) describe the aim of their study with a focus on leadership at one level being “reflective” of leadership seen at another level: “We set out here to examine whether transformational and transactional leadership shown at one hierarchical level of management were reflective of that displayed at the next lower level.” (p. 76).

The explanation for cascading is multi-causal. Bass et al. (1987) suggest a wide variety of possible explaining mechanisms for cascading leadership: “The falling dominoes effect may be due to followers *modeling* the behavior of their superiors, as proposed earlier. However, differential *selection* provides another plausible explanation for our findings. It may be that lower-level supervisors are either self-selected, selected by their second-level manager, or organizationally selected into positions so that they will be stylistically compatible with their superiors.” (p. 83). In addition, Bass et al. (1987) suggest another plausible explanation, based on the “subculture of norms, beliefs, and values within which the leaders operate. In the same way, the environmental and technical demands in one subunit may generate common job requirements and therefore dictate the differential leadership observed and required at the two levels of the subunit. Future research will need to tease out the variance in leadership ratings due to modeling of the leader, differential selection, and organizational culture and that due to common

environmental and task demands placed on superior and subordinate.” (p. 84). Last, they also suggest displaced aggression and intellectual stimulation as explanations for cascading leadership: “If your superior is inconsiderate to you, it may be easier to displace your aggression by being inconsiderate to your subordinates. Alternatively, if your superior is considerate to you, you may feel good about yourself and more able to be concerned about your subordinates’ needs. It also seems to follow that if your superior intellectually stimulates you, some of the new ideas and the stimulating process would be passed on by you to your subordinates. Moreover, your leader’s attempt to get you to think about old problems in new ways may encourage you to do the same with your subordinates.” (p. 76-77).

Yammarino (1994) defines cascading leadership as “the modeling of behaviors of leaders at successively lower levels of management” (p. 35) and notes that “As a result, from a cascading perspective, a focal leader at a particular level has influence on followers at lower levels beyond his or her direct reports.” Within the context of cascading leadership, many authors also test for what Yammarino (1994) called a bypass effect. Besides the indirect cascading effect, higher-level leaders (L3/LX) potentially also have a direct effect on employees two or more levels down the chain of command (L1). This effect occurs when, for example, L3 transformational leadership and L1 performance are related, skipping or bypassing L2. The bypass effect only exists when the cascading leadership does not apply or is confirmed only by partial mediation, instead of full mediation effect.

In line with Bass et al. (1987), Yammarino (1994) includes multiple levels of management. Also similar to Bass et al. (1987), according to Yammarino (1994) cascading may be the result of “selection [...]; the subculture of norms, beliefs, and values in which leaders operate; or some combination of three” (p. 37), however while Bass et al (1987) describe cascading leadership as a consequence of modeling (among other processes), Yammarino (1994) describes modeling as part of the definition of cascading leadership. Hence, the definition by Yammarino (1994) appears to be more restrictive. However, note that neither Bass et al. (1987) nor Yammarino (1994) define “modeling” explicitly, but mainly describe it as synonymous with imitating someone. Yammarino (1994) describes an example of modeling as follows: “supervisor identifies with and adopts the manager’s or boss’s leadership behavior.” Neither describe modeling or role modeling conclusively.

We investigate what evidence the current literature presents for these as well as more recent perspectives on cascading leadership and aim to answer how cascading leadership is defined, which factors have been studied to cascade, and what theoretical explanations are used to demonstrate cascading leadership. Based on Bass et al. (1987) and Yammarino (1994) we take as starting definition for cascading leadership, a descriptive level: cascading leadership is the co-occurrence of leaders' values, attitudes and behaviors, at different hierarchal levels within an organization.

Method

A total of 12 databases were consulted to identify relevant papers published up to February 2016²: Business Source Premier, EconLit, ERIC (Ovid), International Bibliography of the Social Sciences (IBSS), PsycARTICLES (Ovid), PsycINFO, ScienceDirect, Scopus, SocINDEX, SpringerLink, Web of Science, and Wiley Online Library. The following search query was used: ("Cascading" OR "trickle down" OR "trickle-down" OR "falling dominoes") AND ("Leadership" OR "management" OR "supervision"). Because we did not have a definitive definition to apply as a selection criterion, we used the above described working definition ("cascading leadership is the co-occurrence of leaders' values, attitudes and behaviors, at different hierarchal levels within an organization.")

Results

Study Selection

Papers were included in our review when they (1) were published in a scientific peer reviewed journal; (2) met our working definition of cascading leadership; (3) contained original quantitative research; (4) were written in English. We limited our search to quantitative research because only a small number of qualitative studies on cascading leadership exists (e.g., Bucic, Robinson, & Ramburuth 2010; Coad, 2000) and comparability is restricted. Only papers that met all four criteria were included.

The relevance of the identified articles was determined by assessing the title, then abstract, and lastly the full text. Duplicates were excluded with each subsequent database. See Table 1 for the number of hits and the number of papers selected based on title and abstract per database. After the assessment of the full texts, the final selection contained 19 papers and 20 studies.

² One paper published after this date was added.

Reference lists of the selected articles were also screened, but did not bring up additional studies for inclusion.³

Table 1
Search Results

Database	Hits	Titles and Abstracts
Business Source Premier	630	22
EconLit	29	0
ERIC (Ovid)	274	0
International Bibliography of the Social Sciences (IBSS)	56	9
PsycARTICLES (Ovid)	155	5
PsycINFO	70	29
ScienceDirect	157	7
Scopus	966	8
SocINDEX	28	5
SpringerLink	375	1
Web of Science	1424	20
Wiley Online Library	309	3
Total	4473	109

Demographics of Studies

Out of 20 studies, 11 reported the percentages for gender, discriminating between L1 and L2 (Ambrose et al., 2013; Chen, Friedman, & Simons, 2014; Chun, Yammarino, Dionne, Sosik, & Moon, 2009; Li and Sun, 2015; Ling, Lin, & Wu, 2016; Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012; Simons, Friedman, Liu, & McLean Parks, 2007; Wo, Ambrose, & Schminke, 2015; Wu, Lee, Hu, & Yang, 2014; Yang, Zhang, & Tsui, 2010). Only one study reported a higher percentage of female L2 than female L1 (Ambrose et al., 2013). In other words, males are over-represented in leadership roles in the studies investigated.

³ In line with our working definition, we excluded studies which focus on processes in other contexts than labor organizations (e.g., Fletcher, 2013). Also, studies defining cascading leadership in a normative way (empowering employees) were excluded, as this is essentially another concept (e.g., Pasternack, Williams, & Anderson, 2001). Also, studies not including at least two levels of leadership were excluded, as well as studies which do not refer to leaders, however to “the organization” (e.g., Masterson, 2001; Netemeyer, Maxham, & Lichtenstein, 2010; Shanock & Eisenberger, 2006; Tepper & Taylor, 2003; Bordia, Restubog, Bordia, & Tang, 2010; Erdogan & Enders, 2007). Although these applications of the terms are appropriate within their own context, they do not comply with our working definition of cascading leadership.

Out of 20 studies, 9 reported the average or the median of age, discriminating between L1 and L2 (Ambrose et al., 2013; Li & Sun, 2015; Ling et al., 2016; Mawritz et al., 2012; Simons et al., 2007; Wo et al., 2015; Yang et al., 2010). In all cases the average age is higher for L2 than for L1, except in the study by Chen et al. (2014), who report that the median age is “35-40” for both L1 and L2. Out of 20 studies, 6 were conducted in Asian countries (Chun et al., 2009; Hirst, Walumbwa, Aryee, Butarbutar, & Chen, 2015; Li & Sun, 2015; Ling & Sun., 2016; Wu et al., 2014; Yang et al., 2010). The remaining 14 studies were conducted in Western countries, of which 10 in the USA.

Defining Cascading Leadership

Not all authors define cascading leadership. Many authors refer to previous cascading leadership papers, without presenting a definition themselves, while most of the articles being referred to lack a definition as well. When presented, definitions and how they are applied vary. By comparing definitions and their applications we aim to gain a better understanding of how cascading leadership is defined.

Cascading leadership is being described in many ways. Note that we use the term cascading leadership for consistency as synonymous with trickle-down and falling dominoes. While some authors describe cascading leadership as being a “theory” (e.g., Hirst et al., 2015), others describe it as a “mechanism” (e.g., Simons et al., 2007), again others write about “a” cascading/trickle-down “model” or “the” cascading/trickle-down “model” (e.g., Mawritz et al., 2012; Schaubroeck et al., 2012; Wu et al., 2014; Ling et al., 2016), or a “process” (e.g., Liu, Liao, & Loi, 2012), but the vast majority of the authors describe cascading “effects” (e.g., Ambrose et al., 2013; Chen et al., 2014; Hansen, Alge, Brown, Jackson, & Dunford, 2013; Simons et al., 2007; Wo et al., 2015). Frequently combinations of several of the aforementioned terms are used. What is meant with these expressions is often left unexplained. Some authors (e.g., Wu et al., 2014) refer to “the trickle-down model” as the theoretical foundation for their research, yet it is not made clear what the trickle-down model encompasses nor how it can be seen as a theoretical foundation. When authors use the term “effect” or “model”, often different perspectives are given on what the effect or model constitutes. Most authors describe cascading “effects”, yet the word “effect” implies causation, while all studies investigated in this review are of correlational nature. At least at this point in time, it seems appropriate to describe cascading leadership as a phenomenon instead. Future

research must tell whether the co-occurrence can be explained by causality.

As might be expected based on the terms “cascading” and “trickle-down” all authors describe cascading leadership as “top-down” and most describe it as a causal relation across subjects on different levels within an organizational hierarchy, yet which hierarchical levels can potentially be part of cascading leadership is less clear. Describing cascading leadership, Bass et al. (1987) ask whether “... patterns of leadership cascade from one management level to another as a consequence of selection, modeling, and other processes.” (p. 73). This makes clear that a minimum of two levels of management are involved. Most authors appear to agree with at least two management levels being involved (e.g., Chen et al. 2014; Chun et al., 2009; Hansen et al., 2013; Hirst et al., 2015; Li & Sun, 2015; Liu et al., 2012; Mawritz et al., 2012; Mayer et al., 2009; Ruiz et al., 2010; Simons et al., 2007).

In cascading leadership research, constructs are often measured by enquiring respondents about themselves, but often measurements also consist of items that refer to perceptions about another organizational member. We focus on the hierarchical level of the target or referent of the construct in question. Therefore, in the case of a measure of “satisfaction with supervision” as perceived by an L1 (Chen et al., 2014), we interpret the construct as an L2 construct, even though the items were answered by L1.

In Figure 1 the basic components of most cascading leadership models are presented along with the bypass effect. All authors include multiple hierarchical levels in their description of cascading leadership, but they differ in the amount and the specific levels that are included. Ambrose et al. (2013), Bass et al. (1987), Simons et al. (2007), Stordeur, Vandenberghe, and D’hoore (2000), and Wo et al. (2015), included only L2 and L3 in their research model. All of the other authors included three hierarchical levels (L3/LX, L2, and L1) in both their descriptions of cascading leadership and their research models. Schaubroeck et al. (2012) even included a third level of leadership (L4). In effect most authors investigated cascading leadership, including the indirect effect often tested by interpreting the construct with an L2 as the referent as mediating the association between L3/LX and L1. We interpret both the indirect effect of L3/LX through L2 on L1 and the direct effect of L3/LX on L2 as cascading leadership. For conceptual clarity, we call them respectively first order (L3 - L2) and second order (L3/LX - L2 - L1) cascading leadership. Although second order cascading adds to our understanding of cascading leadership, first order cascading is most of the time described as the core of the cascading

leadership phenomenon, and is consequently the main focus of this review.

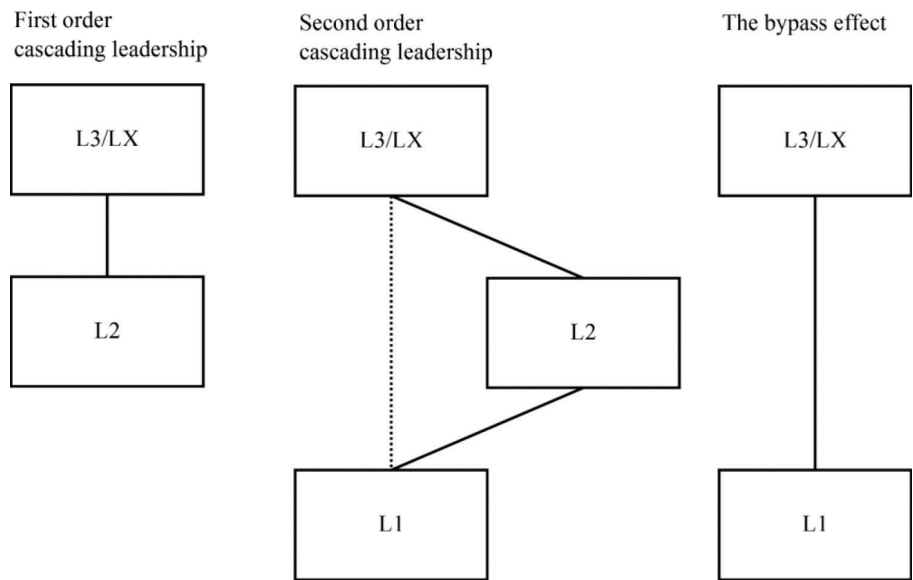


Figure 1. First order cascading, second order cascading, and the bypass effect

Different studies have tested the cascading of a wide variety of phenomena related to leadership. The following is described to cascade: patterns of leadership (Bass et al. 1987), perceptions (Simons et al., 2007), treatment (Chen et al., 2014), influence (Chun et al., 2009; Li & Sun, 2015; Yang et al., 2010), leadership styles (Hansen et al., 2013; Mayer et al., 2009; Schaubroeck et al., 2012), and behaviors (Hirst et al., 2015; Liu et al., 2012; Mawritz et al., 2012; Stordeur et al., 2000). Both Wo et al. (2015), Ambrose et al. (2013) and also Wu et al. (2014) describe that perceptions, attitudes, as well as behavior can cascade. Note that these categories are not mutually exclusive. Nor do authors indicate why specific phenomena could or could not cascade. What this overview illustrates, is that a wide variety of constructs are investigated to cascade. Because many constructs potentially cascade, we conform to a definition of cascading leadership according to which perceptions, attitudes and behavior (potentially) cascade.

Regarding the underlying processes, like Yammarino (1994), many articles describe role modeling as being part of the cascading leadership effect, but as we will see, role modeling is only one of the possible mechanisms explaining cascading leadership. In effect we suggest role modeling to be perceived as a possible explaining mechanism and not as part of the definition of cascading leadership. It can be used to

explain the phenomenon, but is not necessarily part of the phenomenon.

Based on the preceding, and mainly because of the correlational nature of the extant research, we remain with our starting definition of cascading leadership as the co-occurrence of leaders' values, attitudes and behaviors, at different hierarchal levels within an organization.

Which Specific Attitudes, Behaviors and Perceptions Cascade?

In Table 2 we present a comprehensive overview of all selected cascading leadership studies, including demographics (country, sector, and sample), the constructs studied at all hierarchical levels (with in parentheses the level of the employee who filled out the survey), and in the last two columns whether first order and/or second order cascading was tested, whether the test was significant and in case of second order cascading what direction the association between L1 and L3/LX was.

Table 2

Demographics, Constructs Per Level, and First Order or Second Order Cascading Leadership Configuration and Significance for Selected Studies

Authors	Country	Sector	Sample N	Level1: ground floor employee/team ^{1,2}	Level2: first level management ^{1,2}	Level3/LevelX: second/higher-level management ^{1,2}	1 st order ^{3,4}	2 nd order ^{3,5}
Ambrose et al. (2013)	United States	Various	406 employees , L1 83 supervisors , L2 83 departments 72 organizations	Organizational citizenship behavior (Williams & Anderson, 1991), (L2)	Interactional justice (climate) (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Roberson & Colquitt, 2005), (L1)	Interactional justice (Colquitt, 2001), (L2)	X*	+X*
				Organizational deviance (Bennett & Robinson, 2000), (L2)	Interactional justice (climate)	Interactional justice	X*	-X*
				Interpersonal deviance (Bennett & Robinson, 2000), (L2)	Interactional justice (climate)	Interactional justice	X*	-X*
Bass et al. (1987)	New Zealand	Government	56 supervisors , L2 5 subordinates , L1 per L2	-	Charisma, (L1) (Bass, 1985)	Charisma, (L1) (Bass, 1985)	X*	-
				-	Individualized consideration, (L1) (Bass, 1985)	Individualized consideration, (L1) (Bass, 1985)	X*	-
				-	Intellectual stimulation, (L1) (Bass, 1985)	Intellectual stimulation, (L1) (Bass, 1985)	X*	-
				-	Contingent reward, (L1) (Bass, 1985)	Contingent reward, (L1) (Bass, 1985)	X*	-
				-	Management-by-Exception, (L1) (Bass, 1985)	Management-by-Exception, (L1) (Bass, 1985)	X	-
Chen et al. (2014)	United States & Canada	Hotel	1527 employees , L1 267 managers , L2 94 hotels	Employees' intentions to stay (Robinson, 1996), (L1)	Satisfaction with supervision (Hackman and Oldham, 1975), (L1)	Satisfaction with supervision (Hackman and Oldham, 1975), (L2)	X*	+X*
Chun et al. (2009)	Korea	-	218 staff members , L1 77 managers , L2 27 department heads , L3 13 companies	Affective and general job satisfaction (Hackman & Oldham's, 1980), (L1)	Charismatic leadership (Bass & Avolio, 1997), (L1)	Charismatic leadership (Bass & Avolio, 1997), (L1)	X*	+X*
				Altruism (MacKenzie et al., 2001), (L1)	Charismatic leadership	Charismatic leadership	X*	+X*
				Productivity (Mott, 1972) (L1)	Charismatic leadership	Charismatic leadership	X*	+X*
				Affective and general job satisfaction (Hackman & Oldham's, 1980), (L1)	Contingent reward leadership (Bass & Avolio, 1997), (L1)	Contingent reward leadership (Bass & Avolio, 1997), (L1)	X*	+X*
				Altruism (MacKenzie et al., 2001), (L1)	Contingent reward leadership	Contingent reward leadership	X*	+X*
Hansen et al. (2013)	United States	Waste management	201 employees , L1	Organization directed affective commitment (Meyer & Allen, 1997), (L1)	Ethical leadership (Brown & Trevino, 2005), (L1)	CEO/ organizational ethical leadership (Brown & Trevino, 2005), (L1)	-	+X*
				Supervisor directed affective employee commitment (Meyer & Allen, 1997), (L1)	Ethical leadership	CEO/ organizational ethical leadership	-	+X*

Table 2 continued...

Demographics, Constructs Per Level, and First Order or Second Order Cascading Leadership Configuration and Significance for Selected Studies

Authors	Country	Sector	Sample <i>N</i>	Level1: ground floor employee/team ^{1,2}	Level2: first level management ^{1,2}	Level3/LevelX: second/higher-level management ^{1,2}	1 st order ^{3,4}	2 nd order ^{3,5}
Hirst et al. (2015)	Taiwan	Public sector (Taiwan customs)	489 employees , L1 123 teams 48 departments	Leader member exchange (Scandura, Graen, & Novak, 1986), (L1)	Team authentic leadership (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008), (L1)	Department-level authentic leadership (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008), (L1)	X*	+X*
Li & Sun (2015)	China	Various	243 employees , L1 52 supervisors , L2	Employee voice behavior (Van Dyne & LePine, 1998), (L1)	Supervisor authoritarian leadership (Cheng, Chou, and Farh, 2000)	Manager authoritarian leadership (Cheng, Chou, and Farh, 2000)	X*	+X*
Ling, Lin, & Wu (2016)	China	Hotel	325 employees, L1 33 supervisors, L2	Service-oriented behaviors (Peccei & Rosenthal, 2000) (L1)	Middle-level servant leadership, (L1)	Top-level servant leadership, (L1)	X*	+X*
Liu et al. (2012)	United states	Automobile parts manufacturing	762 team members , L1 108 teamleaders , L2	Team member creativity (Zhou & George, 2001), (L2)	Team leader abusive supervision (Tepper, 2000), (L1)	Department leader abusive supervision (Tepper, 2000), (L2)	-	+X*
Mawritz et al. (2012)	United States	Various	288 supervisors , L2 3 ≥ employees, L1, per L2	Work group interpersonal deviance (Bennett & Robinson's, 2000), (L2)	Abusive supervisor behavior (Tepper, 2000), (L1)	Abusive manager behavior (Tepper, 2000), (L2)	X*	+X*
Mayer et al. (2009)	United States	Various	891 employees , L1 195 managers , L2 160 organizations	Group deviance (Bennett & Robinson, 2000), (L1), (L2) Group organizational citizenship behavior (Smith, Organ, & Near, 1983), (L1), (L2)	Supervisory ethical leadership (Brown, Trevino, & Harrison, 2005), (L1) Supervisory ethical leadership (Brown, Trevino, & Harrison, 2005), (L1)	Top management ethical leadership (Brown, Trevino, & Harrison, 2005), (L1) Top management ethical leadership (Brown, Trevino, & Harrison, 2005), (L1)	X* X*	-X* +X*
Ruiz et al. (2010)	Spain	Banking and insurance	525 employees , L1 "Multiple" organizations	Job satisfaction (Seashor, Lawler, Mirvis, & Cammann, 1982), (L1)	Supervisor's ethical leadership (Brown, Trevino, & Harrison, 2005), (L1)	Top Manager's ethical leadership (Adapted from Koh & Boo, 2001; Vitell & Davis, 1990; with addition of other items from Trevino & Weaver, 2001; Trevino, Butterfield, & McCabe, 1998), (L1)	X*	+X*
				Affective Organizational commitment (Allen & Meyer, 1990), (L1)	Supervisor's ethical leadership	Top Manager's ethical leadership	X*	+X*
				Turnover intention (Konovsky & Cropanzano, 1991), (L1)	Supervisor's ethical leadership	Top Manager's ethical leadership	X*	-X*
				Organizational citizenship (Cardona, Lawrence, & Bentler 2004), (L1)	Supervisor's ethical leadership	Top Manager's ethical leadership	X*	+X*
Schaubroeck et al. (2012) ⁶	United States	Army	172 squads, M = 6.09 , L1 78 platoons, M = 3.61 , L2	Squad ethical culture (Treviño et al., 1998), (L1)	Squad ethical leadership (Brown, Trevino, & Harrison, 2005), (L1)	Platoon ethical leadership (Brown, Trevino, & Harrison, 2005), (L2)	X*	+X*

Table 2 continued...

