The tone at the top:

A trickle-down model of how manager anger relates to employee moral behaviour

1. **Jakob Stollberger**
   Lecturer of Work and Organizational Psychology
   University of Aston
   Aston Business School
   E-mail: j.stollberger1@aston.ac.uk

2. **Mireia Las Heras**
   Associate Professor of Work and Organizational Psychology
   IESE Business School, Spain
   E-Mail: mlasheras@iese.edu

3. **Yasin Rofcanin (corresponding author)**
   Professor of Organizational Psychology and Human Resource Management
   University of Bath, School of Management, the UK
   E-Mail: y.rofcanin@bath.ac.uk

4. **Maria Jose Kosch**
   Associate Professor of Work and Organizational Psychology
   ESE Business School, Chile
   E-mail: mjbosch.ese@uandes.cl

5. **Pascale Daher**
   Lecturer of Work and Organizational Psychology
   University of Liverpool
   Management School
   E-Mail:p.daher@liverpool.ac.uk
Abstract
The question of how leaders’ expressions of anger influence employees has been the subject of considerable scholarly debate. So far, however, research on the consequences of angry leadership has predominantly focused on the effects of supervisor expressions of anger, neglecting the potential influence of higher-level managerial anger. In this study, we integrate the emotions as social information theory with the elaboration likelihood model to examine how manager anger trickles down across organizational hierarchical levels (i.e., managers, supervisors, and employees) to affect employee moral behaviour. Results of a multi-source field study conducted in Chile demonstrate that perceptions of manager moral behaviour and supervisor servant leadership serially mediate a negative relationship between manager anger and employee moral behaviour. Furthermore, counter to our predictions, trait negative affectivity of supervisors did not moderate the trickle-down relation of manager anger on employee moral behaviour. Our research elucidates the process by which manager anger can “set the tone” in an organization and trickle down across hierarchical levels to predict the moral behaviour of employees.

Keywords: Anger, moral behaviour, servant leadership, trickle-down model, multilevel structural equation modelling
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Introduction

Researchers have been exploring the social functions of emotions for over two decades (Keltner & Haidt, 1999), and a vast body of work accumulated attesting to the interpersonal effects of emotions in organizations more generally (Elfenbein, 2007) and in the context of leadership more specifically (van Knippenberg & van Kleef, 2016). In fact, leader-follower interactions are rife with emotion, not least because followers interpret leader emotional displays as meaningful communications conveying a leader’s intentions and how he or she appraises the work environment (van Kleef, Homan, & Cheshin, 2012). Leader anger is a particularly interesting emotion in this respect, as expressing anger at work is usually not viewed in a favourable light (Geddes & Callister, 2007; Geddes, Callister, & Gibson, 2020) and has been found to decrease leadership effectiveness (Glomb & Hulin, 1997; Lewis, 2000). However, more recently scholars suggested the potential for anger to elicit moral behaviour in organizations (Lindebaum & Geddes, 2016) and motivate moral leadership (e.g., Solinger, Jansen, & Cornelissen, in press). This raises the question of whether leader anger has positive or negative consequences for moral behaviour in organizations.

Prior research on the implications of leader anger has predominantly focused on the role of the immediate supervisor (Geddes et al., 2020; van Knippenberg & van Kleef, 2016), neglecting the potential influence of anger displayed by managers at higher levels of the organizational hierarchy. This hiatus is surprising because higher-level managers are said to “set the tone at the top” and should therefore exert a particularly strong influence on employee behaviour (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009). It follows that manager displays of anger could either directly influence employee moral behaviour, or indirectly, through their influence on moral leader behaviours of mid-level supervisors.
The aim of our study is to examine how and when manager anger relates to employee moral behaviour. To this end, we integrate the emotions as social information theory (EASI; van Kleef, 2009; van Kleef et al., 2012) with the adapted elaboration likelihood model in the context of trickle-down processes (AELM; Petty & Cacioppo, 1986; Wo, Schminke, & Ambrose, 2019). Although at their core both theories are concerned with how individuals process social information, EASI theory more specifically delineates how observers process emotional expressions of others (van Kleef et al., 2012), and the AELM more comprehensively helps explain how perceptions, attitudes, and behaviours of a source are transmitted to affect perceptions, attitudes, and behaviours of a recipient (Wo et al., 2019). The resulting integrative model thus allows us to examine how a) emotional expressions of higher-level managers are perceived by mid-level supervisors as well as b) how perceptions of mid-level supervisors can trickle down to affect behaviours of lower-level employees. Drawing from this integrative framework, we propose manager moral behaviour and supervisor servant leadership as linchpins connecting manager anger to employee moral behaviour because displaying anger constitutes a violation of the moral standards that are usually expected from senior leadership figures (Cropanzano, Goldman, & Folger, 2003; Oh & Farh, 2017), and may influence moral behaviours of supervisors and employees. We then extend our theorizing by considering supervisor trait negative affectivity as a factor that could determine when trickle-down effects of managerial anger are more or less likely to occur. We focus on trait negative affectivity because EASI theory and available evidence on emotional leadership suggest that a follower’s affective predispositions can influence the appropriateness a leader’s emotional display (see Damen, van Knippenberg, & van Knippenberg, 2008 and van Kleef et al., 2012 for the affective match perspective). As supervisors assume a key role in passing on the manager’s influence to employees at lower hierarchical levels (e.g., Wo et al., 2019), we suggest that supervisor trait negative affectivity
may buffer the relationship of manager anger on employee moral behaviour via manager moral behaviour and supervisor servant leadership.

Our study aims to make three key contributions. First, we inform the literatures on the social functions of emotions and moral leadership (Brown & Mitchell, 2010; Lindebaum & Geddes, 2016) by examining whether manager displays of anger are related to perceptions of manager moral behaviour by mid-level supervisors. Despite an long-standing consensus in the emotions literature to equate anger with negative work outcomes (e.g., Elfenbein, 2007), scholars have recently theorized that, especially for leaders, displays of anger can be a catalyst for moral action in organizations (Geddes et al., 2020; Lindebaum, Geddes, & Gabriel, 2017). By explicitly testing how manager anger is related to perceptions of moral behaviour, our study informs recent debates on the moral character of expressed anger (Geddes et al., 2020; Lindebaum & Geddes, 2016) (Geddes et al., 2020; Lindebaum et al., 2017) and interrogates the functionality of manager displays of anger for effective moral leadership (Brown & Mitchell, 2010; Solinger et al., in press).

Second, we contribute to the growing literature on trickle-down effects (see Wo, Schminke, & Ambrose, 2019 for a recent review) by delineating how manager anger relates to employee moral behaviour. Specifically, we examine whether manager anger triggers a trickle-down mechanism and scrutinize the role of perceived manager moral behaviour and supervisor servant leadership in explaining the association of manager anger on employee moral behaviour. Our dyadic process perspective on manager anger complements and extends previous research on the effects of anger expressed by supervisors (Glomb & Hulin, 1997; van Kleef et al., 2009) and, to the best of our knowledge, represents the first attempt to study the trickle-down effects of manager emotions in organizations.

