Chapter 6

General conclusion and discussion
The aim of this PhD thesis was to gain insight into which individual factors, organizational factors and interactional factors explain corruption, and to better understand the interplay between these three factors. I conducted four studies into corruption, more specifically, the bribery of public officials by employees of companies. As it takes two to tango, I searched for explanations for the behavior of both the official and company employee, who both (expect to) benefit, and who both transgress. Below, I first summarize the results per study. Next, I discuss the theoretical implications of the research. Subsequently, I elaborate on the pros and cons of the methods used, and go on to discuss some important topics for future research. I conclude with the practical implications of the studies.

Results per study

Study 1:
The goal of study 1 was to gain insight into which individual factors are related to corruption. To examine this, I administered a questionnaire to a large sample of public officials and business employees who carried out tasks over which they had discretionary powers and who frequently interacted professionally with employees of the other sector. The results suggest that public officials and business employees are more prone to engage in corruption if they perceive higher benefits and lower costs of corruption; if they perceive more opportunities to engage in and less opportunities to refrain from corruption; if they feel less morally obliged to refrain from corruption; and if they think their colleagues accept and engage in corruption. The motives that contributed uniquely to proneness to corruption when the other motives were controlled for were the perceived opportunity to refrain from corruption and personal and social norms on corruption. These factors appeared to be more important than perceived costs and benefits of corruption, whereas it is often assumed that especially such economic motives determine whether individuals engage in corruption. The same pattern of results was found for both sides of bribery, that is, for both public officials and business employees.

Study 2:
The purpose of study 2 was to examine how organizational and individual factors, in concert, shape corruption. I examined whether the perceived ethical climate of organizations is related to corruption; and if so, whether it affects corruption through individual motives for corruption, particularly people's personal and social norms on corruption. I administered a questionnaire to a large sample of people working for public and private sector organizations. The results suggest that employees of
both sectors who indicated working in a more egoistic and less ethical climate were more prone to engage in corruption. Extending previous research, I found that the organization’s ethical climate seems to influence corruption through individual motives for corruption. More specifically, the relationship between ethical climate and corruption was partially mediated by perceived costs and benefits of corruption and perceived opportunities to engage in and refrain from corruption. More importantly, the relationship between ethical climate and corruption was fully mediated by personal norms on corruption in the public sector, and by personal norms and social norms on corruption in the private sector. These findings imply that employees who work in a more egoistic and less ethical climate feel less morally obliged to refrain from corruption, which makes them more corruption-prone. Additionally, the outcomes imply that employees of companies who work in a more egoistic and less ethical climate experience weaker social norms to refrain from corruption, making them more prone to corruption.

**Study 3:**
Study 3 examined whether the perceived ethical climate of organizations causally affects corrupt decisions. The study was conducted among a large sample of employees of companies who were likely to be confronted with corruption-prone situations in real life. I first administered a questionnaire and six weeks later a corruption game among the same sample. The results show that participants whose professional identity was made salient before playing the corruption game and who in the questionnaire study had indicated that they worked in a more egoistic climate, made more corrupt decisions in the corruption game, while participants who had indicated that they worked in a more ethical climate made less corrupt decisions. If the professional identity of the participants was not made salient, the perceived ethical climate of their company did not affect their corrupt decisions. These results suggest that the perceived ethical climate causally influences employees’ corrupt behavior.

Study 3 additionally showed that the decisions which participants took in the corruption game were significantly and positively related to their self-reported proneness to engage in corruption at work. This indicates that the corruption game was not ‘just a game’, but actually provides insight into the employees’ proneness to engage in corruption in the real world.
Study 4:
The aim of study 4 was to gain insight into which individual, organizational and interactional factors are associated with corruption. To examine this, I analyzed extensive confidential criminal files of seven bribery cases in which seven public officials were bribed by eighteen company representatives. The individual motives for corruption that were found to be related to corruption in study 1, notably perceived cost and benefits of corruption, perceived opportunities to engage in and to refrain from corruption, and personal and social norms on corruption, also emerged as relevant factors in the files of the bribery cases. The corrupt officials gained both financial and non-financial benefits; deliberately tried to lower the chance of detection; perceived or created opportunities to engage in corruption; did not recognize the severity and moral reprehensibility of their corrupt actions; and thought close colleagues approved of or engaged in similar corrupt conduct. Besides individual factors, organizational factors appeared to play a role. Due to the absence of structural anti-corruption measures, such as separation of duties and internal controls, and ethical leadership, the corrupt officials were able to illegitimately favor the company representatives over and again. In addition, factors in the perpetrators’ interactions appeared to play a role both at the onset and in the consolidation of the corrupt collaborations. The officials and the company representatives engaged in a long-term and (increasingly) intensive relationship, and exchanged gifts that gradually seemed to increase in both size and frequency. The findings suggest that corruption is the result of a combination of individual, organizational and interactional factors that co-occur and reinforce each other, constituting a toxic mix.