Demographics, Constructs Per Level, and First Order or Second Order Cascading Leadership Configuration and Significance for Selected Studies

Authors	Country	Sector	Sample <i>N</i>	Level1: ground floor employee/team ^{1,2}	Level2: first level management ^{1,2}	Level3/LevelX: second/higher-level management ^{1,2}	1 st order ^{3,4}	2 nd order ^{3,5}
Simons et al. (2007)	United States & Canada	Hotel	1944 line employees , L1 449 managers , L2 107 hotel properties	Commitment (Mowday, Steers, & Porter, 1979)	Manager behavioral integrity, (L1)	Upper level manager behavioral integrity	X*	+X*
				Interpersonal justice (simplified scale: Niehoff & Moorman, 1993)	Manager behavioral integrity	Upper level manager behavioral integrity	X*	+X*
				Employee intent to remain (Robinson, 1996)	Manager behavioral integrity	Upper level manager behavioral integrity	X*	+X*
				Trust in the manager (Mayer, Davis, & Schoorman, 1995)	Manager behavioral integrity	Upper level manager behavioral integrity	X*	+X*
				Global satisfaction	Manager behavioral integrity	Upper level manager behavioral integrity	X*	+X*
Stordeur et al. (2000)	Belgium	Health care	411 nurses , L1 41 head nurses , L2 12 associate directors , L3	-	Head nurse transformational leadership (Bass & Avolio, 1991), (L1)	Associate director transformational leadership (Bass & Avolio, 1991), (L2)	X	-
				-	Head nurse transactional leadership (Bass & Avolio, 1991), (L1)	Associate director transactional leadership (Bass & Avolio, 1991), (L2)	X	-
Tucker et al. (2016) ⁷	Canada	Various	2714 employees, L1 1398 supervisors, L2 229 top management, LX leaders	Work related injuries (L1)	Supervisor's support for safety, (L1)	Top management team safety climate (Zohar & Luria, 2005), (LX (top management team members)) Organizational safety climate, (L2)	X*	-X*
Wo et al. (2015) study 1	United States	Various	200 employees , L1 200 supervisor , L2	-	Interpersonal justice perceptions (immediate boss as referent: Colquitt, 2001), (L1)	Interpersonal justice perceptions (immediate boss as referent: Colquitt, 2001), (L2)	X*	-
				-	Informational justice perceptions (immediate boss as referent: Colquitt, 2001), (L1)	Informational justice perceptions (immediate boss as referent: Colquitt, 2001), (L2)	X*	-
Wo et al. (2015) study 2	United States	Various	270 employees , L1 270 supervisor , L2	-	Interpersonal justice perceptions (immediate boss as referent: Colquitt, 2001), (L1)	Interpersonal justice perceptions (immediate boss as referent: Colquitt, 2001), (L2)	X*	-
				-	Informational justice perceptions (immediate boss as referent: Colquitt, 2001), (L1)	Informational justice perceptions (immediate boss as referent: Colquitt, 2001), (L2)	X*	-
Wu et al. (2014)	Taiwan	Electronics and appliance stores	135 employees , L1 41 supervisors , L2	Organizational citizenship behavior-individual (Lee & Allen, 2002), (L2)	Perceived supervisory non-work support (Cheng, Chou, & Farh, 2000), (L1)	Perceived supervisory non-work support (Cheng et al., 2000), (L2)	X*	+X*
				Organizational citizenship behavior-organizational (Lee & Allen, 2002), (L2)	Perceived supervisory non-work support	Perceived supervisory non-work support	X*	+X*

Table 2 continued...

Demographics, Constructs Per Level, and First Order or Second Order Cascading Leadership Configuration and Significance for Selected Studies

Authors	Country	Sector	Sample <i>N</i>	Level1: ground floor employee/team ^{1,2}	Level2: first level management ^{1,2}	Level3/LevelX: second/higher-level management ^{1,2}	1 st order ^{3,4}	2 nd order ^{3,5}
Yang et al. (2010)	China	Tele-communications, Banking	491 employees , L1 98 supervisors , L2 30 middle managers , L3 3 organizations	Employee job performance (adapted from Tsui, 1984), (L2)	Transformational leadership behavior (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Podsakoff, MacKenzie, & Bommer, 1996), (L1)	Transformational leadership behavior (Podsakoff, et al., 1990; Podsakoff, et al., 1996), (L2)	X*	+X*

Notes.

See original articles for references of measures.

¹ The levels written in parenthesis indicate the hierarchical level of the respondent who filled in the respective questionnaire.

² When no authors are mentioned within cells under L1, L2, or L3, scales are developed as part of the study.

³ “X” indicates whether a cascading leadership effect was tested, by itself or mentioned as part of a mediation analysis. “*” Indicates a significant effect.

⁴ First order cascading leadership is confirmed by a positive association between the constructs mentioned under L2 and L3. By nature, all first order cascading leadership effects are hypothesized to be positive and for that reason no distinction is made between positive and negative effects. In effect significant first order cascading leadership effects are always positive.

⁵ Second order cascading leadership is confirmed when the association between constructs mentioned under L1 and L3 is mediated by the construct mentioned under L2. The “+” and “-” sign indicate whether the association between the constructs mentioned under L3 and L1 are positive or negative, respectively.

⁶ In this study the relation between L4 and L3 was also studied and found to be significant.

⁷ In this study the relation between the two highest levels of leadership was also studied and found to be significant. The exact levels of leadership are unknown (LX).

The 19 selected articles contain 20 studies. The article by Wo et al. (2015) contains two studies, all the other articles contain one study. Regarding the association between L3/LX and L2 a total of 13 constructs have been studied: ethical leadership (4 times: Hansen et al., 2013; Mayer et al., 2009; Ruiz et al., 2010; Schaubroeck et al., 2012), charismatic/transformational leadership or a selection of its dimensions (4 times: Bass et al., 1987; Chun et al., 2009; Stordeur et al., 2000; Yang et al., 2010), transactional leadership or a selection of its dimensions (3 times: Bass et al., 1987; Chun et al., 2009; Stordeur et al., 2000), satisfaction with supervision (Chen et al., 2014), authentic leadership (Hirst et al., 2015), authoritarian leadership (Li & Sun, 2015), abusive supervision (Liu et al., 2012; Mawritz et al., 2012), behavioral integrity (Simons et al., 2007), interpersonal justice perceptions (in two studies: Wo et al., 2015), informational justice (in two studies by Wo et al., 2015), interactional justice (Ambrose et al., 2013), servant leadership (Ling et al., 2015), and perceived supervisory non-work support (Wu et al., 2014). Four studies only investigated first order cascading leadership, while all the others also studied second order cascading leadership. All studies found evidence for cascading leadership except for the study by Stordeur et al. (2000) on transformational leadership as well as transactional leadership.

A wide range of constructs are measured as outcome variables of second order cascading. Measures at L1 that occur more than once are intentions to stay (Chen et al., 2014; Simons et al., 2007), group deviance (Ambrose et al., 2013; Mawritz et al., 2012; Mayer et al., 2009) organizational citizenship behavior (Ruiz et al., 2010; Wu et al., 2014; Chun et al., 2009), and group organizational citizenship behavior (Ambrose et al., 2013; Mayer et al., 2009; Wu et al., 2014). Note that a theoretical difference exists between organizational citizenship behavior and group organizational citizenship behavior (see Euwema, Wendt, & Van Emmerik, 2007).

How Does Leadership Cascade?

Now that we have defined cascading leadership and have presented which constructs have been investigated to cascade, we look at *how* leadership cascades. We do this by describing how the three main theories have been applied. Next we discuss mediators and moderators that shed light on why and under which conditions L2 resemble L3. We finish this overview with a number of concepts and propositions that re-occur within the cascading leadership literature, but are not yet tested.

Three main theories

Many authors adopt one or more theories to reason about the mechanisms by which cascading leadership works. The three major theories are (Wo et al., 2015): social learning theory (Bandura, 1977, 1986), social exchange theory (Blau, 1964) and displaced aggression theory (Miller, Pederson, Earleywine, & Pollock, 2003). Although these theories are often referred to, to date Wo et al. (2015) are the only ones who have tested the explaining mechanisms statistically.

Social learning theory. Social learning theory (Bandura, 1977, 1986) is by far the most mentioned theory. In 14 out of 19 articles social learning theory is mentioned to explain cascading leadership. The remaining 5 out of 19 articles follow a logic comparable to social learning theory, however do not mention the theory (Bass et al., 1987; Ruiz et al., 2010; Stordeur et al., 2000; Chun et al., 2009; Ling et al., 2015). As we have noticed regarding the definition of cascading leadership, in general scholars attribute the cascading leadership effect to a modeling process in which subordinates “model” or “imitate” their superior. Since (role) modeling is considered an important part of social learning theory as well, the frequent application of this theory is not surprising.

The goal of social learning theory is to explain how people learn from others: “most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action.” (Bandura, 1977, p. 22). The theory describes four conditions that must be met for effective modeling to occur. First, a person must pay close attention to the behavior. The second condition is retention. In other words, the behavior must be remembered. Third is (motor) reproduction. For modeling to occur people need to be able to reproduce the behavior. The fourth condition is motivation. People need a reason to model someone and prefer to model behavior that results in positive outcomes as opposed to negative outcomes. According to social learning theory people are more likely to model behavior when they perceive the referent as credible.

Ambrose et al. (2013) described the application of social learning theory on cascading leadership in a representative manner: “individuals learn norms for appropriate behavior by witnessing and then striving to emulate the behaviors of credible and legitimate models (Bandura, 1977, 1986). Given their status in organizations, leaders often serve as role models for determining acceptable and appropriate behavior. Thus, a supervisor is likely to look to his or her manager to learn the appropriate way to

interact with others.” (p. 680).

Wo et al. (2015) are to date the first and only ones to empirically investigate the mechanisms underlying cascading leadership in relation to the three foremost theories (social learning theory, social exchange theory, and displaced aggression). They argue that different constructs cascade through different routes, either a cognitive route or an affective more emotion driven route. Wo et al. (2015) adopt social learning theory and social exchange theory to explain the cognitive route and adopt displaced aggression theory to explain the affective route. Their reasoning regarding the affective route will be discussed below, within the context of the theoretical discussion about displaced aggression as an underlying mechanism of cascading leadership. Regarding the cognitive route: “supervisors make cognitive inferences about the interactional justice behavior they experience from their managers and these cognitive inferences then affect their treatment of their subordinates.” (p. 1858) and “Social learning theory argues supervisors infer managers’ behavior as useful and worth learning, which then motivates them to emulate the same behavior in treating their subordinates.” (p. 1858). They tested the association between L3 and L2 interpersonal justice perceptions (emotion-laden and therefore related to affections), as well as interactional informational justice (informational-laden, and therefore related to cognitions). Because informational justice is more of an information laden construct, Wo et al. (2015) measured L2’s perception of managers’ role model influence (Rich, 1997) in study 1 and interactional efficacy in study 2, as cognitive mediators, explaining the association between L3 and L2 informational justice. Even though social learning theory is the most discussed theory within the cascading leadership literature, they did not find support for the mediation effects.

Social exchange theory. Social exchange theory is the second most applied theory. Five out of 19 articles refer to this theory to explain cascading leadership (Hansen et al., 2013; Hirst et al., 2015; Mayer, 2009; Wo et al., 2015; Wu et al., 2014). From a social exchange perspective people behave in line with the norm of reciprocity (Blau, 1964). When treated in a certain way people tend to treat others in the same way. Wu et al. (2014): “The social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005), which emphasizes the role of reciprocity, can also explain the flow from supervisors’ PSNS [perceived non-work support] to subordinates’ PSNS. That is, when individual A does something favorable to individual B, individual B feels obligated to return the favor. The aforementioned exchange manifests reciprocal exchange (Gouldner, 1960). For that

reason, when a supervisor offers a non-work support to subordinate, the subordinate will do the same favor to the supervisor. However, because there are many targets of interpersonal interaction in an organization, the target of reciprocal exchange may become ambiguous and complicated. In other words, when an individual A does a favor to individual B, individual B may return the favor by doing a favor to individual C.” (p. 221).

As mentioned, Wo et al. (2015) argue that, besides social learning theory, social exchange is part of what they call the cognitive route: “...social exchange theory contends supervisors interpret managers’ fair treatment as support from the organization, which then compels them to return benefits to the organization by treating their subordinates fairly.” (p. 1858). Again trying to explain the association between L3 and L2 informational justice, Wo et al. (2015) measured L2’s perceived organizational support in study 1 and felt obligation (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001) in study 2, both cognitive mediators, but now from a social exchange perspective. Both were found to be significant mediators.

Displaced aggression. Three out of 18 articles mentioned displaced aggression (Ambrose et al., 2013; Liu et al., 2012; Wo et al., 2015). Liu et al. (2012) focus on displaced aggression as an alternative for social learning theory: “Miller and colleagues’ (2003) displaced aggression model suggests that a triggering provocation (e.g., abuse) stimulates individuals to develop cognitive rumination and ultimately aggression displacement (e.g., abusing lower-status individuals).” (p. 1207). As mentioned, Wo et al. (2015) argued that, besides a cognitive route, constructs can also cascade through an affective route. As predicted, based on displaced aggression theory, L2’s anger in study 1 and anger/irritation (Buss & Perry, 1992; Caplan, Cobb, French, Harrison, & Pinneau, 1975) in study 2 mediated first order cascading of interpersonal justice.

Moderators and mediators

To investigate why cascading leadership occurs and under which conditions, 13 of 20 studies investigated one or more moderators or mediators (Ambrose et al., 2013; Chen et al., 2014; Chun et al., 2009; Li & Sun, 2015; Liu et al., 2012; Mawritz et al., 2012; Simons et al., 2007; Wo et al., 2015; Wu et al., 2014; Yang et al., 2010; Hansen et al., 2013; Schaubroeck et al., 2012). Because the association between L3 and L2 is at the core of cascading leadership, we do not discuss moderators and mediators of the association between L2 and L1 unless moderated mediation analyses are performed

in cases of second order cascading leadership: 6 studies investigated moderated mediation analyses which tested whether moderators also moderate the mediation that tests whether L2 explains an effect of L3 on L1 (Ambrose et al, 2013; Chun et al., 2009; Li & Sun, 2015; Liu et al., 2012; Mawritz et al., 2012; Wu et al., 2014). Note that the mediation effects investigated by Wo et al. (2015) have already been discussed in the context of the three main theories. See Table 3 for an overview of the moderators and mediators.

Table 3

Moderators and Mediators in Cascading Leadership Studies

	Cascading construct ¹	Moderator	Mediator
Ambrose et al. (2013)	Interactional justice	Work group structure: mechanistic – organic* (Khandwalla, 1976/1977)	
Chen et al. (2014)	Satisfaction with supervision	Gender: male – female*	
Chun et al. (2009)	Contingent reward leadership	Attitude certainty	Instrumental compliance (Becker, 1992)
	Charismatic leadership	Attitude certainty	Identification with leader* (Becker, Billings, Eveleth, & Gilbert, 1996)
	Charismatic leadership	Attitude certainty	Value internalization* (Posner, 1992)
Hansen et al. (2013)	Ethical leadership		Foci of commitment: CEO - direct leader* (Meyer & Allen, 1997)
Li & Sun (2015)	Authoritarian leadership	Identification with leader* (Mael & Ashforth, 1992; Shamir, Zakay, Breinin, & Popper, 1998)	
	Authoritarian leadership	Power distance value (Dorfman & Howell, 1988)	
Liu et al. (2012)	Abusive behavior by superiors	Attribution of: performance promotion motive - injury initiation motive*	
Mawritz et al. (2012)	Abusive leadership	Hostile climate* (Buss & Perry, 1992)	
Schaubroeck et al. (2012)	Ethical leadership		Ethical culture* (Treviño, Butterfield, & McCabe, 1998)
Simons et al. (2007)	Behavioral integrity	Race: Black – White*	
Wo et al. (2015) study 1	Interpersonal justice perceptions		Perceived organizational support (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002)
	Interpersonal justice perceptions		Role model influence (Rich, 1997)
	Interpersonal justice perceptions		Anger* (Buss & Perry, 1992)
	Informational justice perceptions		Perceived organizational support* (Eisenberger et al., 2002)
	Informational justice perceptions		Role model influence (Rich, 1997)
	Informational justice perceptions		Anger* (Buss & Perry, 1992)
Wo et al. (2015) study 2	Interpersonal justice perceptions		Anger/irritation* (Buss & Perry, 1992; Caplan et al., 1975)
	Informational justice perceptions		Felt obligation toward the organization* (Eisenberger et al., 2002)
	Informational justice perceptions		Interactional efficacy
Wu et al. (2014)	Perceived supervisory non-work support	Group membership of subordinate: In-group - out-group*	
Yang et al. (2010)	Transformational leadership	Power distance value* (Dorfman & Howell, 1988)	

Notes.

* = Significant

¹See Table 1 for references.

In the following we discuss shortly each of the investigated moderators and mediators.

Attribution of performance promotion motive versus injury initiation motive. Liu et al. (2012) investigated the moderating effects of the attribution of a performance promotion motive versus an injury initiation motive as an explanation for the cascading of abusive behavior. Liu et al. (2012) argue that the imitation of behavior, depends on the attribution of the objectives of the behavior by the superior. According to the attribution literature (Heider, 1958; Martinko, Harvey, & Douglas, 2007) people make causal explanations regarding other people's behavior to regulate their own behavior. When abusive leadership of L3 is interpreted as motivated by performance promotion by L2, the intent of the behavior causes L2 to perceive the behavior as in their own interest, which legitimizes the behavior and causes L2 to see L3 as a model. On the other hand, when L2 interprets the behavior as injury initiating, this will be seen as unethical, which is linked to negative outcomes, and as a consequence leads to less imitation. As expected, Liu et al. (2012) found that both motives, as perceived by L1, moderated first order cascading of abusive supervision.

Power distance value. Power distance values reflect whether power differences are expected and accepted (Hofstede, 1980). The construct has been investigated in two cascading leadership studies (Yang et al., 2010; Li & Sun, 2015). Previous research has demonstrated that when managers have a high power distance value they rely on their superior for cues on how to fulfill their tasks (Smith, Peterson, & Schwartz, 2002). In effect Yang et al. (2010) expected L2 leaders with a high power distance value to accept the unequal leader-subordinate relation and to let their superior guide their behavior. This was supported by tests with power distance value (Dorfman & Howell, 1988) as a moderator of the association between L2 and L3 transformational leadership. Li and Sun (2015) followed a similar reasoning, but did not find significant results for the moderation of second order cascading of authoritarian leadership with employee voice behavior as the outcome.

Identification. Although several authors mention the importance of identification for cascading leadership (Hirst et al., 2015; Yang et al., 2010; 2010; Mawritz et al., 2012; Wo et al., 2015), it has only been investigated in two studies (Li & Sun; Chun et al., 2009). According to Chun et al. (2009) "Personal identification with a charismatic leader exerting referent power and displaying role-modeling exemplary behaviors evokes

followers' pride in the association with the leader, respect for the leader, and ultimately, desire to idolize and imitate the charismatic behaviors and qualities" (p. 692). Their results confirmed identification mediating first order cascading of charismatic leadership. Li and Sun (2015), investigated the moderating effect of leader identification on second order cascading of authoritarian leadership with employee voice behavior as an outcome. Results demonstrated that a higher score on identification was associated with stronger cascading leadership.

