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A rapid evidence assessment of the research literature on unethical workplace behaviour

Technical report

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Unethical behaviour in the workplace: a rapid assessment of the research literature

Contents

Acknowledgements

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1 Rationale for this review

Attention to corporate ethics has grown continuously over recent decades, and in the years since the 2008 financial crisis, many organisations have renewed their focus on transparency, corporate governance and rebuilding trust. This attention has gone hand in hand with developments in voluntary and statutory regulation.

Many industries have seen the continual growth of corporate social responsibility (CSR) and ethical trade standards as strands of management strategy, supported by initiatives such as the United Nations Global Compact at an international level and Ethical Trading Initiative in the UK. The UK has also seen the development of the Financial Reporting Council's Corporate Governance Code, which sets standards of good governance practice.[1] Interest has also grown from investors in the role of firms in creating long-term value through sustainable behaviour, and environmental, social and governance investors are now engaging firms directly on ethical workplace practices, with a particular focus on management and leadership.[2]

There has also been growth in the ratification of International Labour Organization conventions internationally and the establishment of enforcement agencies such as the Gangmasters Licensing Authority (now the Gangmasters and Labour Abuse Authority) and more recently the Financial Conduct Authority and Banking Standards Board in the UK. While not without limitations, these regulatory developments are a clear indicator of concerted attempts to normalise, embed and enforce higher standards of ethics in business.

Despite these developments, corporate scandals persist. They come in many forms, from misreporting of profit and loss (Enron and Fanny Mae), to sexual misconduct and safeguarding issues (Oxfam and the #metoo movement), manipulation of interest rates (Libor) and diesel emissions (Volkswagen et al), mis-selling of insurance (PPI), non-compliance with safety standards (BP and Halliburton Deepwater Horizon environmental disaster), substandard healthcare (Mid Staffordshire NHS Trust) and tax evasion and avoidance (the Panama Papers). Public trust in businesses has been further damaged in recent years by controversy over executive pay.

With each scandal, debate ensues; how can corporations and regulators prevent unethical behaviour from occurring? Are poor decisions and unethical behaviour the result of individual 'bad apples', or a reflection of a systemic, industry-wide issue – a 'bad barrel'? To answer these questions, the Chartered Institute of Personnel and Development (CIPD) together with the Center for Evidence-Based Management (CEBMa) and the Australian National University (ANU) have undertaken a rapid evidence assessment (REA) of the scientific literature about the predictors of unethical behaviour in the workplace.

2 Rapid evidence assessment methodology

Evidence reviews come in many forms. One of the best-known types is the conventional literature review, which provides an overview of the relevant scientific literature published on a topic. However, a conventional literature review's trustworthiness is often low: clear criteria for inclusion are often lacking and studies are selected based on the researcher's individual preferences. As a result, conventional literature reviews are prone to severe bias.

Instead, we conduct a 'rapid evidence assessment' (REA). This type of review follows a specific methodology that aims to identify the most relevant studies on a given topic as comprehensively as possible, and to select appropriate studies based on explicit criteria. In addition, the methodological quality of the studies included is assessed by one or more independent reviewers based on explicit criteria. In line with many REAs, we focus our attention on published systematic reviews (SRs) or meta-analyses (MAs) and on longitudinal single studies.

In contrast to a conventional literature review, an REA is transparent, verifiable, and reproducible, and as a result, the likelihood of bias is considerably smaller. An REA can be thought of as a truncated systematic review without a meta-analysis.

Main question: what does this review answer?

What is known in the scientific literature about factors that influence unethical behaviour in the workplace?

Supplementary questions

1 *What is unethical behaviour?*

2 *What is known in the scientific literature about the effects of individual-level factors on unethical behaviour in the workplace?*

3 *What is known in the scientific literature about the effects of organisational-level factors on unethical behaviour in the workplace?*

4 *What is known in the scientific literature about the effects of aspects of the moral or ethical issue being broached on unethical behaviour in the workplace?*

Inclusion and exclusion criteria: which studies were taken into account?

To determine which studies should be included in the REA, the following inclusion criteria were applied:

1 **date:** published in the period 1980 to 2018 for meta-analyses and the period 2000 to 2018 for primary studies
2 **language:** articles in English
3 **type of studies:** quantitative, empirical

4 **measurement:** (1) studies in which predictors (determinants, antecedents, drivers) of unethical workplace behaviour were measured, or (2) studies in which the effect of moderators and/or mediators on unethical workplace behaviour was measured
5 **context:** studies related to workplace settings
6 **level of trustworthiness:** studies that were graded level C or above (see page 6)
7 **effect size:** studies that demonstrate a medium to large effect (see page 7).

In addition, the following exclusion criteria were applied:

1 studies on consequences of unethical behaviour, criminal behaviour (for example lying, stealing), sexual misconduct, corruption, bullying, ethical dilemmas (for example in the medical realm), whistleblowing, pro-social rule-breaking or academic/research misconduct
2 experimental studies on impact of music, light, smell, violent language, daytime, environment, and so on, or the effect of 'priming'
3 studies that focused only on the effect of compliance techniques
4 studies in the realm of online business
5 studies using computer simulations to collect data.

Search strategy: how were the studies sought?

The following three databases were used to identify studies: ABI/INFORM Global, Business Source Premier, and PsychINFO. A basic filter was applied across all databases to return only scholarly and peer-reviewed journals.

A search was conducted using combinations of different search terms, such as 'unethical behaviour', 'misconduct', 'break', 'breach', 'norm', 'rule', and 'workplace'. We conducted 38 different search queries and screened the titles and abstracts of more than 500 studies. An overview of all search terms and queries is provided in Appendix 1.

Selection process: how were the studies selected?

Two reviewers worked independently to identify studies to be included in the review. Where the reviewers disagreed on selection, a third reviewer assessed whether the study was appropriate for inclusion with no prior knowledge of the initial reviewers' assessment.

Studies were selected for inclusion through a two-phase process. In the first phase of selection, duplicates were removed and then the titles and abstract of 669 studies were screened for their relevance in this review. The first phase yielded 40 secondary studies (meta-analysis and systematic reviews) and 41 primary studies.

In the second phase, studies were selected based on the full text of the article if they satisfied the inclusion criteria listed on pages 4 and 5.

Critical appraisal: how was the quality of the studies determined?

In almost any situation it is possible to find a scientific study to support or refute a theory or a claim, and sometimes to quite a large degree. It is therefore important to determine which studies are trustworthy (that is, valid and reliable) and which are not.

The trustworthiness of a scientific study is first determined by its methodological appropriateness (see Table 1). For cause-and-effect claims (that is, if we do A, will it result in B?), a study has a high methodological appropriateness when it fulfils the three conditions

required for causal inference: co-variation, time–order relationship, and elimination of plausible alternative causes.[3]

A randomised, controlled trial examining the relationship between two factors is therefore the 'gold standard' for causal research questions; and going one step further, meta-analytic or systemic reviews that bring together the results of multiple randomised controlled trials are 'even better'. For claims regarding predictors or antecedents of a particular outcome or phenomenon (that is, does A predict/precede B?), however, a study has a high methodological appropriateness when it uses, as a minimum, a pre- and post-measure: measures collected both before and after an event or intervention.

In addition, a study's trustworthiness is determined by its methodological quality (its strengths and weaknesses). For instance, was the sample size large enough and were reliable measurement methods used? To determine methodological quality, all the studies included were systematically assessed on explicit quality criteria. Based on a tally of the number of weaknesses, the trustworthiness was downgraded, and the final level was determined as follows: a downgrade of one level if two weaknesses were identified; a downgrade of two levels if four weaknesses were identified, and so on.