Theoretical implications
Individual factors
The individual motives for corruption that were found to be related to corruption in the questionnaire studies 1 and 2, perceived costs and benefits of corruption, perceived opportunities to engage in and refrain from corruption, and weak personal and social norms to refrain from corruption, also emerged as relevant factors in real life bribery cases. Study 4, in which real corruption was studied in a small sample, together with study 1 and 2 focusing on self-reported corruption in a large sample, provide important converging evidence for the possible influence of these individual motives on corruption. These findings are an important addition to the current academic literature that typically assumes economic motives are dominant in explaining corruption. The results indicate that besides costs and benefits of corruption, other individual factors, particularly personal and social norms on corruption, play a role, possibly a more crucial one. The view that corruption is purely the result of a rational assessment of risks and benefits seems too limited, therefore...
and perhaps even incorrect. Indeed, the results suggest that corruption is primarily a moral issue rather than a rational cost/benefit decision.

Organizational factors
Studies 2, 3 and 4 suggest that the corruption-proneness of employees depends not only on personal characteristics but also on characteristics of organizations. Study 2 showed that public officials and business employees who indicated that they were working in a more egoistic climate seemed to be more prone to corruption than employees who indicated working in a more ethical climate. Study 3 showed that if employees’ professional identity was made salient, participants who had indicated that they worked in a more egoistic climate made more corrupt decisions, whereas perceived ethical climate did not affect corruption if participants’ professional identity was not made salient. Ethical climate, therefore, appears to causally affect the corrupt behavior of employees. These results suggest that ‘bad barrels can cause apples to rot’. Besides, the case-study analysis of study 4 suggests that both structural-organizational characteristics and leadership play a role in the inception of corrupt collaborations and/or in their continuation. The findings indicate that the corrupt officials operated in organizations where integrity was not a priority and where there was no systematic policy to counteract corruption: relevant anti-corruption measures, such as separating duties and ensuring job rotation, were not taken or improperly implemented; adequate controls on the officials’ activities were often lacking; and the officials’ managers often failed to provide proper supervision, ignored warning signals, and did not always set a good example. Hence, although corruption is the result of decisions made by individuals, studies 2, 3 and 4 suggest that the apple might not have gone bad without a ‘moldy’ basket.

Interactional factors
Little was known about which factors in the interactions between (future) offenders may affect their involvement in corruption. The case-study analysis suggests that interactional factors play a role both in the onset and in the continuance of corrupt collaborations. A relative enduring, intensive and personal relationship between the perpetrators might increase the risk of corruption, especially if the transgressors also meet each other outside of work and working hours, which may slowly fade the boundaries between their work and private lives. This may lead to corrupt collaborations that not only persist but also become increasingly serious over time. These findings imply that a relationship of mutual trust must be established before people engage in corrupt collaborations, where the transactions take a tit-for-tat form; there seems to be a series of ‘cooperative moves’, where the benefits for both parties gradually increase in magnitude (Nowak, 2006). This course of action restricts
the risks of commencing a corrupt collaboration, while neither of the perpetrators will be inclined to speak up in later stages, since doing so places them in a prisoner’s dilemma: the outcomes are most favorable if both keep quiet. Notably, one cannot incriminate the other without incriminating oneself, as there would not have been a corrupt exchange without one’s own involvement. Becoming a ‘prisoner’ of one’s own agreement (Jaspers, 2017) implies that it is not easy to break up a once closed corrupt pact.

**Interplay between individual, organizational and interactional factors**

The studies together suggest that factors at multiple levels affect corruption, and do so in combination. Indeed, not everybody who operates in an egoistic organizational climate or works under a non-ethical leader engages in corruption, while not everyone who functions in an ethical climate or under an ethical leader refrains from it. The likelihood of corruption seems to be increased if factors at three levels co-occur, particularly if employees: operate in an egoistic organizational climate; do not feel morally obliged to refrain from corruption, believe their colleagues accept and engage in corruption, experience difficulties in refraining from corruption and; engage in personal and intensive relationships with business contacts in which small gifts and services are exchanged that gradually grow. Importantly, the outcomes indicate that these factors not just co-occur, but also influence and reinforce each other. Notably, study 2 indicates that a more egoistic and less ethical organizational climate elicits weaker personal and social norms to refrain from corruption, which, in turn, increase the likelihood of corruption. Study 4, moreover, showed that corrupt officials’ personal and social norms to refrain from corruption might also be weakened by their interaction with the company representatives: the bribers might reinforce the officials in their view that what they do is not wrong, and may provide gifts to the officials’ colleagues, which may strengthen the officials in their belief that others accept and engage in corruption too. In fact, study 4 indicates that factors at all three levels affect and reinforce each other: the corrupt officials worked hard and were crafty negotiators who were able to get things done. Hence, they were highly valued by their supervisors, who therefore turned a blind eye to signals of transgressions. The officials’ ability and willingness to get things done was also noticed by their business relationships, as was the officials’ desire to be part of and respected by their business networks. The officials regularly met the company representatives, not only at work, but also outside work and after working hours. At such moments the officials were given small gifts, as a thank you from the company representatives, for the extra effort they had made. These gifts gradually increased in magnitude and frequency, while the officials’ personal norms seemed to be weak or weakened and did not function as a ‘moral brake’. The officials, in turn, had the opportunity to return the
favors since they typically enjoyed full discretionary powers on issues of importance to companies. These practices were not detected, even when they increased in frequency and severity, owing to a lack of job rotation or segregation of duties, or a lack of properly implemented controls, or even no controls at all being in place. The officials further decreased the risk of detection by 'greasing' their colleagues, thereby shifting the social norms on bribery. Consequently, the officials' corrupt behavior not only persisted and worsened over time; it also spread. The subtle, but possibly detrimental, influence of the various factors on each other, both within the levels and between the three levels, emphasizes the importance of an interdisciplinary and multilevel approach to corruption. Studying various factors at multiple levels simultaneously will provide a more comprehensive insight into why two people engage in corrupt exchanges.