Value internalization. According to Chun et al. (2009) "Internalization of the values and beliefs of a charismatic leader would transform follower attitudes toward the leader and work environments and induce followers' similar behavioral patterns consistent with the values and beliefs of the leader (Fishbein & Ajzen, 1975)." (p. 692). The results confirmed that first order cascading of charismatic leadership is mediated by value internalization.

Instrumental compliance. Besides the cascading of charismatic leadership, Chun et al. (2009) also studied first order cascading of contingent reward leadership, which they expected to be mediated by instrumental compliance: "Research on similarity/attraction (Williams & O'Reilly, 1998) suggests that a contingent rewarding superior of middle managers may favorably consider the contingent reward leadership and expect them to display that leadership style. Moreover, they may interpret the contingent reward role requirements, instrumentally comply with the contingent reward leader, and demonstrate the leadership behavior." (p. 692). Results were non-significant.

Race. Simons et al. (2007) investigated the moderating effect of race on first order cascading of behavioral integrity, defined as "the perceived pattern of alignment between an actor's words and deeds" (Simons, 2002, p. 19). They argued that Black people are especially sensitive to behavioral integrity breach by powerful others. Simons et al. (2007) describe several examples of Black people being the victim of word-deed misalignment more often than White people, leading to suspicion and cynicism and a highly vigilant attitude about behavioral integrity. One example is a study that demonstrated that Black people are charged higher prices by car salespeople than White people (Ayres, 1991). Because of Black people possessing a heightened sensitivity to behavioral integrity, Simons et al. (2007) expected and found that the cascading of behavioral integrity is stronger when L2 where black compared to White.

Gender. Chen et al. (2014) studied second order cascading of satisfaction

with supervision with L1 turnover intentions as an outcome measure. They argued that “for female middle managers, who face greater career and support challenges in the workplace (Oakley, 2000), the way senior management treats them can be especially consequential, making it even more likely that their own treatment of subordinates will be affected by their experience of senior-level managers.” (p. 837). Compared to men, the attention of women to their leaders is heightened because they have less mentors (Ragins, 1989; Ragins & Cotton, 1991), a smaller informal network (Cannings & Montmarquette, 1991), as well as less social ties (Ibarra, 1993) and face more obstacles regarding career possibilities (Lyness & Heilman, 2006; Ohlott, Ruderman, & McCauley, 1994; Wood, 2008; Eagly & Carli, 2003a,b). According to Chen et al. (2014) these factors make that women, compared to men, pay more attention to their leaders and in effect remember the behaviors of their leaders better. In addition, they argued that when female L2 are satisfied with their leader they are more likely than men to imitate behavior because that’s a way of maintaining the relationship (Lakin & Chartrand, 2003; Chartrand & Lakin, 2013), which is extra important to women since they have fewer career alternatives than their male colleagues (Ohlott et al., 1994; Wood, 2008). As predicted, gender moderated the cascading of satisfaction with supervision: cascading was stronger with female L2 leaders.

In-group/out-group membership of subordinate. According to Wu et al. (2014) “not only subordinates but also supervisors perceive a sense of mutual obligation in their relationship. Therefore, the supervisors will offer non-work support to subordinates because of their mutual reciprocal relationship, regardless of whether they feel obligated to repay the higher-level supervisors’ non-work support in the social exchange process. Therefore, for in-group subordinates, the relationship between supervisors’ PSNS and subordinates’ PSNS is weaker.” (p. 223). Their results showed that the relation between perceived supervisory non-work support of L2 as perceived by L1 and perceived supervisory non-work support of L3 as perceived by L2 was moderated by the front-line employee being either an in-group or an out-group as perceived by L2, with the association being stronger for the perception of out-group L1.

Work group structure. Ambrose et al. (2013) tested first order and second order cascading of interactional justice with L1 group OCB (Williams & Anderson, 1991) and L1 group deviance (Bennett & Robinson, 2000) as outcomes, and the contextual variable work group structure as a moderator of both first order and second order cascading

leadership. According to Ambrose et al. (2013) “Mechanistic structures are characterized as rigid, tight, and bureaucratic. Conversely, organic structures are characterized as flexible, loose, and decentralized.” (p. 680). They expected cascading leadership to be stronger for more organic team structures, because of three characteristics of organic structures: “First, work group structure influences situational strength. Mechanistic structures are strong situations; organic structures are weak situations. Second, appropriate behavior is more ambiguous in organic structures. This increased ambiguity makes supervisors’ behavior more salient and influential. Third, organic structures, with their reliance on face-to-face communication, provide more opportunity for interaction between supervisors and subordinates as well as between work group members.” (p. 681). The moderation of first order as well second order cascading of interactional justice was confirmed: the cascading of interactional justice is stronger in case of an organic structure compared to a mechanistic structure. With respect to the moderation results they concluded “If policies and procedures do not clearly articulate how employees should behave (i.e., a mechanistic structure), it is particularly important for managers at all levels to model appropriate behaviors.” (p. 685).

Distance. In general cascading leadership authors seem to agree that both L3/LX and L2 can influence L1, but that L2 is abler to directly influence L1 due to close hierarchical distance which enables the possibility to observe behavior by having close contact and frequent interactions, while L3/LX is mainly able to influence L1 through their own hierarchal close relationship with L2 (e.g., Hansen et al., 2012; Mayer et al., 2009; Liu et al., 2012; Mawritz et al., 2012; Wu et al., 2014; Ling et al., 2015).

As described, Chun et al. (2009) investigated whether the cascading of contingent reward and charismatic leadership, are mediated by three bases of commitment (instrumental compliance, identification, value internalization). They also investigated whether these mediations are moderated by strength of attitude, which “may serve as a proxy indicator for the interaction frequency” (Chun et al., 2009, p. 697). A stronger attitude is more persistent over time, resistant to counter persuasion and predicts behaviors while the opposite is true for weak attitudes. Based on dual-mode information processing (Chaiken, 1980; Petty & Cacioppo, 1986) they argued that close leadership situations (L1 – L2 as well as L2 – L3, but not L1 – L3) are characterized by high personal relevance, plenty of leader related info, frequent observation of the leader, and direct interpersonal experience, which leads to high cognitive elaboration

and systematic information processing which in turn leads to a strong commitment. On the other hand distant leadership situations are characterized by low personal relevance, little leader related info, only occasional observation of the leader and indirect experience, which leads to low cognitive elaboration and heuristic information processing and in turn to weak commitment. This was confirmed by the results: "Specifically, the magnitude of correlations between staff members' bases of commitment to managers and their outcomes are stronger than that of correlations between their commitment to department heads and outcomes. This implies that differences in commitment strength between close and distant situations moderated the commitment outcomes linkages." (p. 697).

Culture. As mentioned, according to Bass et al. (1987) and Yammarino (1994) cascading leadership may be the result of "the subculture of norms, beliefs, and values in which leaders operate; or some combination of three" (Yammarino, 1994, p. 37).

Schaubroeck et al. (2012) are the first to investigate the role of culture in cascading leadership. Besides the cascading of ethical leadership, Schaubroeck et al. (2012) also investigated the cascading of ethical culture as well as several associations between ethical leadership and ethical culture across hierarchical levels. They concluded: "In keeping with the embedding of leadership as described by Schein (1985, 2010), much of the influence of ethical leadership on ethical outcomes that was observed in this study was mediated by unit-level ethical culture. Consequently, models of leadership and ethical behavior that omit the effects of ethical culture at different hierarchical levels may be underspecified. For example, one might conclude that senior leaders have a direct influence on outcomes at a lower level that results from direct interactions between these leaders and lower-level followers (Yammarino, 1994), whereas the influence of these leaders may in fact be indirect, transmitted through their influence on culture at their own levels, which then cascades to lower levels." (p. 1073).

Foci of commitment. Hansen et al. (2013) took a multi foci approach to second order cascading of ethical leadership, corroborating that people distinguish between levels of management (CEO and supervisory leadership) and that foci of commitment (commitment to the organization and supervisor) vary correspondingly (Klein, Becker, & Meyer 2009). According to Hansen et al. (2013) previous cascading leadership research underestimates the influence of upper level leaders, because of outcome measures at L1 having foci at the L2 level instead of L3/X. They demonstrated that CEO leadership (LX) appeared to be related to commitment with the focus on the organization, while the

leadership of the direct leader (L2) appears to be related to commitment with the focus on the supervisors' work group.

Untested propositions

Several factors are assumed to play an important role in cascading leadership, but have yet to be tested and are discussed next.

Selection. Most cascading leadership scholars assume similarities between leaders to be caused by a top-down imitation process, but as mentioned above, several authors argue a selection process might cause these similarities as well (Bass et al., 1987; Yammarino, 1994; Li & Sun, 2015; Schaubroeck et al., 2012; Yang et al., 2010). The selection explanation for cascading leadership is best described by Schneider's (1987) attraction-selection-attrition theory. As pointed out by Li and Sun (2015) "when screening potential employees, organizational members favor those who are similar to themselves for admittance (Nielsen & Nielsen, 2011)" (p. 175). This selection explanation is not yet tested or controlled for.

Normative and informational influences. Schaubroeck et al. (2012) argue that, but did not test if, normative and informational influence can explain the cascading of ethical leadership: "Normative and informational influences provide another potential avenue for explaining the cascading replication of leaders' behaviors. People tend to conform their behavior to the expectations of others, either to be liked or respected (normative influence) or to be accurate or correct (informational influence) (Cialdini & Trost, 1989)." (p. 1060)

Impression management. In their article on the cascading of perceived non work support Wu et al. (2014) argue that impression management can be a motivation for leaders to imitate their superior: "Bolino, Varela, Bande, and Turnley (2006) indicated that by performing impression management in front of superiors, employees can receive higher rating on OCB from their leader. This rating of OCB relates positively to leaders' liking and performance rating. Therefore, when lower-level leaders observe that higher-level leaders offer non-work support, the lower-level leaders may infer that higher-level leaders prefer subordinates who demonstrate such behavior. Consequently, the lower-level leaders may imitate and intentionally perform such behavior of providing non-work support to their subordinates for the sake of impressing the management." (p. 221).

Power, status, authority, credibility and hierarchy. With its hierarchical core, it is not surprising that hierarchy, power and related constructs are mentioned in the cascading

leadership literature, most of the time in relation to social learning theory (Bandura, 1977, 1986; Ambrose et al., 2013; Chen et al. 2014; Wo et al., 2015; Li & Sun, 2015). Mawritz et al. (2012) describe the role of power in a representative fashion: “by the nature of their assigned, hierarchical positions, supervisors are usually deemed by subordinates to be both powerful and credible (Brown, Treviño, & Harrison, 2005). Individuals in formal positions of authority have legitimate power over those at lower organizational levels (e.g., the ability to control rewards and punishments; French & Raven, 1959; Yukl, 2004; Yukl & Falbe, 1991). Positions of authority also usually coincide with perceptions of credibility. Authority figures are usually deemed to be credible because they are seen as having the necessary attributes to be promoted to higher positions (Brown et al., 2005). Furthermore, when engaging in the leadership process (i.e., using power and influence to direct follower activities toward goal attainment; Yukl, 1998), most of a supervisor’s leadership behaviors are directed at subordinates, in particular, and/or affect subordinates in one way or another. For this reason, these behaviors are likely to attract subordinates’ attention. Thus, as a result of supervisors’ visibility, perceived power and credibility, and the downward direction of their behaviors, subordinates are likely to look to their supervisors for information regarding behavioral norms within their organization (Berscheid, Graziano, Monson, & Dermer, 1976).” (p. 330).

Discussion

Based on the extant literature, we presented a definition of cascading leadership on a descriptive level, differentiating between first order cascading leadership and second order cascading leadership. Our overview illustrates that many different constructs cascade: positive constructs, such as transformational leadership, as well as negative constructs, such as abusive supervision. Out of 20 studies only 1 study did not find any significant cascading leadership results (Stordeur et al., 2000). To understand how leaderships cascade, we investigated why leaders behave like their superiors and under which conditions they do so. We did this by giving an overview of the applied theories, moderators, and mediators from the selected studies. Here we will integrate the results, and discuss limitations as well as possibilities for future research. Although Bass et al. (1987) and Yammarino (1994) originally suggested several explanations for cascading leadership, it appears that cascading leadership is most of the time approached from an imitation perspective. Instead of asking why higher-level leaders and lower-level

leaders behave alike, in essence most authors ask why and under which conditions lower-level leaders imitate higher-level leaders. Social learning theory appears to be the best suited theory to answer these questions.

According to social learning theory (Bandura, 1977, 1986) people learn from others in their environment and higher-level leaders are especially important role models. According to the first of four conditions for learning, attention must be paid to learn. For L2 to be able to pay attention to L3, the L3 leader needs to be close. In effect we expect distance to moderate cascading leadership. As suggested by Yang et al. (2010) different forms of distance might be important, such as “physical distance, functional distance, and psychological distance (Antonakis and Atwater, 2002).” (p. 671).

The second condition is motivation. While social learning theory is the dominant theory within the cascading leadership literature, only one paper investigated role modeling (mediating first order cascading of informational justice), but did not find support (Wo et al., 2015). Note that “role modeling” should be differentiated from “modeling”. Modeling can be seen as a synonym of “imitation” or “mimicry” while with “role modeling” the imitation is done because a supervisor provided a “good” example and the actor identifies with the model. Since “modeling” and “role modeling” are rarely defined within the cascading leadership literature, we interpreted them as synonymous with “imitation”. For conceptual clarity we suggest that scholars clearly define their view on the assumed imitation process.

According to social learning theory L2 imitate L3 because they are motivated to comply to norms in general and see their superior as a role model to achieve the goal of complying with norms. Based on social exchange theory, authors suggest that lower-level leaders are motivated to imitate higher-level leaders because of the norm of reciprocity. Others argue that certain negative behaviors by L3 cause L2 to displace their aggression to their own subordinates (L1), because of not wanting to aggress to their superior. Although not yet tested, impression management (Wu et al., 2014) and informational influence (Schaubroeck et al., 2012) seem likely motivations for imitation too. Instrumental compliance, people being motivated to imitate in exchange for rewards, was not found to be a significant mediator for the cascading of contingent reward leadership, but more research is warranted. When people identify with their leader, they actually want to be like their leader. One way to achieve this is simply by imitating one’s leader. Identification with L3 mediates the cascading of charismatic

leadership (Chun et al., 2009) and moderates the cascading of authoritarian leadership (Li & Sun, 2015). Related to identification is the internalization of the values of L3 by L2, which mediates the cascading of charismatic leadership (Chun et al., 2009). Liu et al. (2012) demonstrated that motivation might also be driven by attributions of L2 regarding the motives behind the behavior of L3 and the expected outcomes. When motives are interpreted to be proper and outcomes are expected to be good, L2 imitate L3 more.

It appears that the motivations for imitation differ depending on the constructs investigated. Imitating an abusive superior because of wanting to vent emotions by displacing aggression is fundamentally different from mimicking a charismatic leader because of wanting to be the same. As suggested and demonstrated by Wo et al. (2015) different cascading “routes” exist. Their studies compared an affective versus two cognitive routes for respectively the first order cascading of interpersonal justice perceptions and informational justice perceptions, illustrating different routes for different constructs.

Retention is the third condition for learning. Without the ability to retain information regarding the cascading construct, one cannot imitate. This is also related to the fourth condition, (motor) reproduction. Without the necessary reproduction capabilities people cannot translate motivation for behavior in concrete actions, such as modeling. Reproduction is also dependent on reproduction possibilities. When an environment limits reproduction, imitation is inhibited. The study by Ambrose et al. (2013) demonstrated that within the more restricted environment of a mechanistic team structure, compared to an organic team structure, cascading leadership is weaker. In other words, this proves reproduction can be limited by the environment. This might also explain why Stordeur et al. (2000) did not find proof for cascading leadership. In their own words: “in Belgium, hospitals operate in a highly regulated environment. As a consequence, management constraints within hospitals are overwhelming at all hierarchical levels. This precludes the possibility that upper-level leaders serve as role models for head nurses. A different pattern of findings might be found in less highly regulated environments.” (para. 31).

Finally, reasons for modeling have been related to power. The moderating effect of power distance value has been proven for first order cascading of transformational leadership (Yang et al., 2010), but not for second order cascading of authoritarian leadership (Li & Sun). Besides whether L2 accept a power difference, we argue that,

although not directly tested, L2's own sense of power might also play an important role in cascading leadership. The moderators gender (Chen et al., 2014), race (Simons et al., 2007), and in-group/out-group status of subordinates as perceived by L2 (Wu et al., 2014) can be interpreted as proxies of power. Simons et al. (2007) demonstrated that the cascading of behavioral integrity is stronger for Black compared to White L2 because Black people are more susceptible to behavioral integrity due to historical reasons. Chen et al. (2014) demonstrated that cascading of satisfaction with leadership is stronger for female L2 than for male L2. They argued that female L2 have less possibilities career wise, and therefore are motivated to look at their superiors to gain influence. Wu et al. (2014) demonstrated that the cascading of perceived supervisory non-work support is moderated by social categorization of subordinates as being either in-group or out-group: "Compared with out-group members, supervisors tend to give in-group members more consideration, caring, and resources, including PSNS." (p. 217). In effect out-group employees are more dependent on the cascading of perceived supervisory non-work support. When we follow the reasoning of the respective authors, it appears that what Black people, women and employees with out-group status have in common, is that they are more focused on what their leaders do, because of their subordinated and disadvantageous position, which might very well be a proxy for a lower(ed) sense of power. Cascading leadership was found to be stronger for Black people, women and employees with out-group status. In line with these results, we argue that a low sense of power of L2 increases cascading leadership.

These results seem to confirm our expectation, as described in chapter 1, that power might play an important role in cascading leadership, because power is related to hierarchical position and influence, which is seen as an essential part of leadership (Yukl, 2002). It appears that a low sense of power increases the focus of lower-level leaders on their superiors as an important part of their environment. In other words, social learning seems to increase for lower-level leaders with a lowered sense of power. This raises the question what drives the behavior of higher-level leaders and lower-level leaders with a high sense of power. Perhaps they do as they wish and have less attention for what happens in their environment? In chapter 4 we investigate how power influences to what extent people are driven by what happens in their environment compared to their personal predispositions. The aim of chapter 4 is to shed a new light on how leadership cascades, by discussing the role of power in cascading leadership.

Besides imitation as an explanation for cascading leadership, other explanations have received much less attention. This is conspicuous because several other explanations have been discussed in the two first papers on cascading leadership (Bass et al., 1987; Yammarino, 1994). Only one study investigated the role of (ethical) culture in the cascading (of ethical) leadership (Schaubroeck et al., 2012).

Limitations and Future Research

The majority of the cascading leadership articles reason about, but do not test, which mechanisms are underlying cascading leadership. Also considering the mixed results regarding the mediation and moderation studies, the possibilities for future research are plenty. Based on our review we suggest for future research to especially focus on the role of power in cascading leadership. Moreover, explaining cascading leadership by other mechanism than imitation also appears worthwhile.

The existence of different cascading routes limits the generalizability of the discussed results, because there is no such thing as “the cascading leadership effect”, several different effects might apply to different constructs, and multiple underlying mechanism might explain the cascading of a single construct. This is also the reason for conducting a systematic review and not conducting a meta-analysis. More research comparing multiple constructs and the relative effects of mediators is needed.

Given that imitation is often assumed to be at the core of cascading leadership, a focus on the motivation for imitation appears to be a good way to get a better understanding of cascading leadership. To our knowledge, a measurement of motivation for imitating a superior does not exist. Such a measurement should at least contain the reasons for imitation discussed in this review: impression management, identification, role modeling, etc. Being able to measure motives for imitation would allow us, at least partially, to detangle which reasons for imitation apply to which cascading constructs and to what extent. Perhaps some motivations for imitation are of more general nature while others are more cascading construct specific.

Although a motivation for imitation questionnaire could account for conscious imitation, as noted by Liu et al. (2012) and Li and Sun (2015) according to social learning theory, learning, and consequently imitation, does not necessarily occur on a conscious level: ‘subordinates do not necessarily learn leaders’ abusive behaviors purposely. Social learning theory has emphasized that “most of the intricate responses people display are

learned, either deliberately or inadvertently, through the influence of example' (Bandura, 1973: p. 44). Researchers have indeed shown that individuals may mimic social contacts' behaviors unintentionally and subconsciously (Chartrand & Bargh, 1999). Therefore, a team leader may become increasingly abusive as a result of the frequent exposure to an abusive department leader, even without the team leader's full awareness." (p. 1190). Subconscious imitation could be explained by contagion processes. For example, leader's moods are demonstrated to be related to employee moods (Sy, Côté, & Saavedra, 2005).