Table 1: Methodological appropriateness of research designs

Research design	Level	Appropriateness
MAs or SRs of randomised controlled trials	Level A+	Very high
Randomised controlled trial MAs or SRs of non-randomised controlled before–after studies	Level A	High
Non-randomised controlled before–after study MAs or SRs of controlled studies without a pre-test or before–after studies without a control group	Level B	Moderate
Controlled study without a pre-test Before–after study without a control group MAs or SRs of cross-sectional studies	Level C	Limited

With this in mind, the studies yielded from phase two were critically appraised and rated for methodological appropriateness and quality. Two reviewers independently appraised the studies. Where there was disagreement on ratings, a third reviewer made a final decision as to whether it was included.

Critical appraisal: what was the quality of the studies included?

The overall quality of studies included is moderate to high, with a large number of studies being graded as level A or level B, representing strong evidence on the topic. Of the 21 primary studies included, 17 studies were graded level A, representing a large proportion of high-quality studies. Of the 14 meta-analyses and systematic reviews, only four studies were

graded level A or level B, indicating that the quality of secondary studies on the topic is limited. An overview of all the studies included and information regarding year of publication, research design, sample size, population, main findings, effect sizes and limitations is provided in Appendix 3 (secondary studies) and Appendix 4 (primary studies).

Effect size: how was the 'impact' of the findings determined?

As part of the critical appraisal process, the effect size for each relationship of interest was identified. The effect size simply refers to the magnitude of an effect, which is determined by Cohen's rules of thumb.[4] Understanding the effect size is important because, in large samples of data, even a small effect that will have little impact in practice can be statistically significant. According to Cohen, a 'small' effect is an effect that is visible only through careful examination – so may not be practically relevant. A 'medium' effect, however, is one that is 'visible to the naked eye of the careful observer'. Finally, a 'large' effect is one that anybody can easily see because it is substantial.

In the main findings summarised in this report, + indicates a small effect, ++ indicates a moderate effect, and +++ indicates a large effect. Where no effect sizes were reported, we note 'na' (not applicable).

3 Main findings

Question 1: What is unethical behaviour? (And how is it assessed?)

Prior research defines unethical behaviour in organisational contexts as *'any organisational member action that violates widely accepted moral norms'*.[5] Examples include theft, lying, fraud, misreporting of earnings, deceiving customers, and sabotage.

Some studies have distinguished different types of unethical behaviour in organisations. One commonly researched type of unethical behaviour is pro-organisational unethical behaviour, which is described as *'actions that are intended to promote the effective functioning of the organisation or its members and violate core societal values, morals, laws and standards of proper conduct'*.[6] Examples of pro-organisation unethical behaviour include price-fixing, accounting fraud, and withholding information from customers or the public to protect the organisation or to advance its interests and goals.

There is some disagreement in the literature about which behaviours constitute unethical behaviour. Some researchers argue that behaviours such as organisational deviance, and counterproductive work behaviours, fall outside of the scope of unethical behaviour. This is because it is behaviour that violates organisational norms of moral conduct, but not necessarily wider societal norms.[7]

In this review, counterproductive work behaviours, defined as behaviours which violate organisational norms and the legitimate interests of the organisation and its members,[8] fall within the scope of unethical behaviour in the workplace. For further information on definitions of unethical behaviour, see Appendix 5.

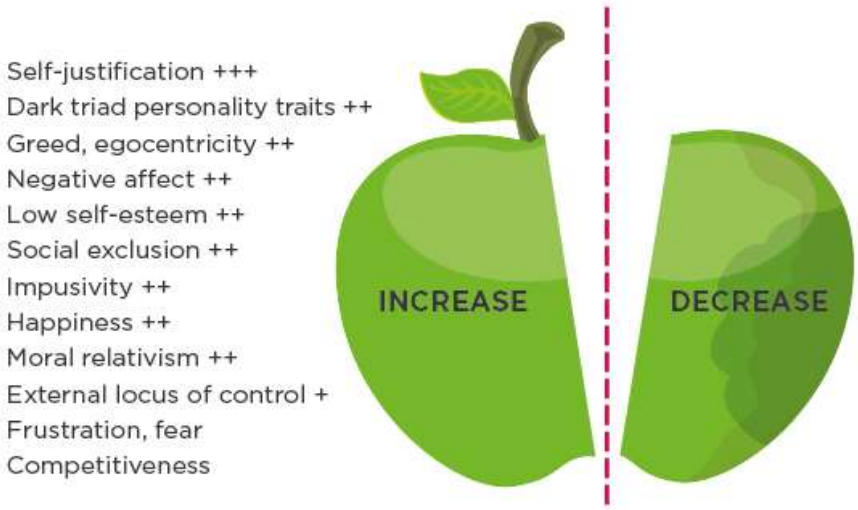
There is an abundance of scientific literature examining a myriad of predictors of unethical behaviour in the workplace. These multiple determinants or predictors of unethical behaviour operate at different levels including the individual and organisational levels.

Figure 1: Factors influencing unethical behaviour

To help facilitate a better understanding of the factors that influence unethical behaviour in the workplace, we draw on the 'bad apples, bad barrels, and bad cases' framework by Kish-Gephart et al,[9] which delineates three different types of factors. The individual-level factors or 'bad apples' encompass individual differences and psychological factors that influence unethical behaviour (question 2). Second, we examine 'bad barrels', which are organisational factors including ethical climates and (perceptions of) leadership that impact unethical behaviour (question 3). Finally, we examine 'bad cases', or sticky situations, which refer to situational factors that influence unethical behaviour – including the aspects of the moral issue being broached or aspects of the ethical decision context (question 4).

Question 2: '*Bad apples*': What is known in the scientific literature about the effects of individual-level factors on unethical behaviour in the workplace?

Figure 2: Individual factors that are associated with *increases* in unethical behaviour



1 The availability of self-justification increases unethical behaviour (level A, +++)

A recent meta-analysis suggests that the availability of self-justifications influences an individual's unethicality.[10] In particular, when the justification makes the behaviour look less immoral, when the consequences of the behaviour are minimised, ignored, or misconstrued, or when victims of the wrongdoing are devalued or blamed, individuals are more likely to engage in unethical behaviour. Consistent with social cognitive theory, self-justifications enable individuals to decouple immoral acts from their self-image (a process also referred to as moral disengagement) and this increases their propensity to engage in immoral acts as their personal responsibility for such acts is weakened.

2 Individuals with Machiavellian and narcissist traits are more likely to engage in unethical behaviour (level A, ++)

A large number of studies indicate that Machiavellianism, narcissism, and psychopathy (sometimes referred to as 'dark' personality traits) are associated with increases in unethical behaviour. A meta-analysis of 136 studies demonstrated that Machiavellianism was moderately associated with increases in unethical behaviour.[11] As a personality trait, Machiavellianism describes a tendency to be cynical of others and to engage in manipulative and self-beneficial behaviour that violates moral norms of behaviour. Machiavellian personality is driven by utilitarian ethics where the 'ends justifies the means'. Another meta-analysis of 245 studies also reported that both Machiavellianism and narcissism (defined by an inflated view of self) were moderately associated with increases in counterproductive work behaviours.[12] These associations were more pronounced under conditions of authority, suggesting that leaders who are high on Machiavellianism and narcissism are at greater risk of engaging in unethical and counterproductive work behaviour. In addition, it was found that individuals who rated more highly on Machiavellianism and narcissism not only perceived greater opportunity to commit fraud, but were also more likely to commit fraud and rationalise it.[13]

3 Greedy and egocentric individuals are more likely to engage in unethical behaviour (level A, ++)

Findings from a recent meta-analysis suggest that individuals who have higher levels of egocentrism – the inability to understand another person's point of view and to act in the interests of others – are at a higher risk of engaging in unethical behaviour.[14] Egocentric individuals are self-focused and oriented and as such are motivated to advance their own interests and are furthermore less concerned with how their actions impact others.

