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Transparency and Control in Email Communication: The More the Supervisor is Put in cc the Less Trust is Felt

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Abstract

The issue of trust has increasingly attracted attention in the business ethics literature. Our aim is to contribute further to this literature by examining how the use of the carbon copy (cc) function in email communication influences felt trust. We develop the argument that the use of cc enhances transparency—representing an important characteristic of workplace ethics—and hence promotes trust. We further argue that a downside of the cc option may be that it can also be experienced as a control mechanism, which may therefore negatively affect trust. The results of our first study showed that the use of cc indeed enhances perceived transparency, but at the same time also leads to the experience of increased control. Building upon this insight, the findings of five subsequent studies consistently revealed that the use of cc negatively influences felt trust. More precisely, employees felt trusted the least when the supervisor was always included in cc (Studies 2 and 3). This effect on felt trust also negatively influenced how trustworthy the organizational climate was perceived (Study 4). We further replicated these results in two field surveys, which showed that the negative effect of cc on felt trust lowered perceptions of psychological safety (Study 5) and contributed to a culture of fear (Study 6). Taken together, our findings suggest that when transparency in email communications is experienced as a control mechanism, its use is perceived as unethical, rather than as ethical. Implications and recommendations for future business ethics research are discussed.

Keywords Business ethics · Felt trust · Email communication · Carbon copy · Transparency · Control

Introduction

Email is the preferred mode of communication in many of today's organizations. The present research empirically tested the unexplored effect of putting a supervisor in cc on employees' felt trust. On the one hand, cc'ing the supervisor can be expected to positively affect felt trust because it enhances transparency. On the other hand, including the supervisor in the mail conversation can also be experienced by employees as a way to monitor and control them, which can be expected to negatively affect felt trust. In the present research, we have conducted a series of six studies—four behavioral experiments and two field surveys—to examine whether the frequency of cc use positively or negatively influences the amount of trust that employees experience.

Linking Business Ethics and Trust

Over the last few decades, the concept of trust has become an important issue in the business ethics literature (e.g., Bews and Rossouw 2002; Brenkert 1998; Dietz and Gillespie 2012; Etzioni in press; Kujala et al. 2016; Leonidou et al. 2013; Loucks 1987). Many scholars have argued that ethics and trust are closely connected. In line with this argument, the CEO of Baxter Travenol stated that "Ethics is simply and ultimately a matter of trust" (Loucks 1987, p. 4). Furthermore, in an article published by the Institute of

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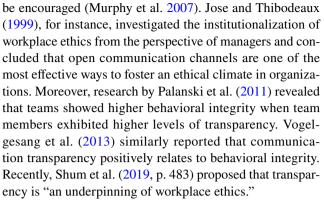5 Wenzhou Business College, Ouhai District, Wenzhou, Zhejiang, China

Business Ethics, Dietz and Gillespie (2012, p. 4) noted that "In many respects, to be ethical is to be trustworthy." More recently, Kujala et al. (2016, p. 701) argued that "trust is considered a moral phenomenon" and as such "has important ethical implications for organizations and their management." These conceptual arguments are further supported by several empirical studies which report a positive association between ethicality and trust (e.g., Ahearne et al. 2005; Bejou et al. 1998; Hennig-Thurau 2004; Huang 2008). On the contrary, perceptions of unethicality have been shown to negatively impact trust (Leonidou et al. 2013; also see Carrigan and Attalla 2001; Creyer and Ross 1997). These prior studies on the link between ethics and trust illustrate that, as part of a robust ethical culture, trust needs to be fostered within organizations (Dietz and Gillespie 2012).

Trust is also a fundamental element of all social relationships (Brien 1998; Castaldo et al. 2010; Hosmer 1995; Swift 2001), including workplace relations (Bews and Rossouw 2002; Cohen and Dienhart 2013; Greenwood et al. 2010). Prior business ethics research has shown that trust builds and supports long-term relationships and generates supportive behavior, both inside and outside of an organization, and, therefore, is regarded as a central element of a company's ongoing success (Ingenhoff and Sommer 2010). Indeed, many studies have shown that when trust is present, many benefits emerge. This includes higher cooperation, commitment, job satisfaction, and job performance (Butler 1995; Colquitt et al. 2013; Mooradian et al. 2006; Shore et al. 2006; Shum et al. 2019; see also Colquitt et al. 2007; Dirks and Ferrin 2002, for meta-analyses), all of which contribute significantly to the performance of organizations (Gelade and Ivery 2003; Podsakoff et al. 2009). The present research focuses on felt trust. Felt trust refers to employees' perceptions of how much other organizational members trust them (Lester and Brower 2003). In the last two decades, this specific type of trust has received increasing research attention (e.g., Brower et al. 2000; Ferrin et al. 2006; Lau and Lam 2008; Lau et al. 2007; Salamon and Robinson 2008).

Transparent Communication as Ethical Behavior

What then determines whether employees feel trusted within their organization? Prior research has shown that the degree of trust depends on several factors (e.g., Connell et al. 2003; Whitener 1997; Whitener et al. 1998), of which open communication—or communication *transparency*—is an important one. What is particularly interesting with regard to the present study is that a number of scholars have discussed the relationship between communication transparency and ethical behavior in workplace settings (see Palanski et al. 2011; Vogelgesang et al. 2013), with transparency often being conceptualized as a virtue or as something that "should

be encouraged (Murphy et al. 2007). Jose and Thibodeaux (1999), for instance, investigated the institutionalization of workplace ethics from the perspective of managers and concluded that open communication channels are one of the most effective ways to foster an ethical climate in organizations. Moreover, research by Palanski et al. (2011) revealed that teams showed higher behavioral integrity when team members exhibited higher levels of transparency. Vogelgesang et al. (2013) similarly reported that communication transparency positively relates to behavioral integrity. Recently, Shum et al. (2019, p. 483) proposed that transparency is "an underpinning of workplace ethics."

Taken together, these writings illustrate that companies should strive to accomplish communication transparency, as open and transparent communication represents an important characteristic of workplace ethics that has been shown to be positively associated with organizational trust (Auger 2014; Kanagaretnam et al. 2010; Norman et al. 2010; Rawlins 2008; Shum et al. 2019; Williams 2005). Although a number of different conceptualizations of transparency exist (e.g., Rogers 1987; Schnackenberg and Tomlinson 2016; Vogelgesang and Lester 2009; Walumbwa et al. 2008), most of these definitions contain a critical element of "sharing relevant information" (Vogelgesang 2008, p. 43). In the context of the present study, we therefore define transparency as the extent to which relevant information is shared among all stakeholders (cf. Vogelgesang and Crossley 2006).

Email Communication and the Carbon Copy Function

In light of the many technological advancements that companies face, much of the information and knowledge available within organizations is communicated through digitalized media such as *electronic mail* (email). Although email communication has existed now for already more than 40 years, it is still considered a prevalent form of communication at work (Bellotti et al. 2003; Radicati and Hoang 2011; Rosen et al. in press). In fact, within organizations, email is the most central medium by which correspondence takes place and information is exchanged (Dabbish et al. 2005), and is therefore regarded as providing crucial input to organizational performance (Jackson et al. 1999; Solingen et al. 1998). It has been argued that email communication is perceived to be less time-consuming, more reliable, and more efficient than telephone communication or meeting face-to-face (Berghel 1997; Renaud et al. 2006). However, the use of email is not just an important means to distribute information, but also a possible vehicle to foster trust within the organization (cf. Kasper-Fuehrera and Ashkanasy 2001).

As companies today find themselves in a digital era, the present paper endeavors to focus more deeply on the

relationship between the use of electronic communication and the amount of trust that employees experience. One important feature in this regard is that email as an information distribution channel is very well equipped to meet the requirement of transparency by means of the *carbon copy* (cc) function. This email function is used when one wants to copy others publicly in the digital conversation. However, although the use of the cc option can reasonably be expected to increase the experience of transparency, the use of this email option might not be without costs. A particular downside of the cc option is that its use can potentially be experienced by employees as a means to *monitor* and *control* them. In fact, within the literature, trust is generally defined as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that party" (Mayer et al. 1995, p. 712). The last part of this definition explicitly acknowledges that the presence of trust is contingent on the absence of control or monitoring. If, however, the feeling exists that control measures are in place and one is being monitored, then trust can be expected to suffer. In line with this reasoning, scholars (e.g., Saunders et al. 2014; Sitkin and Roth 1993) have argued that organizational practices that comprised of monitoring and control systems actually result in distrust, rather than trust. Since no prior research has empirically investigated this issue, it is unclear whether the use of the cc option positively or negatively affects organizational trust.