The synthesis of the results leads us to reevaluate the demographic characteristics of the studies included in this review. As discussed, gender is not evenly distributed, with males being more present higher up in the chain of command than females. As demonstrated by Chen et al. (2014) gender moderates the cascading of satisfaction with supervision. There is no reason not to expect a gender moderated effect when investigating other constructs. Although some authors have controlled for gender, most did not. Especially when gender is unevenly distributed, not accounting for it, might lead to biased results.

The same applies to age, which is skewed in the same direction: people higher up in the chain of command are older. Although the effect of age is not tested one might argue that an association exists between age and sense of power. In effect age might moderate cascading leadership in the same direction as gender.

As mentioned, 6 out of 20 studies have been conducted in Asian countries and 13 in Western countries. Considering the effect of cultural differences on constructs such as identification with a leader and power difference values, we should be careful in generalizing findings from Western countries to Asian countries and vice versa. The moderating influence of identification and power distance values on cascading leadership were both investigated in Asian countries (Li & Sun, 2015; Yang et al., 2010). A cross-cultural cascading leadership study would be an interesting avenue for future research.

When investigating new avenues of cascading leadership research, we advise scholars to contemplate on several design issues. Although most studies report significant cascading leadership results, we must be careful to conclude causality, because only cross-sectional designs are applied. The field would benefit from more longitudinal studies (Wo et al., 2015), and experimental studies as well.

It is also important to contemplate on which hierarchical levels are included in

cascading leadership research, because the nature of leadership at different levels diverges (Cannella & Monroe, 1997; Day & Lord, 1988). As can be seen in Table 2 not all studies investigate adjoining levels. The focus is mainly on the lower echelons, and sometimes the level of the highest leader (LX) is unknown. We suggest that authors give a clear description of which hierarchical levels are involved and whether they are adjoining or skipping levels of leadership. Although research to date, with the exception of the study by Schaubroeck et al. (2012), is limited to three hierarchical levels, including two levels of leadership, our definition does not exclude the possibility of cascading leadership happening over four or even more levels. More than that, it is important to investigate cascading across more levels of leadership because in practice, organizational hierarchies often consist of more than two levels of leadership. As suggested by Chen et al. (2014) and Hirst et al. (2015), scholars need to investigate how far the cascading leadership effect travels across levels. Hence, we investigate cascading across three levels of leadership next, in chapter 3.

Conclusion

One only needs to look at the years of publication of the articles included in this review to notice how young, and at the same time current, the field of cascading leadership is: the majority of the articles were published in the past five years. With this systematic review we have matured the field of cascading leadership by creating order and clarity regarding: the definition of cascading leadership; which constructs cascade; as well as how and under which conditions leadership cascades.

Two topics appear extra important for our understanding of cascading leadership and are therefore investigated in the next chapters. As mentioned above, the hierarchical nature of cascading leadership will be further investigated in chapter 3, and the role of power in cascading leadership will be explored in chapter 4.

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An asterisk indicates inclusion in the systematic review.

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3. Cascading Leadership: The Role of Trust in Leadership and Impact on Work Engagement

Largely based on: Jeuken, E., Boermans, S. M., Schaufeli, W. B., Van Den Berg, C., & Euwema, M. C. (2016). *Cascading Leadership: The Role of Trust in Leadership and Impact on Work Engagement*. Manuscript submitted for publication.

Introduction

"I need the trust of my soldiers in me, just like my own leader needs my trust. Soldiers who don't trust their leader follow orders, but they only do so for pragmatic reasons. Hence, a lack of trust is detrimental for levels of dedication."

—A Dutch armed forces officer

Statements like the above illustrate the importance of trust in leadership and its effect on work engagement across hierarchical levels. Besides anecdotal evidence, the significance of work engagement and trust in leadership is also supported by research. Yet, while most organizations exist of multiple hierarchical levels, little is known about how these constructs relate to each other from a multilevel perspective. For that reason, we investigate trust across three levels of leadership and its relations with work engagement at the bottom hierarchical level.

Trust in Leadership

Rousseau, Sitkin, Burt, and Camerer (1998) define trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (p. 395). This is a useful, but also a very general definition. In this paper we investigate trust in a *specific* context with *specific* objects of trust. We focus on trust at several levels of leadership in a military context. Since leaders are the object of trust, we effectively investigate trust in leadership, which is defined as the composite of professional capability, amount of care and attention, and credibility as a source of information as perceived by followers (Van Boxmeer, Verwijs, Euwema, and Dalenberg's, 2010). Although trust is important in all relationships, in a military context a subordinates' trust in leadership is critical because it can mean the difference between life and death.

Trust in leadership is a relevant issue within wide-ranging organizational contexts. A systematic review by Dirks and Ferrin (2002) illustrates several positive associations between trust in leadership and, among others, job satisfaction, organizational commitment, and performance. Trust in leadership in military contexts is less studied: Deluga (1995) found a positive association with soldier organizational citizenship behavior; Sweeney, Thompson and Blanton (2009) uncovered that trust in leadership is an important predictor

of the amount of leader influence subordinates accepted; and McAllister (1995) found evidence for a model in which trust in leadership predicted interpersonal cooperation, which, in a military context, is of great significance. Considering the importance of trust in leadership in a military context, this small amount of research is peculiar.

Work Engagement and Leadership

Work engagement is defined as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption.” (Schaufeli, Salanova, Bakker, & Gonzales-Roma, 2002, p. 74). The two core dimensions of work engagement are vigor and dedication (Bakker, Schaufeli, Leiter, & Taris, 2008). Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulties. Dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli et al., 2002). Not only is it nice for people to feel engaged when at work, it is also associated with good mental health (Schaufeli, Bakker, & Van Rhenen, 2009) physical health (Eguchi et al., 2015), and performance (Christian, Garza, & Slaughter, 2011; Bakker & Demerouti, 2008). Work engagement has repeatedly been linked to a range of favorable job characteristics as well as positive behaviors and attitudes of employees (for an overview, see Schaufeli, 2014).

Many positive associations between work engagement and leadership related constructs exist. To name a few: charisma (Babcock-Roberson, & Strickland, 2010), leader-member exchange (Agarwal, Datta, Blake-Beard, & Bhargava. 2012), perceived line manager behavior (Alfes, Truss, Soane, Rees, & Gatenby, 2013), transactional as well as transformational leadership (Breevaart, et al., 2014; Aryee, Walumbwa, Zhou, & Hartnell, 2012), and ethical leadership (Cheng, Chang, Kuo, & Cheung, 2014; Qin, Wen, Ling, Zhou, & Tong, 2014).

Within a military context work engagement has been proven to buffer stress and foster benefits during military operations (Britt, Adler, & Bartone, 2001; Britt & Bliese, 2003; Britt, Castro, & Adler, 2005; Boermans, 2014). According to Britt et al. (2001) this buffering effect is especially due to the meaningfulness of the work soldiers do. They found work engagement to be positively related to meaning of work, which, in its turn, was positively related to perceived benefits of deployment months after the deployment was over.

Work Engagement and Trust in Leadership

Research on the link between trust in leadership and work engagement is scarce and appears to be non-existent with respect to the military context. Two studies seem relevant here. Chughtai and Buckley (2011) were the first, to our knowledge, to investigate the relation between trust in leadership and engagement, and found a significant positive association between trust in supervisor, trust propensity, and work engagement. In a later study Chughtai and Buckley (2013) found a significant positive association between trust in top-level leadership and work engagement, which was fully mediated by organizational identification. In both studies they cite two theoretical perspectives on trust in leadership, put forward by Dirks & Ferrin (2002). The first is the relationship-based perspective, which is based on social exchange theory (Blau, 1964). According to this theory, behavior by one party, in this case behaviors that cause subordinates to trust their superiors, will be reciprocated by the second party, in this case the subordinates who will show more work engagement. The second perspective is what Dirks & Ferrin coin the character-based perspective, which “implies that followers attempt to draw inferences about the leader’s characteristics such as integrity, dependability, fairness, and ability and that these inferences have consequences for work behavior and attitudes.” (Dirks & Ferrin, 2002, p. 612). Chughtai and Buckley (2011) state that positive perceptions of the supervisors’ character will, through employees’ motivation and commitment, eventually lead their subordinates to be more engaged. In line with Chughtai and Buckley (2011, 2013) we expect to find a positive relation between soldiers’ trust in both the front-line leader as well as higher-level leaders and soldier work engagement. However, we argue that trust in different levels of leadership are not independent and should therefore not be studied separately. And here the concept of cascading leadership kicks in.

Cascading Leadership

Although the associations of work engagement with trust in the front-line leadership as well as trust in top-level leadership are important by themselves, these relations do not exist in a vacuum, and are therefore not necessarily more important than trust in higher-level leaders. The chain of command extends beyond the leader-follower dyad and includes multiple levels of leadership, which all constitute leader-follower dyads. For instance, Chughtai and Buckley (2011, 2013) investigated the role of top-level leadership and the role of front-line leadership separately in two different studies.

Based on their meta-analysis, Dirks and Ferrin (2002) conclude that the importance of trust in leadership, varies according to the referent chosen. Trust in the front-line leader appeared to be more important than, for example, trust in top-level leadership. Yet, the studies by Chughtai and Buckley (2011, 2013) and Dirks and Ferrin (2002) do not take in account the interdependence of leaders at different hierarchical positions. Their conclusions are solely based on direct effects and do not account for indirect effects.

To gain a better understanding of trust in leadership at different hierarchical levels and its impact on trust in lower-level leadership and its relation with work engagement, the effects of separate levels, both direct and indirect, need to be investigated simultaneously. The importance of trust in the leadership of higher-level referents might be greater than assumed previously, because relations between trust in front-line leadership and trust in higher-levels of leadership likely exists. This multilevel approach to trust in leadership is rooted in the tradition of cascading leadership research.

Jeuken and Euwema (2016) define cascading leadership as “the co-occurrence of leaders’ values, attitudes and behaviors, at different hierarchal levels within an organization.” Several cascading leadership studies illustrate that the behaviors, attitudes and perceptions of leaders at adjoining levels of leadership are often related. Most authors assume these factors to trickle-down from the top of the hierarchy to the bottom. Besides cascading leadership (e.g., Yang, Zhang, & Tsui, 2010; Liu, Liao, & Loi, 2012), this phenomenon is also called the trickle-down effect (e.g., Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012; Chen, Friedman, & Simons, 2014), or the falling dominoes effect (e.g., Bass, Waldman, Avolio, & Bebb, 1987; Coad, 2000). Most cascading leadership scholars include front-line employees in their research designs and argue that leaders are influenced by their own leaders, and that this also has an effect on employees.

In line with Jeuken and Euwema (2016) we describe cascading leadership as a phenomenon without specifying any underlying mechanism, because several underlying mechanisms might apply. Rather than investigating the underlying mechanisms, the current study seeks to describe cascading leadership. Nevertheless, some ideas exist about these mechanisms. For example, the theory which is most applied to cascading leadership is Bandura’s social learning theory (1977, 1986). According to social learning theory, people learn how to comply with norms by observing people and imitating their behavior (vicarious learning). Since higher-level leaders are an important

part of the direct leaders' social work environment, they are inclined to imitate their leader (e.g., Ambrose, Schminke, & Mayer, 2013; Chen et al., 2014; Hirst, Walumbwa, Aryee, Butarbutar, & Chen, 2015; Wo, Ambrose, & Schminke, 2015). Social exchange theory (Blau, 1964) is also applied to explain cascading leadership: when higher-level leaders behave in a certain way, lower-level leaders reciprocate by behaving the same way. This can also be in a displaced manner by targeting negative behaviors at their own subordinates, because of the risks associated with reciprocating negative behavior directly to a superior (e.g., Hirst et al., 2015; Wo, et al., 2015).

In short, several underlying mechanisms might explain cascading leadership. So far, these underlying mechanisms have been barely tested (see for an exception Wo et al., 2015). Although the underlying mechanisms are of great interest, with this article we aim to gain a better understanding of the hierarchical nature of cascading leadership, before investigating what might explain it. Except for one study by Schaubroeck et al. (2012), all cascading leadership research studies to date, contain a maximum of three hierarchical levels, including front-line employees. Like Schaubroeck et al. (2012), we will investigate four hierarchical levels in a military context, but instead of the cascading of ethical leadership we investigate trust in leadership and instead of ethical culture at the front-line employee level we investigate work engagement.

Jeuken and Euwema's (2016) definition of cascading leadership does describe *what* cascades as "values, attitudes and behaviors", because in theory every observable construct could cascade. Accordingly, a wide range of constructs have been shown to cascade from one level of leadership to another, thereby often indirectly affecting constructs measured at the level of the front-line employee. For instance, the following leadership and leadership related constructs seem to cascade: ethical leadership (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009), manager behavioral integrity (Simons, Friedman, Liu, & McLean Parks, 2007), transformational leadership (Yang et al., 2010), authentic leadership (Hirst et al., 2015), satisfaction with supervision (Chen et al., 2014), abusive supervision (Liu et al., 2012; Mawritz et al., 2012), and justice perceptions (Wo et al., 2015). However, so far, the cascading of trust in leadership has not been studied. Related to cascading leadership is the bypass model, which according to Yammarino (1994) refers to "a level of management being skipped in terms of relationships between leaders and followers. In other words, a focal leader's behaviors influence non-immediate subordinates – that is, indirect leadership – without operating through his or

her direct reports” (p. 37).

Usually, the formal chain of command is very clear. Like in the military, commands are only given and received by employees at adjoining hierarchical levels. Yet not all influence processes are this bounded. While employees do not receive orders from non-immediate leaders, they might very well be susceptible to messages from higher ups other than their own leader. These messages can be received through several communication channels, such as mass media, internal newsletters or intranet, or at speeches and in informal meetings (Yammarino, 1994). Although commands are only given to adjoining levels of leadership and therefore only indirectly affect lower levels, communication, both formal and informal, of higher-level leaders does help to form impressions on which trust in leadership is based. This direct effect “bypasses” intermediate leaders and is therefore called the bypass effect (Yammarino, 1994).

So far, cascading leadership research included either two levels of leadership or two levels of leadership and the front-line employee level (three levels in total). Most studies focus on the bottom two levels of leadership, while some focus on the top-level leader and the lowest level of leadership (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Ruiz, Ruiz, & Martínez, 2010). Yet most large organizations consist of more than three hierarchical levels. To gain a better understanding of the extent to which trust in leadership cascades as well as cascading leadership in general, we include, like Schaubroeck et al. (2012), four hierarchical levels (three levels of leadership and front-line employees) in our research model.

Hypothesis

Our study takes place in a military context. More specifically, we study how soldier’s trust in their group commander, trust in their company commander, and trust in their platoon commander are related to each other as well as to their own level of work engagement. Based on the reasoning above, we posit that trust in the company commander will have a significant effect on soldier’s work engagement and that this effect will be partially mediated by trust in the platoon and group commander. That is, we hypothesize that trust in the company commander is positively related to trust in the platoon commander, which, in its turn, is positively related to trust in the group commander, which is positively related to work engagement. We hypothesize a partial mediation model, because it is also plausible to expect a bypass effect of trust in leadership (of

the company commander, as well as the platoon commander) on work engagement. In a similar vein we expect trust in the company commander to be positively and directly related to trust in the group commander, bypassing the platoon commander.

Hypothesis: The positive relation between trust in the company commander and work engagement of soldiers is partially mediated by soldier’s trust in the platoon and group commander.

Our hypothesized partial serial mediation model is depicted in Figure 1.

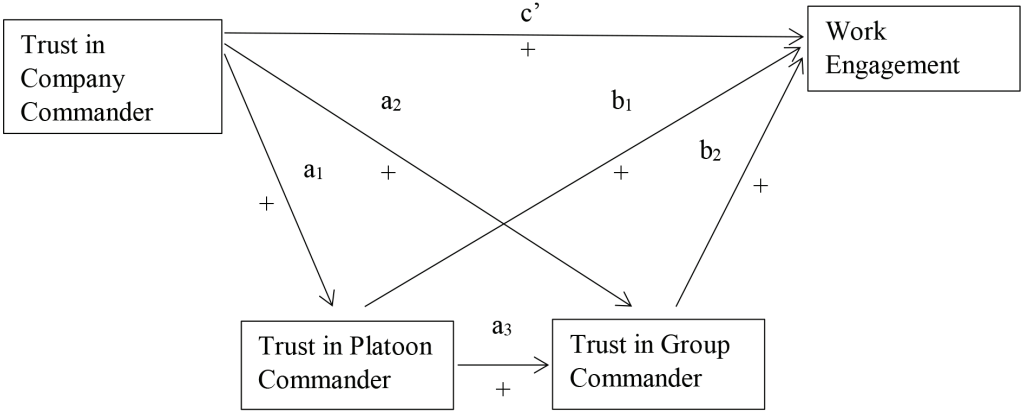


Figure 1. Summary of the hypothesized serial partial mediation process.

Note. In this figure, engagement is displayed as the dependent variable, trust in the company commander as the independent variable, and trust in the platoon and group commander as serial mediators. Path c' reflects the direct effect of trust in the company commander on work engagement; path a and b reflect the indirect effect of trust in company commander on work engagement through trust in the platoon- and group commander.

Method

Sample and Procedure

The data were gathered as part of a standard research program among all employees of the Netherlands’ Armed Forces. The data used for this study were collected from the end of 2008 to the beginning of 2010, during the last three missions of Dutch troops that were deployed as part of the International Security Assistance Force (ISAF) in Afghanistan. The participants filled out a paper-and-pencil questionnaire two weeks

prior to deployment, with anonymity being assured. The sample used for the analyses consisted of 1,656 military personnel, of which 1,440 males (87%) and 106 females (6%). 109 participants (7%) didn't specify their gender. The average age was 24.7 (SD = 7.5), 113 respondents (7%) didn't specify their age. On average, 90% of the assigned personnel in participating units completed the questionnaire. Only front-line employees were included in the sample.

Measures

Work engagement

Work engagement was measured with eight items based on the vigor and dedication scales from the UWES (Utrecht Work Engagement Scale; Schaufeli, Bakker, & Salanova, 2006). An example of an item from the vigor-scale is "At my work I feel bursting with energy". An example of an item from the dedication-scale is "I am enthusiastic about my job". A 7-point Likert-type scale, ranking from "never" to "strongly agree", was used. As recommended by Schaufeli et al. (2006) a combined score was created for work engagement, with the Cronbach's alpha for the entire scale being .91.

Trust in leadership

Trust in leadership was assessed with a six-item scale that was specifically designed for the Dutch army by military psychologists in cooperation with expert panels (Van Boxmeer, Verwij, De Bruin, Duel, & Euwema, 2007). The measure is internationally recognized as a benchmark. For example, the Belgian army has also adopted the scale. The items of the scale were based on previous measures of trust (in leadership), particularly the scales used by Giffin (1967), Nootboom and Six (2003) and Gabarro and Athos (1976). Dirks et al.'s (2002) guidelines for coding operational trust were also used. Items were transferred to the specific military context as well as the relation between soldiers and their superiors. The items were formulated from the viewpoint of the private. Two items were used to assess the relationship-based perspective of trust in leadership, i.e.: "I get along well with my X" and "My X is committed to us". These items are respectively based on items by Giffin (1967) and Dirks et al (2002). Four items were used to assess the character-based perspective of trust in leadership: two of these items, "My X is fully committed to his/her task" and "My X does what he/she says", are based on items by Nootboom and Six (2003), "My X provides us with as much information as possible" was based on an item by Gabarro and Athos's (1976), and "I have confidence

in my X's military skills", based on an item by Dirks et al. (2002). Note that the items representing the relationship-based perspective of trust in leadership also represent the affective dimension of trust as seen in other measures of trust, while the items representing the character-based perspective also represent the cognitive dimension of trust. All items were rated on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree". The scales were similar for each hierarchical level (group, platoon, and company commander). The Cronbach alphas (α) for the scales of trust in the unit, platoon and company commander were all .95.

Data Analyses

First, we performed common factor analyses on the measures to test the underlying dimensions of trust in the three separate leadership levels and work engagement. In order to determine the distinctiveness of the constructs in the present study, a common factor analysis (FA) was carried out on the correlations between the 24 items tapping in to work engagement and trust in different hierarchical leaders. The decision of how many factors reflect the underlying dimensions is a critical component of FA. The retaining of factors with eigenvalues greater than 1 is perhaps best known and most used. However, many agree that this method is problematic and inaccurate. Parallel analysis (PA) was therefore used to determine the number of factors as it has been identified as one of the most accurate methods (Conway & Huffcuff, 2003; Fabrigar, Wegener, MacCallum, & Strahan, 1999; Ford, MacCallum, & Tait. 1986; O'Connor, 2000; Nunnally & Bernstein, 1994). In short, PA is a Monte Carlo procedure in which random eigenvalues are extracted from the data as if there were no underlying structure. Factors are retained when they explain more variance than their competing random eigenvalues; eigenvalues that explain less variance than their respective counterparts are considered spurious. We continued with partial confirmatory FA using direct oblimin rotation as previous research has shown that it outperforms Varimax rotation. Thirty-one Factor scores were calculated based on the means of their respective items.