In addition, a recent meta-analysis of 137 studies demonstrated a moderate association between an individual's greed and unethical behaviour.[15] Individuals who are greedy are more likely to engage in social comparisons, which can motivate actions to increase their relative wealth. They tend to focus on optimising results – 'the ends' or outputs – for their benefit, rather than inputs and processes. This helps explain how more greedy individuals are more prone to engage in unethical behaviour.

4 Perceptions of social exclusion increase unethical behaviour, especially where importance is placed on social inclusion (level A, ++)

Social motives such as a need to belong to and be included in a group can shape an individual's propensity to engage in unethical acts. In a combination of studies, including a randomised controlled trial, it was found that whether an individual feels included or

excluded in their work group can influence unethical behaviour, especially when that individual has a strong preference for inclusion.[16] That is, exclusion risk was related to engagement in pro-organisational unethical behaviour, but only when an individual placed importance on inclusion. Such findings can be explained in terms of individuals with a strong need for inclusion, who perceive they are at risk of social exclusion from a group, may see pro-organisational unethical behaviour as a way to enhance their social standing in the group.

5 Impulsive individuals are more willing to give in to comply with unethical requests of supervisors and have a reduced ability to identify ethical dilemmas (level A, ++)

Two randomised controlled studies demonstrated that individuals high in impulsivity are more willing to comply with supervisors' requests for compliant misconduct.[17] Consistent with self-regulation theory, impulsive individuals have less willpower and self-control to resist requests from their supervisor to engage in unethical behaviour.

6 Individuals with a high level of moral relativism are more likely to engage in unethical behaviour (level A, ++)

Individuals can have different moral philosophies that represent normative beliefs about right and wrong choices and actions, the way people should act, and the ethical principles those acts should be governed by. For example, idealism is a moral philosophy that involves having a universal concern for others and having consideration for the social implications of actions and decisions. In contrast, relativism is where moral principles are context-specific or situationally determined. Individuals with a high level of relativism strongly believe that in some situations harm may be necessary: moral relativists do not believe there is a universal set of moral principles. Instead they feel that moral principles are context-specific and therefore harm to others may sometimes be deemed justified. In contrast, people with a high-level idealism have a strong concern for others and always consider the social implications of their actions. A meta-analysis of 136 studies demonstrated that idealism decreases unethical behaviour whereas relativism increases it.[18]

7 Happy individuals are more likely to obey supervisory pressures to engage in unethical behaviour (level A, ++)

Employees' emotions or affective states can influence intentions to engage in unethical behaviour in work contexts. In a randomised controlled experiment with 63 mid-level managers it was found that individuals who experience high levels of happiness were more likely to succumb to their superior's pressures to engage in unethical behaviour.[19] Such a finding was explained in terms of happiness representing a passive state in which individuals are likely to do whatever it takes to sustain their state of happiness, so they are unlikely to resist supervisor requests to engage in unethical behaviour.

8 Individuals with an external locus of control are more likely to make unethical choices (levels A, +)

A meta-analysis of 136 studies demonstrates that having a tendency to externalise or blame bad things or events on others (also referred to as an external locus of control) is associated with an increased risk to unethical behaviour.[20] This means that individuals who have a higher rather than lower external locus of control are more likely to rationalise or attribute their unethical behaviour to events or pressures outside their control. In addition, in an escalation situation (defined as having existing negative feedback related to a current course

of action), individuals with a higher rather than lower external locus of control are even more likely to engage in unethical behaviour.[21]

9 Competitive individuals are more likely to engage in unethical behaviour (level A, na)

A randomised controlled study suggests that an individual's competitiveness can be an important conduit of unethical behaviour.[22] More specifically, those individuals who are more motivated to increase their status in terms of performance were more likely to engage in sabotage or misrepresent their work. This effect was even more pronounced when individuals had information about others' performance. Furthermore, it is important for leaders and organisations to be aware of the potential risk of competitive individuals (perhaps some high performers) who are motivated to be 'the best' to engage in unethical behaviour.

10 Individuals who experience high levels of frustration and fear are more likely to give in to supervisory pressures to engage in unethical behaviour (level A, na)

Emotions such as frustration and fear are linked with likelihood to acquiesce with unethical supervisor pressure to be complicit in unethical behaviour. In a randomised controlled experiment, it was found that individuals with higher levels of frustration and fear are more likely to succumb to or 'give into' their superior's pressures to be complicit in unethical behaviour.[23] Frustration and fear are thought to represent passive negative emotions which make individuals more likely to conform to social norms and pressures, and to obey their supervisors and fall prey to unethical leadership. Experiencing frustration at work means individuals are more likely to avoid situations that threaten them, or that could lead them to experience more frustration (for example not complying with supervisor requests that may result in confrontation).

11 Individuals with a low self-esteem are more likely to engage in counterproductive work behaviours (level C, ++)

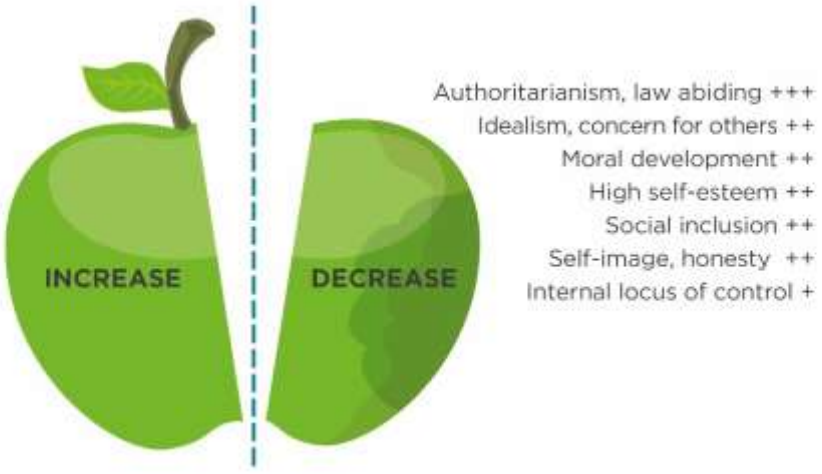
The motivation to engage in unethical behaviour in the workplace can depend on an individual's self-esteem. Self-esteem refers to the feelings that one has towards themselves, with individuals with lower self-esteem holding negative feelings towards themselves. A meta-analysis of 21 studies demonstrated that lower self-esteem is associated with increases in counterproductive work behaviours.[24] Consistency theory can explain these findings in terms of higher self-esteem being associated with actions that preserve one's self-image. Since counterproductive work behaviours are detrimental to an individual's performance, which is more directly tied to self-image, having high self-esteem would mean individuals would avoid engaging in them.

12 Individuals that experience negative emotions are more likely to engage in counterproductive work behaviours and withdrawal behaviours (level C, ++)

A meta-analysis of 57 studies found negative affect (negative emotions such as anger, guilt, and fear) to be moderately associated with counterproductive work behaviours and withdrawal behaviours (defined as employees' attempts to remove themselves from their work tasks or environment, such as absences, lateness or exiting the business).[25] This finding was confirmed by a recent meta-analysis of 35 studies.[26] In addition, stress, job satisfaction, and fairness mediate the relationship between negative affect and counterproductive work behaviours, but stress plays a much larger role than the other two

factors. These findings can be explained in terms of negative affect prompting actions that attack the source of the negative emotion.[27] For example, anger towards one's supervisor may prompt retaliatory acts as sabotage or withdrawal. Furthermore, individuals' negativity can be a risk factor in terms of unethical conduct in the workplace.