This PhD thesis extends previous empirical research in two important ways. First, it did not focus on country-level factors but on organizational, individual, and interactional level factors affecting corruption, which has been under-studied. Second, it considered the interplay between individual, organizational and interactional factors affecting corruption. The results indicate that factors at all three levels play a role, together forming a toxic mix. The outcomes suggest that organizations’ ethical climate causally influences the likelihood of corruption. Interestingly, ethical climate influences employees’ social and/or personal norms on corruption, and personal and social norms in turn explain why some individuals are more prone to corruption than others. If a person who works in an egoistic climate experiences weak personal and social norms to refrain from corruption meets a person from another organization working in an egoistic climate who also experiences weak personal and social norms to refrain from corruption, the risk they engage in a corrupt collaboration appears to increase. If they do so, the corrupt collaboration in turn may further weaken their personal and social norms, which increases the likelihood that the offenders keep exchanging gifts and involve others, resulting in corrupt practices that do not only increase in severity but also spread across the offenders’ department. This PhD thesis shows it is important to look not only at explanations for corruption on the macro level, but also at organizational, individual, and interactional factors that in combination influence the likelihood employees engage in corruption.
Combining research methods

To gain insight into which individual, organizational and interactional factors explain corruption, I used three methods: questionnaires, experiments, and case studies. Each of these methods has certain advantages and disadvantages. An important advantage of questionnaire research among large and relevant samples is that it allows to gain insight into the key correlates of corruption. I administered questionnaires to large groups of people who, in all likelihood, were in a position to bribe or to be bribed, that is, public officials and employees of companies who regularly interacted professionally with employees of the other sector, and who performed corruption-sensitive tasks. An important limitation of questionnaire research is that it typically does not allow to draw causal inferences. Moreover, questionnaires run the risk of social desirability biases. I aimed to control for such biases by devising and including a social desirability scale. The results show that the respondents scored high on the scale, which suggests they may have answered the questions in a socially desirable manner. Yet, even when people’s social desirable response tendencies were controlled for, I found consistent support for my hypotheses. While this implies that I have adequately tapped into the relation between possible explanations and corruption, I cannot rule out ‘false denials’ nor ‘false confessions’.

Therefore, I additionally conducted cases studies, and analyzed extensive criminal files of real bribery cases. An important advantage of analyzing criminal files is that little doubt exists that genuine corruption is studied. Moreover, the analysis of such files is particularly valuable because these files are carefully compiled by experts and contain detailed information from multiple independent sources. A disadvantage of conducting case studies is that it is very time intensive, and generally include a limited number of cases. Moreover, case studies can only be based on cases that have been detected, and, in my case, subsequently criminally investigated. As a result, the considered corruption cases might not be representative of all corruption. Therefore, explanations for corruption proposed on the basis of case-study research may not generalize to all corruption cases. These drawbacks, however, are the strengths of questionnaire studies: these allow to survey large samples and do not depend on detected and criminally investigated corruption.

A limitation of both questionnaire studies and case studies is that typically, these methods cannot establish causality. Thus, it is unclear if relevant factors actually cause corruption. Therefore, in study 3, I conducted an experimental study to establish the causal relationship between ethical climate and corruption. The outcomes suggest that ethical climate can cause corruption: participants whose professional identity was made salient and who had indicated that they worked in a more egoistic climate
made more corrupt decisions, and participants who had indicated that they worked in a more ethical climate made less corrupt decisions, while ethical climate did not affect corrupt decisions among people whose professional identity was not rendered salient. A potential drawback of experiments is that they create artificial situations that do not represent real-life situations, even more so when experiments are conducted among a student sample. Therefore, in contrast to the majority of experiments into corruption (Abbink & Serra, 2012), I did not carry out the study among students, but among employees who during their day-to-day professional lives were likely to face similar situations and decisions. Moreover, since “any laboratory manipulation of ethical climate will fail to capture the full complexity and presence of an ethical climate in a real work organization” (Aquino & Becker, 2005, p. 676), I tapped into the actual perceived ethical climate of the participants’ companies, and tested its influence on corruption. In doing so, I tried to address a major disadvantage of experiments by avoiding an artificial manipulation of the organizations’ ethical climate.