Third, we consider supervisor trait negative affectivity as a relevant contingency factor for when manager anger trickles down. Because supervisors with high trait negative
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affectivity should be more open to the influence of manager anger and look more favourably upon such appeals (Damen et al., 2008), they may perceive manager anger as less hostile and relatively more moral than their counterparts with low trait negative affectivity. By examining the role of supervisor trait negative affectivity in the trickle-down process of manager anger, we test whether follower individual difference factors related to emotion perception play a role in whether or not anger is perceived as moral (Geddes et al., 2019). Figure 1 depicts our conceptual model. In the following sections, we distinguish between different types of anger displays before developing hypotheses related to a trickle-down model of manager anger.

Distinguishing between integral and incidental displays of anger

Anger is defined as an emotion that involves an appraisal of responsibility for wrongdoing by another person or entity and often includes the goal of correcting the perceived wrong (Geddes et al., 2020); however, this definition of anger mostly captures the process of what happens if individuals experience anger and is less informative when examining the consequences of observing displayed anger of another person such as managers in the present study. Speaking to this issue, scholars generally distinguish between displayed anger that is integral (i.e., related to the situation in which it is expressed) or incidental (i.e., lacking an explicit situational target or ambiguous; van Kleef, de Dreu, & Manstead, 2010). Studying integral anger displays, however, necessitates a comprehensive understanding of why anger was expressed from the point of view of the observer. As Parkinson (1996, p. 678) notes, this would require an understanding of “the communicator, addressee and the surrounding sociocultural context”. In the context of manager displays of anger, we surmise that it is less likely for supervisors and especially employees further down in the organizational hierarchy to have such a detailed insight into why managers expressed
anger, thus complicating the study of integral anger displays. Because the correct interpretation of integral anger displays by observers hinges on a detailed understanding of the varied reasons that could have triggered the emotion, we decided to examine incidental anger displays in the present study. Conceptual (van Kleef, de Dreu, et al., 2010; van Knippenberg & van Kleef, 2016) and empirical (Hillebrandt & Barclay, 2017) accounts suggest that both expressed integral and incidental anger can be cognitively interpreted by observers and have the potential to influence their work behavior. Therefore, the current study examines the consequences of incidental manager anger as opposed to more contextualized forms of integral anger.

A trickle-down model of manager anger and employee moral behaviour

Trickle-down models describe processes whereby the perceptions, feelings, attitudes, or behaviour of one individual in an organization (usually a leader) affects the perceptions, feelings, attitudes, or behaviour of other individuals (usually followers; Wo, Ambrose, & Schminke, 2015; Wo et al., 2019). In their recent integrative review, Wo and colleagues (2019) distinguish between homeomorphic (where the construct remains the same throughout the trickle-down process) and heteromorphic (where the construct varies) trickle-down effects. For example, Schaubroeck and colleagues (2012) tested a homeomorphic trickle-down effect in their investigation of how perceived high-level-unit ethical culture relates to low-level-unit ethical culture perceptions via mid-level-unit ethical culture. A study by Johnson and colleagues (2017), in turn, is an example of the more commonly examined heteromorphic trickle-down effect, focusing on how supervisor regulatory foci trickle down and thus activate corresponding employee regulatory foci via supervisor leader behaviours. In the present study, we propose a heteromorphic trickle-down mechanism to explore how manager anger may affect both supervisors and employees across hierarchical organizational levels (i.e., higher level managers, mid-level supervisors, and lower-level employees).
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For mid-level supervisors, we suggest that observing manager anger will lead to decreased perceptions of their manager’s moral behaviour because managerial displays of anger signal hostility and conflict that violate the moral standards that are expected from senior leadership figures (Cropanzano et al., 2003; Oh & Farh, 2017; van Kleef et al., 2012). Morality can be seen as interlocking sets of values, practices, institutions, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible (Haidt, 2008). Following from this broader concept, leader moral behaviour can be defined as “perceptions of the degree to which the leader practices behaviours determined by a pluralistic approach to represent high morals” (Moorman, Blakely, & Darnold, 2018, p. 279). In line with Moorman and colleagues (2013), we adopt a pluralistic conceptualisation of leader moral behaviour to cover the breadth of different values followers may hold and expectations they may have towards their leader’s moral conduct. A pluralistic perspective on morality assumes that more than one basic moral principle operates equally in determining moral behaviour (Burton, Dunn, & Goldsby, 2006). Pluralism thus occupies a middle ground between monism (i.e., the view that there is one basic moral principle; e.g., Becker, 1998) and relativism (i.e., the view that there is no basic moral principle; see Timmons, 2002), and suggests that a diverse, yet finite set of values underlie moral behaviour, that, in this research include utilitarian, just, rights-based, caring, social contractual, and virtuous values (Moorman et al., 2013).

According to EASI theory (van Kleef, 2009; van Kleef et al., 2012), followers infer social information from displayed leader emotions, for example, the leader’s intentions as well as how he or she evaluates followers or the environment. Typically, leader displays of anger have been suggested to signal hostility, conflict, and interpersonal distance to followers (van Kleef, De Dreu, & Manstead, 2004; van Kleef, Homan, Beersma, & van Knippenberg, 2010). In contrast, the abusive leadership literature suggests that followers generally expect
others in positions of higher authority to treat them in a humane manner and interact with them with respect, honesty, propriety, and sensitivity (Cropanzano et al., 2003; Oh & Farh, 2017). In fact, these interactional expectations form a moral standard that will be referenced when followers interact with their leaders (Brown & Mitchell, 2010; Mikula, 1993; Oh & Farh, 2017). As a result, observing manager anger may conflict with the moral standards individuals ascribe to interactions with senior leadership figures. Following from this for the current study, we suggest if managers display anger to supervisors, the social signals conveyed by anger should lead to supervisor perceptions of not being treated with the appropriate care and respect and not being treated fairly, ultimately leading to decreased perceptions of manager moral behaviour. We thus argue that manager anger displays violate the moral interactional standards that are applied to senior leadership figures and consequently have a knock-on effect on supervisor’s perceived morality of their manager.

Our argumentation concerning manager anger violating moral interactional standards of supervisors resonates with theory on anger at work (Geddes & Callister, 2007; Geddes et al., 2019) where displays of anger that deviate from formal or informal norms of appropriateness constitute deviant anger. Empirically, Shao and colleagues (2018) demonstrated that followers infer from leader anger that their leader is short-tempered and aggressive, supporting the notion of leader anger being perceived as hostile. There is also evidence that emotions such as empathy convey moral character because observers believe that such emotional displays provide an honest and direct signal that the expresser feels a genuine concern for others (Barasch, Levine, Berman, & Small, 2014). Furthermore, if individuals display emotions that deviate from normative expectations, this can cause moral outrage and a perception that moral values are not shared (Szczurek, Monin, & Gross, 2012).

Based on the above reasoning, we hypothesize:
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HI: Perceived manager anger is negatively related to perceived manager moral behaviour.