Figure 3: Individual factors that are associated with *decreases* in unethical behaviour



13 Individuals with a high level of authoritarianism are more likely to resist supervisory pressures to engage in unethical behaviour (level A, +++)

Authoritarianism refers to unconditional acceptance of directives from authority. People who show high levels of authoritarianism focus on the legitimacy and importance of social norms, rules, laws, and regulations. Two non-randomised before-and-after studies demonstrated that such individuals are more likely to resist unethical requests of supervisors.[28]

14 A person's moral philosophy and their stage of cognitive moral development drives their ethical behaviour (level A, ++)

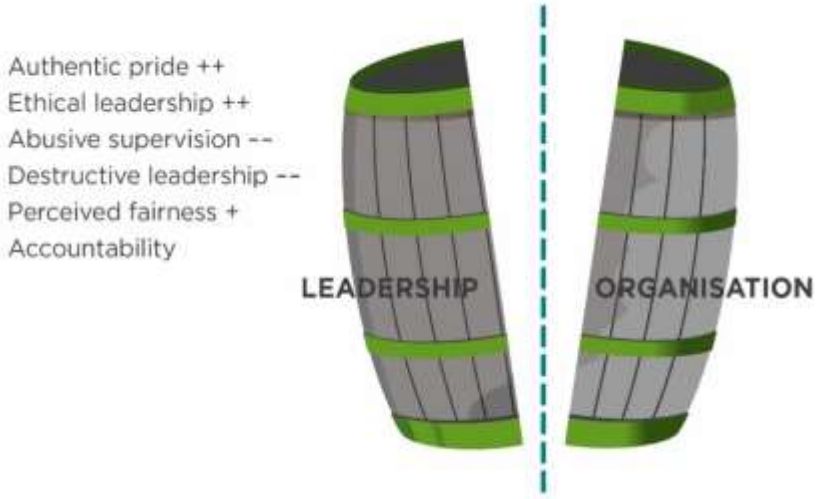
A meta-analysis of 136 studies demonstrated that idealism decreases unethical behaviour whereas relativism increases it.[29] In addition, an individual's stage of cognitive moral development also influences the likelihood they will engage in unethical behaviour (see finding 6 for further details of relativism and idealism). The highest stage of cognitive moral development accords with idealism such that universal principles of ethics, and high concern for others and society, govern ethical choice and action. The lowest stages of cognitive moral development emphasise punishment avoidance, self-interest, and utility. The aforementioned meta-analysis found that lower stages of cognitive moral development are predictive for unethical behaviour.[30]

15 Individuals for whom honesty is an important part of their self-image have a lower risk of engaging in unethical behaviour (level A, ++)

Consistent with self-concept maintenance theory, individuals for whom honesty is an important personal striving are more likely to act in ways and make choices that cast them as honest. This is supported by a recent meta-analysis of 137 studies, which demonstrated that higher concerns for honesty in one's self-image has a large effect on individuals' unethicality.[31]

Question 3: *'Bad barrels'*: What is known in the scientific literature about the effects of organisational-level factors on unethical behaviour in the workplace?

Figure 4: Leadership factors that affect unethical behaviour



16 When people perceive a leader's decision (or organisational process) as unfair, they are more likely to engage in counterproductive work behaviour (level AA, +)

Fairness or justice perceptions influence counterproductive work behaviours. A meta-analysis of 190 studies demonstrated that individuals' perceptions of distributive fairness (for example reward equity) and procedural fairness have small to moderate effects on unethicality.[32] More specifically, increases in perceptions of procedural and distributive fairness moderately reduce unethical behaviour.

17 When people perceive a leader's supervision as abusive, they are more likely to engage in unethical behaviour, especially people with Machiavellian traits (level A, ++)

Abusive supervision can act as a situational factor that particularly affects employees with Machiavellian traits (a personality type associated with less concern with morals), thereby increasing the risk of unethical behaviour.[33] Abusive supervision includes behaviours such as ridiculing subordinates, telling them their thoughts and feelings are stupid, and putting them down in front of others.

18 Authentically proud leaders are more likely to engage in ethical behaviour (level A, ++)

In two randomised controlled trials it was found that leaders who are authentically proud are more likely to engage in ethical behaviour. Authentic pride is characterised by feelings of accomplishment and confidence, whereas 'hubristic pride' is marked by arrogance and conceit. This effect was found to be stronger for leaders who demonstrate a high level of moral identity and leaders who are strongly motivated to act selflessly.[34]

19 Leaders are more likely to disapprove of unethical behaviour when they experience a high level of accountability (level A, na)

Two randomised controlled studies demonstrated that when leaders are held accountable for their actions, they are more likely to disapprove of unethical behaviour of their subordinates. However, this effect was found only when the leaders themselves did not benefit from their subordinates' unethical acts.[35]

20 When people perceive leadership as ethical, they are less likely to engage in unethical behaviour (level C, ++)

A meta-analysis of 134 studies demonstrated that employees' perceptions of ethical leadership were positively associated with employees' ethical behaviour and negatively associated with counterproductive work behaviours.[36] In another study, ethical leadership was also found to be positively associated with perceptions of ethical climate.[37] This suggests ethical leadership plays a decisive role in fostering ethics and positive outcomes in organisations.

21 When people perceive leadership as destructive, they are more likely to engage in counterproductive work behaviour (level C, ++)

Destructive leadership encompasses behaviours that are harmful to followers. Examples of such negative behaviours towards followers include social undermining, hostility, scapegoating, and verbal and non-verbal abuse.[38] According to a meta-analysis of 57 studies, perceptions of destructive leadership are moderately associated with increased counterproductive behaviour.[39] This finding suggests that leaders' destructive leadership can induce retaliatory behaviour from followers, which can harm the organisation.

Figure 5: Organisational factors that affect unethical behaviour

Monitoring individuals' behaviour and (direct) supervision reduces unethical behaviour (level A, +++)

A recent meta-analysis of experimental studies demonstrated that individuals whose behaviour is monitored more directly are less likely to engage in unethical behaviour.[40] The research literature suggests that monitoring increases individuals' visibility and furthermore accountability for moral conduct. In addition, monitoring is believed to draw attention to

individuals' attention to moral standards and encourages self-awareness. In addition, three randomised controlled studies showed that working in the physical presence of others influences dishonest behaviour.[41] It was found that in isolated tasks, where there is little supervision, cheating behaviour is more likely to occur. This effect was minimised in the presence of familiar peers.

22 When sanctions are justified as a means to deter people from breaking rules, sanctions are less effective (level A, +++)

The way individuals perceive and trust sanctions influences compliance behaviours. Sanctions based on deterrence are thought to signal authority's distrust in people, and when people feel distrusted, they are more likely to break rules as a way to retaliate. In a study including two randomised controlled trials, it was found that sanctions justified by leaders on the basis of deterrence are less effective in actually deterring rule-breaking.[42] This suggests that the way that leaders justify sanctions has important consequences for compliance with rules.

23 When people perceive an organisation's climate as ethical, they are less likely to make unethical choices (level A, ++)

An organisation's ethical climate circumscribes its shared beliefs about norms for moral conduct and thus can create conditions where certain behaviours are tolerated (or not). There are different types of ethical climates: an egoistic ethical climate emphasises self-interest with little attention given to the consequences of actions. To the contrary, a benevolent ethical climate emphasises concern for others. Finally, a principled ethical climate emphasises rule-abiding behaviours. A meta-analysis of 136 studies demonstrated that these three types of ethical climate were differentially related with unethical behaviour. It was found that egoistic climates were *positively* associated with unethical choices, whereas benevolent and principled climates were *negatively* associated with unethical choices.[43]

In addition, a meta-analysis of 44 studies demonstrated that the type of ethical climate has a differential effect on dysfunctional behaviour (level C).[44] More specifically, instrumental ethical climates (egoistic climates) are associated with increases in dysfunctional behaviour. Benevolent and caring ethical climates are associated with decreases in dysfunctional behaviour. Ethical climates emphasising rules, laws and codes (principled climates) are associated with decreases in dysfunctional behaviour.