I found very similar results when employing the different methods, which increases the confidence in the findings. The case studies indicated that the individual motives for corruption that seemed to explain corruption in the questionnaires also played a role in real life corruption cases. The case studies therefore provided important convergent evidence of the possible influence of these individual motives on corrupt behavior. In addition, the case studies implied that factors at multiple levels influence each other, an interplay that also partly emerged from study 2 that implied that the organization’s ethical climate affects individual motives for corruption. Furthermore, study 2 suggested a relationship between ethical climate and self-reported proneness to corruption. Study 3 confirmed the relationship between ethical climate and corruption. In particular, study 3 demonstrated a causal relationship between ethical climate and real corrupt decisions in a game setting. Next, study 3 demonstrated a relationship between participants’ decisions in the corruption game and their self-reported proneness to corruption. This suggests that the game that was employed in the experiment is indicative of what people say they do in real life and vice versa. This reinforces confidence in both measurement methods and therefore in the outcomes of the studies. Hence, despite the disadvantages of each of the methods, I found similar results using different methods, which suggests that these disadvantages did not affect the outcomes to a great extent. This offers confidence in the findings of this research on which individual, organizational and interactional factors affect corruption.

A possible limitation of this PhD thesis may be that the results of the questionnaire studies and the experiment are partly based on the same respondents who were members of a panel managed by an agency specializing in online research.
General conclusion and discussion

This may have affected the results, as it, for instance, may have contributed to the finding that the same motives for corruption (i.e., personal and social norms and perceived opportunities to refrain from corruption) seem to explain proneness to corruption in the first and second questionnaire study. Yet, only 28.9% of the participants of the first questionnaire study also participated in the second questionnaire study, so the vast majority of respondents had not participated in the first study as well. Moreover, the time between the first and second questionnaire study was more than 30 months, making it unlikely that this would have affected the results much. Important to note, however, is that the use of the panel allowed us to survey large samples of people who were in a position to make corrupt decisions, which, despite potential drawbacks, is preferable to using a student sample like the majority of studies on corruption did (Abbink & Serra, 2012). Notably, we were able to select people who were in a position to make corrupt decisions before administering our studies. Another reason for using this panel was the panel’s average response rate of 60-70%, which corresponds to the response rates for our studies (73% in the first questionnaire study, 63% in the second, and 79% in the experimental study). In particular, these response rates are higher than the average response rate for academic studies in management and behavioral sciences journals, which is about 50% (Baruch & Holtom, 2008). Compared to the general Dutch population and to the general employee population, females and people with a higher level of education are overrepresented in the panel. While this could be a limitation of using the panel, we believe in our case it was not since we were interested in a specific group, in particular, in people who are more likely to have a higher level of education given their discretionary powers.

Future research

This PhD thesis has provided novel insight into several individual, organizational, and interactional factors that may affect corruption. However, it is still largely unclear whether these factors causally affect corruption. Future research could establish causal relationships, for example via experimental and longitudinal designs. As one of the few (see Abbink, 2006; Banuri & Eckel, 2012) I have conducted an experimental study

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78 I requested and received information on the representativeness of the panel with respect to the general Dutch population and the general employee population from Flycatcher; this information is available upon request.

79 While it is possible that high-earners from top companies are not members of a panel like this, other research based on the Flycatcher panel suggests there are CEO’s among the panel, as well as board members and managing directors (see p. 24 of the Economic Crime Survey Nederland 2014/2015 - part 3). Moreover, our own data reveals that about one-third of the company employees in our sample earns substantially above modal. In addition, more than one-third works for a company with more than 500 employees.
into corruption. Notably, I have examined the cause-and-effect relationship between one explanatory factor, ethical climate, and corruption. As experiments can only test a limited number of variables at a time, future experiments can systematically test the effects of other factors identified in the questionnaire studies and case studies as to further establish which factors cause corruption. To systematically and efficiently conduct experiments to test causality, a first step is to identify which factors are (most strongly) related to corruption. This PhD thesis provides an important starting point for future experimental corruption studies. Moreover, it provides suggestions for factors that could be further examined via other methods such as longitudinal research. Below, I discuss some important topics for future research, and provide a few examples.