Although EASI theory can explain how supervisors react to managerial anger, it is silent on how supervisor reactions may trickle down across an organizational hierarchy and, in so doing, affect perceptions and behaviours of employees. We draw from the AELM (Wo et al., 2019) to map these downstream consequences. The AELM is an adapted version of the elaboration likelihood model (ELM; Petty & Cacioppo, 1986) applied to trickle effects research. Accordingly, individuals use one of two paths when processing information, namely, the central route characterized by elaborative cognitive processes such as social exchange or social learning, or the peripheral route that involves the use of heuristic cues and feelings such as displaced aggression (Wo et al., 2019). Furthermore, information processing via the central as opposed to the peripheral route is more likely if what is observed has personal relevance, that is, if individuals believe that the issues or events in question will have significant consequences for their own lives (Petty & Brinol, 2012; Petty & Cacioppo, 1986). The AELM additionally provides an overview of constructs that tend to have higher personal relevance for employees in the context of trickle effects (Wo et al., 2019). For example, the abusive and moral behaviours examined in the present study should have moderate to high personal relevance, making it more likely that observers of such behaviours process related information via the central route and associated cognitive processes.

Drawing from the AELM, we suggest that elaborative cognitive processes such as social learning determine the extent to which supervisors model their manager’s moral behaviours and display servant leadership to their own lower-level employees. As part of leader-follower interactions, role modelling involves followers striving to emulate leaders in terms of the norms, values, beliefs, or behaviours that are deemed good and legitimate to display in a given organization (Bandura, 1977; Gibson, 2004).
Role modelling of manager’s moral behaviour is likely to inspire supervisor displays of servant leadership because it is an inherently moral approach to leadership (Eva, Robin, Sendjaya, van Dierendonck, & Liden, 2019; Lemoine, Hartnell, & Leroy, 2018). In fact, many of the characteristics of moral behaviour such as being fair, treating individuals with care and respect, and serving to improve society (Burton et al., 2006; Moorman et al., 2013) are also key behaviours associated with servant leadership (Eva et al., 2019; van Dierendonck, 2011). Guided by the role modelling logic, mid-level supervisors should mimic the perceived moral behaviours of their managers, integrate them into their own leadership practice (e.g., Shamir, House, & Arthur, 1993), and consequently become more likely to display servant leadership to their respective lower-level employees.

We focus on servant leadership in our examination as opposed to more generalized supervisor moral behaviours because, even though both are rooted in the ethics of care and compassion, the concept of servant leadership describes more specific follower-centric behaviors rather than referring to moral behavior targeted at people in general that may be more reflective of a generalized moral stance (Eva et al., 2019; Lindebaum et al., 2017). Furthermore, our focus on servant leadership as opposed to other more specific moral leadership styles (e.g., authentic or ethical leadership) is based on better theoretical alignment of servant leadership with our conceptualization of moral behaviour. Although servant, authentic, and ethical leadership are all characterized by moral conduct, Lemoine et al. (2018) note that meaningful differences exist based on their definitions. Specifically, servant leadership emphasizes contributions to society and the common good (i.e., utilitarian values), authentic leadership emphasizes a focus on self-awareness (i.e., virtue ethics), and ethical leadership puts emphasis on compliance with normative standards (i.e., deontological values). Our conceptualization of moral behaviour captures values pertaining to utilitarianism and virtue ethics but not deontology (Moorman et al., 2013), which is why we chose not to
measure supervisor ethical leadership. We examined supervisor servant leadership over authentic leadership in our study due to considerable theoretical overlap between the two constructs (e.g., both involve a focus on authenticity and humility; Lee et al., 2020; van Dierendonck, 2011), servant leadership’s unique focus on benefitting the wider society (Lemoine et al., 2018), and recent criticisms of authentic leadership regarding its conceptualization and measurement (Alvesson & Einola, 2019).

Our argumentation concerning moral managers as role models resonates with the literature on moral approaches to leadership (Brown & Mitchell, 2010; Lemoine et al., 2018) that regard role modelling as a key mechanism determining how moral leadership can lead to improved moral conduct in organizations. Furthermore, various scholars (Hannah, Avolio, & May, 2011; Liden, Panaccio, Meuser, Hu, & Wayne, 2014) suggest that moral maturity (i.e., the ability to recognize, organize, and categorize moral phenomena as well as to consider and further refine said categorizations for oneself) is an antecedent of servant leadership, a process that we believe can be informed by role-modelling manager moral behaviours. We therefore hypothesize:

**H2: Perceived manager moral behaviour is positively related to perceived supervisor servant leadership.**

We continue to rely on the AELM (Wo et al., 2019) to suggest that elaborative cognitive processes such as social exchange affect how lower-level employees respond to supervisory servant leadership. Because servant leaders develop positive relationships with employees, they are likely to reciprocate and, in turn, display work behaviours their supervisors value. As servant leadership constitutes a moral approach to leadership, we expect that employees respond to such leadership by increasingly displaying moral behaviours at work.
Liden and colleagues (2014) conceptualize servant leadership along the lines of the following seven dimensions: Emotional healing (i.e., sensitivity to follower’s personal setbacks), creating value for the community (i.e., motivating followers to support their local communities), conceptual skills (e.g., problem-solving capabilities to support followers), empowering followers, helping followers grow and succeed, putting followers first, and behaving ethically. By displaying the aforementioned behaviours, servant leaders develop a positive relationship with their employees (van Dierendonck, 2011). Consequently, moral leadership scholars (Lemoine et al., 2018; Solinger et al., in press) suggest that, instead of telling followers what to do, servant leaders influence followers indirectly by means of social exchange. In the context of leader-follower interactions, such reciprocation would generally involve followers displaying work behaviours that are valued by their leaders (Lemoine et al., 2018). Because servant leadership is a moral leadership approach (Lemoine et al., 2018; van Dierendonck, 2011) that involves care for followers’ personal and professional well-being, behaving fairly and honestly, and promoting an interest in creating value for the wider community (Liden, Panaccio, et al., 2014; Liden, Wayne, Liao, & Meuser, 2014), we suggest that employees exposed to such supervisory leadership would reciprocate by displaying increased moral behaviour at work.

Additionally, and in line with the AELM (Wo et al., 2019), the elaborative cognitive processes employees engage in when observing servant leadership may also involve employees modelling and imitating the moral behaviours displayed by their supervisors. Servant leaders are likely to represent credible role models in organizations due to their altruistic actions and motivation to serve others without expecting favours in return (Eva et al., 2019), a circumstance that should encourage employees to adopt and display similar moral behaviours as part of their work (Bandura, 1977; Lemoine et al., 2018).
Providing indirect empirical support for our argumentation, previous research showed that servant leadership decreases employee workplace deviance by creating a socio-moral climate that makes it less likely that employees engage in unethical work behaviours (Pircher Verdorfer, Steinheider, & Burkus, 2015). Taken together, we hypothesize:

\[ H3: \textit{Perceived supervisor servant leadership is positively related to employee moral behaviour}. \]

Combining Hypotheses 1-3, we propose a negative trickle-down effect of manager anger across organizational hierarchical levels (i.e., higher-level managers, mid-level supervisors, and lower-level employees). We thus hypothesize:

\[ H4: \textit{Perceived manager moral behaviour and perceived supervisor servant leadership sequentially mediate the negative relationship between perceived manager anger and employee moral behaviour}. \]