In many of today's organizations it is common practice for employees to work together on team projects. In light of this, the cc option is of special interest because it allows the inclusion of project supervisors when team members are communicating with each other; a practice which occurs regularly in today's organizations (Smit et al. 2017). One critical component in this perspective is that organizations may differ in how appropriate or *normative* it is to include the supervisor in cc when co-workers communicate with each other through email. Indeed, in some organizations it is standard practice to always include the supervisor in cc, whereas in other organizations employees never cc the supervisor. The frequency with which the cc option is used in a particular organization can as such be regarded as indicative of what the organizational norm is in relation to its use. In the present research, we therefore varied the frequency with which the employees used the cc option. We looked at co-workers as the sender of an email message to a targeted employee, who is the receiver of the message. The supervisor is incorporated as the party that is included in the email by means of the cc option.

Hypotheses Development: How Does cc Use Influence Felt Trust?

With regard to the question how the frequency of cc use influences the level of trust that employees experience, two competing hypotheses can be formulated. As mentioned earlier, communication transparency represents an important hallmark of workplace ethics, which has been shown to be positively associated with organizational trust (e.g., Auger 2014; Kanagaretnam et al. 2010; Norman et al. 2010; Rawlins 2008). Because receiving emails from co-workers in which a supervisor is included in cc is expected to enhance transparency, the use of the cc option can be expected to bring positive consequences in terms of felt trust among co-workers, and, in a more general sense, trust in the entire organization. This reasoning is based on the idea that a one-to-one relationship should exist between communication transparency and creating honest and trustworthy impressions (see Rogers 1987; see also De Cremer 2016), which in turn is expected to promote organizational performance (Haney 1967; Likert 1967; Myers et al. 1999; Rogers 1987). CEO and creator of the influential Edelman trust barometer, Richard Edelman, even noted in his yearly report that "continuous, transparent—and even passionate—communication is central to success" in today's business environment (Edelman Public Relations 2007, p. 2), and the reason for this is that it promotes trust. As such, it can be argued that the more it is the norm within an organization to employ the cc option, the more transparency is present and the more employees feel trusted. Based on this reasoning, the following hypothesis can be formulated:

Hypothesis 1a The more the supervisor is included in carbon copy in email exchanges between co-workers, the *more* the receiver of the mail feels trusted.

As stated above, it is important to stress that—even though the use of the cc option can reasonably be expected to enhance feelings of transparency—there may also be certain costs associated with the use of this email option. In fact, the use of this particular email option might be experienced by employees as a control and monitoring tool. In this vein, Long and Sitkin (2018, p. 727) aptly noted that "controls can compromise the trust subordinates have in their managers." This reasoning corresponds well with prior research which has demonstrated that regulation systems can be counterproductive in the goal of promoting trust (e.g., Cummings and Bromiley 1995; Dyer and Chu 2003; Falk and Kosfeld 2006; Fehr and Gachter 2002). Moreover, this reasoning also aligns well with a recent observation made by coaches in the workplace that receiving emails with a supervisor included in cc can actually result in working relationships where

people feel less trust, rather than more (Campbell 2015). In addition, discussions with email users also suggest that supervisors are sometimes put in cc to gain compliance from recipients (see Ramsay and Renaud 2012; also see Skovholt and Svennevig 2006). Such influence tactics can be expected to negatively impact trust feelings. When taking these findings together, a negative (instead of a positive) effect of a norm that encourages the use of cc on felt trust can also be expected. This reasoning leads to the following hypothesis:

Hypothesis 1b The more the supervisor is included in carbon copy in email exchanges between co-workers, the *less* the receiver of the mail feels trusted.

Overview of the Present Studies

The present research aims to make a meaningful contribution to the growing literature about the relationship between business ethics and trust (Bew and Rossauw 2002; Brenkert 1998; Etzioni in press; Kujala et al. 2016; Leonidou et al. 2013). More specifically, given the lack of empirical knowledge about the cc email phenomenon—and its ubiquity in daily life in organizations and business settings—we set out to explore whether the presence of a norm that encourages team members to include their supervisor in cc positively (*Hypothesis 1a*) or negatively (*Hypothesis 1b*) affects felt trust. Before turning to the empirical test of these two hypotheses, we first conducted a preliminary study in which we used an experimental paradigm to test if and how the use of the cc option influences the experience of transparency and control. Participants read a vignette about the workings of a company and the email behaviors of its employees. We compared conditions in which it was either the norm to *always*, *sometimes*, or *almost never* include the supervisor in the mail conversation. Participants were then asked to what extent they perceive the communication within this company as transparent and as controlling.

The subsequent five studies aimed to empirically test our hypotheses, using different research methods. In Study 2, we used a similar experimental paradigm as in the first study to examine, among Western participants (US and UK), whether the number of times the supervisor is included in cc when receiving emails from co-workers has a significant impact on how much one feels trusted by his or her co-workers. Study 3 was similar to Study 2, but this time a sample of Chinese employees was used. We did this because China's unique cultural characteristics may influence the way in which employees respond to the use of the cc option. In Study 4, we again adopted the experimental paradigm of the previous studies, but this time a sample of Western participants (US and UK) was employed and, in addition to

assessing felt trust, we now also measured perceptions of trust climate. However, trust climate measures only assess in a general way whether trust is present or not. So, in order to get a closer look at the specific consequences of not feeling trusted at the organizational level, the following two studies focused on psychological safety and culture of fear. More specifically, in Study 5, we used a survey study to investigate the relationship between the extent to which co-workers included the supervisor in cc and how trusted employees feel by their co-workers, and how this relates to the concept of psychological safety. This survey was conducted among US employees. Finally, in Study 6, we ran a field study among Dutch employees and explored whether the extent to which co-workers include the supervisor in cc influences the perceptions of how much employees feel trusted by their supervisor, and how this relates to the existence of a fear culture in the organization.

Study 1

In this first study, we examined if the frequency with which the supervisor is included in cc when receiving emails from co-workers is related to feelings of transparency and control. We devised an experiment containing one between-subject variable with three levels (supervisor is *always*, *sometimes*, or *almost never* included in cc).

Method

Sample and Design

A total of 121 working adult participants were recruited through Prolific Academic (ProA; https://www.prolific.ac). Prolific is an online platform tailored to the needs of researchers and startups. Prolific provides a detailed description of the demographics of their participant pool, which can be used to screen participants. Recent studies have shown that data quality from Prolific was higher than alternative online platforms (Kappes et al. 2018; Palan and Schitter 2018; Peer et al. 2017). To ensure high quality responses, we excluded 22 participants based upon criteria explained below. This resulted in a final sample of 99 working adults, of which 40 were men. Our participants were on average 35.81 years old (SD = 11.20), worked 34.45 h a week (SD = 11.63), and had 5.39 years of work experience (SD = 5.31) with their current employer. Participants were randomly assigned to one of three conditions, from which we manipulated the extent to which the supervisor is put in cc (*always*: $n = 35$, *sometimes*: $n = 30$, and *almost never*: $n = 34$).

Procedure

After consenting to participate in the study, participants were placed in the role of an observer and asked to read a description of the workings of a company from a third-party perspective. Participants were randomly allocated to one of the three "supervisor in cc" conditions. In these conditions, it was explained that within this organization it is the norm to *always, sometimes*, or *almost never* include the supervisor in cc. Participants were asked to read the following situation very carefully and act as if it were real:

> In the company '3UP!', as in many other companies, communication about projects often takes place via email exchanges. We observed that when employees within this company send emails that they *always* [*sometimes/almost never*] included their direct supervisor in cc. The amount of cc's used in this company is *very high* [*about average/very low*].

Measures

After reading the materials, we presented participants with a manipulation check. We asked participants to indicate the frequency in which employees in this company put their supervisor in cc (always, sometimes, or almost never). The responses of 22 participants did not match the condition to which they were assigned, leading us to exclude their responses from further analyses.

We subsequently measured participants' perception of the *transparency* of the communication in this organization using a self-developed five-item scale. The resulting scale was derived from a thorough review of the transparency literature and various transparency measures (see Hebb 2006; Pirson and Malhotra 2007; Rawlins 2008; Vogelgesang and Crossley 2006). Sample items include: "To what extent do you think that people within this organization communicate openly with each other?" and "To what extent do you think that relevant information within this organization is shared among all stakeholders?". Note that these items were formulated in such a way that they also capture the two main tenants of our transparency definition, namely, sharing relevant information and the involvement of all stakeholders. The items were all rated on a seven-point Likert-type scale ($1 = $ *not at all*, $7 = $ *very much so*). As the items load onto a single factor, they were aggregated into a general scale measure ($M = 4.35$, $SD = 1.34$, Cronbach's $\alpha = 0.87$). All items (and factor loadings) can be found in Appendix 1.