**Individual factors**

A few experimental studies have examined the influence of the individual motives on corruption. However, these studies primarily focused on the influence of economic motives on corrupt decisions (Abbink, Irlenbusch, & Renner, 2002; Armantier & Boly, 2008; Schulze & Frank, 2003). This PhD thesis suggests that moral factors, notably normative considerations such as personal and social norms are more predictive of people's proneness to corruption than perceived costs and benefits of corruption. A recent experimental study provided first evidence for the causal effect of social norms, specifically descriptive norms, on corrupt decisions (Köbis, Van Prooijen, Righetti, & Van Lange, 2015). The study found that participants who were informed that corruption was uncommon made less corrupt decisions than those who were informed that corruption was common or received no information about the prevalence of corruption. Further research is required to test the influence of what colleagues think and do regarding corruption on people's own corrupt behavior in the workplace; preferably conducted among people who are likely to be in the position to engage in corruption during their daily professional life. In addition, experimental research could examine whether perceived opportunities to refrain from corruption and personal norms on corruption causally influence corruption, as to establish whether perceived opportunities to refrain from corruption and personal and social norms on corruption are not only key correlates of corruption but actually key causes.

In a search for individual factors explaining corruption, this PhD thesis included motivational factors derived from economic, criminological, and social-psychological theories. Economic and criminological theories generally assume that individuals aim to maximize their utility subject to constraints (Agnew, 2014; Becker, 1968; Levitt & Miles, 2006). Therefore, studies on why individuals engage in unethical and illegal behavior such as corruption have primarily focused on the influence of expected costs
and benefits and the opportunities individuals perceive to engage in transgressions (Benson & Simpson, 2015; Klepper & Nagin, 1989; Paternoster & Simpson, 1996; Simpson, Piquero, & Paternoster, 2002). I found that normative considerations, notably personal and social norms, and the experienced difficulty in refraining from corruption, are better predictors of people's proneness to corruption than perceived costs and benefits and perceived opportunities to engage in it. Future studies could examine whether weak personal norms, weak social norms, and experienced difficulties in refraining from transgressions increase the likelihood of other types of illegal and unethical behavior as well.

Organizational factors
The design of study 3, in which I combined a questionnaire and an experimental study, seems very suitable for gaining insight into the influence of organizational factors on employees' corrupt decisions. Notably, researchers using this design need not solely rely on unnatural lab environments but can incorporate real-life aspects into their set-ups, which seems particularly relevant when studying factors that may be difficult to manipulate such as an organization's ethical climate (Aquino & Becker, 2005). More specifically, researchers could first tap employees' perceptions of a relevant organizational factor, at a later time make participants' professional identity either salient or not, and subsequently provide participants with the opportunity of offering or accepting bribes. By measuring the organizational characteristic of interest prior to administering the experiment, experiments' ability to provide insight into the real world will be enhanced, as researchers do not need to manipulate the factor they examine, which is important considering some factors are difficult to manipulate. Using this experimental set-up, researchers can, for instance, test the influence of ethical leadership on corruption, as ethical leadership appears to be an important explanatory factor of corruption based on the case-study analysis of study 4. For example, researchers could first measure ethical leadership (Brown, Treviño, & Harrison, 2005; Yukl, Mahsud, Hassan, & Prussia, 2013), experimentally manipulate the salience of respondents' professional identity a few weeks later, invite them to play the corruption game, and examine whether participants who evaluate their supervisor's leadership as non-ethical make more corrupt decisions than participants who evaluate their supervisor's leadership as ethical, particularly when participants' professional identity is made salient.

On the organizational level, I chose to study the effect of perceived ethical climate on corruption because a meta-analysis suggested it to be a particularly relevant organizational factor that is related to a wide range of unethical decisions (Kish-Gephart, Harrison, & Treviño, 2010; Peterson, 2002). Since study 3 provided proof of a causal link between ethical climate and corrupt behavior, it is likely that ethical climate
also causally influences other types of unethical and illegal behavior. Using the design of study 3, future research could test whether perceived ethical climate not only causes offering bribes but also other unethical and illegal decisions of employees. Our findings indicate that ethical climate is a cause of corruption, making it important to study how ethical climates are generated and constructed, to what extent perceptions of the ethical climate correspond to actual ethical climates, to what extent individuals (from different departments) share these perceptions, and how ethical climates, and, more importantly, people’s perception thereof, can be altered.