**The moderated mediating role of supervisor trait negative affectivity**

EASI theory suggests that the extent to which leader emotions are cognitively interpreted by followers can depend on the perceived appropriateness of the emotional expression (van Kleef et al., 2012; van Knippenberg & van Kleef, 2016). Drawing from EASI, we suggest that the negative relationship between manager anger and perceived manager moral behaviour may be less strong for supervisors with high levels of trait negative affectivity as they should perceive anger as more appropriate due to an affective match between the manager’s emotional display and their own affect-related traits. The literatures on the consequences of leader emotional displays (e.g., van Knippenberg & van Kleef, 2016) as well as workplace anger in particular (Geddes et al., 2019) converge in suggesting that certain follower traits modulate the perception of anger, thereby increasing the possibility for leader anger displays to lead to “good returns” in terms of motivating desirable follower behaviours. Specifically, in their integrative review on the leadership and affect literature,
van Knippenberg and van Kleef (2016) highlight the possibility of a match perspective according to which leader emotional displays should have more favourable effects on follower behaviours if they match the valence of follower affect. Echoing this point, Geddes and colleagues (2019) suggest that follower personality traits represent a contingency factor that influences whether leader anger can motivate positive follower work behaviours. Generally, an affective match should lead to more positive outcomes because individuals are more sensitive and open to experiences that are congruent with their own affective state (Damen et al., 2008). Following this theoretical rationale, we argue that a supervisor’s negative trait affectivity (i.e., a dispositional tendency to experience negative affective states; Watson & Clark, 1984) should buffer the negative relationship between manager anger and supervisor perceptions of manager moral behaviour. Individuals with high trait negative affectivity experience more negative emotional states at all times and across situations, even in the absence of stressful situations (Watson & Clark, 1984; Watson, Clark, & Tellegen, 1988). We thus suggest that supervisors with such a predisposition may have different moral interactional standards that are less easily violated by negative emotional leadership, resulting in a weaker association between manager anger and perceived manager moral behaviour.

Previous research showed that trait negative affectivity influences work-related perceptions and attitudes (Kaplan, de Chermont, Warren, Barsky, & Thoresen, 2003). Providing further evidence for our argumentation, Damen and colleagues (2008) demonstrated that leader displays of anger motivated greater work performance for followers with low levels of positive affect. In a similar vein, Wang et al. (2018) showed that leader anger in response to integrity-based violations can increase perceived leadership effectiveness, however, only if leader anger is not perceived as abusive.

Taken together, as supervisors often assume a key role in passing on the manager’s leadership influence to employees at lower hierarchical levels (e.g., Stollberger et al., 2019),
we suggest that supervisor trait negative affectivity may buffer the relationship between manager anger and employee moral behaviour via perceived manager moral behaviour and supervisor servant leadership. Therefore, combining Hypotheses 1-4 we propose a moderated serial mediation model of manager anger and employee moral behaviour across hierarchical levels (i.e., comprised of managers, supervisors, and employees). Specifically, we argue that manager anger negatively relates employee moral behaviour, and that this relationship is serially mediated by supervisor perceptions of manager moral behaviour and employee perceptions of supervisor servant leadership. We further propose that this serially mediated relationship is buffered by supervisor levels of trait negative affectivity.

\textit{H5: Supervisor trait negative affectivity moderates the sequential mediation of perceived manager anger on employee moral behaviour via perceived manager moral behaviour and perceived supervisor servant leadership, such that the negative serial mediation relationship is weaker for supervisors with high trait negative affectivity and stronger for supervisors with low trait negative affectivity.}

\textbf{Method}

\textit{Sample and data collection}

Data was collected from supervisor-employee dyads in Chile in 2018. Study participants were full-time employees recruited from a multinational company in the retail sector headquartered in the United States but operating in all five continents via subsidiaries. Emotion scholars (Geddes et al., 2020; van Kleef et al., 2012) highlighted that there is limited evidence for the cultural generalizability of the effects of leader emotions on employee behaviour. Specifically, the majority of research examining leader anger has used Western samples, for example, from North America (Geddes & Stickney, 2011; Glomb & Hulin, 1997; Lewis, 2000) or Europe (Damen et al., 2008; Lindebaum & Fielden, 2010; Lindebaum, Jordan, & Morris, 2016; van Kleef, Homan, et al., 2010). By conducting research in under-
studied contexts such as Chile, we test the robustness of theoretical predictions in different cultural contexts (Roth & Kostova, 2003).

One of the co-authors initially established contact to the HR business partner of the company's Chilean subsidiary and offered the company an in-depth, company specific research report in exchange for study participation. After access to the organization was successfully negotiated, we determined a sample size that is representative of the different hierarchical levels of the company, the various locations from which it operates in Chile, and the different occupations within the company. Together with the HR business partner, supervisors were randomly chosen, and all direct reports of each supervisor were invited to participate in our study. The invitation e-mail mentioned that the study dealt with perceptions of leadership in organizations. This was stated in order to reduce self-selection bias due to a potential sensitivity towards studies examining moral behaviour (see Windscheid et al., 2016 for a similar approach). Because a clear differentiation between organizational hierarchical levels was important for our study design, we ensured that no participant would be invited as both supervisor and employee (of a higher-level manager) to avoid noise in our sample.

Three online surveys were used as part of data collection and administered in Spanish. We back-translated survey items to maintain conceptual equivalence between the original instruments (in English) and the Spanish versions (Brislin, 1980). We invited lower-level employees to complete a survey intended to measure variables on the employee level (e.g., supervisor servant leadership). We concurrently disseminated two surveys to supervisors; the first survey measured manager and supervisor variables (e.g., manager anger); the second survey required supervisors to rate employee moral behaviour. Study participants received two reminders regarding survey completion within two weeks following the original invitation to participate in the research project. E-mail addresses were used as IDs to match the data collected from supervisor and employee surveys.
Following the aforementioned procedure, we invited 195 individuals to participate in our study as supervisors and received 97 usable responses (50% response rate). We also invited 641 individuals who reported directly to the 195 supervisors, to participate in our study as employees and received 167 usable responses (26% response rate). Ninety-eight supervisor and 474 employee responses had to be discarded because either one or both members of the respective supervisor–employee dyad did not complete the questionnaire. In total, our final sample consisted of 167 supervisor-employee dyads. The supervisor sample was comprised of 46 men and 51 women with a mean age of 39.80 years ($SD = 6.67$). The employee sample consisted of 75 men and 92 women with a mean age of 35.66 ($SD = 8.41$).

**Measures**

Unless otherwise mentioned, all items were measured using a 7-point Likert scale (from 1 = strongly disagree to 7 = strongly agree). Cronbach’s Alpha coefficients are reported in parentheses and refer to the respective measurement scale’s reliability in the current study.

**Perceived manager anger.** Supervisors rated how their perceive their manager’s anger using a three-item scale by van Kleef et al. (2006; $\alpha = .93$). Before providing their ratings, supervisors were presented with the following introductory sentence “When interacting with you while at work, how often is your manager…” Sample items are “angry” and “irritated” and items were measured on a 7-point Likert scale (from 1 = not at all to 7 = very often).