Next, we probed into feelings of *control* using a self-developed five-item scale. The items were based on definitions of control prevalent in the organizational literature (e.g., Cardinal et al. 2004; Dekker 2004; Long and Sitkin 2018). Sample items include: "To what extent do you think that within this organization the communication stream is closely regulated?" and "To what extent do you think that people within this organization have the feeling that they are closely monitored and controlled by others?" ($1 = $ *not at all*, $7 = $ *very much so*). All items loaded onto a single factor and were thus aggregated into a general scale measure ($M = 4.31$, $SD = 1.76$, Cronbach's $\alpha = 0.94$). See Appendix 1 for the item list and their corresponding factor loadings.

Results

A one-way ANOVA on the transparency scale showed a significant difference between the conditions, $F(2, 96) = 22.11$, $p < 0.001$, $\eta^2 = 0.32$. As we have no specific predictions concerning the exact differences between our experimental conditions, we used the conservative Tukey's honesty significant difference test (Tukey's HSD test; Kirk 1982) to test for comparisons. These analyses showed that communication was perceived as significantly more transparent (both ps < 0.001) when the supervisor was *always* included in cc ($M = 4.97$, $SD = 1.11$) or *sometimes* included in cc ($M = 4.80$, $SD = 1.04$) compared to when the supervisor was *almost never* included in cc ($M = 3.32$, $SD = 1.20$). However, no significant difference was found between the *always* and *sometimes* condition ($p = 0.82$).

A one-way ANOVA on the control scale also found that the differences between the conditions were significant, $F(2, 96) = 31.63$, $p < 0.001$, $\eta^2 = 0.40$. Again, the Tukey's HSD test (Kirk 1982) was used to test for comparisons. These analyses showed that feelings of control were largest when the supervisor was *always* included in cc ($M = 5.61$, $SD = 1.03$), followed by when the supervisor was *sometimes* included in cc ($M = 4.32$, $SD = 1.66$), and finally when the supervisor was *almost never* included in cc ($M = 2.96$, $SD = 1.43$). All three conditions differed significantly from each other (all ps < 0.001).

Discussion

The results of this first study illustrate that, from an observer's perspective, both transparency and control are highest when it is standard practice in an organization to always include the supervisor in cc. This finding confirms our assumption that cc'ing a supervisor during email communication between co-workers heightens perceptions of transparency. However, the results of the present study also show that there is an important downside to the use of the cc option as it also enhances experiences of being monitored and controlled by others.

Study 2

We subsequently examined whether the number of times the supervisor is included in cc when receiving emails from co-workers has a significant impact on the extent to which one feels trusted by these co-workers. Again, we used a between-subjects design that consists of three conditions (supervisor is *always*, *sometimes*, or *almost never* included in cc).

Method

Sample and design

A total of 203 working adult participants were recruited from Prolific. To ensure high quality responses, we excluded 47 participants based upon criteria explained in the following section. This resulted in a final sample of 156 working adults, of which 66 were men. Our participants were on average 40.28 years old (SD = 10.87), worked 33.85 h a week (SD = 10.08), and had 6.84 years work experience (SD = 6.75) with their current employer. Participants were randomly assigned to one of three conditions in which we manipulated the extent to which the supervisor is put in cc (*always*: $n = 50$, *sometimes*: $n = 52$, and *almost never*: $n = 54$).
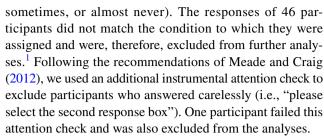
Procedure

We used the same procedure and similar materials as in Study 1. However, in the present study, participants were presented with a story from a first-party perspective. Again, participants were randomly allocated to one of the three "supervisor in cc" conditions in which we manipulated whether it is the norm that the supervisor is *always* included in cc, *sometimes,* or *almost never.* Participants were asked to read the following information:

> You work for the organization '3UP!'. As in many other companies, communication about projects often takes place via email exchanges. You experience in your daily workings that when you receive an email from colleagues they *always* [*sometimes/almost never*] include in cc your direct supervisor. It is clear to you that in your email exchanges with colleagues the number of times your direct supervisor is included in cc is *very high* [*average/very low*].

Measures

After reading this information, as a manipulation check, we again asked participants to indicate the frequency in which their colleagues put their supervisor in cc (always,

sometimes, or almost never). The responses of 46 participants did not match the condition to which they were assigned and were, therefore, excluded from further analyses.[1] Following the recommendations of Meade and Craig (2012), we used an additional instrumental attention check to exclude participants who answered carelessly (i.e., "please select the second response box"). One participant failed this attention check and was also excluded from the analyses.

We subsequently measured the extent to which participants felt trusted by their colleagues. We measured *felt trust* by assessing items that explicitly used the word trust (as has been done in previous research, see Brockner et al. 1997). Moreover, we included a reference to the three dimensions—ability, integrity, and benevolence—that have been shown in prior research to constitute a composite trust measure (see Mayer et al. 1995). Participants were asked to indicate the extent to which they agreed with each item on a seven-point scale, ranging from (1) *not at all* to (7) *very much so*. This scale was comprised of the following three items: In this work situation, I feel that my colleagues trust "my competence," "my integrity," and "my benevolence" ($M = 4.56$, SD = 1.34, Cronbach's $\alpha = 0.94$).

Results

A one-way ANOVA revealed a significant effect of the cc manipulation on felt trust, $F(2, 153) = 3.66$, $p = 0.03$, $\eta^2 = 0.05$. The Tukey's HSD test (Kirk 1982) was used to test for comparisons. These analyses revealed that participants felt trusted less by colleagues when the supervisor was *always* included in cc ($M = 4.21$, SD = 1.58) compared to *almost never* ($M = 4.91$, SD = 1.28; $p = 0.02$). No significant difference was found between the *almost never* and *sometimes* condition ($M = 4.55$, SD = 1.06; $p = 0.35$), and between the *always* and *sometimes* condition ($p = 0.39$).

Discussion

The findings from this study provide some initial evidence that when it is the norm that the supervisor is always included in cc, a situation is created where the receiving party of the email feels trusted less (instead of more) by his or her co-workers, compared to when it is normative that the supervisor is almost never included. The presence of a

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[1] In Study 2, of the 46 participants who failed our manipulation check, only one person also failed to answer our attention check correctly. Importantly, additional analyses including the total sample ($N = 202$; one participant did not complete the whole survey) revealed very similar results as the ones reported in the manuscript. The only difference is that, when including the total sample, the difference between the *sometimes* and the *almost never* condition also became statistically significant ($p = 0.007$).

norm that encourages team members to include their supervisor in cc thus seems to negatively affect felt trust. This pattern of results is in favor of *Hypothesis 1b* (and contrary to *Hypothesis 1a*).

Study 3

Because electronic mail is a communication tool that is used around the globe, we believe it is necessary to replicate the negative effect of cc'ing the supervisor on felt trust to other societies and cultures as well. Specifically, in Study 2 we used a Western sample of working adults. In the present study, we wanted to explore whether our prior findings would also generalize to non-Western societies. We decided to test this in a Chinese sample because its unique cultural characteristics may influence the way one responds to differences in the communication of information (Huang et al. 2008). In Western societies, like the US and the UK, employees value their own unique sense of identity (Chen and West 2008). Because of this sense of independence, they prefer working on projects autonomously, with less deference to their authority (Hofstede 1980). In Chinese society, independence is valued less and how one is looked upon is valued more (Zhou and Ho 2005). Specifically, for Chinese employees their "face"—which stands for the respect and dignity they receive from others based on their achievements—matters immensely to their sense of identity (Leung and Chan 2003).

So, what would be the impact of including the supervisor in cc for Chinese employees? On one hand, because "face" is gained through recognition of their performance—especially by one's supervisor—it could be suggested that Chinese employees feel a stronger need for openness and transparency. On the other hand, it could also be the case that, as Huang et al. (2008, p. 452) noted, their "concern for face" prevents people from engaging in knowledge sharing behavior (Voelpel and Han 2005). From this point of view, saving one's "face" is an important concern and enhanced transparency by means of including the supervisor in cc may even be opposed more by Chinese employees. We thus set out in Study 3 to investigate whether our findings in Study 2 would also hold in a Chinese population.

Method

Sample and Design

One of the authors contacted the top management of several Chinese companies to introduce our study. Within each company, the managers who were contacted distributed an online link to their employees that led to our online study. A total of 150 Chinese working adults completed the experimental study. Following the same criteria as in our previous study, 58 participants were excluded (see below). Our sample thus consisted of 92 participants, of which 35 were men. Participants were on average 35.60 years old (SD = 5.65), worked 43.54 h a week (SD = 13.92), and had 3.80 years work experience (SD = 4.66) with their current employer. We assigned participants randomly to one of three "supervisor in cc" conditions (*always*: $n = 29$, *sometimes*: $n = 37$, and *almost never*: $n = 26$).[2] The original vignettes used in Study 2 were translated into Chinese, and then back translated by two bilingual researchers. Comparisons showed that both versions were equivalent (Brislin 1980).