**Interational factors**

To explore which factors in the interactions between the bribe-giver and the bribe-taker play a role in the onset and/or continuance of corrupt collaborations, case studies were conducted. Case studies, however, cannot establish whether the factors that seem present in the investigated cases are actually related to people’s engagement in corrupt exchanges, let alone causally related. To establish which factors in the interactions between perpetrators are key correlates of corruption, researchers could administer questionnaires to people who frequently face corruption-sensitive tasks and situations. For instance, researchers could examine whether employees are more prone to corruption if they engage in frequent interactions with business contacts outside work and working hours; or whether personal and amicable interactions with business relations, or a (suddenly) increased intensity of these interactions, increase people’s proneness to engage in corruption. By administering the same questionnaire to the same respondents at different moments in time, thus following a longitudinal research design, insight can be gained into how these processes evolve across time. By doing so, it can be established if a personal and intensive relationship precedes people’s engagement in a corrupt collaboration, or results from it. Moreover, network analyses can be employed to study interactional factors as explanation for corruption. Notably, network analyses are very suited to describe and explore the patterns in relationships that individuals form with each other and how these relationships affect their behavior (Scott, 2017). This may provide insight into people’s roles, the flow of tangible and intangible goods, and associations among people both inside and outside organizations (Chen et al., 2004). Moreover, social network analyses can be used to investigate how interactional factors affect individual and organizational factors, and corruption (Borgatti, Mehra, Brass, & Labianca, 2009).
**Interplay between individual, organizational and interactional factors, and corruption**

Both experimental and longitudinal studies could provide more insight into the mutual influence of relevant individual, organizational and interactional factors, and corruption. For instance, future research could test whether weak personal norms regarding corruption are not only a cause but also a consequence of engaging in corruption, and whether starting to work for an organization with a predominantly egoistic climate may weaken personal and social norms to refrain from corruption. Moreover, future studies could examine the interplay between factors within levels and between individual, organizational and interactional levels to find out under which conditions the emergence of a toxic mix that leads to corruption is most likely.

**Other future research directions**

This PhD thesis focused on a specific form of corruption, bribery, in a specific context. The results suggest that similar factors and processes underlie bribery in the public and private sector, and thus both the active and the passive side of bribery. Further research is required in order to study whether similar factors also explain bribery in other contexts, such as the bribery of public officials by criminal organizations instead of legitimate organizations, or bribery between private companies (i.e., private-to-private corruption, see Argandoña, 2003). Moreover, future studies could test whether similar individual factors, organizational factors and interactional factors underlie people's engagement in forms of corruption requiring the involvement of multiple offenders, such as business cartels (see for instance Jaspers, 2017) and whether similar individual and organizational factors explain corruption that does not require an accomplice, such as embezzlement.

All studies were conducted in the Netherlands. Future studies are required to examine the extent to which the findings of this PhD thesis can be generalized to other cultures and societies, both Western and Non-Western. In doing so, researchers could, additionally, examine to what extent and how macro factors affect the individual, organizational and interactional factors, and how the four types of factors affect corruption together. For example, through cross-cultural research, the perceived ethical climate of the same company with sites in various countries could be compared to study whether macro factors are related to the perceived ethical climate of the company. Moreover, researchers could measure the individual motives for corruption of employees who are sent abroad prior to and during their stay in the other country, to investigate whether employees' motives for corruption change, whether their proneness to engage in corruption changes accordingly, and whether this depends on organizational and macro factors.
Future research could also test which measures are effective in curbing corruption. This PhD thesis suggests that measures could be aimed at various factors at multiple levels, as factors at all three levels seem to play a role, suggesting there are multiple points of intervention. By testing interventions addressing different factors affecting corruption, studies cannot only test whether the interventions reduce corrupt behavior but also why they are effective. For example, do anti-corruption measures aimed at decreasing an egoistic climate and stimulating an ethical climate lead to less corruption because perceptions of the organization’s ethical climate change, and does this in turn lead to a change in employees’ personal and social norms on corruption? More generally, future studies could test whether an intervention targeting a certain factor has a positive impact on other factors at different levels, and thus, if influencing a limited number of factors may, indeed, prevent a toxic mix. Notably, testing anti-corruption measures and comparing the outcomes with a control group not receiving the intervention reveals not only the extent to which an intervention is effective, but can also enhance theory on why an intervention is effective. Accordingly, researchers can obtain insight into whether and why a certain measure is or is not effective, how to improve the interventions’ effectiveness, and map the long-term effects of anti-corruption interventions.

**Practical implications**

This PhD thesis is an important contribution to the corruption literature, where the focus has been on macro factors affecting corruption. Yet, understanding macro-level determinants of corruption, such as religion or the duration of democracy (Treisman, 2000), hardly yield clear policy implications, as such factors are generally very stable and difficult to change. This research identified various individual, organizational, and interactional factors that affect corruption, which can be targeted to dissuade those who ultimately make corrupt decisions: individuals. Below, I discuss some strategies that target important factors related to corruption as identified in this research that may be effective in reducing corruption within organizations.