24 It is the enforcement rather than the mere existence of a code of ethics that decreases unethical behaviour (level A, ++)

A code of ethics or code of conduct provides guidelines and expectations regarding ethical behaviour within organisations. However, a code will not guarantee ethical behaviour and choices. In a meta-analysis of 136 studies, it was shown that the mere existence of a code of ethics does very little to discourage unethical behaviour. Rather, it was found that the enforcement of a code of ethics has a moderate effect at decreasing unethical behaviour.[45, 46]

25 Providing moral reminders helps prevent unethical behaviour (level A, ++)

Moral reminders, including reminders of codes of conduct, are shown to be effective in preventing unethical behaviour.[47] Consistent with self-concept maintenance theory, people can often act on the basis of a need to maintain a positive self-image of others. Providing moral reminders can therefore precipitate more ethical behaviour.

26 When there is agreement among peers that certain behaviour is wrong, people are less likely to make unethical choices (level A, ++)

A meta-analysis of eight controlled studies demonstrated that social consensus regarding the ethicality of certain behaviours or actions is a predictor for unethical behaviour. Put differently, the degree of peer agreement that certain behaviour is wrong helps predict whether people will engage in that behaviour.[48]

27 Where task variety is low, unethical behaviour is more likely (level A, na)

A randomised controlled study involving students found that having a range of different tasks to do in one's job is negatively associated with unethical behaviour.[49] In this study, participants were assigned to a low task variety or high task variety task, followed by a scenario where they had the opportunity to cheat. The authors found that those with higher task variety were less likely to cheat than those with low task variety. These findings suggest that feelings of disinterest towards one's job can translate into unethical behaviour.

28 A high level of market competition increases unethical behaviour (level A, na)

A recent controlled study indicated that, when the organisation is in competition with other organisations, individuals are more inclined to engage in pro-organisational unethical behaviour when faced with ethical dilemmas.[50] This finding was confirmed in a randomised controlled study that demonstrated that when there is high market competition, leaders are more likely to reference instrumental considerations (for example, beating competition) rather than moral concerns.[51]

29 People's perception of organisational politics is strongly associated with counterproductive work behaviours (level C, +++)

Perceived organisational politics refer to a person's subjective appraisal of the extent to which the work environment is characterised as self-serving of various individuals and groups, at the cost of other individuals or groups. A meta-analysis of 118 studies demonstrated that perceived organisational politics is strongly related to counterproductive work behaviours.[52] Recently, a randomised controlled study found that moral disengagement (a process of decoupling immoral acts from self or others) mediated the effect of perceptions of organisational politics on unethical behaviour.[53]

30 When there are organisational constraints, people are more likely to engage in counterproductive work behaviours (level C, ++)

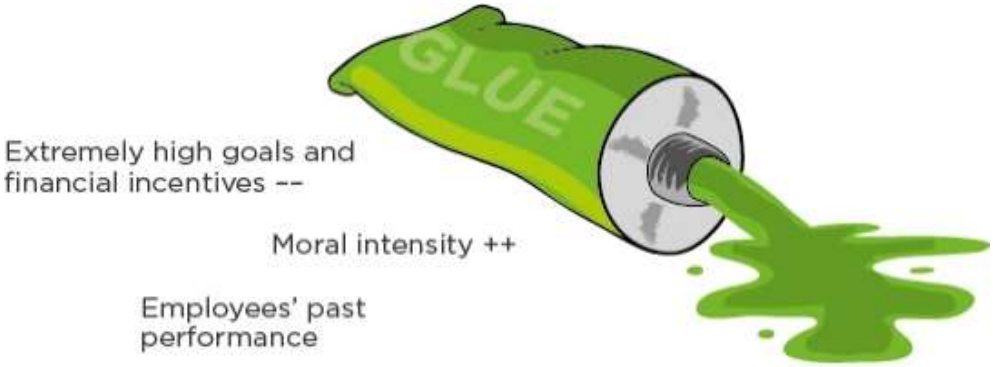
A recent meta-analysis of 119 studies found that organisational constraints – such as having limited support from others, having time constraints, and limited access to resources – correlate with counterproductive work behaviours.[54] This suggests that organisational resources have an important relationship to counterproductive work behaviour. People's feelings of being resource-depleted are moderately associated with increases in counterproductive work behaviour.

31 When people are exposed to other people's unethical behaviour, they are more likely to engage in unethical behaviour (level A, ++)

A randomised controlled study involving students demonstrated that norm violations can be contagious.[55] The study found that the presence of others acting unethically increased students' unethical behaviour. This finding was confirmed in a recent meta-analysis of 33 controlled studies, showing social influences impact individuals' ethicality.[56] This finding suggests care should be taken when discussing ethical norms within an organisation, as highlighting unethical behaviour could inadvertently create an 'everyone else is doing it' norm.

Question 4: *'Bad cases' or sticky situations*: What is known in the scientific literature about the effects of contextual factors on unethical behaviour in the workplace?

Figure 6: Situational factors that influence unethical behaviour



The overall moral intensity and the anticipated consequences of unethical behaviour is a predictor for its prevalence (level A, ++)

The 'moral intensity' of the ethical issue being broached impacts ethical behaviour. Moral intensity refers to the aspects of the ethical issue, such as (a) the magnitude of consequences (the harm that could occur to victims), (b) the probability of harm occurring, (c) the physical and psychological proximity to the victim(s), and (d) the temporal immediacy of harm to victims.[57] A meta-analysis of controlled studies demonstrated that all these aspects impact whether unethical behaviour is likely to occur.[58] It was found that when the probability that consequences (harm) will occur is high, unethical behaviour is less likely to occur. The same was found for the physical and psychological proximity of victims, and the length of time before harm occurs (when the lag between the decision and the resulting harm is short) is being made, people are less likely to make unethical choices.

32 When extremely difficult goals are set in combination with economic incentives, people are more likely to engage in unethical behaviour (level A, +)

Several high-quality studies suggest that extremely high and difficult goals combined with economic incentives may lead to diminished self-regulatory capacity and unethical behaviour, especially when people fall just short of reaching their goals.[59, 60, 61]

33 Top performers engaging in unethical behaviour are treated more leniently than low performers (level A, na)

A randomised controlled study demonstrated that top performers, especially in a target-driven environment, 'get away' with unethical behaviour more readily than low performers.[62] This finding suggests that high performance can be used to excuse people from moral transgressions and unethical behaviour in organisational contexts.

4 Conclusion

Unethical behaviour in the workplace has been widely studied and researched. Several thousand studies on the topic exist, including a large number of meta-analyses and high-quality single studies. This review synthesises the best available evidence to identify the most important and practically significant drivers of unethical behaviour in the workplace using the 'bad apple, bad cases, and bad barrels framework' by Kish-Gephart et al.[63]

At the individual level ('bad apples'), there are a number of factors – including dispositional and individual differences – that are related to unethical behaviour. Synthesising the findings from the best available evidence, self-justifications have been found to strongly increase unethical behaviour. 'Dark' personality traits (narcissism and Machiavellianism), low self-esteem, egocentrism, external locus of control, negative affect, impulsivity, frustration, and social exclusion have all been found to be moderately associated with increases in unethical behaviour. These findings suggest more broadly that self-interest and instrumentalism, self-control, and emotional regulation are worthy of attention and consideration in organisations looking to reduce unethical behaviour, especially through social norming.

This REA also highlights the practical importance of a number of individual-level factors that are most important in *reducing* unethical behaviour. Higher stages of cognitive moral development, authoritarianism, having high self-esteem, a high internal locus of control, and a concern for others and for honesty are important in reducing unethical behaviour. These findings altogether highlight the importance of fostering self-determination and integrity to withstand pressures from authority to engage in unethical acts.