PA identified four eigenvalues in the original data that significantly exceeded their competing random counterpart. This provided a good fit on the data, with sufficient communalities and very few cross-correlations. Factor I, accounting for 39.75% of the variance, combined items on trust in the direct group commander. Factor II, accounting for 14.15% of the variance, combined items on trust in the company commander. Factor

III comprised items on work engagement, explaining a further 11.49% of the variance. Finally, factor IV reflected items on trust in the platoon commander, explaining 7.91% of the variance. These results underscore that participants did have different referents in mind when evaluating trust in different hierarchical leaders. These results are in line with validation research by Van Boome et al. (2007) and complementary confirmatory factor analysis also confirmed these results. No subcomponents of trust in leadership were found.

Our hypothesis was tested using PROCESS (version 2.13) developed by Hayes (2012), which is a versatile modeling tool for SPSS that allows for testing of multiple, direct and indirect paths. PROCESS uses a regression-based path analysis and apart from an estimation of the coefficients of the model, it also generates direct and indirect effects (Hayes, 2012). We tested the hypothesis according to the “model 6” template: multiple mediation, with two mediators operating in serial mode. Preacher and Hayes (2008) argue that “investigating multiple mediation should involve two parts: (1) investigating the total indirect effect, or deciding whether the set of mediators transmits the effect of *X* to *Y*; and (2) testing hypotheses regarding individual mediators in the context of a multiple mediator model (i.e., investigating the specific indirect effect associated with each putative mediator).” The total direct effect reflects the sum of the direct and indirect effects of trust in leadership on work engagement. Where the total indirect effect is simply the sum of the specific indirect effects. In order to determine whether reduction in the effect of the predictor variable, after including the mediators is significant, PROCESS uses bootstrapping. Bootstrapping is a computationally intensive method that involves repeatedly sampling from the data set and estimating the indirect effect in each resampled data set. By repeating this process thousands of times, an empirical approximation of the sampling distribution of the product of the mediators is built and used to construct confidence intervals for the indirect effect. A final advantage of bootstrapping, specifically when multiple and related mediators are included, is that bootstrapping does not assume a normal sampling distribution of the indirect effect. Williams and Mackinnon, (2008) also found that bootstrapping is more powerful to determine indirect effects of multiple mediators, compared to other methods (such as the Sobel test or causal steps approach) while also maintaining control over Type I error rate. For the indirect effects, the confidence intervals were set on 10,000 bootstrap samples. The “model 6” template is most suitable because it enables us to test serial multiple

mediation. This allows us to test for cross-level effects over multiple hierarchical levels, which would not be possible with parallel multiple mediation (model 4), or any of the other models. Model 6 best fits our conceptual design, because in our conceptual model the relation between engagement and higher level leadership is mediated by one or more levels of intermediate leadership. Written out in full: we expect work engagement to be dependent on trust in all leaders; in turn we expect the level of trust in group commander to be dependent on trust in platoon commander; at the same time we expect trust in the group commander to be dependent on trust in company commander as well as on the indirect effect the company commander has through the platoon commander.

Results

Table 1 presents the sample size, means, standard deviations and inter-correlations of the study variables. As can be seen, all inter-correlations are significant and positive at $p < 0.01$ level.

Table 1
Descriptive Statistics of the Central Variables

Variables	N	Mean	SD	Inter-correlations			
				1.	2.	3.	4.
1. Engagement	1653	4.16	.95				
2. Trust in GC	1591	4.12	.61	.37**			
3. Trust in PC	1429	4.00	.64	.40**	.49**		
4. Trust in CC	1528	3.72	.70	.26**	.31**	.42**	

Note: GC = group commander, PC = platoon commander, CC = company commander.

** $p < 0.01$

Test of a Three-Path Partial Mediation Model

The results, including beta values, of the three-path partial mediation model are shown in Figure 2. Results confirmed that trust in the company commander has a significant total effect on work engagement, being .36, and explaining 7% of the variance ($F(1, 1260) = 96.67, p < 0.001$). Also a smaller, but significant direct effect ($c'=.13$) is confirmed. The indirect effect of trust in the company commander on work engagement, passing through trust in the platoon commander and the group commander ($a1-a3-b2$) is significant as well, as evidenced by a 95% bootstrap confidence interval

(10,000 samples) that does not contain zero (.04 - .08). Hence, a partial and serial mediation effect is observed. The other two indirect effects are: (1) the effect of trust in the company commander on work engagement via trust in the platoon commander (a1-b1) and (2) via trust in the group commander (a2-b2). Both effects were significant too, with two 95% bootstrap confidence intervals (10,000 samples) that do not contain 0 (.18 - .28 and .01 - .05 resp.).

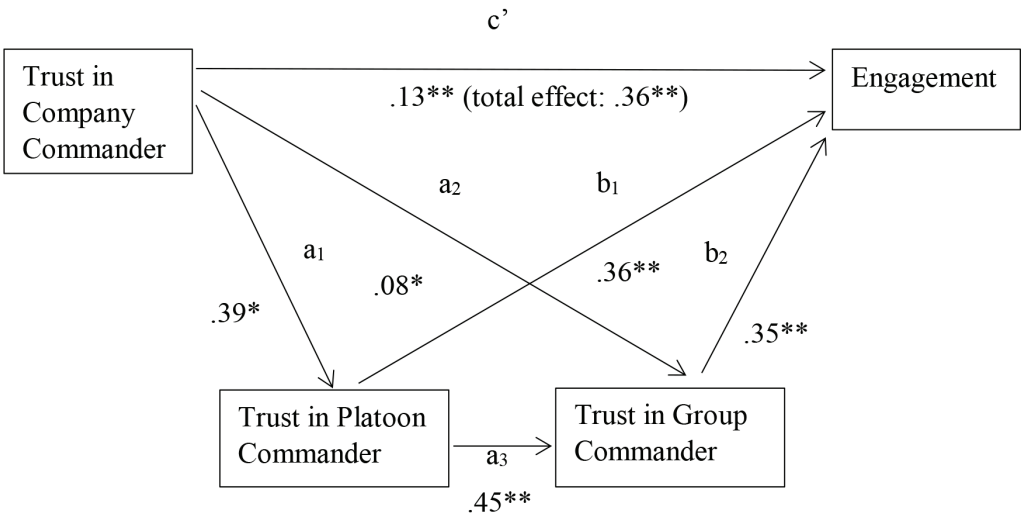


Figure 2. Summary of the three-path serial mediation model.

Note. Work engagement serves as the dependent variable and trust in the company commander as the independent variable, whereas trust in platoon and group commander are serial mediators.

** = $p < 0.001$

* = $p < 0.01$

Discussion

The results of the study fully support our hypothesis and shows that trust in leadership cascades and is directly as well as indirectly related to soldier’s work engagement at the front-line. As results indicate, cascading leadership even persists when the number of hierarchical levels is expanded to four (including front-line employees) instead of the common three (including front-line employees) or two levels (excluding front-line employees). To our knowledge this is the first study on the cascading of trust in leadership and also the first study on cascading leadership with work engagement as an outcome.

Theoretical Implications

Our findings complement the research by Chughtai and Buckley (2011, 2013), concerning the relationship between trust in leadership and work engagement. Not only are trust in front-line leadership and top-level leadership related to work engagement, front-line leadership and trust in higher levels of leadership are also related to each other.

In contrast to Dirks and Ferrin (2002) we argued that trust in front-line leadership is not necessarily more important than trust in higher-up referents. As demonstrated, trust in indirect superiors who are two hierarchical positions up in the chain of command, has a direct as well as an indirect effect on employee work engagement and trust in leader. So our study illustrates that multiple levels of leadership need to be investigated in tandem to determine their relative effects, because measures of trust in leadership with multiple hierarchical referents are related to each other. One could even argue that effects of leaders at different hierarchical levels cannot be separated from each other, because of their interdependence. This is also evidenced by the inter-correlations between trust in distinct levels of leadership, which range between .31 and .49. Although we cannot confirm any causal relationships, the present results support the notion that direct leaders behave the way they do, in part because of how their own leaders behave. As we previously argued it is likely that higher-level leaders have an impact on front-line employees through subordinate leaders. Hence, we advise leadership scholars to include multiple leader referents in their research designs in order not to overestimate the impact of the front-line leader and to uncover the effects of (trust in) leadership at different hierarchical levels.

This is the first time that cascading leadership has been demonstrated across four levels, with respect to trust in leadership and work engagement, and the second time with respect to cascading leadership research in general. This again demonstrates that cascading leadership persists across more than two levels of leadership.

Practical Implications

In previous research, scholars investigated several possible antecedents of trust in leadership (Burke, Sims, Lazzara, & Salas, 2007; Dirks & Ferrin, 2002). Leadership styles such as transformational leadership, charismatic leadership, servant leadership, and consultative leadership (Fulmer & Gelfand, 2012; Gillespie & Mann, 2004), have

been linked to the building of trust. Accordingly, such trust breeding leadership styles could be included in training programs of commanders in the army. Besides training, recruiting higher-level commanders who already possess the qualities to be trusted as a leader can be another avenue for increasing trust in leadership across the chain of command. Besides by-pass effects on soldier work engagement, lower-level leaders will model the newly recruited higher-level leader and enhance the work engagement of their own subordinates accordingly. We are aware that trust in leadership is not the only relevant variable in stimulating work engagement, however, the results of this study underscore the importance of trust in leadership, on every level of the hierarchical ladder.

By uncovering the existence of the cascading of trust in leadership, it is shown that trust in higher levels of leadership influences the trust in subordinate levels of leadership. Leaders do not operate in a vacuum and should be aware that their attitudes and behaviors are – at least partially – determined by other leaders in higher-level ranks. It is important, not only for the front-line leaders, to build trust, but for the commanders on higher levels too. Even when they do not necessarily have direct contact with their followers, they should be aware that their behavior still has an effect on soldiers' work engagement, through trust in lower levels of leadership. Translating this to a general organizational context it could be stated that top-level leaders can be seen as an example by which the behavior of employees throughout the entire company can be explained. If one wants its organizations' employees to be as engaged as possible at all hierarchical levels, one may want to put an extra focus on training top-level leaders in building a trusting relationship with subordinate leaders.

Limitations and Future Research

Because of the cross-sectional nature of our study, we cannot make causal inferences. This is a limitation of all cascading leadership studies to date (Jeuken & Euwema, 2016).

Although as part of social learning theory (Bandura, 1977, 1986), modeling is often assumed to play an important role in cascading leadership, this is not backed by evidence. Only one cascading leadership study investigated the role of modeling, but results were not significant (Wo et al., 2015). Besides modeling some cascading leadership scholars refer to selection effects and more specific attraction-selection-attrition theory

(Schneider, 1987) to explain the associations leadership at different levels (Bass et al., 1987; Yammarino, 1994; Li & Sun, 2015; Yang et al., 2010; Schaubroeck et al., 2012). As De Cooman et al. (2008) put it: "People are attracted to organizations that have values similar to their own (attraction), and organizations select people who share their values (selection). Finally, individuals who do not fit the organization will leave voluntarily or be asked to leave (attrition)." (p. 103). In effect trustworthy leaders would be attracted to organizations that value trust. These organizations are focused on selecting trustworthy personnel, and once selected, trustworthy leaders are less likely to leave the organization. This means that over time, the workforce in a team, department, or even in the organization as a whole, will tend to become more homogeneous. We suggest that future research investigates the role of selection effects in explaining similarities between leaders.

We made use of self-reports and cross-sectional data, which means we should be aware of the occurrence of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Specifically, in the case of self-reports it is important to be aware of the possibility of social desirability influencing the answers of the participants. It is perhaps desirable to come off as an engaged employee, hence it could be that participants rate themselves as more engaged than they actually are. Especially in a high-strain context as the army in which, as mentioned before, high commitment is expected at all times (Soeters, Winslow, & Weibull, 2006). However, as stated by Spector (2006), we should not overestimate the impact of common method bias, because several studies demonstrate that its effects are smaller than previously thought. Nevertheless, for future research it would be interesting to replicate our study using different measures, for example by questioning team members to rate the work engagement of their colleagues (Mazetti, Schaufeli, & Guglielmi, 2016).

Although soldiers are nested within groups, which are nested in platoons, which are nested in companies, our data did not contain information regarding to which specific group respondents belonged and therefore we were unable to properly account for the nestedness of our data.

Which mechanisms exactly caused the cascading of trust in leadership was not explored by this study. With this study we focused on demonstrating the existence of cascading leadership and the bypass effect of trust in leadership and its impact on soldier's work engagement. It is for future research to examine how trust in leadership

cascades. Based on the above mentioned research by Dirks and Ferrin (2002) we suggest to explore both a character-based perspective and a relationship-based perspective in explaining how trust in leadership cascades. However, a broader scope might be useful as well. Research on how leadership cascades in general is scarce. There remains a lot to be discovered about the mechanisms underlying cascading leadership in general as well as with respect to specific cascading constructs such as trust in leadership.

A final limitation is the generalizability of our results. Our data were gathered in the specific context of the Dutch military. The military culture and hierarchical system have been found to be fairly similar over different countries (Soeters et al., 2006). We can therefore be confident that the results are generalizable to military contexts around the globe and likely to other similarly structured organizations, for instance in law enforcement like the police. However, these contexts can be set apart from other organizational cultures and it remains to be seen whether the results of the current study are generalizable to other organizations. Cascading leadership has been validated in many studies before with a high variety of organizational contexts. As such, it seems likely that the cascading of trust in leadership and its effect on followers' work engagement will also stand in other organizations. Still, the replication of our results in a different organizational context would further strengthen the validity of our findings.

Conclusion

By investigating constructs that have not been studied before in the field of cascading leadership (i.e., trust in leadership and work engagement), as well as by including three levels of leadership instead of the usual two, we have accumulated valuable insights. Trust in leadership appears to cascade across three levels of leadership and is both directly and indirectly related to work engagement at the front-line.

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4. Sense of Power Reducing Environmental Influence on Organizational Behavior

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Introduction

“Power is the most persuasive rhetoric.”

—Friedrich Schiller

The cascading leadership literature is concerned with similarities between leaders at separate hierarchical levels (Jeuken & Euwema, 2016). Many scholars argue that imitation is the cause for the similarities between higher-level leaders and lower-level leaders and several motivations for imitation are suggested, such as making a good impression (Wu, Lee, Hu, & Yang, 2014) and as a means to conform to norms (e.g., Yang, Zhang, & Tsui, 2010; Ambrose, Schminke, & Mayer, 2013; Chen, Friedman, & Simons, 2014). Underlying these explanations is often the assumption of a difference in perceived power. Leaders with a high hierarchical position usually have high power, both perceived by lower level management, and by themselves, compared to lower levels (Anderson & Brion, 2014). Sense of power might offer an explanation for imitation of leaders.

We turn to the concept of power to explain cascading leadership for two reasons. First, we reason that cascading leadership, power and hierarchy are intertwined: cascading leadership does not exist without a hierarchical structure; a leader without power cannot exercise influence; and sense of power is related to hierarchical position. Based on these relations between what could be coined “the key ingredients of cascading leadership”, we think that integrating insights on how power drives behavior could have important implications for cascading leadership research. Second, cascading leadership studies indicate that the subordinated position of lower-level leaders is related to perceived dependency, which drives imitation (Jeuken & Euwema, 2016). Such dependency is closely related to personal sense of power, that is the perception that one can realize own goals, despite challenging circumstances. Several authors mention power differences as a reason for lower-level leaders imitating higher-level leaders (Jeuken & Euwema, 2016). The following reasoning about the role of power in cascading leadership is representative for the literature: “In organizational settings, due to the different hierarchical status and positions between supervisor and subordinate, senior managers are usually deemed to be powerful, credible and highly visible to middle managers (Brown et al., 2005). Therefore, middle managers are very likely to attend

to senior managers' attitudes and behaviors and have constant interaction with them, as senior managers are their immediate supervisors. These constant interactions do not only provide middle managers with opportunities to observe senior managers' attitudes and behaviors, but also serve as stimuli to reinforce and reproduce those observed behaviors and attitudes." (Chen et al., 2014, p. 839).

To deepen our understanding of how power might influence cascading leadership, we draw on the formula composed by Kurt Lewin ("Lewin's equation"; 1951), which states that behavior is a function of "person-related" and "environment-related" factors. According to applications of social learning theory (Bandura, 1977, 1986) on cascading leadership, lower-level leaders look at their environment, and more specifically, they look at their leaders to learn how to behave (see chapter 2). However, one could also argue that lower-level leaders are also an important part of the environment of higher-level leaders. This brings up the question, why higher-level leaders would not imitate lower-level leaders. To answer this question, we add power to Lewin's equation and argue as well as demonstrate that people with a low sense of power are driven relatively strongly by what happens in their environment compared to people with a high sense of power. On the other hand, people with a higher sense of power are relatively strongly driven by their own predisposition compared to people with a low sense of power.

Our second study (Jeuken, Boermans, Schaufeli, Van Den Berg, & Euwema, 2016) focused on the positive organizational constructs, trust in leadership and work engagement. This study focusses on negative workplace behavior. With our experiment we investigate the influence of perceived power on what drives the motivation to gossip as a form of indirect aggression in a negotiation setting. We look at how power affects to what extent people are motivated to gossip as a form of indirect aggression, based on the opponents' behavior (environment-related: competitive versus cooperative) and the participants' own social value orientation (person related: prosself versus prosocial). Although the topic of gossiping in conflict situations might appear unrelated to cascading leadership, this study does allow us to make tentative conclusions about the influence of power on behavior in general, which is very relevant for the cascading leadership literature, because it enables us to shed a new light on how leadership might cascade. The implications for cascading leadership are discussed after the discussion section of this chapter.

Incivility in the Workplace: The Role of Power, Social Value Orientation, and Counterpart's Behavior

A vast number of our daily conversations, is spent on the exchange of evaluative information about absent third parties (Foster, 2004). In other words, we gossip, and we gossip a lot (Michelson, Van Iterson, & Waddington, 2010; Wilson, Wilczynski, Wells, & Weiser, 2000), although this behavior is often labelled as destructive behavior or incivility in the workplace. Previous research has shown that gossip can occur in different situations and for different reasons, and that the consequences of gossip are in part determined by the motives people have to engage in gossip (Beersma & Van Kleef, 2012). Here we advance that gossip is likely to play an especially important role in conflict situations. Conflict functions as a stressor for the parties involved (Dijkstra, De Dreu, Evers, & Van Dierendonck, 2009; Spector & Jex, 1998), and is therefore likely to trigger an array of behaviors that allow people to deal, or cope, with the stressor. Gossip may be one of these behaviors. In this study we investigate what motivates people to gossip as a form of indirect aggression (Beersma & Van Kleef, 2012) in a conflict situation. This motivation is especially relevant, because of its potential effects on conflict escalation. We will demonstrate that this specific motivation to gossip is influenced by the behavior of the conflict counterpart for people with low power, and by a person's own social value orientation for people with high power.

Several conflict-related motives have been linked to gossip, both positive and negative (Grosser, Lopez-Kidwell, Labianca, & Ellwardt, 2012; De Backer, Larson, & Cosmides, 2007; Beersma & Van Kleef, 2012; Beersma & Van Kleef, 2011; Feinberg, Willer, Stellar, & Keltner, 2012; Piazza & Bering, 2008; Sommerfeld, Krambeck, Semmann, & Milinski, 2007). In the current study we, focus on the negative side of gossip in conflict situations. More specifically, we investigate when gossip occurs for negative reasons in conflict situations. Experiencing conflict often elicits anger (Frone, 2000; Warr 1990) and might therefore also bring about indirect aggression by means of gossiping about the counterpart (Beersma & van Kleef, 2012; Archer & Coyne, 2005; Foster, 2004). When parties turn to gossip to use it as a means to indirectly aggress towards their counterpart, it is plausible that the conflict will eventually escalate, making constructive conflict resolution less likely. Therefore, it is important to identify what triggers indirect aggression through gossip in conflict situations, and this is what we set out to do in the current study. We will demonstrate that depending on whether a conflict

party experiences that he or she has high, or, in contrast, low power, either personal goals or environmental factors influence whether he or she aims to use gossip as a way to indirectly aggress towards the counterpart.

Indirect Aggression as a Motive for Gossip

Notwithstanding potential positive aspects of gossip (Beersma & Van Kleef, 2011; Feinberg et al., 2012), gossip still has a negative connotation in everyday language, and this is mainly due to the fact that it can be motivated by the desire to engage in indirect aggression (Archer & Coyne, 2005; Richardson & Green, 1997). When people use gossip as a means to indirectly aggress, they gossip for their own good and to the disadvantage of others, such as the gossip subject (the person being gossiped about). Gossip is then employed to damage someone else's reputation in order to enhance one's own influence or standing in a group. By spreading negative information about the subject, the gossiper tries to gain a certain advantage over the subject because he or she hopes to change the opinion that the person that is being gossiped to holds about the subject, and as a consequence, eventually also this person's behavior towards the subject (Rosnow, 1977). Although individuals infrequently turn to gossip as a means for indirect aggression (Beersma & Van Kleef, 2012), it is important not to overlook this "dark side" of gossip, because malicious gossip can have particularly devastating effects on its victims (Archer & Coyne, 2005).