**Individual factors**

Together, the results on relevant individual factors influencing corruption can inform anti-corruption policies in two important ways. First, they shed light on which approaches may not have the desired effect. Common strategies to curb corruption are to focus on deterrence, on detecting and punishing transgression, and on making it difficult to commit corruption (Andvig, Fjeldstad, Amundsen, Sissener, & Søreide, 2001; Dimant, 2013; Prabowo, 2014). Yet, the findings of this research suggest that corruption-control initiatives concentrating on increasing the costs of corruption and minimizing opportunities for corruption might not be the most effective. Efforts
to reduce corruption through diminishing perceived opportunities and increasing
the perceived costs could even have the opposite effect since such measures could
undermine the strength of the key predictors of corruption on the individual level.
In particular, warning employees that transgressions will be detected and will lead
to severe punishment might crowd out employees’ intrinsic motivation to refrain
from corruption, and thus weaken their personal norms on corruption since, in that
case, people may not mainly refrain from corruption because they themselves find
it important but out of fear of being caught and punished (Armentier & Boly, 2011;
Schulze & Frank, 2003).

This PhD thesis also provides insight into what could be effective in limiting corruption.
In particular, it suggests that measures targeting norms on corruption and perceived
opportunities to refrain from corruption may dissuade employees from engaging in
the behavior. Personal and social norms to refrain from corruption can be reinforced,
for instance by disseminating normative message within the organization. The risk of
corruption might be reduced by spreading messages like: ‘In this organization, people
refrain from corruption’, a message that addresses the descriptive norm, or ‘In this
organization, people consider corruption to be wrong’, a message that addresses the
injunctive norm (de Groot, Abrahamse, & Jones, 2013). Messages could also target
employees’ personal norms. An example of a message that targets the personal norm
is: ‘Do you care about honest decision-making? Do not be corrupt.’ Research suggests
that the exact wording of such messages is important (Bryan, Adams, & Monin, 2013).
Implicating the self in the message seems more effective than focusing on the action;
the previous message that appeals to the self therefore seems more effective than for
instance: ‘Do you find honest decision-making important? Do not act corruptly.’ Another
potentially effective way to encourage employees to hold and act upon strong
personal norms is to request them to commit themselves to honesty before, instead
of after, they engage in corruption-sensitive tasks, for instance by asking them to sign
a statement like ‘I promise that the decision I am making is fair’ (Shu, Mazar, Gino, Ariely,
& Bazerman, 2012). Strengthening personal norms to refrain from corruption seems
effective because people with strong personal norms are likely to show the desired
behavior because they themselves find it important, and not because they may run
the risk of punishment or social disapproval. As such, strategies targeting personal
norms will strengthen intrinsic motivation to refrain from corruption, which is a more
stable source of consistent attempts to not engage in corruption (Deci, Koestner, &
Ryan, 1999; Ryan & Deci, 2000; Steg, 2016). Moreover, such strategies seem more cost
efficient than the deployment or intensification of internal or external controls.
Besides strengthening personal and social norms to refrain from corruption, it may be effective to make non-corruption as easy as possible, thereby enhancing the perceived opportunity to refrain from corruption. Organizations can do so by creating clear-cut rules, ensuring that employees are able to follow the rules (and not making this impossible because of time pressure/insufficient staff; see study 4) and by focusing employees’ attention on the rules at the right time, for example, by providing automatic pop-ups when people engage in a corruption-sensitive task. Measures that target personal norms and perceived opportunities to refrain from corruption may also be combined into one intervention: by not only explaining the rule but also the principle behind the rule, one may kill two birds with one stone because one simultaneously strengthens multiple key predictors of corruption on the individual level, in this example social norms, personal norms, and perceived opportunity to refrain from corruption.

Organizational factors
While corrupt decisions are made by individuals, organizational factors appeared to affect corruption as well, suggesting intervention may also be directed at this level. This research suggests that the ethical climate of organizations causally affects corruption. Interestingly, the ethical climate appears to affect corruption through personal and social norms on corruption, which appear to be key predictors of corruption. Therefore, measures aimed at organizational factors such as the ethical climate may also strengthen employees’ personal and social norms to refrain from corruption, implying that such measures not only reduce corruption but also strengthen employees’ motivation to refrain from corruption, thereby consolidating changes.

For organizations, it is becoming increasingly important to prevent corruption and thus to take anti-corruption measures. New legislation stipulates that organizations can be held responsible for corruption of their employees if they failed to take effective countermeasures (Lord & Levi, 2016). This research suggests that organizational characteristics, in particular the organization’s ethical climate, affect corrupt choices. This finding implies that organizations are able to prevent corruption and thus can be held responsible, at least to some extent. The established causal effect of ethical climate on corrupt decisions suggests that an effective measure at the organizational level is to foster an ethical climate and discourage an egoistic climate, for instance by abolishing incentive structures that stimulate employees to base their decisions, and therefore also their ethical decisions, on self-interest. Notably, if organizations wish to reduce the likelihood of corruption, they should not reward self-interested reasoning, as this may lead to self-interested behavior. Instead, they should foster an ethical climate, by encouraging employees to consider the interests of others and
society as a whole when making ethical decisions. To identify a bad barrel and to examine employees’ perception of the organizational climate, a questionnaire such as the one used in this research (Arnaud, 2010) could be administered to tap into the perceived ethical climate at the organizational or department level.