**Perceived manager moral behaviour.** Supervisors rated how they perceive their manager’s moral behaviour using a six-item scale by Moorman et al. (2013; $\alpha = .90$). Sample items are “My manager treats people fairly” and “My manager acts to benefit the greater good”.

**Perceived supervisor servant leadership.** Employees rated how they perceive their supervisor’s servant leadership using a seven-item servant leadership scale by Liden et al. (2014; $\alpha = .92$). Sample items are “My supervisor puts my best interests ahead of his/ her own” and “My supervisor emphasizes the importance of giving back to the community”.

Supervisor-rated employee moral behaviour. Supervisors rated the moral behaviour of their employees using the same six-item scale by Moorman et al. (2013; $\alpha = .73$). Sample items are “My employee is honest” and “My employee serves to improve society”.

Supervisor trait negative affectivity. Supervisors rated their own levels of trait negative affectivity via a 10-item negative affectivity scale of the PANAS (Watson et al., 1988; $\alpha = .83$). Items were presented after the following introductory sentence: “Indicate to what extent you generally feel this way, that is how you feel on the average”. Sample items are “irritable” and “hostile”.

Control variables. In line with recommendations for the use of theoretically potent control variables (Becker et al., 2016), we controlled for perceived supervisor anger, employee anger, employee trait negative affectivity, as well as gender and age of supervisors and employees. We controlled for both supervisor and employee anger to rule out the potential alternative explanation that emotional contagion processes (i.e., leader emotions engender corresponding follower emotions Sy, Côté, & Saavedra, 2005; van Knippenberg & van Kleef, 2016) induced by manager anger would explain the relationship between manager anger and employee moral behaviour. Employees rated their supervisor’s anger ($\alpha = .95$) and supervisors rated the anger displays of their employees ($\alpha = .88$) using the aforementioned three-item scale by van Kleef et al. (2006). We controlled for employee trait negative affectivity as employees with a general predisposition to experience negative affect may perceive manager anger as more appropriate, thus such displays could have a less negative association with their moral behaviour at work (Damen et al., 2008; Geddes et al., 2020). Employee trait negative affectivity was measured with the same 10-item scale of the PANAS (Watson et al., 1988; $\alpha = .92$) that was administered to supervisors. We also controlled for supervisor and employee gender (coded 1 = male, 2 = female) and age, which may play a part in moral action as previous research has found that females are more likely to donate (Winterich, Mittal, &
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Ross, 2009) and that moral identity and related behaviours develop as one grows older (Hardy & Carlo, 2011).

Analytical strategy

Because we have a nested data structure (i.e., employees at Level 1 were nested within supervisors at Level 2), we used multilevel structural equation modelling (MSEM; Preacher, Zyphur, & Zhang, 2010) to test our hypotheses in order to safeguard against a potential conflation of effects across levels of analysis. This is because MSEM separates the Level 1 and Level 2 portion of a given Level 1 variable (i.e., called multilevel effect decomposition). Following recommendations for MSEM, we centred Level 1 predictors and control variables at the group-mean and Level 2 predictors and control variables at the grand-mean (Preacher et al., 2010). We then fitted a two-level moderated serial mediation model in which the Level 1 portions of perceived supervisor servant leadership, employee moral behaviour, and employee control variables were modelled at Level 1, whereas the Level 2 portions of the aforementioned variables, as well as perceived manager anger, perceived manager moral behaviour, supervisor trait negative affectivity, and supervisor control variables were modelled at Level 2. In line with recommendations on testing 2-2-1-1 mediation models (Preacher et al., 2010), we specified a random slope for the lower level mediation path (i.e., the Level 1 effect of supervisor servant leadership on employee moral behaviour). Specifying random slopes for Level 1 mediation paths reduces bias and allows for greater precision in the estimation of the Level 2 indirect effect (Preacher et al., 2010). This is relevant for the present MSEM model that includes an independent variable assessed at Level 2 (i.e., manager anger) as in such cases indirect effects “must occur strictly” at Level 2 (Preacher et al., 2010, p. 210). Our model simultaneously tested all study hypotheses. In order to test moderated serial mediation, we adopted recommendations by Bauer, Preacher, and Gil (2006) as well as Preacher et al. (2010) to compute an interaction term between
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manager anger and supervisor trait negative affectivity, subsequently adding the interaction term as a predictor of perceived manager moral behaviour on Level 2. We aimed to test Hypothesis 4 and 5 by constructing Monte Carlo confidence intervals around the product term of the (moderated) serial mediation paths by drawing 20,000 replications from the sampling distribution of the product term (Preacher & Selig, 2012; Selig & Preacher, 2008). The (moderated) serial mediation effect is significant if the Monte Carlo confidence interval does not contain zero (Bauer et al., 2006; Preacher & Selig, 2012).

Becker and colleagues (2016) highlight that control variables may adversely affect study results by soaking up degrees of freedom and could thus bias the findings related to our hypothesized variables. Thus, we first ran MSEM analyses without control variables to explore whether they had an effect on the relationships between our study variables. We subsequently included control variables and related each to the manager anger and employee moral behaviour variable (see recommendations by Bono & McNamara, 2011 and Momm et al., 2015 for a similar approach). Excluding control variables did not change the pattern of our results.

**Results**

We initially calculated the ICC(1) for employee moral behaviour to determine whether or not the use of multilevel modelling is appropriate (Snijders & Bosker, 2012). The ICC(1) was .55, signifying that 55% of the overall variance in employee moral behaviour was due to differences between supervisors, thus a multilevel approach to data analysis is warranted (Snijders & Bosker, 2012). Moreover, we conducted a multilevel confirmatory factor analysis (MCFA) to ensure the conceptual distinctiveness of our study variables. For this purpose, we included the variables supervisor servant leadership, supervisor anger, employee moral behaviour, employee anger, and employee trait negative affectivity at Level 1. At Level 2, manager anger, manager moral behaviour, and supervisor trait negative
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affectivity were included. Results of a series of MCFAs suggest that our proposed eight-factor model provided a better fit (Browne & Cudeck, 1993; \( \chi^2(516) = 979.18, p < .001, \) CFI = .89, RMSEA = .07, SRMR within = .06, SRMR between = .09)\(^1\) than a seven-factor model with manager anger and supervisor trait negative affectivity loading on a single negative affect factor (\( \chi^2(518) = 1234.37, p < .001, \) CFI = .83, RMSEA = .09, SRMR within = .06, SRMR between = .15) or a two-factor model where all Level 1 and Level 2 variables loaded on a single factor for each level (\( \chi^2(551) = 3502.61, p < .001, \) CFI = .29, RMSEA = .18, SRMR within = .29, SRMR between = .17). Thus, our MCFA results establish the conceptual distinctiveness of our study variables\(^2\).