At the organisational level ('bad barrels'), this review demonstrates the importance of leaders in cultivating positive perceptions toward leadership and the organisation in terms of fairness and ethical conduct. According to the best available evidence, perceptions of politics, unethical and destructive leadership, and competition are important risk factors in predicting unethical behaviour. This review also demonstrates the importance of social referencing and moral licensing with regard to unethical conduct. That is, exposure to others' unethical behaviour can be problematic in organisations such that it provides individuals with the *licence* to engage in unethical behaviour. That is, because others are doing it and seen to be 'getting away with' infractions, individuals think they can do the same. Cultivating principled and benevolent, instead of egoistic cultures, along with providing moral reminders and enforcing codes of conduct can all help reduce unethical behaviour.

Finally, there is evidence that situational factors and the aspects of the ethical decision context or moral issue being broached ('bad cases') impact unethical behaviour. The moral intensity of an ethical decision impacts the likelihood that ethical choices will be made. More specifically, as the proximity to potential victims, the probability of harm, and the level of social agreement that a decision will result in harm increase, the likelihood of unethical choices diminishes. Altogether these findings suggest that there is value in organisations

using decision checklists and cultivating greater decision awareness to induce greater moral reasoning.

Guidance and moral reminders may be especially useful in certain contexts – for example, high performers can often get away with unethical conduct through greater leniency. Related to this, we find that how performance goals are set impacts ethicality. Performance goals that are perceived to be almost unattainable, especially when linked to financial rewards, can drive and incentivise the wrong behaviours to achieve the desired results. This suggests organisations should exercise care with goal-setting in the context of performance-based rewards.

Unethical behaviour in the workplace is widely studied and the available evidence is rich in both quantity and quality. Based on this evidence, we conclude that there is not one main factor that accounts for why unethical behaviour occurs. This implies that there are no ‘silver bullets’ to prevent employees from engaging in unethical behaviour. Instead, we need to consider individual factors (bad apples) as well as organisational factors (bad barrels), and realise that the effects of these factors are contingent upon many moderators and contextual factors (bad cases).

5 Limitations

This REA aims to provide a balanced assessment of what is known in the scientific literature about unethical behaviour in the workplace by using the systematic review method to search and critically appraise empirical studies. However, in order to be ‘rapid’, concessions were made in relation to the breadth and depth of the search process, such as the exclusion of unpublished studies, the use of a limited number of databases and a focus on empirical research published in the period 1980 to 2016 for meta-analyses and the period 2000 to 2018 for primary studies. Consequently, some relevant studies may have been missed.

A second limitation concerns the critical appraisal of the studies included, which did not incorporate a comprehensive review of the psychometric properties of the tests, scales and questionnaires used.

A third limitation concerns the fact that the evidence on some factors is based on a limited number (sometimes only one) study. Although most of these studies were well controlled or even randomised, no single study can be considered strong evidence – it is merely indicative.

Finally, this REA focused only on meta-analyses and high-quality studies, that is, studies with a control group and/or a before-and-after measurement. For this reason, hundreds of cross-sectional studies, case studies, and theoretical papers were excluded. As a result, new, promising findings that are relevant for practice may have been missed.

Given these limitations, care must be taken not to present the findings presented in this REA as conclusive.

6 Appendices

Appendix 1: Search terms and hits

Meta-analyses: search terms and hits

ABI/Inform Global, Business Source Elite, PsycINFO
peer-reviewed, scholarly journals, November 2018

Search terms	ABI	BSP	PSY
S1: TI(unethical) OR AB(unethical)	2,457	2,467	2,127
S2: AB(ethic* AND behavio*)	5,572	5,436	6,937
S3: AB(ethic* AND breach*)	179	161	280
S4: AB(ethic* AND code)	2,234	2,977	2,631
S5: AB(ethic* AND conduct)	1,920	2,091	2,087
S6: AB(ethic* AND decision*)	4,425	4,280	6,398
S7: TI('ethical climate') OR AB('ethical climate')	350	356	252
S8: S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7	11,320	13,267	16,800
S9: TI(counterproductive) OR AB(counterproductive)	1,477	1,382	2,354
S10: TI('moral disengag*') OR AB('moral disengag*')	103	102	526
S11: TI(fraud*) OR TI(dishonest*) OR TI(integrity) OR TI(misbehavio*) TI(misconduct)	4,040	5,700	3,575
S12: S9 OR S10 OR S11	5,592	7,154	6,411
S13: TI(break* OR breach* OR conform* OR follow* OR comply* OR compli* OR abid* OR disobey OR violat* OR	15,128	22,302	68,354
S14: TI(law* OR norm* OR rule* OR standard* OR regulation*)	67,945	96,694	89,558
S15: S13 AND S14	1,384	1,840	1,727
S16: S8 OR S12 OR S15	17,975	21,851	24,962
S17: TI(work* OR organization* OR compan* OR employ* OR manager* OR leader* OR team*) OR AB(work* OR organization* OR compan* OR employ* OR manager* OR leader* OR team*)	740,047	930,552	775,987
S18: S16 AND S17	9,798	10,833	8,960
S19: TI(meta-analy*) OR AB(meta-analy*) OR TI('systematic review') OR AB('systematic review')	7,402	7,787	na

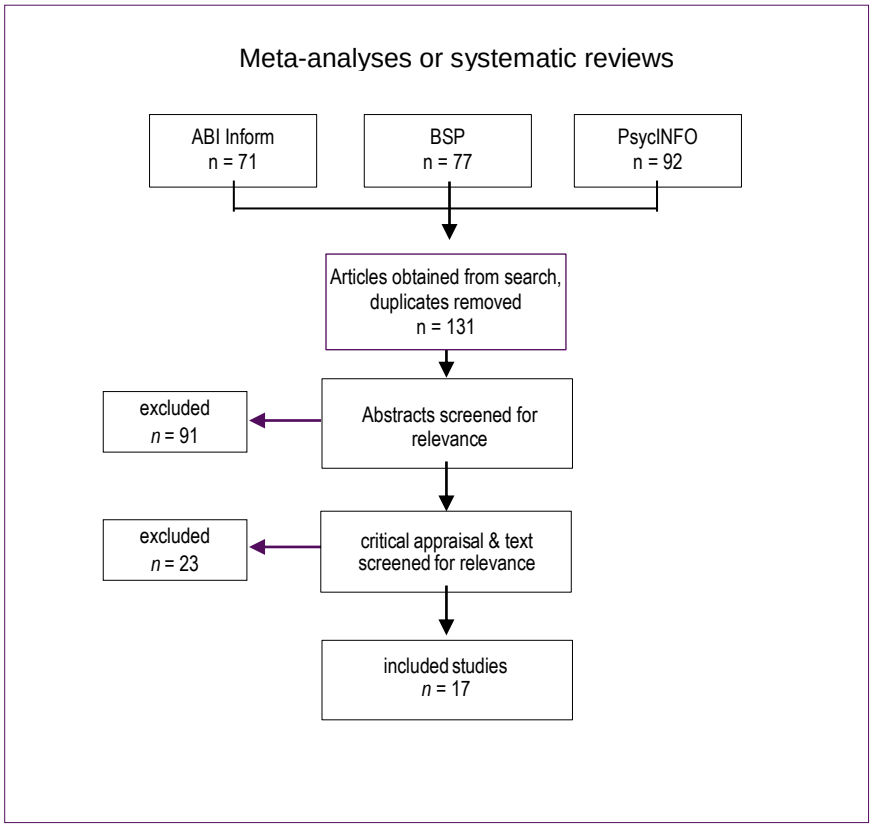
S20: S18 AND S19 AND limit >1980	**71**	**77**	**92**