A situation in which one would expect the dark side of gossip to take center stage, is when gossip can serve as vehicle for indirect aggression in the event of interpersonal conflict. Indeed, people not seldomly take conflict personal, i.e. feel threatened, damaged, devalued, and insulted by it (Epstein & Taylor, 1967; Hample & Dallinger, 1995), and one can easily imagine an aggressive reaction to follow.

Our understanding of conflict management could benefit from examining the role of gossip. Although current research on conflict management tends to focus on what happens in the focal conflict situation (De Dreu & Beersma, 2005), conflict parties can, of course, choose from a wide array of behaviors that take the conflict beyond the focal situation by involving third parties (see, for example, Giebels & Janssen, 2005). Gossip is one of these behaviors. Past research has given very little attention to gossip in conflict situations in general and even less to the motive to use gossip to indirectly aggress. This "dark side" of gossip is highly relevant to the conflict literature because

of its plausibly devastating role. Gossiping to indirectly aggress will very likely lead to conflict escalation. Therefore, to contribute to the prevention of conflict escalation, we need to examine what causes people to gossip to indirectly aggress.

Under what circumstances would conflict parties be motivated to use gossip as indirect aggression, and what personal characteristics do people who are motivated to use gossip as indirect aggression have? In order to answer these questions, we draw on Lewin's equation (1951), which describes behavior as a function of "person-related" and "environment-related" factors. Person-related factors include everything internal to the person that drives behavior, such as personal goals and values. Environment-related factors include everything around someone; for example situational factors, institutions, but also other people and their behavior. Here, we examine a person-related and an environment-related factor, both important in conflict situations. Specifically, we focus on the role of social value orientation (the "person" part of Lewin's equation), and the role of the counterpart's behavior (the "situation" part of Lewin's equation).

One determinant of behavior in conflict situations is social value orientation (Messick & McClintock, 1968). Conflicts are, by definition, "mixed motive" situations in which both competitive and cooperative motives play a role. On the one hand, conflict parties will to some extent be motivated to defend their own position or interests (competitive motive), but on the other hand, they will also be motivated to some extent to cooperate with each other in order to find an agreement and resolve the conflict (Deutsch, 1969). People differ in their tendencies to focus on their own, or rather on joint, goals. Social value orientation is an individual difference that captures how much weight a person attaches to the welfare of others in relation to one's own (De Dreu & Van Lange, 1995; Messick & McClintock, 1968). As such, different social value orientations describe different goals in conflict situations: Proself oriented people value reaching their own goals, while prosocially oriented people care about the joint conflict outcomes (Beersma & De Dreu, 1999; De Dreu, Nijstad, & van Knippenberg, 2008).

To operationalize the second part of Lewin's equation, the environment, we examined the role of the behavior of the conflict counterpart. One distinction often made in conflict research is the distinction between cooperative and competitive behavior (Beersma & De Dreu, 1999; De Dreu, Weingart, & Kwon, 2000). While competitive behavior involves making large demands, making few concessions, and challenging the counterpart's positions, cooperative behavior involves making larger concessions and

more modest demands, and demonstrating more regard for the counterpart's positions (Ten Velden, Beersma, & De Dreu, 2009). Previous work has shown that the tracking of the counterpart's behavior provides a powerful tool in conflict based settings, and can profoundly impact conflict outcomes (Adair & Brett, 2005).

Both person-related and environmental triggers will affect motives and behavior in conflicts. Here we postulate that the importance of these two triggers also applies to the indirect aggression motive for gossip. We therefore might predict that people with a prosocial motive (who care about the goals of their counterpart as well as about their own), will be motivated to indirectly aggress towards their counterpart by gossiping about him or her to a lesser extent than people with a proself motive (who mainly care about their own goals). Likewise, we might expect people to be motivated to indirectly aggress through gossip more when their counterpart behaves competitively, and thus thwarts their goals, than when their counterpart behaves cooperatively. Although the above-mentioned predictions are relatively straightforward, it remains unclear what happens when proself people are confronted with a cooperative counterpart, or likewise, when prosocial people are confronted with a competitive counterpart. Will someone's own goals (social value orientation) or the environment (their counterpart's behavior) prevail in determining whether they turn to the dark side of gossip?

The literature suggests that a third factor, that is, the extent to which a person feels powerful or not, plays a pivotal role here. Previous work demonstrated that power decreases sensitivity to external environmental factors such as a counterpart's emotions (Van Kleef, De Dreu, Pietroni, & Manstead, 2006) or perspectives (Galinsky, Magee, Inesi, & Gruenfeld, 2006) and increases sensitivity to internal states (Anderson & Galinsky, 2006; Brinol, Petty, Valle, Rucker, & Becerra, 2007). For example, when performing a creative task and when asked to give their opinion, people who felt powerful were shown to react more in accordance with their own personal preferences rather than environmental demands, whereas the reverse was true for people who felt powerless (Galinsky, Gruenfeld, Magee, Whitson, & Liljenquist, 2008). Hecht and LaFrance (1998) demonstrated a comparable effect with an experiment in which participants who were assigned to a high power position smiled when they experienced positive affect, whereas positive affect did not predict smiling for participants in a low power position. It appears that people in a low power position felt obligated to smile when their environment required them to do so, whereas people in a high power position smiled

when they personally experienced positive affect. In sum, power seems to lead people to be influenced more by individual inclinations, whereas powerlessness seems to lead them to be influenced more by environmental factors.

How power affects the motive to indirectly aggress through gossip has, however, never been examined. How would power affect individuals who have the choice to engage in gossip in a conflict situation? Would they be motivated to indirectly aggress towards their counterpart by gossiping? On the one hand, we might expect to see similar effects of power on the motive to gossip to aggress indirectly as we have seen for other behaviors. As power diminishes the effect of the “environment part” and increases the effect of the “person part” of Lewin’s equation, we might expect that for people who feel powerful, there will be a relatively strong effect of social value orientation, whereas the counterpart’s behavior should play a less important role. In contrast, for people who feel less powerful, there should be a relatively strong effect of the environment, whereas social value orientation should play a less important role.

On the other hand, it is important to note that gossip has one important feature that distinguishes it from many other forms of aggression: The fact that one can aggress indirectly via gossip. Whereas many other forms of aggression expose the aggressor, by gossip one can aggress behind the target’s back, thereby making gossip a relatively “safe” way of aggressing in conflicts (Archer & Coyne, 2005; Björkqvist, Österman, & Lagerspetz, 1994). Gossip has been claimed to be triggered by powerlessness (Wert & Salovey, 2004); people who are cut off from formal means of influence because they find themselves in a low power position need to seek an alternative way to reach their goals, and may use gossip to aggress against others rather than aggress in more direct – and therefore potentially dangerous – ways. In this sense, it is not obvious at all that power would have the same effects on gossip as it has been shown to have on other behaviors. Rather, because gossip allows relatively powerless aggressors to get away with aggression relatively easily, the motive to aggress indirectly through gossip might not be affected by power at all, or the effects of power might be different from those demonstrated in earlier studies (e.g., Anderson & Galinsky, 2006; Brinol et al., 2007; Galinsky et al., 2006; Van Kleef et al., 2006).

In the current study we therefore examine whether the extension of Lewin’s equation by power also applies to motives underlying gossip in conflict situations. Based on the above-reviewed earlier studies we predict that the extent to which social value

orientation and behavior of the counterpart determine the motive to indirectly aggress via gossip depends on the level of power that a person experiences. This leads to our first Hypothesis:

H1: Power, the counterpart's behavior during conflict, and social value orientation have an interactive effect on the motive to aggress indirectly through gossip.

More specifically, we expect that for people who feel powerful, there will be a relatively strong effect of social value orientation, whereas the counterpart's behavior should play a less important role. In contrast, under low power there will be a relatively strong effect of the environment, whereas social value orientation should play a less important role. We therefore predict:

H2: High power people with a proself orientation will be more motivated to gossip to indirectly aggress than high power people with a prosocial orientation.

H3: Low power people with a counterpart who behaves competitively will be more motivated to gossip to indirectly aggress than low power people with a counterpart who behaves cooperatively.

We tested these hypotheses in an experiment. Conflict was simulated by having participants negotiate with a counterpart via a computer. The counterpart was actually a preprogrammed fictitious other, which was manipulated to either demonstrate cooperative or competitive behavior. In addition, the "counterpart's" cooperative or competitive goals were also revealed to participants by showing them questionnaire responses. We measured participants' social value orientation and primed them with high or low power (see Method section for details). We then gave them the option to engage in gossip by sharing information about the conflict counterpart to an alleged "group member". The dependent variable we examined was the motive to use gossip to indirectly aggress against the counterpart.

Method

Participants

108 Undergraduate students at a large university in the Netherlands (32 males and 76 females, $M_{age} = 22.97$, $SD = 6.07$ years) participated in the study for course credits or 7 Euros. The experiment had a 2 (counterpart's behavior: cooperative versus competitive) \times 2 (power: high versus low) \times 2 (social value orientation: prosocial versus prosself) full-factorial design, in which we manipulated the former two variables and measured the latter. Participants were randomly assigned to conditions using a double-blind procedure.

Procedure

Participants signed up for a study about how people manage conflict situations when they do not have visual contact with their counterpart. Upon arrival at the laboratory, participants were seated in separate cubicles behind a computer, which prevented them from communicating with each other directly. They were informed that they were part of a two-person group and that they would engage in a negotiation task with a member from another group. After the negotiation task, their group member would engage in a brainstorm task that was related to the negotiation, together with the other group's representative who participated in the negotiation earlier. In reality, there were no groups, and all participants interacted with pre-programmed fictitious others.

We then measured participants' social value orientation using the Decomposed Games Measure (Messinck & McClintock, 1968). The task consists of nine items, each containing three alternative outcome distributions of valuable points between oneself and an anonymous (fictional) interaction partner. An example is the choice between alternative (A) 500 points for oneself and 500 points for the other (cooperative choice), (B) 560 points for oneself and 300 for the other (individualistic choice, i.e. maximum amount of points for oneself regardless of the other), or (C) 500 for oneself 100 for the other (competitive choice, i.e. maximizing the difference between the outcomes). Both B and C are prosself choices. Participants were classified as either prosocial or prosself when at least six choices are consistent with one of the orientations.

Hereafter, we manipulated power using a priming procedure derived from earlier research (Galinsky, Gruenfeld, & Magee, 2003). Participants in the high power condition were asked to describe a situation in which they had felt powerful, whereas

participants in the low power condition were asked to describe a situation in which they had felt powerless. Specifically, those in the high power condition were asked to describe a situation in which they could either control someone else's access to a valued resource or could evaluate a person. Those in the low power condition, in contrast, were asked to describe a situation in which someone else controlled their access to resources or evaluated them.

Participants were informed that, on behalf of their group, they would negotiate with a representative of the other group in order to solve a conflict. They were asked to imagine that they were co-renters in a student apartment complex and the tasks they would engage in were related to this. They were told that it was important to work together with their counterpart to achieve a good negotiation outcome such that they would be able to live in the apartment complex in a nice, harmonious way in the future. Also, they were told that after the negotiation, their negotiation counterpart would interact with one of their own group members on a brainstorming task that was aimed to solve other conflicts related to the student apartment complex. Before this second task would start, participants were told that they could leave a message for their group member.

The negotiation task was a computer-simulated multi-issue negotiation (Van Kleef, De Dreu, & Manstead, 2004) that captures important characteristics of real-life negotiations (e.g., multiple issues, offer-counteroffer structure; cf. Pruitt, 1981). This negotiation paradigm is useful, not only because computer mediated negotiations are becoming more common (Moore, Kurtzberg, Thompson, & Morris, 1999), but also because experiments with comparable designs, applying different communication media (computer mediated versus face-to-face), often show comparable results (Sinaceur & Tiedens, 2006; Van Kleef, et al., 2004; Derks, Fischer, & Bos, 2008). We used a three-issue negotiation between two apartment renters about how they should distribute gardening chores, how much each of them should pay for apartment maintenance, and the time by which it should be silent in the evenings. The participant's own group's position on each of the three issues was explained to the participants (see Table 1). It was emphasized that it was important to solve the negotiation in a cooperative way so as to make it possible for the renters to live together in a pleasant way in the future.

Over six negotiation rounds the counterpart proposed different options for the three issues, depending on the manipulation of counterpart behavior (cooperative vs.

competitive; using a preprogrammed concession strategy; Van Kleef et al., 2004). In the cooperative counterpart condition, the counterpart made large concessions, conceding 3 units per round. Here, the opening offer was 14-15-13 (minus 3 units from the maximum of 15-15-15; see Table 1), and the final offer in the sixth and last round was 9-10-8 (minus 18 units; see Ten Velden et al., 2009, for a similar manipulation of counterpart's behavior). In the competitive condition, the counterpart made small concessions, conceding 1 unit per round. Moreover, participants were shown a questionnaire that had allegedly been filled in by his/her counterpart, and that depicted the answers on 5-points scales like for example: "I want to win the negotiation no matter what". These items either depicted the counterpart as a cooperative (cooperative condition) or competitive person (competitive condition; for a similar procedure see, e.g., Steinel & De Dreu, 2004).

Table 1

Participants' Negotiation Chart

Gardening chores (in hours)			Maintenance contribution (in euro)			Hour of silence (time)		
Level	Chores	Pay-off	Level	Contribution	Pay-off	Level	Silence	Pay-off
1	37	280	1	€10	280	1	01.00	280
2	39	260	2	€20	260	2	00.45	260
3	41	240	3	€30	240	3	00.30	240
4	43	220	4	€40	220	4	00.15	220
5	45	200	5	€50	200	5	00.00	200
6	47	180	6	€60	180	6	23.45	180
7	49	160	7	€70	160	7	23.30	160
8	51	140	8	€80	140	8	23.15	140
9	53	120	9	€90	120	9	23.00	120
10	55	100	10	€100	100	10	22.45	100
11	57	80	11	€110	80	11	22.30	80
12	59	60	12	€120	60	12	22.15	60
13	61	40	13	€130	40	13	22.00	40
14	63	20	14	€140	20	14	21.45	20
15	65	0	15	€150	0	15	21.30	0

After round 6, the negotiation was interrupted (cf. Van Kleef et al., 2004) and participants were given the option to leave a written message for their group member who would engage in a brainstorm task with the representative of the other group (their counterpart in the negotiation). They were told that in this way, they could inform their group member about their impression of the conflict and the person they negotiated with. The message would not be conveyed to the negotiating counterpart. Participants

could type in their message if they chose to do so. As such, they were given the option to exchange evaluative information about an absent third party (the negotiation counterpart) to their group member, or, in other words, to send a gossip statement (Foster, 2004). We then measured the motivation to indirectly aggress through gossip using the 5 items from the Motives to Gossip Questionnaire that measure this specific motive (Beersma & Van Kleef, 2012; Cronbach's $\alpha = .90$). All items started with "I gave information to my group member ...": "... to damage the reputation of the person we talked about.", "... to say negative things about the person we talked about.", "... to negatively influence the image that the person I was talking with has of the person we talked about.", "... to put the person we talked about in a negative light.", and "... to discuss negative characteristics of the person we talked about." Finally, participants were thanked and received their credit points or money. They received a written debriefing of the experiment's goals via email.

Results

We analyzed the data with a 2 (counterpart's behavior: cooperative versus competitive) \times 2 (social value orientation: prosocial versus proself) \times 2 (power: high versus low) analysis of variance (ANOVA). We report directional tests of our hypotheses. Significant interaction effects were decomposed using simple-effects analysis, specifically by testing the effects of counterpart's behavior and social value orientation within high and low power (see Winer, 1981, for an elaborate explanation of this approach).

ANOVA on the motivation to indirectly aggress through gossip revealed a significant main effect of counterpart's behavior ($F(1, 107) = 12.43, p < .001, \eta_p^2 = .11$), indicating that the motivation to indirectly aggress through gossip was stronger when the counterpart behaved competitively ($M = 2.81, SD = 1.36$) than when the counterpart behaved cooperatively ($M = 2.02, SD = 1.09$). We also found a significant main effect of power ($F(1, 107) = 3.74, p = .03, \eta_p^2 = .04$), indicating that the motivation to indirectly aggress through gossip was stronger in the high power ($M = 2.64, SD = 1.33$) than in the low power condition ($M = 2.22, SD = 1.23$). We did not find a significant main effect of social value orientation ($F(1, 107) = 0.37, p = .54, \eta_p^2 = .01$).

These main effects were qualified by two two-way interactions; between counterpart's behavior and social value orientation ($F(1, 107) = 3.02, p = .04, \eta_p^2 = .03$) and between power and social value orientation ($F(1, 107) = 4.59, p = .02, \eta_p^2 = .04$).

Finally, the analysis revealed a significant three-way interaction between counterpart's behavior, social value orientation and power as predicted in Hypothesis 1, $F(1, 107) = 3.88, p = .03, \eta_p^2 = .04$. Because the three-way interaction was significant, we did not interpret the above-described two-way interactions, and instead decomposed the three-way interaction using simple effects analysis (Winer, 1981) to examine the effects of social value orientation, counterpart's behavior, and their interaction, within the high and low power condition separately. Results revealed that under high power, there was a significant simple main effect of social value orientation, $F(1, 107) = 3.57, p = .03, \eta_p^2 = .03$; participants with a prosocial orientation had a higher motivation to indirectly aggress through gossip ($M = 2.98, SD = 1.52$) than participants with a prosocial orientation ($M = 2.34, SD = 1.07$), see Figure 1. Under high power, the simple main effect of the counterpart's behavior was not significant, $F(1, 107) = 2.24, p = .07, \eta_p^2 = .02$. These results support Hypothesis 2. Under low power, the simple main effect of the counterpart's behavior was significant, $F(1, 107) = 12.64, p < .001, \eta_p^2 = .11$, indicating that participants with a counterpart who behaved competitively had a higher motivation to indirectly aggress through gossip ($M = 2.79, SD = 1.27$) than participants with a counterpart who behaved cooperatively ($M = 1.68, SD = .92$), see Figure 2. Under low power, the simple main effect of social value orientation was not significant, $F(1, 107) = 1.25, p = .26, \eta_p^2 = .01$. These results support Hypothesis 3. In summary, our results show that for powerful people, social value orientation determined their motivation to indirectly aggress. In contrast, for powerless people, the counterpart's behavior determined their motivation to indirectly aggress. This shows that under high power, the motivation to gossip for indirect aggression derives from personal goals, whereas under low power it derives from environmental factors. Together, these findings support Hypotheses 1-3.

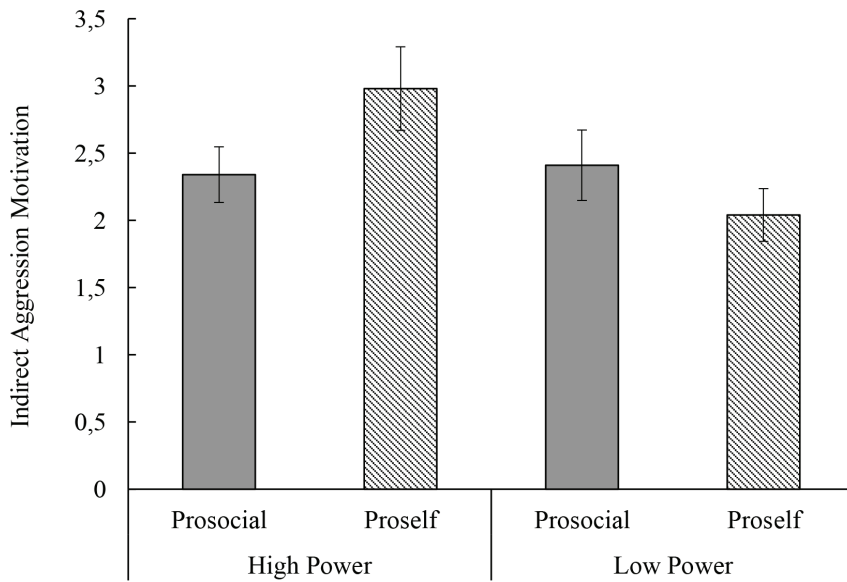


Figure 1. Simple main effect of social value orientation (proself vs. prosocial) on the motive to indirectly aggress through gossip in the high versus low power condition; displayed Means \pm SE.