Hypothesis Tests

Means, standard deviations, and intercorrelations among study variables are illustrated in Table 1 and MSEM analysis results for our study model depicted in Figure 2. Hypothesis 1

\(^1\) Out of the reported fit indices for our study model, the CFI falls slightly below .90 (Browne & Cudeck, 1993; Schweizer, 2010), however, this model fit is likely due to the complexity of our model as well as the sample size of our study being below \( N = 250 \). Previous research indicates that CFI values tend to worsen as model complexity increases (Kenny & McCoach, 2003) and that the accuracy to evaluate fit of a number of indices such as the RMSEA and the SRMR decreases if sample size is below \( N = 250 \) (Hu & Bentler, 1999; Kenny, Kaniskan, & McCoach, 2014). As a result methodologists caution to treat fit indices as “golden rules” and suggest to determine the adequacy of fit of a given model in comparison with alternative models (Marsh, Hau, & Wen, 2004, p. 321) – an approach we adopted in the present paper.

\(^2\) As many of our study variables were self-rated, this may raise concerns regarding common method bias (CMB). We tackled these concerns in a number of ways. First, we provided a cogent theoretical rationale for the direction of our hypotheses based on the emotions and moral leadership literature. Second, we conducted a series of MCFAs to attest to the distinctiveness of our study variables and results did not suggest a common method factor indicative of CMB. Third, we minimized the risk of CMB in our study design (see Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) by separating predictors and outcome variables in the survey and randomizing items as part of our surveys. Forth, we conducted a marker-variable analysis (see Lindell & Whitney, 2001) following the approach of previous research (e.g., Rofcanin, de Jong, Las Heras, & Kim, 2018). Specifically, we used the item “Because I need the income” in response to the question “Why are you motivated to do your work” tapping into employee extrinsic motivation taken from Grant and Berry (2011) as a marker variable. Conceptually, there is no plausible link between employee extrinsic motivation and manager anger. We then used the lowest observed correlation between the marker variable and our study variables as a proxy for CMB, subtracted it from the correlations among study variables, and divided the resulting coefficient by 1 - the lowest observed correlation to produce CMB-adjusted correlations. Following this method, large differences between unadjusted and CMB-adjusted correlations are indicative of a CMB issue. In our sample, however, those difference were minimal, ranging between 0.002-0.003. Therefore, it can be concluded that CMB did not affect our analyses.
proposed a negative relationship between manager anger and manager moral behaviour. Our findings lend support to this hypothesis ($\gamma = -0.30, SE = .08, t = -3.76; p < .001$). Hypothesis 2 predicted a positive association between manager moral behaviour and supervisor servant leadership. MSEM results supported this hypothesis as well ($\gamma = 0.23, SE = .10, t = 2.45; p < .05$). Moreover, Hypothesis 3 proposed a positive relationship between supervisor servant leadership and employee moral behaviour. Our findings supported this proposition ($\gamma = 1.02, SE = .48, t = 2.12; p < .05$). Further, Hypothesis 4 proposed a negative relationship between manager anger and employee moral behaviour that is serially mediated by manager moral behaviour and supervisor servant leadership. Constructing Monte Carlo confidence intervals around MSEM results using 20,000 replications provided support for such a multilevel serially mediated relationship ($\gamma = -0.07, 95\% CI Low = -0.1189; CI High = -0.0003$). We then moved on to test the moderated serial mediation model proposed by Hypothesis 5 by adding an interaction term between the manager anger and supervisor trait negative affectivity to a model predicting the between-portion of employee moral behaviour. The interaction term, however, was not statistically significant ($\gamma = -0.09, SE = .08, t = -1.05; ns.$). Consequently, supervisor trait negative affectivity cannot moderate the serial mediation relation of manager anger on employee moral behaviour and Hypothesis 5 receives no support.

Supplemental Analyses

We conducted additional analyses to examine an alternative operationalization of the affective match hypothesis (Damen et al., 2008; van Knippenberg & van Kleef, 2016). Specifically, we tested whether supervisor anger (as opposed to supervisor trait negative affectivity) moderates the trickle-down process between manager anger and employee moral behaviour by adding an interaction term between manager anger and the between-portion of
supervisor anger to a model predicting manager moral behaviour. The interaction term, however, was not statistically significant ($\gamma = 0.10, SE = .06, t = 1.69; ns$). We also examined whether, next to our study model, a competing homeomorphic tickle-down model (i.e., in which the construct stays the same; Wo et al., 2019) of manager anger on employee anger via supervisor anger exists as a parallel emotional contagion process that could plausibly also exert influence on employee moral behaviour (Brown & Mitchell, 2010; van Knippenberg & van Kleef, 2016). Neither did our results lend support to an association between manager anger and supervisor anger ($\gamma = 0.13, SE = .11, t = 1.21; ns$), nor did we find a relationship between supervisor anger with employee anger ($\gamma = -0.18, SE = .72, t = -0.25; ns$).

Furthermore, we found employee anger to be unrelated to employee moral behaviour ($\gamma = -0.66, SE = .38, t = -1.77; ns$). Furthermore, we examined whether, next to our originally proposed model, a trickle-down process based on more generalized supervisor moral behaviour (rated by employees using the same Moorman et al., 2013 scale; $\alpha = .89$) would predict employee moral behaviour. Although we found manager moral behaviour to be positively related to supervisor moral behaviour ($\gamma = 0.28, SE = .14, t = 2.01; p < .05$), our results did not support a relationship between supervisor moral behaviour on employee moral behaviour ($\gamma = -0.06, SE = .46, t = -0.14; ns$). We also detected that supervisor moral behaviour and supervisor servant leadership are highly correlated ($r = .75$), indicating multicollinearity and considerable shared variance between the constructs (Bedeian, 2014). As a result, we decided not to control for supervisor moral behaviour in our analyses to avoid an unnecessary reduction in statistical power and an elevated risk of Type I errors (Becker et al., 2016; Bedeian, 2014). Taken together, these MSEM results allow us to rule out both a potentially competing homeomorphic model on the basis of emotional contagion processes as an explanation for the correlates of manager anger on employee moral behaviour as well as that our trickle-down effect is facilitated by more generalized supervisor moral behaviour as
opposed to the more specific, follower-centric supervisor servant leadership. In each case, our study results remained substantively unaffected when controlling for these additional parameters.

**Discussion**

Although scholarly attention regarding the functionality of leader anger increased over the last decade (Geddes & Callister, 2007; Geddes et al., 2019), previous research has predominantly focused on the effects of supervisor displays of anger on leadership effectiveness (van Knippenberg & van Kleef, 2016). Integrating EASI theory (van Kleef, 2009; van Kleef et al., 2012) with an adapted elaboration likelihood model for trickle-down research (AELM; Petty & Cacioppo, 1986; Wo, Schminke, & Ambrose, 2019) the aims of this study were to extend beyond this existing research stream by (1) additionally taking into account the correlates of anger displayed by managers and (2) to examine the moral consequences of manager anger across hierarchical organizational levels. Our results show that manager displays of anger are indirectly and negatively related to employee moral behaviour via perceived manager moral behaviour and supervisor servant leadership that act as linchpins for the trickle-down effect. We now turn to the theoretical and practical implications of these findings.