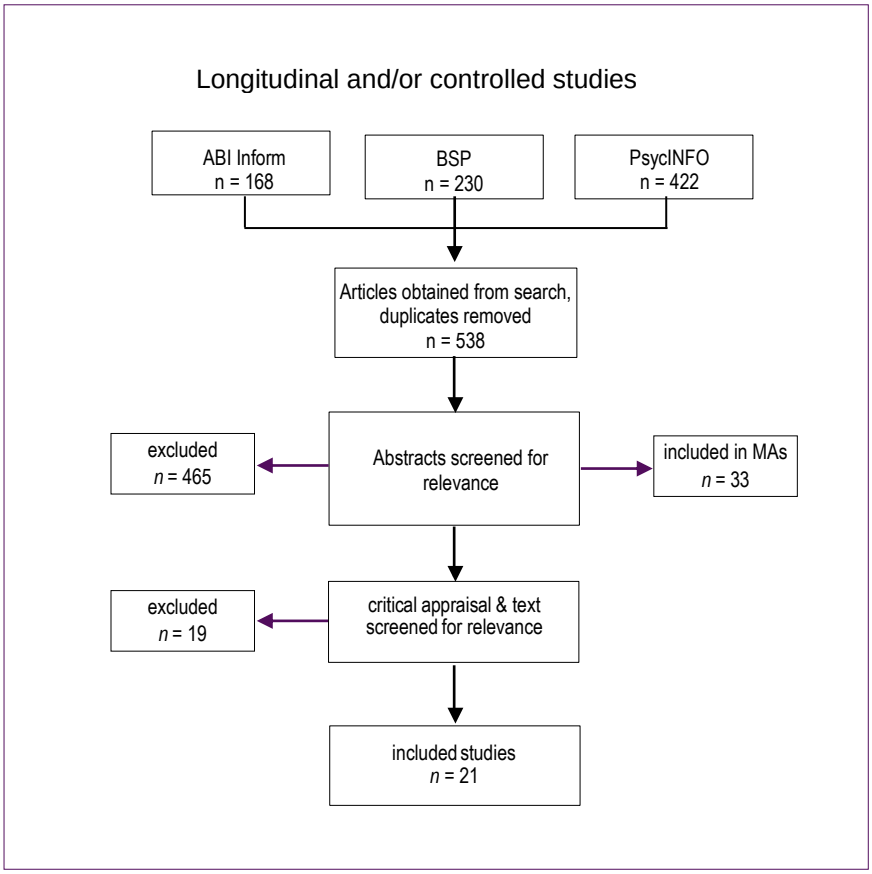
Controlled and longitudinal studies: search terms and hits

ABI/Inform Global, Business Source Elite, PsycINFO
peer-reviewed, scholarly journals, November 2018

Search terms	**ABI**	**BSP**	**PSY**
S1: TI(unethical)	356	395	339
S2: AB('unethical behavior')	516	549	403
S3: TI(misconduct)	200	401	462
S4: TI('ethical climate')	127	146	103
S5: AB('ethical climate')	265	297	224
S6: S1 OR S2 OR S3 OR S4 OR S5	1,213	1,509	1,296
S7: Ti(integrity)	1,001	3,839	1,896
S8: TI (work* OR organization* OR compan* OR employ* OR manager* OR leader*)	48,451	190,687	142,205
S9: S7 AND S8	19	179	131
S10: TI(ethic*)	13,517	14,954	15,481
S11: TI(organization*)	38,976	47,138	29,986
S12: S10 AND S11	721	797	374
S13: TI(break* OR breach* OR conform* OR follow* OR comply* OR compli* OR abid* OR disobey OR violat*)	12,203	19,869	47,376
S14: TI(law* OR norm* OR rule* OR standard* OR regulation*)	56,248	90,273	61,342
S15: S13 AND S14	1,100	1,658	1,450
S16: S6 OR S9 OR S12 OR S15	2,947	4,009	3,181
S17: TI(experiment* OR controlled OR longitudinal OR randomized OR quasi) OR AB(experiment* OR 'controlled stud*' OR 'controlled trial' OR 'control group' OR 'control variable' OR 'comparison group' OR 'comparative stud*' OR quasi OR longitudinal OR randomized OR randomly OR laboratory OR 'before and after stud*' OR 'pretest post*' OR 'time series' OR 'case control' OR 'case cohort' OR 'cohort stud*' OR 'prospective stud*')			
S18: S16 AND S17 AND limit 2000	**168**	**230**	**422**

Appendix 2: Study selection





Appendix 3: Overview of meta-analyses

Author and year	Design + sample size	Sector / population	Main findings	Effect size	Limitations	Level
1 Bedi and Schat (2013)[64]	Meta-analysis, 118 independent samples, total n = 44,560	Employee sample, multiple locations	**Perceived organisational politics are strongly associated with counterproductive work behaviours (level C).** This research finds that perceived organisational politics (POP) is strongly related to perceptions of trust, and interactional justice in an organisation. It also had more minor interactions with other criteria, including a positive association with stress, burnout, turnover intentions, and counterproductive work behaviours, with large effect sizes between CWB and POP. Results therefore indicate that there is an association between politics in an organisation and counterproductive work behaviours. In addition, they find a negative association between POP and job satisfaction, job performance.	POP > CWB: ρ = 0.50 (published studies) and ρ = 0.32 (unpublished studies)	No information about the design of studies included. Not clear how many reviewers assessed each study, methodological quality of studies was assessed. Possible second-order sampling error, (estimated relationships are inferred from a small number of studies).	C
2 Bedi et al (2015)[65]	Meta-analysis, 134 independent samples, involving 54,920 employees	Workplace samples	**Ethical leadership is associated with (increase in) ethical behaviour, and (decreases in) counterproductive work behaviours (level C).** The study used social learning and social exchange theories to test the relationship between ethical leadership and follower work outcomes, predicting beneficial outcomes and less likelihood of turnover, interpersonal conflict and other counterproductive work behaviours. Most relevant to this evidence review, follower perceptions of ethical leadership were positively	Ethical behaviour ρ = 0.61 Perception of ethical climate ρ =0.52 Self-efficacy ρ =0.53 Job satisfaction ρ = 0.56 Normative commitment	No information about the design of studies included The quality of studies included was not assessed	C

			associated with follower ethical behaviour and negatively associated with self-rated CWBs and leader-rated CWBs.	$\rho = 0.53$		
3 Belle and Cantarelli (2017)[66]	Meta-analysis of 137 experiments from 73 publications	Mixed sample including university students and workplace samples Lab (63%) and online (12%) experiments; students (77%)	12 causes of unethical behaviour were investigated. Outcomes were measures of actual behaviour, self-reported intentions, self-reported judgements about unethicality of someone else's behaviour. 1 Across 33 experiments (n = 3,681), **social influences** (such as exposure to others' unethical behaviour, acting as a part of a group or alone, acting to benefit others or in one's own interest, or being exposed to an identified or unidentified victim) have had **an overall medium effect on individuals' unethicality**. 2 Across 26 experiments (n = 2,776), **greed** (such as inducing individuals to think about money or exposing them to wealth abundance, presence of monetary incentives, or worse conditions relative to peers), have had **an overall medium effect on individuals' unethicality**. 3 Across 20 experiments (n = 2,770), **egocentrism** (such as presence of competition, or conflict of interest, or self-interest) have had **an overall medium effect on individuals' unethicality**. 4 Across 19 experiments (n = 2,575) **monitoring** (such as not being monitored vs being controlled, or higher or lower visibility of dishonest actor or actions) have had **an overall large negative effect on individuals' unethicality**. 5 Across 15 experiments (n = 1,492), **moral reminders** (such as exposure to a code of ethics, or to ethical priming exercises) have had **an overall medium effect on individuals' unethicality**. 6 Across 13 experiments (n = 1,195), **self-justification** (such as availability of self-justification opportunities) have had **an overall large effect on individuals'**	Social influence g = 0.48 Greed g = 0.45 Situational monitoring g = –0.84 Moral reminders g = –0.43 Self-view g = –0.56	The quality of studies included was not assessed. A limited search was used.	A