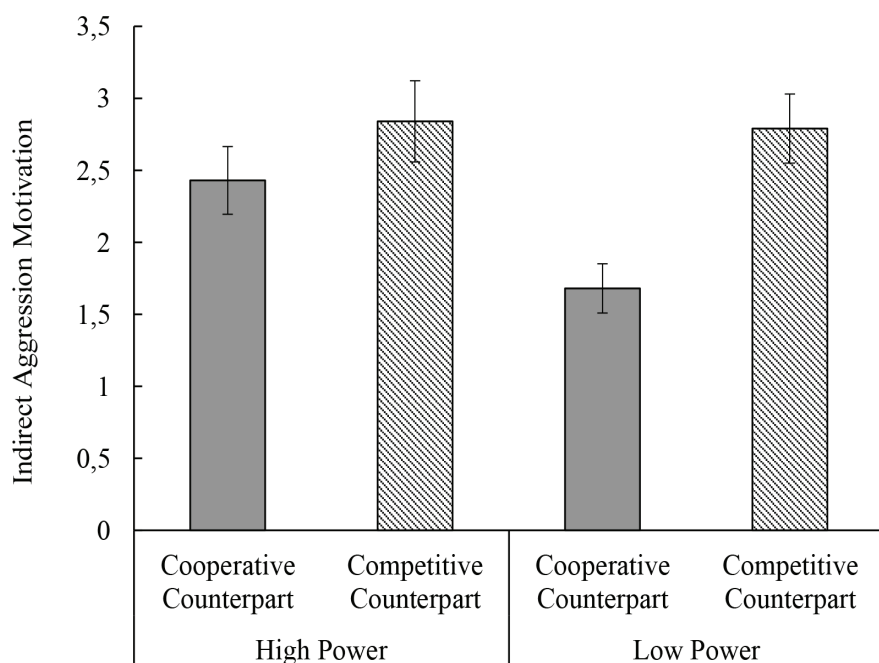


Figure 2. Simple main effect of counterpart's behavior (cooperative vs. competitive) on the motive to indirectly aggress through gossip in the high versus low power condition; displayed Means \pm SE.

Finally, we also found a significant simple interaction effect of the counterpart's behavior and social value orientation under high power ($F(1, 107) = 6.48, p = .01, = .06$), but not under low power ($F(1, 107) = 0.03, p = .87, = < .001$). As can be seen in Figure 3, this interaction, although not hypothesized, provides further support for our general prediction. Under high power, prosocially motivated participants were not affected by the counterpart's behavior. Inspection of means revealed that they did not increase their motivation to aggress through gossip when they were confronted with a competitive counterpart ($M = 2.19, SD = 0.75$) compared to when they were confronted with a cooperative counterpart ($M = 2.53, SD = 1.39$), see Figure 3. However, under low power, prosocially motivated participants were affected by their counterpart's behavior. Inspection of means revealed that they had a higher motivation to indirectly aggress when their counterpart behaved competitively ($M = 2.99, SD = 1.40$) than when their counterpart behaved cooperatively ($M = 1.83, SD = 1.14$), see Figure 4. This again

suggests that under high power, the motivation to gossip derives from personal goals, whereas under low power it derives from environmental factors, and therefore supports what we predicted in Hypotheses 1-3.

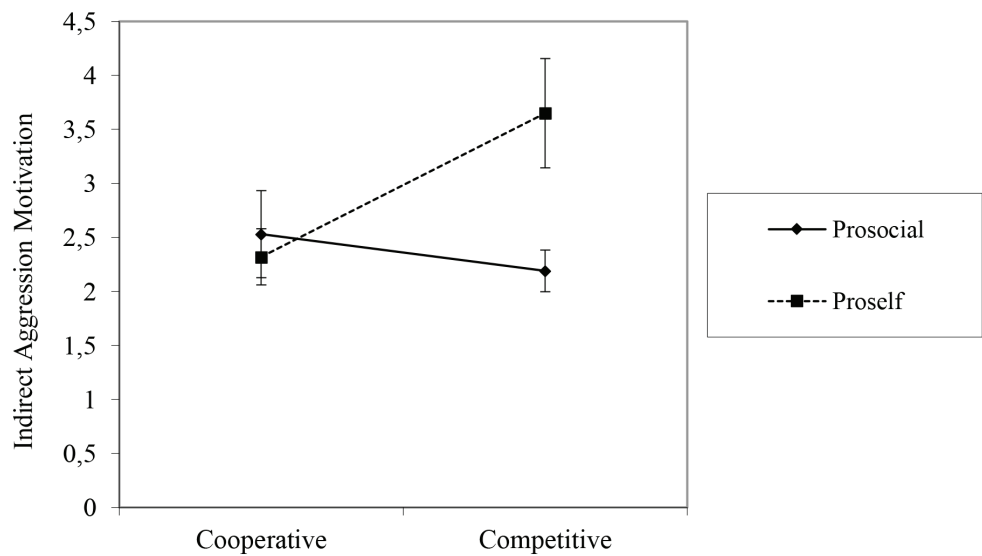


Figure 3. Simple interaction of social value orientation (proself vs. prosocial) and counterpart's behavior (cooperative vs. competitive) on the motive to indirectly aggress through gossip in the high power condition; displayed Means \pm SE.

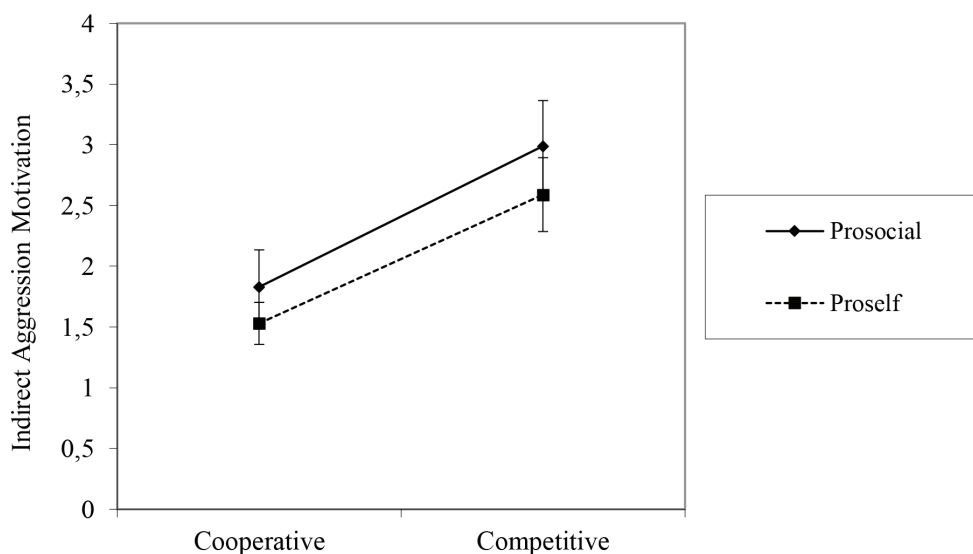


Figure 4. Simple interaction of social value orientation (proself vs. prosocial) and counterpart's behavior (cooperative vs. competitive) on the motive to indirectly aggress through gossip in the low power condition; displayed Means \pm SE.

Although we had no hypotheses regarding effects of demographic variables (gender and age) in our study, explorative analyses showed that participants' age was positively correlated with the motive to use gossip to indirectly aggress, $r(106) = .25$, $p = .01$. Thus, older participants were more motivated to engage in gossip to indirectly aggress. We also found a significant effect for gender, showing that men ($M = 2.84$, $SD = 1.70$) were more motivated to use gossip to indirectly aggress than women ($M = 2.24$, $SD = 1.04$), $F(1,106) = 4.92$, $p = .03$, $\eta^2 = .04$. We do not report interactions between gender and the variables of interest in our study here, because these would be difficult to interpret due to the asymmetrical distribution of the (relatively few) male participants across experimental cells (in some cells as low as 2 participants). Importantly though, when controlled for gender and age, the three-way interaction between power, counterpart's behavior, and social value orientation we predicted in Hypothesis 1, remained significant, $F(1,91) = 11.35$, $p < .001$, $\eta^2 = .11$.

Together, these results support the general idea of this manuscript, that power determines whether personal inclinations (social value orientation in our study) or environmental factors (the counterpart's behavior in our study) influence the motivation for which people gossip in conflict situations. Under high power, a person's social value orientation plays a decisive role, whereas under low power, environmental demands exert a stronger influence.

Discussion

In line with earlier research on power (Anderson & Galinsky, 2006; Van Kleef et al., 2006; Galinsky et al., 2006; Brinol et al., 2007), we predicted that both personal values and environmental factors play a role in determining why people gossip in conflict situations, and that power determines which factor exerts the strongest influence. Supporting this prediction, we found that the motivation for indirect aggression through gossip in low power individuals is driven mainly by the counterpart's behavior (with participants being more inclined to aggress towards a competitive than towards a cooperative counterpart), but it is driven by social value orientation for high power individuals (with proself participants being more inclined to aggress through gossip than prosocial participants).

Apparently, with regards to why people gossip about their counterpart in a conflict, power can either make people more self-interested or make them behave in a more social, moral way. The finding that power can both trigger self-interested behavior as well as socially responsible behavior is in line with earlier findings by Chen, Chai, and Bargh (2001). They found that when primed with power, exchange oriented people (who focus on giving a benefit in return for a received benefit; Clark & Mills, 1979) acted more in line with their own interests than exchange oriented people who were primed with a neutral stimulus. In contrast, communally oriented people (who see giving a benefit to someone in need of a benefit as appropriate; Clark & Mills, 1979) acted more prosocially under high power than when primed with a neutral stimulus.

Limitations and Directions for Future Research

Because our hypotheses specified causal relationships, we needed an experimental study to test these hypotheses. However, the artificial context of our laboratory experiment potentially limits the generalizability of our findings. Specifically,

in our experiment, people were given the opportunity to gossip without their identity being disclosed. In real life, people are typically more “exposed” when they instigate gossip (at least towards the person to whom the gossip is directed), and need to actively decide whether the potential benefits of engaging in gossip outweigh the potential risks (e.g., being known as a “gossip”, or having the information being disclosed to the gossip target by the gossip recipient). Also, real life conflicts are likely to have more far-reaching consequences than the simple computer-mediated negotiation that we simulated in the context of our experiment. Although this might actually imply that the effects we found in the current study would be larger rather than smaller in more realistic settings, in any case, to examine the boundary conditions of our findings, we encourage field research on gossip motivations in conflict situations.

One issue that such research might specifically examine is how different operationalizations of power could affect the motivation to indirectly aggress through gossip. Gossip is different from other forms of aggression, because of its indirect nature. Most forms of aggression are direct, and expose the aggressor. Gossip however, largely allows an aggressor to operate behind the target’s back. As argued by Wert and Salovey (2004), gossip might be triggered by powerlessness. When people lack formal mechanisms of influence and therefore power, they may need to look for alternative ways of reaching their goals, and gossip might be precisely such a mechanism. Therefore, as we argued in our introduction, predictions regarding the effects of power on the motive to indirectly aggress through gossip might take different forms.

Our results were in line with earlier studies that showed that power increases individuals’ action orientation (Galinsky et al., 2003; Galinsky, et al., 2008). Specifically, we found a main effect of power, demonstrating that under high power, people are more motivated to gossip to indirectly aggress than under low power. This goes against Wert and Salovey’s (2004) reasoning that powerlessness rather than power might trigger gossip. Perhaps this contradiction can be explained by differentiating between power indicators and sense of power. On the one hand, people can experience indicators of power such as a social or formal position, for example in the form of control over others’ resources as a manager. On the other hand, power is also a psychological state, people can have a sense of power, which is distinct from power based on social or formal positions (Anderson, John, & Keltner, 2012). Having a sense of power could be positively related to gossip, because of heightening the action orientation, while formal

power could be negatively related to gossip, because people with high formal power have formal means to reach goals and therefore don't have the need to gossip. In our study we used a priming procedure to manipulate power. By asking people to describe a situation in which they felt either powerful or powerless we manipulated their sense of power. We encourage researchers to also use manipulations of formal power in future gossip research, for example by assigning people to roles with relatively more control over resources or to positions of authority (Anderson & Berdahl, 2002; Galinsky et al., 2003), to look into the distinct effects of sense of power and formal or social indicators of power.

To get a better understanding of the described effects of power, we suggest that future research focuses on mediating mechanisms. Although in our experiment the negotiation situation was the same for people in the high and low power condition, it might be that power alters the way people feel on an individual level and perceive their relation with others. For example, on an individual level, sense of power is related to self-esteem (Anderson et al., 2012). In turn self-esteem might influence to what extent people rely on their own predispositions or look, for example, at their leaders for cues on how to behave. Perhaps people with low self-esteem are less confident about their own predispositions and therefore turn to their leader for cues on how to behave. On an interpersonal level it might be that people with a low amount of power experience a heightened perceived dependability on their leader, while the reverse might be true for people with higher levels power. In effect perceived heightened dependability might lead to a focus on how a superior behaves, while when perceived dependability is low one might conclude that it's safe to rely on one's own predispositions and behave accordingly.

Whereas the current study focused on gossip motivated by the desire to indirectly aggress against a counterpart, future research could also examine other motives that conflict parties can have to engage in gossip, such as information exchange and validation, emotional venting, and group protection (see Beersma & Van Kleef, 2012). Although we only looked at one specific motivation to gossip in this study, it is possible that power increases or decreases other motives to gossip as well. When people already experience power, their motive to gossip might be related to retaining power, while the motivation to gossip for low power people might be more related to establishing allies and gaining power (Kurland & Pelled, 2000).

It is clear that the current article cannot answer all of these important questions. However, it shows that motives to gossip to indirectly aggress can be triggered both by intrapersonal and environmental factors, and that the influence that prevails is determined by the power level conflict parties experience.

Implications for Cascading Leadership

As expected power influences to what extent people are driven by environmental factors and personal predisposition. In effect, this allows us to apply the results of the above described study to cascading leadership.

Since one might expect that lower-level leaders have a relatively low sense of power, we argue that lower-level leaders are especially focused on their superiors, while higher-level leaders can be expected to have a stronger sense of power and might therefore be influenced relatively strongly by their own predisposition. In effect lower-level leaders are more likely to look at their superiors for how to behave (as part of their environment), while higher-level leaders behave more like they wish, based on their personal predispositions.

From a social learning (Bandura, 1977, 1986) perspective it appears that higher-level leaders are, compared to lower-level leaders, less inclined to *learn* from their environment and in effect less likely to imitate lower-level leaders. To the contrary, it seems that lower-level leaders are more focused on learning, by turning to their environment of which higher-level leaders are an important part.

Note that this reasoning primarily applies to the imitation explanation of cascading leadership. For example, the role of power in the selection explanation of cascading leadership is less clear. Further possibilities for the incorporation of power in cascading leadership research will be discussed in chapter 5.

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5. General Discussion

Findings

In this chapter we take stock of our journey exploring cascading leadership. At the start of our journey we aimed to answer the following questions: (a) how is cascading leadership defined; (b) what leadership characteristics are known to cascade, and (c) what explanations are given for cascading leadership; (c) to what extent is leadership cascading over different levels of hierarchy; (d) can theory of personal power offer an explanation for differences in cascading leadership? With our systematic review on cascading leadership (chapter 2) we aimed to answer several basic questions and formulate more advanced ones to progress the field. A first notion is that although interest appears to be sparked, the field is still in its infancy, with a limited amount of studies investigating the underlying mechanisms of cascading leadership and a total lack of experimental research, which limits the possibility to identify cause and effect. Although the phenomenon is often defined as a top-down causal process, there is a total lack of causal evidence. Even correlational evidence for imitation, the most mentioned explanation for cascading leadership, is lacking and therefore we suggest to define cascading leadership as a phenomenon: “Cascading leadership is the co-occurrence of leaders’ values, attitudes and behaviors, at different hierarchal levels within an organization.”

What Leadership Cascades?

A total of 14 constructs have been found to cascade, with ethical leadership and charismatic/transformational leadership being the most popular constructs within cascading leadership research. Both constructs have been studied four times (Hansen, Alge, Brown, Jackson, & Dunford, 2013; Mayer, Hoobler, Wayne, & Marinova, 2012; Ruiz, Ruiz, & Martínez, 2010; Schaubroeck et al., 2012; Bass, Waldman, Avolio, & Bebb, 1987; Chun, Yammarino, Dionne, Sosik, & Moon, 2009; Stordeur, Vandenberghe, & D’hoore, 2000; Yang, Zhang, & Tsui, 2010). Since only one (Stordeur et al., 2000) out of 20 studies did not find significant results for cascading leadership, strong evidence exists for the co-occurrence of several constructs at different levels of leadership. In addition, we demonstrated the cascading of trust in leadership (see chapter 3). This brings about a more fundamental question, as to the question; are there values, attitudes or behaviors which are more inclined to cascade than others? And if so, why would that be? The current literature does not address this question. Given the wide array of topics investigated so

far, we do not see a theoretical argument to postulate that specific leadership features are more or less inclined to cascade. We see cascading both of generally positively valued leadership characteristics, as well as more negatively valued features, and also in this respect we did not find indications that one of these is more likely to cascade. Therefore, our general proposition based on our studies is, that all values, attitudes and behaviors of leaders can cascade to lower hierarchical levels in organizations.

Why Does Leadership Cascade?

To understand this co-occurrence, the core question is why leaders at different hierarchical levels show similarities. Other explanations for cascading leadership exist, but the extant literature mainly focuses on imitation processes to explain cascading leadership. Since imitation is the most presented explanation for cascading leadership in the current literature, we mainly focused on the question how the studies to date answered why and under which conditions lower-level leaders imitate their superiors.

Social learning theory (Bandura, 1977, 1986) appears to be the most suitable, or at least most applied, theory to answer this question. According to social learning theory, people look at their environment to learn appropriate behavior. Superiors are an important part of the environment, and therefore a probable model to imitate. Four conditions (attention, retention, reproduction, and motivation) are suggested for learning to occur. We have investigated these conditions for learning in relation to cascading leadership in our systematic review (see chapter 2). The motivation condition appears to play an especially important role, and answers an important part of the question why lower-level leaders would imitate their superior.

In the literature several motivations are suggested and investigated to explain the imitation of higher-level leaders by lower-level leaders. The main reason for imitation, as suggested based on social learning theory, is that people want to conform to norms. Based on social exchange theory (e.g., Wo, Ambrose, & Schminke, 2015) it appears that people behave the same because they want to reciprocate behavior. Based on displaced aggression theory (e.g., Wo et al., 2015) it appears that leaders want to vent emotions, displacing aggression directed at them by their superiors through directing aggression it at their own subordinates, effectively behaving the same. See chapter 2 for a complete overview of why and under which conditions people are assumed to imitate their superior, based on the extant literature.

The systematic review pointed at two important but under-exposed topics, which became the focus of the succeeding studies. The first topic is the limited number of hierarchical levels investigated in cascading leadership studies to date. Except for one study (Schaubroeck et al., 2012) the extant research only included a maximum of two levels of leadership and three hierarchical levels including front-line employees. Although organizations with such a small number of hierarchical levels exist, many organizations have more hierarchical levels. With our field study (see chapter 3) we replicated cascading leadership across four hierarchical levels (including front-line employees), and for the first time demonstrated the cascading of trust in leadership with employee work engagement as an outcome measure at the front-line employee level. Our study illustrated that associations exist between leaders at different hierarchical levels, even skipping an intermediate level of leadership. Trust in leadership at three hierarchical levels was related to front-line employee work engagement, both directly as well as indirectly through lower levels of leadership.

In our systematic review we identified a second gap in the literature, namely regarding the role of (sense of) power in cascading leadership. According to applications of social learning theory on cascading leadership, higher-level leaders are an important part of the environment of lower-level leaders. But this does not explain why higher-level leaders appear to have more impact on lower-level leaders than the other way around. One could argue that lower-level leaders are just as well an important part of the environment of higher-level leaders. The extant literature described several ways how power might play an important role in explaining the presumed downward direction of cascading leadership. Of particular interest is that cascading leadership effects were stronger when lower-level leaders and front-line employees were in a disadvantageous position. For example, the cascading of satisfaction with leadership was found to be stronger for female lower-level leaders (Chen, Friedman, & Simons, 2014). The authors argued, among other reasons, that female lower-level leaders are disadvantaged because they have less mentors and sponsors than their male counterparts (Ragins, 1989; Ragins and Cotton, 1991). Such a disadvantageous position can be interpreted as a proxy of power: the more disadvantageous a subordinate's position is the less likely he or she has (a sense of) high power.

To get a better understanding of how sense of power can explain behavior, we conducted an experiment (see chapter 4). According to Lewin's (1951) equation behavior

is a function of person-related and environment-related factors. As we demonstrated in Chapter 4 and also in accordance with the recent literature on power, sense of power can be seen as an additional factor in Lewin's equation (Anderson & Galinsky, 2006; Van Kleef, De Dreu, Pietroni, & Manstead, 2006; Galinsky, Magee, Inesi, & Gruenfeld, 2006; Brinol, Petty, Valle, Rucker, & Becerra, 2007; Van Kleef, Oveis, Homan, van der Löwe, & Keltner, 2015; Kifer, Heller, Perunovic, & Galinsky, 2013). As our experiment demonstrates, power plays an important role in what drives behavior. When people experience a high sense of power their personal predispositions have a relatively strong impact on their motivation for behavior, while for people with a low sense of power, the environment appears to determine their motivation for behavior relatively strongly.