*Theoretical implications*

Our research contributes to the literatures on the socio-functional role of anger and moral leadership in several ways.

**Contributions to the workplace anger literature.** Our results showed that manager displays of anger lead to decreased supervisor perceptions of manager moral behaviour. Consequently, our findings resonate with the results of previous studies (e.g., Glomb & Hulin, 1997; Lewis, 2000; Shao et al., 2018) that attest to the negative effects of leader anger for leadership effectiveness and extend this line of inquiry by focusing on a more specific
perceptual outcome such as moral behaviour. Additionally, the results of supplemental analyses highlighted that the correlates of manager anger on perceived manager moral behaviour remain unchanged after controlling for a plausible competing emotional contagion explanation concerning the relation of manager anger on supervisor anger – an association that also proved to be nonsignificant. These findings suggest that the negative relation of manager anger with perceived manager moral behaviour is cognitively interpreted by supervisors as opposed to affectively transferred via emotional contagion (van Knippenberg & van Kleef, 2016). As a result, our study complements previous research on the social functions of leader anger at work that has either theoretically proposed (e.g., van Kleef, Homan, et al., 2010) or empirically shown (Shao et al., 2018) that such displays are cognitively interpreted as hostile and extends the array of work-related outcomes affected by leader anger to include perceptions of moral behaviour. In a broader sense, our examination of managerial anger also contributes to a better multilevel understanding of the consequences of expressing anger in organizations (Geddes et al., 2020; Keltner & Haidt, 1999).

Furthermore, as part of our focus on the social functional role of anger we examined the affective match hypothesis (Damen et al., 2008; van Knippenberg & van Kleef, 2016), whereby a match between the valence of follower affect and leader emotional displays should lead to more favourable work outcomes. Counter to what we expected, however, neither supervisor trait negative affectivity, nor supervisor anger in supplemental analyses, affected the relationship between manager anger and supervisor perceptions of manager moral behaviour. A possible theoretical explanation for this may be that the hostile signalling character of leader anger may only positively affect certain follower behaviours or perceptions such as work performance (Damen et al., 2008) or social status (Tiedens, 2001) but not others such as moral behaviour. This argumentation is in line with prior research (Lindebaum & Jordan, 2012; Lindebaum, Jordan, & Morris, 2016) that showed that the
nature of work tasks can determine whether leader anger has positive or negative effects on followers. Our findings therefore inform the literatures on leadership as well as workplace anger and, in so doing, respond to various calls to investigate the contingencies of leader anger at work (Geddes & Callister, 2007; Geddes et al., 2020; van Knippenberg & van Kleef, 2016).

**Contributions to the trickle-down literature.** Our results show that manager displays of anger have the potential of creating a moral ripple effect across hierarchical organizational levels that influences the behaviours of both supervisors and employees. Specifically, our study demonstrated that managerial anger influences organizational members across hierarchical levels and that this influence manifests in three ways – by diminishing perceived manager moral behaviour, discouraging supervisor servant leadership, and by hampering the moral behaviour of employees through their respective supervisors. Interestingly, we found that manager anger only influences employee moral behaviour indirectly, via perceived manager moral behaviour and supervisor servant leadership, and not directly. Additionally, supplemental analyses highlighted that the trickle-down effect of manager anger on employee moral behaviours remain unchanged after controlling for supervisor moral behaviours more generally. This suggest that a moral trickle-down effect is more likely if supervisors display follower-centric moral leadership behaviours such as servant leadership as opposed to a broader conceptualization of moral behaviours that may be reflective of a moral stance towards people in general (e.g., Lindebaum et al., 2017). Our findings inform the trickle-down literature insofar as previous trickle-down approaches to leadership (Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012; Stollberger, Las Heras, Rofcanin, & Bosch, 2019; Wang, Xu, & Liu, 2018) have focused on the influence of managerial leader behaviours, whereas our study showcases the usefulness to scrutinize manager’s nonverbal communication as a catalyst of trickle-down effects in organizations. In
so doing, to the best of our knowledge, our study is the first to examine the effects of managerial emotional expressions across hierarchical organizational levels. By examining the moral consequences of manager anger in organizations, we also respond to a call by Brown and Mitchell (2010, p.592) to more fully consider the role of emotions for “employees’ perceptions of and reactions to ethical and unethical leadership”.

**Managerial relevance**

Our research offers several implications for organizational practice. Our finding that managerial anger trickles down and impedes employee moral behaviour ought to make managers aware of the importance of their non-verbal communication and its potential to hamper organizational effectiveness. To prevent this trickle-down mechanism between managers, supervisors, and employees from occurring, we recommend that organizations design and implement emotional leadership training programs to discourage the frequent use of manager displays of anger across hierarchical organizational levels.

Conversely, another possible implication of our research could be to encourage organizations to tackle the issue of manager anger displays being considered hostile and therefore wholly inappropriate. In fact, objectively, it should be possible for leaders to display anger with regards to followers, for example if followers themselves violated moral standards and behaved unethically (Wang et al., 2018). One way to promote the positive potential of anger in organizations is to allow for “appropriate space” for anger displays at work (Geddes et al., 2020). This may involve an organization-wide effort to reflect on and collate a number of circumstances when leaders and followers would deem anger displays as appropriate. Such an exercise could ultimately culminate in the development of organizational norms concerning anger displays, so-called emotional display rules (Geddes & Callister, 2007; Rafaeli & Sutton, 1989). As a result, the establishment of more lenient anger displays rules could lead to a greater acceptance of manager anger displays over time and
alleviate the negative consequences of such displays for employee moral behaviour. What is more, even in the absence of explicit anger display rules, co-workers and leaders could personally show greater leniency towards anger displays, which could equally contribute to limiting its adverse effects (Geddes et al., 2020). To take the example of our study, if supervisors would have responded more leniently to manager anger and not perceived it as immoral, it is unlikely that manager anger would have negatively affected employee moral behaviour because we did not observe a direct association of manager anger with employee moral behaviour. Following from this, establishing less strict emotional display rules or encouraging personal leniency of co-workers and leaders with regards to anger displays could limit their negative consequences and potentially even promote the positive potential of anger in organizations.