The case studies showed that besides ethical climate, ethical leadership and structural organizational characteristics may affect corruption as well. Therefore, organizational leaders may play an important role in preventing corruption, as they fulfill an exemplary role. For example, it seems important to urge supervisors to set the right example and to keep ethical principles in mind when taking ethical decisions and to do so openly. Organizations could also take structural measures to reduce the risk of corruption, such as separating duties and ensuring job rotation, along with proper internal and external controls, to diminish employees’ opportunities to engage in corruption, and if employees nonetheless transgress, to discover this on time. If an organization is confronted with a corruption case, this research suggests the perpetrator should not too readily be seen as an isolated ‘rotten apple’; other ‘apples’ may have been contaminated because the offender may have involved colleagues, or the offender may have been infected by a ‘bad barrel’, implying that the risk of corruption is increased throughout the organization or at least throughout the offender’s department.

More generally, it seems important that organizations ensure that ethical conduct is central to their mission and strategies. Hence, organizations should not just state their ethical mission on their website as mere window dressing, but embed it in the broader organizational strategy and policy. Organizations could pursue a systematic policy to realize their mission, evaluate whether employees understand and endorse the mission and translate it into action, and thus whether the measures have the desired effect.

**Interactional factors**

Taking measures on the organizational level may positively impact interactional factors that may promote corruption. By implementing measures such as separating duties and ensuring task rotation, employees’ opportunities for engaging in corruption will be restricted because they can less easily engage in an intensive and long-term relationship with business relations. Moreover, if organizations perform regular checks on corruption-sensitive activities, such as the awarding of contracts and handling of and access to confidential information, they may detect irregularities sooner, which may diminish the likelihood of employees becoming entangled in a corrupt collaboration with a business contact that gradually increases in severity.
Moreover, it seems important that supervisors not only intervene on gross violations but also act upon minor violations. More generally, it seems important that supervisors are attentive to signals of corruption, also when these do not concern a rule-violation, such as when employees engage in very close relations with business contacts, as this might be the start of something more serious, or it may be a sign something serious is already going on. Timely intervention may prevent the development of a relation of trust, which makes it too risky for the other party to make a corrupt offer which, in turn, prevents the onset of a corrupt collaboration out of which escaping becomes increasingly difficult.

**Interplay factors**

In sum, organizations can take anti-corruption measures on the individual, organizational and interactional level. Interestingly, this research suggests it may not be necessary to take measures targeting all factors and at all levels. The toxic mix that may occur when various factors, at different levels, converge may not arise if interventions target a ‘main ingredient’ of the mix; a factor that affects other factors at other levels. A single anti-corruption measure could therefore have a widespread effect, precisely because the factors are related. Appointing ethical leaders might have such a widespread effect on various factors at different levels. If supervisors set the right example by basing ethical decisions not on maximizing self-interest but rather on the common interest, by consistently translating this into their actions, by not focusing purely on achieving goals but also on the way these are obtained, by making integrity not a personal matter but a shared responsibility, by monitoring signals of close contacts of employees with business relations, and by intervening timely and adequately, supervisors may be able to denature, and perhaps even prevent, the toxic mix.

An interesting finding of this PhD thesis is that the explanations for corruption-proneness of both public officials and employees of companies, and thus of both the active and passive sides of bribery, appear more similar than different. This implies that the same measures are effective in both public and private sectors and may limit both active and passive bribery. If measures are taken by one party, employees of the other party are likely to face less opportunity to engage in corruption, suggesting that interventions taken in one sector might positively affect the other sector. One factor that appeared to cause corrupt decisions of employees is ethical climate. Ethical climate appears to be related to a wide range of unethical decisions, and not only to corruption in public and private sectors. This implies that measures directed at fostering an ethical climate may not only be effective in counteracting corruption, but simultaneously curb all sorts of unethical behavior of employees.
Overall summary
This PhD thesis suggests that individual, organizational and interactional factors all play a role in corruption. Regarding individual factors, this research indicates that in contrast to what is generally assumed, corruption is primarily a moral issue rather than a rational cost-benefit decision. Regarding organizational factors, the outcomes suggest that the ethical climate of organizations causally contributes to corrupt decisions: an egoistic climate increases the risk of corruption, while an ethical climate decreases this likelihood. Besides ethical climate, structural organizational factors and type of leadership seem to affect corruption, both its onset and its continuation. Regarding interactional factors, a personal and intensive relationship between public officials and company representatives appears to increase the risk of corruption, whereby a one started corrupt collaboration seems to become increasingly serious. These individual, organizational and interactional factors seem to reinforce each other, thus creating a toxic mix. The finding that various factors, at multiple levels, affect corruption suggests there are multiple points of intervention. Moreover, the toxic mix suggests it may not be necessary to take measures targeting all factors at all levels: changing one critical factor may denature, and perhaps even prevent, the toxic mix.