Procedure and Measures

We used the same procedure and materials as in Study 2. We also used the same manipulation check as in Study 2, which led us to exclude 48 participants. We again included the same instrumental attention check as used in Study 2, and excluded an additional ten participants from the analyses. *Felt trust* was assessed with the same scale as in Study 2 ($M = 4.56$, SD = 1.69, Cronbach's $\alpha = 0.91$).

Results

A one-way ANOVA revealed a significant effect of our cc manipulation on felt trust, $F(2, 89) = 14.45$, $p < 0.001$, $\eta^2 = 0.25$. We ran a Tukey's HSD test (Kirk 1982) revealing that, as in Study 2, participants felt trusted less by their colleagues when the supervisor was *always* included in cc ($M = 3.36$, SD = 1.59) compared to *almost never* ($M = 4.91$, SD = 1.38; $p = 0.001$). The *always* condition also differed significantly from the *sometimes* condition ($M = 5.26$, SD = 1.46; $p < 0.001$). The difference between the *almost never* and *sometimes* condition was not significant ($p = 0.63$).

Discussion

In line with the findings of our second study, this third study revealed that also in a Chinese work setting employees feel trusted less by their co-workers when the supervisor is always included in cc, compared to almost never, providing additional support for *Hypothesis 1b* (as opposed to *Hypothesis 1a*). Interestingly, in contrast to the findings of Study 2, the results of Study 3 also showed that the felt trust of the email recipient was significantly lower in the always

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[2] In Study 3, the presence of different numbers of participants in the three experimental conditions emerged because the exclusion of participants was not equally divided among the three conditions (i.e., 24 participants were excluded from the *always* condition, 11 from the *sometimes* condition, and 23 from the *almost never* condition).

condition compared to the sometimes condition (with no significant difference being detected between the latter condition and the almost never condition). This result seems to suggest that in this particular sample it is when the supervisor is always included in cc that low felt trust is particularly fostered.

Study 4

Study 4 adopted a similar experimental paradigm as was used in the previous studies. In addition to assessing felt trust, in the present study we also assessed if the frequency in which the supervisor is copied in the email exchange influences perceptions of the organization's trust climate. According to Huff and Kelley (2003, p. 82), trust climate within an organization is defined as "the positive expectations that individuals have about the intent and behaviors of multiple organizational members based on organizational roles, relationships, experiences, and interdependencies." As such, we wanted to explore whether felt trust as a function of cc use can be generalized to trust development within the organization.
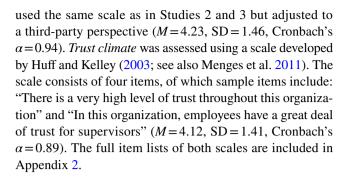
Method

Sample and Design

We recruited 120 working adult participants from a subject pool in the US and the UK using Prolific. Based upon the same criteria as adopted in the previous studies, we excluded 11 participants from the analyses (ten participants failed the manipulation check; one participant failed the attention check). This resulted in a final sample of 109 working adults, of which 48 were men. On average, participants were 33.77 years old (SD = 9.89), worked 33.62 h a week (SD = 12.41), and had 5.20 years work experience (SD = 6.55) with their current employer. As in the prior studies, we randomly assigned participants to one of three "supervisor in cc" conditions (*always*: n = 37, *sometimes*: n = 33, and *almost never*: n = 39).

Procedure and measures

Similar to Study 1, we again used a third-party perspective in the present study. The same procedure and measures that were used in Study 2 were adopted, with the addition of including trust climate as a dependent measure. The measures were all solicited using a scale that ranged from (1) *not at all* to (7) *very much so*. We assessed *felt trust* by asking participants the extent to which they thought that employees felt trusted by their colleagues in a given company. We

used the same scale as in Studies 2 and 3 but adjusted to a third-party perspective (M = 4.23, SD = 1.46, Cronbach's α = 0.94). *Trust climate* was assessed using a scale developed by Huff and Kelley (2003; see also Menges et al. 2011). The scale consists of four items, of which sample items include: "There is a very high level of trust throughout this organization" and "In this organization, employees have a great deal of trust for supervisors" (M = 4.12, SD = 1.41, Cronbach's α = 0.89). The full item lists of both scales are included in Appendix 2.

Results

Measurement model

We first tested whether employees' felt trust and trust climate were conceptually distinct from each other. A Confirmatory Factor Analysis (CFA) revealed that a two-factor model, in which felt trust and trust climate loaded on separate factors, had an acceptable fit (χ^2 (13) = 23.95, χ^2/df = 1.84, CFI = 0.99, RMSEA = 0.09, SRMR = 0.03). We compared this model with an alternative model, in which felt trust and trust climate were combined into one overall factor. This one-factor model yielded a significantly poorer fit (χ^2 (14) = 37.81, χ^2/df = 2.70, CFI = 0.97, RMSEA = 0.13, SRMR = 0.03; $\Delta\chi^2$ = 13.85, p < 0.001). Further, as an additional check, we looked at the Average Variance Extracted (AVE) of the two scales. When the AVE is above 0.50, then convergent validity is achieved (Fornell and Larcker 1981). Both measures had an AVE above this threshold (see Appendix 2). These results provide evidence for the distinctiveness of felt trust and trust climate.

Felt trust

A one-way ANOVA revealed a significant effect of the cc manipulation on felt trust, F(2, 106) = 9.30, p < 0.001, η^2 = 0.15. Tukey's HSD test (Kirk 1982) revealed that participants thought that employees felt trusted less by their co-workers when the supervisor was *always* included in cc (M = 3.45, SD = 1.54) compared to *almost never* (M = 4.55, SD = 1.33; p = 0.002). The *always* condition also differed significantly from the *sometimes* condition (M = 4.71, SD = 1.16; p = 0.001). The difference between the *almost never* condition and the *sometimes* condition was not significant (p = 0.87).

Trust climate

A one-way ANOVA also revealed a significant effect on trust climate, F(2, 106) = 5.74, p = 0.004, η^2 = 0.10. Tukey's HSD test (Kirk 1982) revealed lower levels of trust within

Table 1 Hierarchical regression analyses of study 4

Independent variables	Model 1	Model 2	Model 3
	Trust climate	Felt trust	Trust climate
Step 1: Effect of supervisor in cc			
Intercept	3.53*** (0.22)	3.45*** (0.22)	0.56** (0.20)
Supervisor in cc (sometimes)	1.03** (0.32)	1.27*** (0.33)	−0.05 (0.17)
Supervisor in cc (almost never)	0.79* (0.31)	1.11*** (0.31)	−0.16 (0.17)
R^2	0.10	0.15	0.10
F	5.74**	9.30***	5.74***
Step 2: Mediator variable			
Felt trust			0.86*** (0.05)
R^2			0.77
ΔR^2			0.67
F			118.55***
ΔF			310.66***

Unstandardized regression coefficients reported

ΔF represents the F value of the change in R^2

*$p < 0.05$

**$p < 0.01$

***$p < 0.001$

the organization when co-workers *always* included their supervisor in cc ($M = 3.53$, SD $= 1.55$) compared to *almost never* ($M = 4.32$, SD $= 1.42$; $p = 0.03$). The *always* condition also differed significantly from the *sometimes* condition ($M = 4.56$, SD $= 0.99$; $p = 0.005$). The difference between the *almost never* condition and the *sometimes* condition was not significant ($p = 0.73$).

Mediation

We investigated further if the relationship between putting a supervisor in cc and trust climate is mediated by participants' judgments of employees' felt trust. To test for this, we followed four steps. First, we tested if participants' perceptions of the trust climate differ between the experimental conditions. Second, we tested if the extent to which supervisors are put in cc is related to participants' judgments of employees' felt trust. Both steps have been confirmed by our earlier analyses. As such, we followed two more steps. The first additional step we took was to test if our proposed mediator, participants' judgments of employees' felt trust, is related to trust climate when controlling for the three experimental conditions. Finally, we tested the indirect relationship between the extent to which supervisors are put in cc and trust climate via participants' judgments of employees' felt trust.

To test for this, we ran a regression model with two dummy variables (*almost never* and *sometimes*) and placed the *always* condition as the referent category. The coefficients of these two dummy variables thus indicate the extent to which they differ from the always in cc condition.