Limitations and Future Research Directions

As with any research, our study comes with limitations that inform future research. First, our study is cross-sectional in nature. Although a common design feature of many trickle-down studies examining the effects of moral leadership (e.g., Mayer et al., 2009; Rofcanin, Las Heras, Bal, Van der Heijden, & Taser Erdogan, 2018; Stollberger, Las Heras, Rofcanin, & Bosch, 2019), cross-sectional designs cannot speak to the causal direction implied in a study’s hypotheses. Instead, our inferences regarding the causality of our proposed interrelationships were derived from theory on anger and moral leadership (Brown & Mitchell, 2010; Geddes & Callister, 2007) that suggest a top-down trickle-down effect of manager anger on employee moral behaviour. Researchers may want to employ a longitudinal design in the future with a pre-determined time lag between study variables (e.g., 6 months) to further explore the causal direction of trickle-down effects of manager anger in organizations.
Second, exploring all possible moderators that could influence the perception of manager anger was beyond the scope of this study. Specifically, we examined the moderating influence of supervisor trait negative affectivity on the manager anger – perceived manager moral behaviour relationship. However, past research also emphasized the role of other employee individual difference variables influencing observer reactions to leader anger. For example, van Kleef and colleagues (van Kleef, Anastasopoulou, & Nijstad, 2010; van Kleef et al., 2009) showed that employees with high levels of personal need for structure respond to leader anger with increases in work performance and creativity, respectively. Thus, future research could explore whether supervisors’ personal need for structure equally modulates their perceptions of manager anger and whether this has repercussions for the leadership behaviours they display at work. It may certainly also be intriguing whether demographic characteristics such as socioeconomic status of supervisors could modulate the effects of manager anger (Martin & Côté, 2019). For example, supervisors that grew up in lower social class environments may find interactions with angry managers more depleting (Martin & Côté, 2019; Muraven & Baumeister, 2000), potentially exacerbating the negative trickle-down effects demonstrated in our study. In a similar vein, team or organizational context factors may equally enable or inhibit manager anger from trickling down. For example, emotional cultures (i.e., values and norms that prescribe attitudes towards emotions) and climates (i.e., an accumulation of repeated group emotional responses to events that can shape a group’s emotional tone) in groups may determine whether or not leader anger is more or less appropriate (Menges & Kilduff, 2015), and could thus influence trickle-down effects in organizations. Likewise, several characteristics of managerial anger expressions such as their pervasiveness or infrequency, as well as their expressive intensity may influence its trickle-down consequences. For instance, very infrequently expressed manager anger may be perceived as unusual and produce stronger negative trickle-down effects (e.g., van Kleef et
al., 2012). Conversely, manager anger expressed at a lower intensity (e.g., Geddes et al., 2020) may be perceived as more appropriate and motivate more positive work outcomes.

Third, we did not test some other possible psychological and behavioural mechanisms involved in our trickle-down model. Specifically, we did not measure that manager displays of anger are perceived as aggressive and hostile, and instead inferred this from previous research that theoretically (van Kleef et al., 2004; van Kleef, Homan, et al., 2010) and empirically (Shao et al., 2018) established this signalling character of displayed anger. Additionally, the results of supplemental analyses provided further confidence in our theoretical argumentation around manager anger being perceived as hostile. In particular, not only were we able to rule out emotional contagion as an alternative explanation for our findings but the fact that the directionality of the manager anger – perceived manager moral behaviour relation was negative makes it likely that the association was driven by a negative cognitive interpretation such as hostility. Similarly, we inferred the proposed transferal mechanisms of manager moral behavior to supervisor servant leadership via role modeling as well as that of supervisor servant leadership to employee moral behavior through social exchange from prior literature on moral leadership (Lemoine et al., 2018; Solinger et al., in press) and empirical evidence derived from previous trickle-down research (Wo et al., 2019).

Fourth, although our research speaks to the trickle-down effects of incidental manager anger, it may also be fruitful to comparatively examine whether more contextualized forms of integral anger produce (dis)similar trickle-down effects. For example, research shows that integral leader anger in response to integrity-based violations (i.e., a breach of ethical and moral standards at the workplace) is positively related to perceived leadership effectiveness, whereas leader anger following competence-based violations (i.e., a failure to apply job-relevant technical skills) reduces perceived leadership effectiveness (Wang et al., 2018). The few studies that explicitly compared effects of incidental and integral anger in a competitive
negotiation context demonstrated similar effects of both types of anger in terms of directionality although integral anger tended to produce stronger effects (Hillebrandt & Barclay, 2017). Beyond competitive negotiations, researchers may want to examine the effects of different types of expressed anger in more cooperative leadership settings as well (e.g., van Kleef, de Dreu, et al., 2010).

Lastly, although obtaining data from different sources represents good practice, the use of e-mail addresses as IDs to match responses could compromise the anonymity of respondents and may increase the risk of socially desirable responding (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Although it is common practice to use e-mail addresses as IDs in organizational research (e.g., Mai, Ellis, Christian, & Porter, 2016; Rofcanin, Las Heras, et al., 2018; Stollberger et al., 2019), using other identifiers such as a self-generated code (e.g., Wo et al., 2015) may better protect respondents’ anonymity. However, codes – as opposed to e-mail addresses – may not always be remembered and accurately entered by participants and could thus equally undermine data collection efforts. To mitigate concerns regarding socially desirable responding, we introduced safeguards by highlighting to respondents the impartiality of the investigators and that their individual responses will not be made available to their organization. Taken together, the above points may serve as a catalyst for future research to extend the trickle-down mechanism advanced by our study.
References


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Table 1
Means, Standard Deviations, and Intercorrelations among Study Variables$^a$

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
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<tr>
<td>1. Employee gender</td>
<td>1.55</td>
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<td>2. Employee age</td>
<td>35.66</td>
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<td>3. Employee trait negative affectivity</td>
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<td>.04</td>
<td>-.12</td>
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<td>4. Employee moral behaviour</td>
<td>6.11</td>
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<td>-.09</td>
<td>-.03</td>
<td>-.13</td>
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<td>5. Employee anger</td>
<td>2.01</td>
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<td>6. Supervisor anger</td>
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<td>-.08</td>
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<td>7. Supervisor servant leadership</td>
<td>4.98</td>
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<td>-.12</td>
<td>.06</td>
<td>-.46</td>
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<td>8. Supervisor gender</td>
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<td>9. Supervisor age</td>
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<td>-.12</td>
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<td>10. Supervisor trait negative affectivity</td>
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<td>-.08</td>
<td>.15</td>
<td>-.10</td>
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<tr>
<td>11. Manager moral behaviour</td>
<td>5.54</td>
<td>1.25</td>
<td>-.15</td>
<td>.11</td>
<td>-.17</td>
<td>.35</td>
<td>-.03</td>
<td>-.09</td>
<td>.15</td>
<td>-.05</td>
<td>.10</td>
<td>-.13</td>
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<tr>
<td>12. Manager anger</td>
<td>2.44</td>
<td>1.29</td>
<td>-.03</td>
<td>-.09</td>
<td>.23</td>
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<td>.07</td>
<td>-.09</td>
<td>.25</td>
<td>-.30</td>
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Note. $^a$Level 1 N = 167; level 2 N = 97. Level 1 variables were aggregated to provide correlations with level 2 variables.
* $p < .05$ level (two-tailed).
** $p < .01$ level (two-tailed).
Figure 1. Conceptual model.

Note. Dotted lines denote the serial mediation of the manager anger – employee moral behaviour relation via manager moral behaviour and supervisor servant leadership with the first path moderated by supervisor trait negative affectivity.
Figure 2. MSEM model results.

Note. Figure 2 depicts moderated serial mediation results. The variables manager anger, supervisor trait negative affectivity, manager moral behaviour, and employee moral behaviour were rated by supervisors, whereas supervisor servant leadership was rated by employees. Nonstandardized coefficients are shown with standard errors in parentheses. Level 1 \( n = 167 \); level 2 \( n = 97 \). For clarity, control variable paths are not pictured. *\( p < .05 \). ***\( p < .001 \).