Although we have not investigated power as an explaining mechanism within the context of a cascading leadership study, we have made plausible that sense of power plays an important role in cascading leadership. Since the behavior of people with a low sense of power is relatively more motivated by their environment, while the behavior of people with a high sense of power is motivated by their personal preferences, we expect lower-level leaders with a low sense of power to be relatively strongly influenced by their superiors compared to lower-level leaders with a high sense of power.

Norms are an important part of the environment and superiors are an important part of the environment who give cues about what is appropriate behavior in the respective environment. Therefore, imitating a superior appears to be a sound strategy to fit in the environment. On the other hand, people with a high sense of power appear to set the tone by behaving according to their own preferences and therefore we expect higher-level leaders with a high sense of power to be imitated more than higher-level leaders with a low sense of power.

Although more research on the role of power and sense of power in cascading leadership is needed, this logic explains the often presumed top-down nature of cascading leadership. However, as described, sense of power is not tied to hierarchical position or sources of power (Anderson, John, & Keltner, 2012). In effect, lower-level leaders can have a higher sense of power than their superiors. In theory, this would inhibit cascading leadership, because such leaders would be less inclined to look at their environment and instead would behave more based on their own predispositions.

This reasoning about the role of power in cascading leadership can also be used to explain why some leaders might be less inclined to learn from a social learning

perspective. According to social learning theory (Bandura, 1977, 1986) people turn to their environment to learn and higher-level leaders are important examples. However, higher-level leaders and lower-level leaders with a high sense of power are arguably more driven by their own predisposition than their colleagues with a lower sense of power and therefore might be by nature less motivated to focus on their environment, and are, in social learning terms, less inclined to learn. Another explanation could be that people with a higher sense of power do learn, but simply do not act as often as people with a lower sense of power, based on what they have learned from their environment. Again in terms of social learning theory, it might be that they can and might pay attention and retain information, as well as be able to reproduce behavior, but are not motivated to demonstrate, in practice, the learned behavior.

Note that the hierarchical component is what distinguishes cascading leadership from other instances of similarities between leaders. Because people at higher hierarchical positions can be assumed to have more power and consequently a higher sense of power, cascading leadership is especially relevant for organizational contexts. However, not only leaders use power to influence others. For example, besides leaders, who influence across levels, people can also influence each other within levels. People influence each other beyond designated roles, such as the roles of leader or follower. In effect our propositions with respect to sense of power are also relevant for within level imitation processes.

Future Research

With our systematic review we attempted to create order within the cascading leadership literature for future studies to build upon. Based on the extant literature we approached cascading leadership as a phenomenon, “the co-occurrence of leaders’ values, attitudes and behaviors, at different hierarchal levels within an organization.”

Perhaps more longitudinal as well as experimental research will lead to a more restrictive definition. Experimental research has yet to be done, in order to answer a large amount of questions regarding cause and effect. Also more longitudinal research would be useful, because a temporal dimension might very well play an important role in the often assumed imitation explanation of cascading leadership. How much time does it take to observe, internalize and practice behavior as demonstrated by a superior?

Although the cascading of desirable constructs might seem appealing, downsides

have yet to be investigated. Similarities between leaders at separate hierarchical levels might result in groupthink. To our knowledge this cross-level form of groupthink has yet to be investigated.

We have identified several moderators and mediators that explain how and under which conditions cascading leadership seems to occur. However, many of the underlying mechanisms have yet to be investigated. Based on our studies we place special emphasize on the need to incorporate the concept of power in cascading leadership research. Several questions need to be answered. Based on our experiment (chapter 4), we expect cascading leadership to be stronger when the gap between the sense of power at adjoining levels of leadership is large, with the higher-level leader having a higher sense of power than the lower-level leader. With a smaller gap, we expect cascading leadership to be weaker. This could be investigated in either a field study or an experiment. The advantage of a field study is that sense of power can be compared across levels to test whether leaders at higher hierarchical levels have a higher sense of power than lower-level leaders. By comparing the sense of power of lower-level leaders to the sense of power of higher-level leaders, one could use the difference between the two as a measure to explain the cascading of a certain construct.

The advantage of conducting an experiment is that one can control the amount of power and investigate the relative effects of different power sources and amounts of power to the effect of sense of power on cascading leadership. This could, for example be accomplished by conducting group studies in which respondents are assigned to higher and lower-level leadership roles, in which they have to fulfill certain tasks by influencing front-line employees, either directly or indirectly through a lower-level leader. Power could be manipulated by giving varying sources and degrees of power to both levels of leadership. Also the power source could be varied. For example, the amount of punishment and reward power could be manipulated to investigate the effects on the cascading of contingent reward leadership.

However, it might be hard to simulate the conditions necessary for cascading leadership to occur in the artificial context of a laboratory. For one, it is reasonable to expect that cascading leadership develops over time. Hence, investigating cascading leadership with (semi-experimental) longitudinal designs might be a fruitful compromise. For example, it would be interesting to track the relation between lower-level leaders and higher-level leaders through time, from the moment they start to work together.

Controlling for how long both have worked in the same organization and in the same hierarchical chain would allow to detangle what part of cascading leadership is rooted in the relation between the lower-level leader and the higher-level leader and which part is rooted, for example, in working in the same environment.

It would also be interesting to find a real life situation in which sense of power is not aligned with the hierarchical levels of leaders. A case study could be conducted. Alternatively, an experiment in which this situation is simulated, could be conducted. When a higher-level leader has a lower sense of power than a lower-level leader, we would expect cascading leadership to diminish. As suggested by Li and Sun (2015) and originally by Yammarino (1994): "It has been argued that lower-level leaders mimic senior leaders' behavior (Bass, Waldman, Avolio, & Webb, 1987), causing that behavior to have an impact on first-line employees. However, the opposite phenomenon also exists. More specifically, intermediate leaders sometimes choose "contrasting" leadership behavior, actively seeking to reverse the impact of messages (and in particular, negative messages) from higher-level leaders (Yammarino, 1994)." (p. 173). We suspect that sense of power might explain such contrasting behavior.

Another interesting question concerns what happens when both leaders have a high sense of power. In this scenario we expect leaders to be least similar, because both can be expected to behave according to their own predispositions, unless they have been specifically selected based on certain personal characteristics. It seems that if a strict selection protocol is followed, even higher-level leaders can behave alike.

Anderson, John and Keltner, (2012) suggest that "sense of power exists and can be studied at four distinct levels of abstraction: in a specific momentary social setting (e.g., a single interaction with one other person), in a long-term dyadic relationship (e.g., with a friend), in a long-term group (e.g., in a family), and in generalized form, across an individual's relationships and group memberships." (p. 318). All levels of abstraction appear relevant for cascading leadership research, except for the "momentary social setting" level: lower-level leaders are in a long term relation with their superior, they are part of a long term group in the form of the organization, department and team, and like everyone else they have a generalized sense of power. It would be interesting to investigate which level has the strongest impact on cascading leadership. Since the relation between lower-level leadership and higher-level leadership is at the core of cascading leadership, the long-term sense of power level might be especially important.

A next step could be to investigate how different abstraction levels of sense of power are related to bases of power. Even different sources of sense of power could be investigated.

Besides the integration of power in cascading leadership research several other possibilities for future research exist. The extant literature scarcely distinguishes between conscious and subconscious processes to explain cascading leadership (note that the distinction is mentioned by Liu, Liao, & Loi, 2012; Li & Sun, 2015). To what extent do lower-level leaders consciously versus subconsciously imitate higher level leaders? Therefore, including, for example emotional contagion processes (Hatfield & Cacioppo, 1994) in cascading leadership research would be interesting. Besides work engagement as an outcome measure (see chapter 3) it would also be interesting to investigate whether it cascades and if so whether contagion effects can account for the effect. Work engagement is known to be contagious within hierarchical levels (Bakker, Van Emmerik, & Euwema, 2006; Bakker & Westman, 2009; Hatfield & Cacioppo, 1994), but contagion effects between hierarchical levels have yet to be investigated.

On the other hand, one could wonder to what extent higher-level leaders consciously cause lower-level leaders to imitate them. Although influence is an important aspect of leadership, it is not yet clear to what extent higher level leaders are causing cascading leadership on purpose. Perhaps cascading leadership is partially a by-product of higher-level leadership of which higher-level leaders are unaware. Future research could investigate the role of higher-level leader awareness about influence, through being a model, on lower level leaders.

Also related to the unconscious side of human behavior, is the field of social neuroscience. Because imitation is often suggested as the mechanism explaining cascading leadership, mirror neurons are of special interest (Keysers & Gazzola, 2010). They appear to play an important role in what is called automatic imitation (Heyes, 2011). It seems that people have certain tendencies to imitate each other rooted in their biology. Understanding these tendencies might help to explain cascading leadership.

Again related to biology would be a focus on how leadership cascades in the animal kingdom. Several examples of hierarchical structures, as well as examples of animals mimicking each other exist. One only needs to look at a flock of birds (Nagy, Ákos, Biro, & Vicsek, 2010) or a school of fish (Krause, Hoare, Krause, Hemelrijk, & Rubenstein, 2000). The movement patterns of both are at least partially based on the

movements initiated by a “leader” in a hierarchical structure. Kurvers et al. (2009) even found differences in personality to be related to leadership roles in barnacle geese.

Another interesting avenue for future research would be to investigate the role of contextual factors in cascading leadership. One form of culture, ethical culture has been found to mediate the cascading of ethical leadership. It appears that a shared culture might create similarities between the leaders who are part of the same culture. In addition, it seems to be the case that higher-level leaders indirectly influence the ethical behavior of lower-level leaders by influencing the ethical culture in which lower-level leaders operate. Many other forms of culture could be investigated as well. As discussed in chapter 2, Bass et al. (1987) suggest several additional explaining mechanisms related to context. For example: “the environmental and technical demands in one subunit may generate common job requirements and therefore dictate the differential leadership observed and required at the two levels of the subunit.” (p. 84). Co-workers might also play a role in cascading leadership (Wu, Lee, Hu, & Yang, 2014). When a leader imitates direct colleagues at the same level, and the direct colleagues imitate their higher-level leader, this is an indirect effect which might also explain similarities.

Another topic concerns the generalizability of the explaining mechanisms studied in relation to specific cascading constructs to the cascading of other constructs. Cascading constructs often have certain qualities which are reasoned by authors to make the constructs under investigation more or less likely to cascade. For example, Bass et al. (1987) explicitly link the characteristics of the dimensions of transformational leadership and transactional leadership to the cascading leadership, and suggest that each dimension cascades for different reasons. Regarding charismatic leadership they wrote “we expected charisma to cascade to lower levels, because charismatic leaders raise the confidence of followers and because followers want to identify with the charismatic leaders.” (p. 76). They reasoned in a similar vein about the unique characteristics of the other dimensions contributing to cascading leadership. Throughout the literature different explanations are given for cascading of different constructs. Future research should investigate which explaining mechanisms are applicable in general, and which explaining mechanism are only applicable to constructs with specific characteristics. This would clarify to what extent cascading leadership is a general phenomenon or construct specific. See Wo et al. (2015) for an example on how to investigate separate cascading “routes”.

Practical Implications

When we apply our propositions about power and cascading leadership to practice, this also has consequences for training and development, and selection. If we assume that, in general, people on higher hierarchical positions have a higher sense of power, this implies that people with a higher sense of power, are less inclined to behave based on their environment. With training being part of the environment, we expect people with a high sense of power to learn less, or at least practice less what is learned in training. Instead they set the tone by behaving according to their own predispositions. This actually expounds the advice of some scholars to invest in training and development of higher-level leaders, because their leadership will cascade and thereby has an impact on how lower-level leaders behave. Although we agree that the leadership of higher-level leaders might cascade, we are less convinced about their trainability.

Although speculative, it appears to be extra important to select higher-level leaders with values and behavioral patterns that are already in line with what is desirable. As illustrated by our study on the cascading of trust in leadership, leadership also cascades above front-line leadership, yet we don't know whether leadership cascades from the highest to the second highest level of leadership. Nonetheless, at a certain point in the hierarchy leaders can be expected to be trainable and at the same time a model for lower-level leaders. Selecting for leaders with a moderate sense of power could be an interesting approach to keep an organizations higher-level leaders open to learning and practicing new behavior.

When selecting for leaders with a moderate sense of power is not an option, the training of higher-level leaders should be focused at the internalization of the concepts and skills which need to be learned. Although this might not be necessary for leaders with a low or moderate sense of power, when training higher-level leaders, the goal of the training should be to make that what needs to be learned part of the trainee's predispositions.

Based on our systematic review, cascading leadership appears to be a two edged sword. Desirable as well as undesirable constructs cascade. In most cases organizations would like to see transformational leadership throughout the chain of command, but would like abusive leadership to be non-existent. However, both seem to cascade. Based on our power propositions organizations could decide to give more power, for example in the form of autonomy, to all leaders, without discriminating between hierarchical

positions. This would presumably buffer cascading leadership, for both desirable and undesirable constructs.

A more nuanced approach is concerned with the motivations people have. Lower-level leaders appear to be motivated to model their superior for several different reasons. Perhaps one could engineer the power that people have throughout the hierarchy in such a way that only desirable constructs cascade. It might be that the cascading of different constructs is related to different bases of power. For example, it seems that leaders imitate transformational superiors when they identify with their leaders (Chun et al., 2009) and referent power might explain the identification (Conger & Kanungo, 1998). As investigated by Chun et al. (2009) people might be motivated to model contingent reward oriented leaders, expecting rewards in return. These expectancies might be based on the knowledge people have about the reward as well as coercive power of their leaders. When leaders know that their superiors do not have the power to do something in return for their modeling, they might be less inclined to model. On the other hand, the opposite also applies: when higher-level leaders do have the power to reward desirable behavior, lower-level leaders are more likely to model their superior. It might be that different accents regarding power bases, such as punishment and reward power, can streamline the way leadership cascades. By engineering power in such a way that people are motivated to selectively model the powerholder, it might be possible to get desirable constructs to cascade and undesirable constructs not to.

Yet what constitutes desirable versus undesirable is often up for debate. Powerful leaders might have an important influence on the whole organization, based on their own agenda. What a dictator might define as desirable might be undesirable from the perspective of the general public. As demonstrated in chapter 4, sense of power increases the tendency to behave according to one's own predispositions, with proself oriented people becoming more motivated to behave in a proself oriented way. In general, it is not desirable when people behave strictly in their own interest. Therefore it is extra important not to give people with extreme scores on this social value orientation a powerful position. Yet people with such undesirable qualities are often present within the higher echelons of organization. For example, it seems that psychopaths are able to relatively often embody senior management positions (Boddy, Ladyshevsky, & Galvin, 2010). Although selection might be an important way to prevent these people from obtaining these powerful positions, their over-representation might also be explained

by need for power: perhaps people with a high self-interest also have a relatively heightened need for power, which drives them to climb the hierarchical ladder to obtain powerful positions. The risk of these leaders getting to the top of organizations and their undesirable leadership patterns cascading throughout the organization warrants a focus on what drives people, how much power they are given, and how high their sense of power is. On a more positive note, it should be possible to select people for important positions with a moderate or let's say healthy sense of power and desirable characteristics such as a prosocial value orientation to let these desirable characteristics cascade.

How to Get a Grip on Cascading Leadership

Although the cascading leadership literature has several limitations, our studies allow us to give some prudent advice on how to approach cascading leadership in practice. Whether cascading leadership is good or bad is not an easy question. Hence the first question practitioners should investigate is whether cascading leadership has a part in one's organization at all. To answer this question one could start with taking a look at the vision and mission of the organization. If, for example, people are expected to conduct their work autonomously, stimulating cascading leadership from an imitation perspective could increase dependency on superiors as models and decrease autonomy. Lowered diversity also appears to be a down-side to cascading leadership, because it might lead to groupthink. Perhaps another structure than the classical organizational hierarchy is more appropriate for some organizations. It might even be that some organizations are better off without any formal leaders at all. Naturally cascading leadership has no place in such organizations.

Also note that, as mentioned, cascading leadership might be a two edged sword. When increasing the cascading of desirable constructs, undesirable constructs might cascade along. However, if one desires certain constructs to be present throughout the hierarchy, it might be possible to make constructs selectively cascade.

Before trying to increase or decrease cascading leadership, we advise to look at the "as is" situation. One could make a list of the constructs that are currently cascading. Which constructs co-occur across levels of leadership and which do not? After investigating the "as is" state we look at the desired "to be" state. If one decides that cascading leadership is not per definition undesirable, one could decide for which

constructs cascading leadership is desirable and for which constructs it is not. Although some constructs are obviously desirable, such as work satisfaction, and others are obviously not, such as abusive supervision, the desirability of the cascading of other constructs might be less clear.

By comparing the “as is” state to the “to be” state, one can prioritize where change is needed to increase or decrease cascading leadership. Once priorities have been established, it is time to decide how to get constructs to cascade or prevent them from cascading when necessary. Since the co-occurrence of constructs at different hierarchical levels of leadership seem to have several causes, different routes exist to get constructs to cascade or prevent them from cascading.

Although much more research is necessary to confirm these strategies, from a theoretical perspective we distinguish four global routes: (1) imitation, (2) selection, (3) context, and (4) biology. Imitation (1) is the most mentioned explanation for cascading leadership. People can both consciously and subconsciously imitate their leader. To make lower-level leaders imitate their superiors, they need to be motivated. Within the imitation route, different motivations for imitation can be identified. As discussed, the sources of power of higher-level leaders might be related to why lower-level leaders are motivated to model certain values, attitudes and behaviors.

Note that when the selection route (2) is taken, it is especially important to consider the trainability of the desired cascading construct. When constructs are desirable but less trainable it is wise to select for these characteristics at all hierarchical levels, because they are less likely to cascade through imitation. For example, intelligence is essentially fixed, and should not be expected to cascade through imitation. If one wants certain constructs not to cascade, one should select for diversity.

Based on the context route (3), one could try to change contextual factors such as similarities regarding the environment, job characteristics, and/or the culture. As demonstrated by Schaubroeck et al. (2012) leadership can cascade through culture and being in the same culture is associated with similar behavior. The same applies to sharing job characteristics. It might be that leaders become similar over time due to how job characteristics shape their own characteristics in similar directions. Punishment and reward structures might also play a role here. Not all rewards are given by superiors. For example, incentive programs can be designed at the company level, which makes that lower-level leaders would be less dependent on higher-level leaders for the obtainment

of rewards. However, a shared incentive program might also lead to similar behavioral patterns, between as well as within hierarchical levels. One could investigate which behavior is punished or rewarded and to what extent the policies on punishments and rewards are the same across hierarchical levels.

From a biology perspective (4) people are born with certain biological characteristics, such as mirror neurons, which might drive them to imitate others. Understanding human biology might help to control these fundamental drives for imitation, but more research is needed on its role in cascading leadership and leadership in general.

Note that these routes are not mutually exclusive. For example, after selecting higher-level leaders for certain characteristics, these characteristics might subsequently cascade through the imitation route. Also some explaining mechanism might be related to multiple routes. For example, both the imitation and biology route might apply to emotional contagion. Another example relates to the influence of culture on the co-occurrence: it appears that leaders influence culture and through their influence on culture influence lower-level leaders (Schaubroeck et al., 2012).

A last important consideration is the temporal dimension of cascading leadership. If people are not already similar, they need time to become similar. We cannot expect lower-level leaders to instantly copy their superiors or conform to a new context. Therefore, when taking the imitation route, one should consider HR policies regarding how long leaders are expected to stay at certain positions. When cascading leadership is desired, they should at least remain on a position until the desired values, attitudes and behaviors have effectively cascaded. On the other hand, when undesirable characteristics of a leader cascade through imitation, it might be best to select a new person for the job as soon as possible. In a similar vein it takes time for context to have an effect on leaders' values, attitudes and behaviors. One should not expect to be able to change cascading leadership rapidly.

Conclusion

With the roundup of this doctoral dissertation, we can conclude that more new questions have been asked than old ones have been answered. Yet the basic questions that have been answered pave the way for future studies to investigate cascading leadership in a more grounded way, enabling scholars to answer more advanced

questions. We have gained a better understanding of cascading leadership. We have a better understanding of what cascading leadership is, which constructs cascade and how they cascade according to extant quantitative studies; we have expanded the scope of cascading leadership by investigating the cascading of trust in leadership across three levels of leadership; and we have investigated a fundamental power process, which appears to play an important role in cascading leadership according to our own theorizing, opening many possibilities for future research. In effect this conclusion is not conclusive. Hopefully this doctoral dissertation will have the power to achieve a position in the field, for future studies to model and advance cascading leadership research, by letting its insights cascade throughout the literature.

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