The results are shown in Table 1. Both *almost never* and *sometimes* in cc differs significantly from *always* in cc with regards to trust climate (Model 1) and felt trust (Model 2). Further, felt trust is positively related to trust climate (Model 3; $b = 0.86$, SE $= 0.05$, $p < 0.001$). A bootstrapping procedure (Preacher and Hayes 2004) revealed that the difference on trust climate perceptions between the *always* and *almost never* condition was fully mediated by felt trust (indirect effect $= 0.95$, 95% bias-corrected bootstrapped CI [0.39, 1.46]). Additionally, when including felt trust in the regression model, the difference between *always* and *almost never* on trust climate perceptions was not significant ($b = -0.16$, SE $= 0.17$, $p = 0.35$). Felt trust also fully mediated the difference between the *always* and *sometimes* condition on trust climate perceptions (indirect effect $= 1.08$, 95% bias-corrected bootstrapped CI [0.57, 1.60]). The difference between the two conditions disappeared when felt trust was included in the regression model ($b = -0.05$, SE $= 0.17$, $p = 0.76$).[3]

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[3] In Study 4, we have additionally analyzed our model using a two-stage least squares (2SLS) regression, to mitigate the influence of endogeneity. By doing this, we reduce the influence of omitted variables, and thus can have more confidence in the interpretation of our results. The results of these analyses revealed a positive effect of *felt trust* (instrumented mediator) on *trust climate* ($b = 0.77$, SE $= 0.11$, $p < 0.001$). The results further showed that the used instruments are not weak ($p < 0.001$), and a Wu-Hausman test showed that the consistent estimation does not differ from the ordinary least squares (OLS) regression ($p = 0.47$).

Discussion

The findings of Study 4 indicate that participants in the observer role judge employees to feel trusted less by their co-workers when they receive emails with their supervisor always included in cc compared to sometimes or almost never—providing additional support for *Hypothesis 1b*. This result further underscores the idea that a norm of always including the supervisor in cc creates a perception that the recipient of that email will experience negative trust feelings. Moreover, our findings revealed that observer judgments of how trusted employees will feel as a function of the degree to which the supervisor is included in cc were generalized in such a way that they also predicted perceptions of the trust climate present within the organization. Specifically, our analyses showed that participants considered the trust climate in the organization to be the lowest when the supervisor was always included in cc and this effect was mediated by participants' judgments of how trusted the recipient of the email felt.

Study 5

The previous studies adopted an experimental approach to investigate the impact of putting the immediate supervisor in cc on felt trust. This approach has developed corroborating evidence for high internal validity. However, it has yet to support the external validity of our findings. To enhance this, an organizational survey—that was distributed among working adults—was conducted. Combining different designs and methodologies allows for a series of studies to build upon their respective strengths and to compensate for the weaknesses inherent to specific designs. Thus, by conducting a survey in the field, we aim to strengthen our conclusion by increasing its external validity (Campbell and Fiske 1959).

A self-developed measure was deployed to assess the extent to which co-workers include their supervisor in cc when emailing other co-workers. We used a similar felt trust measure as in our previous studies. In Study 4, we demonstrated that judgments of felt trust generalize to perceptions of the trust climate present in the organization. The measure of trust climate assesses, however, in a general way whether trust is present (or not) in the organization. In the present survey, we wanted to get closer to the specific consequences of not feeling trusted at the organizational level. One specific element of trust is that people are willing to make themselves vulnerable to others when they feel trusted (Kramer 1999; Mayer et al. 1995). As mentioned earlier, Mayer et al. (1995, p. 712) conceptualize

trust as "the willingness of a party to be vulnerable to the actions of another party, based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party." As such, we set out to explore whether individual experiences of feeling trusted or not—as a function of the extent to which the supervisor is included in cc—translate into experiences of psychological safety. Psychological safety refers to an individual's perception that one can take risks and communicate openly without fearing negative reactions from others within the organization (Ashford et al. 1998; Detert and Burris 2007; Edmondson 1999, 2003).

Method

Sample and Procedure

We recruited 241 working adult participants from a subject pool in the US using Amazon's Mechanical Turk (MTurk; https://www.mturk.com). MTurk is a popular online platform that is increasingly being used for organizational research, and also demonstrates a high quality of data (see Buhrmester et al. 2011, for a discussion of Mturk data quality). We also used an instrumental attention check as recommended by Oppenheimer et al. (2009), in which participants were required to choose the third option to the question "Who is your favorite classical music composer?". Twelve participants failed to answer this question correctly and were removed from further analyses. This resulted in a final sample of 229 working adults. From this sample, 127 were men. On average, participants were 36.48 years old ($SD = 11.74$), worked 39.94 h a week ($SD = 10.49$), and had 6.29 years work experience ($SD = 6.21$) with their current employer.

Measures

As no prior scale assessing the extent to which supervisors are included in cc exists, we used a self-developed six-item scale (with a specific focus on the email behaviors of employees) to measure the organizational norm surrounding the use of cc. These items include the perspective of the three parties that we focused on in our experimental studies (i.e., the sender, the receiver, and the supervisor), and were formulated in such a way that they all probed into the extent to which employees put their *supervisor in cc* when contacting co-workers through email. Sample items of this scale include: "Colleagues that contact you via email concerning an important project often put your supervisor in cc" and "In this organization there exists

Table 2 Comparison of measurement models for main variables in study 5

Model	Factors	χ^2	df	χ^2/df	$\Delta\chi^2$	CFI	RMSEA	SRMR
Null model	All indicators are independent	2473.03	91	27.18				
Baseline model	Three factors: supervisor in cc, employees' felt trust, psychological safety	197.55	74	2.67		0.95	0.09	0.05
Model 1	Two factors: supervisor in cc and employees' felt trust were combined into one factor	563.37	76	7.41	365.82***	0.80	0.17	0.17
Model 2	Two factors: supervisor in cc and psychological safety were combined into one factor	1019.42	76	13.41	821.87***	0.60	0.23	0.23
Model 3	Two factors: employees' felt trust and psychological safety were combined into one factor	450.12	76	5.92	252.57***	0.84	0.15	0.10
Model 4	One factor: all three factors were combined into one factor	1509.63	77	19.61	1312.10***	0.40	0.29	0.27

*** $p < 0.001$

a culture where supervisors are often put in cc in email exchanges" ($M = 3.29$, SD $= 1.62$, Cronbach's $\alpha = 0.93$). Moreover, we measured employees' *felt trust* with a similar scale to the one used in the previous studies ($M = 5.67$, SD $= 1.10$, Cronbach's $\alpha = 0.86$). Finally, we used a five-item *psychological safety* scale developed by Liang et al. (2012), which assesses the extent to which employees perceive it to be safe in their organization to express themselves. Sample items of this scale include: "In my organization, I can express my true feelings regarding my job" and "Nobody in my organization will pick on me even if I have different opinions" ($M = 4.80$, SD $= 1.44$, Cronbach's $\alpha = 0.90$). The scales all ranged from (1) *strongly disagree* to (7) *strongly agree*. The full item list of each scale is included in Appendix 3.

Results

Measurement Model

First, we assessed the construct validity of our model. We constructed a three-factor model in which the scale items of each construct loaded on separate factors (supervisor in cc, employees' felt trust, and psychological safety). A CFA revealed that this three-factor model had a better fit than three alternative two-factor models and a one-factor model (see Table 2). Further, the AVE of the scales ranged between 0.67 and 0.70, thereby confirming convergent validity (see Appendix 3). Based on these findings, it can be concluded that our hypothesized measurement model with three distinct factors was justified.

Felt Trust and Psychological Safety

Results of the hierarchical regression analyses (Aiken and West 1991) are shown in Table 3. A first regression analysis revealed that the degree to which supervisors are put in cc is negatively related to psychological safety (Model 1;

$b = -0.14$, SE $= 0.06$, $p = 0.02$). A second regression analysis revealed that the extent to which supervisors are put in cc is also negatively related to the trust employees feel from their colleagues (Model 2; $b = -0.10$, SE $= 0.04$, $p = 0.02$).

Mediation

Next, we investigated whether the relationship between the extent to which employees put their supervisors in cc and psychological safety is mediated by employees' felt trust. We tested, first of all, if our proposed mediator, employees' felt trust, is related to psychological safety when controlling for the extent to which supervisors are put in cc. In addition, we tested the indirect relationship between the extent to which supervisors are put in cc and psychological safety via employees' felt trust.

Table 3 Hierarchical regression analyses of study 5

Independent variables	Model 1 Psych. safety	Model 2 Felt trust	Model 3 Psych. safety
Step 1: Effect of supervisor in cc			
Intercept	5.27*** (0.21)	6.01*** (0.16)	1.78*** (0.51)
Supervisor in cc	−0.14* (0.06)	−0.10* (0.04)	−0.08 (0.05)
R^2	0.03	0.02	0.03
F	6.04*	5.28*	6.04*
Step 2: Mediator variable			
Felt trust			0.58*** (0.08)
R^2			0.22
ΔR^2			0.19
F			31.33***
ΔF			55.18***

Unstandardized regression coefficients reported

ΔF represents the F value of the change in R^2
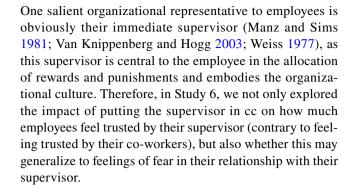
* $p < 0.05$

*** $p < 0.001$

First, when controlling for the extent to which supervisors are put in cc, our results revealed that employees' felt trust is positively related to psychological safety (Model 3; $b = 0.58$, $SE = 0.08$, $p < 0.001$). Also, by including felt trust as a predictor, the relationship between the extent to which supervisors are put in cc and psychological safety was not significant (Model 3; $b = -0.08$, $SE = 0.05$, $p = 0.11$), thereby indicating full mediation. Secondly, we tested the full mediation model by calculating a bootstrapped confidence interval of the indirect effect (MacKinnon et al. 2004) using the PROCESS macro (Model 4 of Preacher and Hayes 2008). Results showed evidence for the mediating effect of felt trust (indirect effect $= -0.06$, 95% bias-corrected bootstrapped CI $[-0.12, -0.01]$).[4]

Discussion

In agreement with *Hypothesis 1b* (and contrary to *Hypothesis 1a*), the findings of Study 5 showed that the more supervisors are put in cc, the less recipients of those emails feel trusted by their colleagues and the less they experienced psychological safety to be present in the organization. In other words, the more supervisors were included in cc when receiving emails from colleagues, the less recipients felt that the organization was a safe place to express their opinion. Finally, our mediation analysis showed that employees' experiences of felt trust mediated the relationship between the degree to which supervisors were included in cc and perceptions of psychological safety.

Study 6

The survey data collected from Study 5 are consistent with the findings that were obtained in our experimental studies (i.e., Studies 2 to 4). In the present study, we wanted to extend the findings of Study 5 in the following way. The literature notes that if psychological safety is lowered, people feel more fearful with regard to how they are evaluated and possibly even punished (Edmondson 1999, 2003). In Study 6, we wanted to explore the fear that employees may experience towards a specific organizational representative.

One salient organizational representative to employees is obviously their immediate supervisor (Manz and Sims 1981; Van Knippenberg and Hogg 2003; Weiss 1977), as this supervisor is central to the employee in the allocation of rewards and punishments and embodies the organizational culture. Therefore, in Study 6, we not only explored the impact of putting the supervisor in cc on how much employees feel trusted by their supervisor (contrary to feeling trusted by their co-workers), but also whether this may generalize to feelings of fear in their relationship with their supervisor.

Method

Sample and Procedure

Participants were recruited via Flycatcher (https://www.flycatcher.eu), which is a professionally managed research panel at Maastricht University which meets the ISO 26362 requirements, a quality label that certifies that this panel can be used for social scientific research. The participant pool consists of 16,000 Dutch citizens that receive on average eight surveys a year. In return for their voluntary participation, panel members receive credits that can be exchanged for a voucher (e.g., a cinema ticket). Employees were invited to complete an online survey and—throughout the whole data collection process—Flycatcher provided close guidance to ensure that employees responded to the survey as professionally as possible (see also De Cremer et al. 2017). A total of 104 employees participated in this study. On average, employees were 38.71 years ($SD = 11.00$), had 8.05 years work experience ($SD = 6.65$) with their current organization and their tenure in their current position was 6.54 years ($SD = 5.33$). Of the total sample, 54 were men.

Measures

The same scale as in Study 5 was used to measure how often employees put their *supervisor in cc*. In this study, the scale ranged from (1) *strongly disagree* to (5) *strongly agree* ($M = 2.57$, $SD = 1.05$, Cronbach's $\alpha = 0.95$). To measure employees' *felt trust*, the same scale as in Study 5 was used, but this time included the supervisor rather than the co-worker as the source of the felt trust. The scale also ranged from (1) *strongly disagree* to (5) *strongly agree* ($M = 4.32$, $SD = 0.69$, Cronbach's $\alpha = 0.93$). Finally, to measure *culture of fear,* we used a seven-item measure based on Ashkanasy and Nicholson's (2003) climate of fear scale, of which sample items include: "Colleagues cannot be totally honest with my supervisor on work related issues" and "Because of my supervisor, my colleagues feel fearful and anxious at work." This scale ranged from (1)

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[4] For Study 5, we also ran our analyses without Item 5 of the *supervisor in* cc scale. A first regression analysis revealed that the degree to which supervisors are put in cc is negatively related to psychological safety ($b = -0.14$, $SE = 0.06$, $p = 0.02$). A second regression analysis revealed that the extent to which supervisors are put in cc is also negatively related to employees feeling trusted by their colleagues ($b = -0.12$, $SE = 0.04$, $p = 0.005$). Finally, felt trust mediated the effect between the extent to which the supervisor is put in cc and psychological safety (indirect effect $= -0.07$, 95% bias-corrected bootstrapped CI $[-0.13, -0.02]$).

Table 4 Comparison of measurement models for main variables in study 6

Model	Factors	χ^2	df	χ^2/df	$\Delta\chi^2$	CFI	RMSEA	SRMR
Null model	All indicators are independent	1332.56	120	11.10				
Baseline model	Three factors: supervisor in cc, employees' felt trust, culture of fear	220.75	101	2.19		0.90	0.10	0.08
Model 1	Two factors: supervisor in cc and employees' felt trust were combined into one factor	770.13	103	7.48	549.39***	0.45	0.25	0.24
Model 2	Two factors: supervisor in cc and culture of fear were combined into one factor	490.90	103	4.77	270.15***	0.68	0.19	0.21
Model 3	Two factors: employees' felt trust and culture of fear were combined into one factor	349.92	103	3.40	129.17***	0.80	0.15	0.10
Model 4	One factor: all three factors were combined into one factor	899.36	104	8.65	678.61***	0.34	0.27	0.24

***$p < 0.001$

totally not to (5) *totally* ($M = 2.15$, SD = 0.68, Cronbach's $\alpha = 0.72$). The full item lists for each scale is included in Appendix 4.

Results

Measurement Model

We first assessed the construct validity of our model. We constructed a three-factor model in which the scale items of each construct loaded on separate factors (supervisor in cc, employees' felt trust, culture of fear). A CFA revealed that a three-factor model had a better fit than four alternative models (see Table 4). Further, the AVE exceeded the cut-off point of 0.50 for all measures (see Appendix 4), except for culture of fear.[5] These findings indicate that our hypothesized measurement model with three distinct factors was justified.

Felt Trust and Culture of Fear

Results of the hierarchical regression analyses (Aiken and West 1991) are shown in Table 5. A first analysis revealed that the extent to which supervisors are put in cc is positively, but marginally, related to a culture of fear (Model 1; $b = 0.11$, SE = 0.06, $p = 0.09$). A second analysis revealed that the extent to which supervisors are put in cc

is negatively related to the trust employees feel from their supervisor (Model 2; $b = -0.14$, SE = 0.06, $p = 0.03$).

Mediation

Having established these initial effects, we sought to investigate if the relationship between putting supervisors in cc and fear culture is mediated by employees' felt trust. Therefore, we tested if the proposed mediator, employees' felt trust, is related to a culture of fear when controlling for the extent to which supervisors are put in cc. Next, we tested the indirect relationship between the extent to which supervisors are put in cc and a culture of fear via employees' felt trust. In line with these requirements, we included both the extent to which supervisors are put in cc and felt trust as predictors of culture of fear. Results showed that employees' felt trust is

Table 5 Hierarchical regression analyses of study 6

Independent variables	Model 1 Culture of fear	Model 2 Felt trust	Model 3 Culture of fear
Step 1: Effect of supervisor in cc			
Intercept	1.86*** (0.18)	4.70*** (0.18)	4.48*** (0.42)
Supervisor in cc	0.11[†] (0.06)	−0.14* (0.06)	0.03 (0.05)
R^2	0.03	0.05	0.03
F	3.02[†]	5.20*	3.02[†]
Step 2: Mediator variable			
Felt trust			−0.56*** (0.08)
R^2			0.33
ΔR^2			0.30
F			24.57***
ΔF			44.81***

Unstandardized regression coefficients reported

ΔF represents the F value of the change in R^2

[†]$p < 0.10$

*$p < 0.05$

***$p < 0.001$

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[5] In Study 6, two items of our *culture of fear* scale had a low factor loading (i.e., less than |0.17|; see Appendix 4). Therefore, we ran our analyses again without these two items (AVE = 0.54; see Model B in Appendix 4). Critically, our mediation analyses showed similar results when we used this five-item scale. That is, employees' felt trust is negatively related to a culture of fear ($b = -0.56$, SE = 0.08, $p < 0.001$). And, the indirect effect of felt trust was also significant in this analysis (indirect effect = 0.07, 95% bias-corrected bootstrapped CI [0.01, 0.14]).
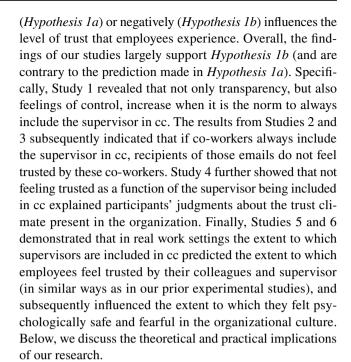
negatively related to a culture of fear (Model 3; $b = -0.56$, SE = 0.08, $p < 0.001$). In the same regression model, the extent to which supervisors are put in cc is not significantly related to perceptions of a culture of fear (Model 3; $b = 0.03$, SE = 0.05, $p = 0.58$). Finally, we tested the full mediation model by calculating a bootstrapped confidence interval of the indirect effect (MacKinnon et al. 2004) using the PROCESS macro (Model 4 of Preacher and Hayes 2008). Results showed evidence for a mediation effect by felt trust (indirect effect = 0.08, 95% bias-corrected bootstrapped CI [0.02, 0.15]).[6]

Discussion

The findings of Study 6 showed that—in line with *Hypothesis 1b*—the more supervisors are put in cc when colleagues send emails, the less recipients of those emails feel trusted by their supervisor. This finding thus reveals that the use of the cc option not only negatively affects the amount of trust that receivers experience from their colleagues (as demonstrated by the results of our prior studies), but also the amount of trust that they experience from their supervisor. In addition, the more the supervisor was included in cc the more recipients of those emails experienced the existence of a fear culture. Further analyses showed that employees' experiences of felt trust mediated the effect of the degree to which supervisors were included in cc on perceptions of fear culture.

General Discussion

Scholars have argued that "trustworthy conduct is a core principle in ethics" (Dietz and Gillespie 2012, p. 4). Statements like this have propelled research in the field of business ethics into the domain of trust (see Brenkert 1998; also see Bews and Rossouw 2002; Etzioni in press; Kujala et al. 2016; Leonidou et al. 2013). We conducted six empirical studies to investigate two competing hypotheses relevant to the inclusion of the supervisor via the cc function when communication takes place between co-workers. Specifically, we tested whether the presence of an organizational norm that encourages the use of the cc option either positively

(*Hypothesis 1a*) or negatively (*Hypothesis 1b*) influences the level of trust that employees experience. Overall, the findings of our studies largely support *Hypothesis 1b* (and are contrary to the prediction made in *Hypothesis 1a*). Specifically, Study 1 revealed that not only transparency, but also feelings of control, increase when it is the norm to always include the supervisor in cc. The results from Studies 2 and 3 subsequently indicated that if co-workers always include the supervisor in cc, recipients of those emails do not feel trusted by these co-workers. Study 4 further showed that not feeling trusted as a function of the supervisor being included in cc explained participants' judgments about the trust climate present in the organization. Finally, Studies 5 and 6 demonstrated that in real work settings the extent to which supervisors are included in cc predicted the extent to which employees feel trusted by their colleagues and supervisor (in similar ways as in our prior experimental studies), and subsequently influenced the extent to which they felt psychologically safe and fearful in the organizational culture. Below, we discuss the theoretical and practical implications of our research.

Contribution to Business Ethics Literature

Although we did not explicitly measure ethics related concepts in our six studies, we believe that the present research on the effects of cc use in email communication does make a meaningful contribution to the literature on business ethics. It stands to reason that transparency and openness in communication is important for workplace ethics (e.g., Jose and Thibodeaux 1999; Palanski et al. 2011; Shum et al. 2019; Vogelgesang et al. 2013). However, the present findings illustrate that when the goal of achieving transparency is experienced as an end in itself—i.e., to control others and to force them to comply—rather than a means to an end—i.e., to create an open and transparent work environment—its use negatively affects the amount of trust that employees experience (cf. De Cremer 2016). As mentioned earlier, the definition of trust as developed by Mayer et al. (1995, p. 712) holds the explicit assumption that, when trust is in place, monitoring and control are not needed. When transparency in email communication is perceived as a monitoring mechanism, this can be experienced by employees as an invasion of their privacy, and as a result of this they may even feel morally threatened by the use of the cc option.

This reasoning is in line with prior business ethics research which has shown that employees consider the electronic monitoring of their behaviors to be unethical (Cappel 1995; Vaught et al. 2000; also see Alder 1998; Kidwell and Bennett 1994; Martin and Freeman 2003; Tabak and Smith 2005). A study conducted by Cappel (1995), for instance, revealed that the majority of email users thought that email monitoring is unethical, irrespective of whether

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[6] For Study 6, we ran our analyses again without Item 5 of the *supervisor in cc* scale. A first regression analysis revealed that the degree to which supervisors are put in cc is positively, but marginally, related to culture of fear ($b = 0.12$, SE = 0.06, $p = 0.06$). A second regression analysis revealed that the extent to which supervisors are put in cc is also negatively related to employees feeling trusted ($b = -0.15$, SE = 0.06, $p = 0.02$). Finally, felt trust mediated the effect between the extent to which the supervisor is put in cc and culture of fear (indirect effect = 0.08, 95% bias-corrected bootstrapped CI [0.02, 0.15]).

it was supported by a monitoring policy. And, among those who considered email monitoring to be unethical, the most commonly cited reason was that this practice invades one's privacy. Vaugh et al. (2000) similarly found that most employees also perceive the electronic monitoring of their behaviors (e.g., monitoring their computer screen or their business-related telephone calls) as unethical, but only when such monitoring is being conducted in secret. Along similar lines, the results of our studies suggest that when employees feel that transparency in email communication is used as a means to monitor and control them, its use may also be experienced by employees as unethical—rather than as ethical—conduct. We have tested this assumption with an additional study, of which the results show that employees' perceptions of ethicality are negatively affected by the frequent use of the cc option.[7]

Practical Implications

The present findings also hold several important practical implications. Although the use of the cc option might appear trivial on the surface, our results indicate that its use might actually have far reaching consequences. More specifically, the present findings alarm organizational agents that even though creating transparency may seemingly reflect a beneficial organizational practice, it does not always result in positive outcomes. That is, the presence of a norm that encourages employees to always include their supervisor in cc should be considered as potentially threatening because the existence of such a norm can be experienced by employees as overly controlling. For that reason, an important practical implication of our research is thus that complete communication transparency—by always including the supervisor in cc—should not be considered as the "gold standard" that automatically promotes feelings and perceptions of trust and ethicality.

At the same time, we wish to emphasize that it is not our intention to convey the message that transparency is always

a bad thing. There are many situations in which an open and transparent way of communicating information actually fosters trust and collaboration on the work floor. One such situation in which transparency might be of particular importance is during organizational changes, such as mergers and layoffs, in which trust issues are highly relevant (e.g., Armenakis and Harris 2002; Daly et al. 2003; Elving 2005). For example, it has been reported that secrecy and withholding information during such kinds of changes leads to lower organizational commitment and higher turnover (Bastien 1987). Conversely, transparent communication during these changes is known to reduce uncertainty and to foster a sense of procedural and interactional justice, which is likely to promote an array of trust and ethics related work outcomes (DiFonzo and Bordia 1998; Neves and Eisenberger 2012; Schweiger and DeNisi 1991).

From a managerial perspective, we believe that it is thus crucial for organizations to know under which circumstances communication transparency is a good thing, and when it is better avoided. The present findings provide some insights in this issue, but future research is necessary to further investigate under which circumstances actions that enhance transparency are perceived as ethical by employees, and when such actions are experienced to be unethical.

Limitations and Recommendations

Some limitations and important directions for future research can also be drawn from this research. First of all, it must be emphasized that the cc manipulation that we used in our experimental studies only varied whether it is standard practice within the organization to always, sometimes, or almost never include supervisors in cc. Although the frequency of using the cc option is indicative of an organizational norm, it is important to point out that our cc manipulation did not specify the *source* (i.e., who installed the norm?) and *purpose* (i.e., why is the norm installed?) of this norm. Within organizations, norms regarding the use of the cc option can, for instance, be installed by the team's direct supervisor or by someone higher in the organizational hierarchy. Moreover, as mentioned earlier, our findings suggest that making communication transparent for solely the sake of transparency is not helpful and may signal that the company is interested in exerting excessive control—which can be interpreted as unethical by employees (see our results reported in footnote 7; also see Cappel 1995; Vaught et al. 2000). Because of this, we believe that it is very important for managers to emphasize why transparency is necessary. In other words, we advise supervisors to clearly explain to their team members the purpose of including them in the communication stream, in order to avoid perceptions of unethicality from their employees for the use of the cc function. Future research investigating the effects of cc use on perceptions of

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[7] We have conducted an additional study to test how the frequency of cc use affects perceptions of ethicality. In this study, we used the same selection procedure and the same three vignettes as in Study 1. After reading one of the three vignettes, we asked participants to what extent they consider the use of cc option to be: (1) ethical, (2) unethical, (3) morally acceptable, and (4) morally unacceptable (1 = *not at all*, 7 = *very much so*). The scores on these four items (items 2 and 4 reverse-coded) were aggregated into a general ethics measure ($M = 4.91$, SD = 1.17, Cronbach's $\alpha = 0.90$). The results showed that participants scored significantly lower (both ps < 0.05) on this measure when the supervisor was *always* included in cc ($M = 4.35$, SD = 1.27) than when the supervisor was *sometimes* ($M = 5.33$, SD = 0.98) or *almost never* included in cc ($M = 4.96$, SD = 1.06). As such, this study confirms our assumption that frequent use of the cc function indeed negatively affects employees' perceptions of ethicality.

trust and ethicality is, therefore, encouraged to also take the source and the purpose of organizational norms that dictate the prevalence of cc use into account.

Moreover, it must also be stressed that in the present research we focused on the norm surrounding the frequency with which the supervisor was copied in the stream of email communication, but not with respective to non-supervisor colleagues being copied in. We have chosen to investigate cc effects in this particular circumstance because it reflects a ubiquitous situation in organizations, in which employees often have to work together on team projects and update the supervisor on matters such as progress. Yet, we believe that it would be interesting for future studies to investigate whether our findings regarding the impact of cc'ing others on felt trust vary across different levels of an organizational hierarchy (cf. Miner 1982). More precisely, if supervisors include other team members in cc when sending an email to another team member, would this result in less trust, as it is the case when the supervisor is included in cc when team members email each other? Since including other team members can also be perceived as a monitoring or control tactic by the supervisor, it can be expected that our results would also hold if it is the norm that supervisors (instead of co-workers) cc'ed other related team members. Indeed, we believe that when the supervisor is the one who engages in this type of behavior, the use of the cc option might also be perceived as morally threatening by employees, and thus negatively affect felt trust. Future studies in this domain are needed to investigate whether our findings generalize to different hierarchical dynamics.

A final methodological limitation of our research is that in our latter three studies, our mediator (i.e., felt trust) and outcome variable (i.e., trust climate in Study 4, psychological safety in Study 5, and culture of fear in Study 6) were always measured at the same moment in time, which is a potential source of common method bias (Podsakoff et al. 2003). Indeed, when different variables are measured at the same point in time, this may produce artefactual covariance independent of the content of the variables themselves. Under such circumstances, method biases can contribute towards the observed relationship between the mediator and the outcome variable. Because of this, we encourage future survey studies to separate the measurement of these two variables in time, for instance by the measurement of the mediator variable some months prior to the administration of the outcome variables.

Conclusion

The main objective of our research was to contribute to the field of business ethics by empirically testing the effects of cc use on employees' felt trust. Our results show that, when it is the norm to always include supervisors in cc, more harm is done than good when it comes to developing trustworthy relationships among co-workers and safe and trustworthy organizational cultures. Our findings indeed suggest that a norm that endorses the use of the cc option elicits feelings of being controlled, and as such may undermine the effect that it aims to accomplish (i.e., it installs feelings of unethical—rather that ethical—practice). Organizational agents should be made aware that seemingly beneficial organizational norms, like putting a supervisor in cc, can actually be harmful for their organization.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflicts of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Appendix 1

See Table 6.

Table 6 Standardized factor loadings of the main variables in study 1

Construct	Item	Loading
Transparency Alpha: 0.87 AVE: 0.58	Perceive the communication in this organization as transparent	0.74
	Think that people within this organization communicate openly with each other	0.81
	Think that relevant information within this organization is shared among all stakeholders	0.84
	Think that people within this organization share relevant information with each other	0.85
	Think that people within this organization communicate candidly with each other	0.54
Feelings of control Alpha: 0.94 AVE: 0.77	Perceive the email communication in this organization as controlling in terms of what is being said and done	0.77
	Think that within this organization the communication stream is closely regulated	0.74
	Think that people within this organization have the feeling that others keep a close eye on them	0.91
	Think that people within this organization have the feeling that they are closely monitored and controlled by others	0.95
	Think that people within this organization have the feeling that they are kept under close observation	0.98

The items of both scales were proceeded by the following phrase: "To what extent do you …"

Appendix 2

See Table 7.

Table 7 Standardized factor loadings of the main variables in study 4

Construct	Item	Loading
Felt trust Alpha: 0.94 AVE: 0.83	I think that employees in this company feel that their colleagues trust their integrity	0.89
	I think that employees in this company feel that their colleagues trust their competence	0.96
	I think that employees in this company feel that their colleagues trust their benevolence	0.89
Trust climate Alpha: 0.89 AVE: 0.68	There is a very high level of trust throughout this organization	0.93
	In this organization, employees have a great deal of trust for supervisors	0.70
	If someone in this organization makes a promise, others within the organization will almost always trust that the person will do his or her best to keep the promise	0.78
	Supervisors in this company trust their employees to make good decisions	0.88

Appendix 3

See Table 8.

Table 8 Standardized factor loadings of the main variables in Study 5

Construct	Item	Loading
Supervisor in cc Alpha: 0.93 AVE: 0.70	Your supervisor insists that you put him/her in cc when you send emails to the colleagues you are working with	0.77
	Colleagues that contact you via email concerning an important project often put your supervisor in cc	0.86
	When your opinion is asked via email, your supervisor is often put in cc	0.88
	In this organization there exists a culture where supervisors are often put in cc in email exchanges	0.88
	Every time something important is announced, your colleagues often put your supervisor in cc	0.73
	Colleagues send emails where they often put my supervisor in cc	0.90
Felt trust Alpha: 0.86 AVE: 0.68	I feel that my colleagues trust my integrity	0.89
	I feel that my colleagues trust my competence	0.81
	I feel that my colleagues trust my benevolence	0.78
Psychological safety Alpha: 0.90 AVE: 0.67	In my organization, I can express my true feelings regarding my job	0.87
	In my organization, I can freely express my thoughts	0.91
	In my organization, expressing your true feelings is welcomed	0.90
	Nobody in my organization will pick on me even if I have different opinions	0.77
	I am worried that expressing true thoughts in my organization would do harm to myself	−0.56

Appendix 4

See Table 9.

Table 9 Standardized factor loadings of the main variables in Study 6

Construct	Item	Loading	
		Model A	Model B
Supervisor in cc Model A Model B Alpha: 0.95 Alpha: 0.95 AVE: 0.74 AVE: 0.74	Your supervisor insists that you put him/her in cc when you send emails to the colleagues you are working with	0.72	0.72
	Colleagues that contact you via email concerning an important project often put your supervisor in cc	0.92	0.92
	When your opinion is asked via email, your supervisor is often put in cc	0.84	0.84
	In this organization there exists a culture where supervisors are often put in cc in email exchanges	0.90	0.90
	Every time something important is announced, your colleagues often put your supervisor in cc	0.91	0.91
	Colleagues send emails where they often put my supervisor in cc	0.86	0.86
Felt trust Model A Model B Alpha: 0.93 Alpha: 0.93 AVE: 0.81 AVE: 0.81	I feel that my supervisor trust my integrity	0.92	0.92
	I feel that my supervisor trust my competence	0.85	0.85
	I feel that my supervisor trust my benevolence	0.92	0.92
Culture of fear Model A Model B Alpha: 0.72 Alpha: 0.83 AVE: 0.39 AVE: 0.54	Colleagues cannot be totally honest with my supervisor on work related issues	0.41	0.41
	Because of my supervisor, my colleagues feel fearful and anxious at work	0.80	0.80
	My colleagues are comfortable about giving suggestions to my supervisor—he/she does not treat it as criticism	−0.17	Omitted
	When I make a mistake, I am not confident about telling my supervisor	0.57	0.58
	I do not feel apprehensive about discussing sensitive work issues with my supervisor	−0.16	Omitted
	I dread repercussions at work when I give my opinion because my supervisor is unpredictable	0.88	0.89
	Colleagues are afraid at work because my supervisor comes down hard on mistakes as an example to others	0.87	0.87

Two culture of fear items (with low factor loadings) were excluded from the analysis in Model B

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