			unethicality. 7 Across 12 experiments (n = 859), **self-view** (such as higher concerns for an honest and good self-view) have **had an overall medium negative effect on individuals' unethicality**. Overall, evidence suggests that social influence, greed, egocentrism, self-justifications, exposure to incremental dishonesty (slippery-slope effect), loss aversion, challenging performance goals, time pressure increase unethical behaviour; instead, monitoring employees, providing moral reminders, and willingness of maintaining a positive self-view decreases unethical conduct.			
4 Clarke (2013)[67]	Meta-analysis of 35 empirical studies which included 9,897 participants within 39 independent samples	Workplace samples	**Active transactional leadership is associated with compliance with rules and regulations, whereas transformational leadership is associated with employee participation in safety (level B).** Transformational leadership had a positive association with both perceived safety climate and safety participation, with perceived safety climate partially mediating the effect of leadership on safety participation. Active transactional leadership had a positive association with perceived safety climate, safety participation and safety compliance. The effect of leadership on safety compliance was partially mediated by perceived safety climate and the effect on safety participation fully mediated by perceived safety climate. The findings suggest that active transactional leadership is important in ensuring compliance with rules and regulations, whereas transformational leadership is	Overall effect of transformational leadership on safety compliance (ρ = 0.31) safety participation (ρ = 0.44) Overall effect of active transactional leadership on safety compliance (ρ = 0.41) safety participation (ρ = 0.36)	Only one database searched, complemented by a manual search of review articles The quality of studies included was not assessed	B

			primarily associated with encouraging employee participation in safety.			
5 Cohen-Charash and Spector (2001)[68]	Meta-analysis of 190 samples (148 field studies and 42 laboratory studies) based on a total of 64,626 participants	Workplace samples	**Procedural and distribution justice perceptions are inversely associated, small to moderately, with counterproductive work behaviours (level A+).** This meta-analysis examines how perceptions of organisational justice are linked to counterproductive workplace behaviours and finds that procedural and distributive justice relates to counterproductive work behaviours, though procedural justice is only marginally related to compliance. Both procedural and distributive justice were related to counterproductive work behaviours, along with conflict with others at work. Procedural justice was found to relate to compliance, but only marginally.	Decision compliance and procedural justice; weighted mean r = 0.14 Procedural and distributive justice and counterproductive work behaviours (weighted mean r = –0.22, –0.28, respectively)	Not all in an organisational context; quality of studies was not assessed.	AA
6 Kaplan et al (2009)[69]	Meta-analysis of 57 studies with n = 1,461	Workplace samples	**Negative affect is moderately associated with (increases in) counterproductive work behaviours and withdrawal behaviours (level C).** The authors found that negative affect (NA) is related to CWB and withdrawal behaviours, specifically that there is a positive correlation between negative affectivity and counterproductive work behaviours. In addition, stress, job satisfaction and fairness mediate NA-CWB, but stress plays a much larger role than the other two factors.	NA – CWB: $\rho = 0.30$ NA – Withdrawal: $\rho = 0.16$	Limited database search used to identify studies Not clear how methodological quality of studies was assessed	C

7 Kish-Gephart et al (2010)[70]	Meta-analysis of 136 samples comprised a total of 43,914 individuals	Workplace and university student samples	The study explored why individuals behave unethically in the workplace and found that the reasons for behaving unethically in the workplace are complex – no single demographic variable makes a unique contribution to unethical intention. They identify that we need to consider individual ('bad apple'), moral issues ('bad case'), and organisational environment ('bad barrel') antecedents of unethical choice. 1 **'Bad apples'**, or individual factors. Unethical choice was found to be related to individual characteristics such as cognitive moral development, idealistic or relativistic moral philosophy, Machiavellian personality, locus of control, job satisfaction. There is little evidence that demographic factors (such as gender and age) have a noticeable impact on ethical outcomes, once other factors are controlled for 2 **'Bad cases'**, or situational factors. Moral intensity characteristics such as concentration of effects, magnitude of consequences and social context were all related to unethical intention. In other words, specific facets of an ethical decision-making situation may influence the likelihood of unethical behaviour. 3 **'Bad barrels'**, or organisational context. Three types of ethical climate (egoistic, benevolent, and principled) were related with unethical choice: they found that egoistic climates were positively associated with unethical choice, whereas benevolent and principled climates were negatively associated with unethical choice. The relationship between ethical culture and unethical choice did not explain unique variance over and above the constructs of climate and ethical code enforcement.	Unethical behaviour related to: individual: Cognitive moral development (ρ = –0.16) Machiavellianism (ρ = 0.27) Locus of control ρ = 0.13 Ethical climate effects ρ = 0.14 ρ = 0.29 ρ = –0.31 Social consensus ρ = –0.34 Existence code of conduct ρ = 0.07 vs Enforcement code of conduct ρ = 0.41 Further effect sizes available in original source	Quality of the studies included not evaluated Small sample sizes for some relationships Many hypotheses/variables tested	A

8 Martin and Cullen (2006)[71]	Meta-analysis of 44 studies with 44 independent samples	Unclear	**Different aspects of an ethical climate are associated with dysfunctional behaviour (level C):** a) Instrumental ethical climates are associated with increases in dysfunctional behaviour. b) Benevolent and caring ethical climates are associated with decreases in dysfunctional behaviour. c) Ethical climates emphasising rules, laws and codes are associated with decreases in dysfunctional behaviour. This meta-analysis finds that perceived ethical climate is a construct which influences organisational outcomes. The authors define several types of ethical climate (instrumental, caring, independence, law and code, and rules) and find they have different associations with various organisational outcomes, suggesting organisational climates have consequences for how people respond to their perceived ethical environments. This includes influencing employee organisational commitment, job satisfaction, psychological well-being, and dysfunctional behaviour. An interesting finding of the study demonstrates that externally based rules, such as professional or religious rules, when internalised, result in positive outcomes for the organisation. Conversely, the analysis illustrates that climates which result from individual and independent ethical decisions, or internal organisational rules, have weak associations with many outcomes. The authors conclude that further research is required to map what may be done to mitigate the adverse impacts of unethical behaviour, as perceptions of ethical climate are shown through the study to be powerful influencers of positive and negative organisational outcomes.	Dysfunctional behaviour correlates with aspects of ethical climate are: - Instrumental (0.22) - Caring (–0.14) - Independence (–0.10); - Rules (–0.17) - Law & Code (–0.15)	- Only a small amount of studies investigated the negative outcomes of ethical climate using this particular scale - Quality not assessed - Key features not described	C

9 O'Boyle et al (2012)[72]	Meta-analysis of 245 samples, n = 43,907	International sample, majority US population Non-clinical, adult sample	**'Dark' personality traits including Machiavellian personality, narcissism, and psychopathy are small to moderately associated with increases in counterproductive work behaviours especially under the conditions of authority (level C).** O'Boyle et al finds that Machiavellianism, psychopathy and narcissism are positively correlated with CWB. The 'Machiavellian' personality type includes manipulative behaviours and a cynical view of human nature; narcissism is defined by an inflated view of self; and psychopathy involves a lack of concern for both other people and social rules. The associations between these three traits and CWB were moderated by contextual factors such as authority and culture. This suggests that these personality traits can prompt people to behave in ways that violate social norms in the workplace, and thereby increase CWB. However, the effect of psychopathy and narcissism on CWB may change in particular contexts, such as those in positions of authority or cultures that emphasise duty and loyalty to the organisation and its members. Therefore, the work environment can influence the extent to which such personality traits lead to behaviours that negatively impact the organisation.	Machiavellianism: CWB r = 0.25 Narcissism: CWB r = 0.43 Psychopathy: CWB r = 0.07	Design of studies included unclear, quality of studies included not assessed	C
10 Pindek and Spector (2016)[73]	Meta-analysis of 119 independent samples, n = 33,998	Workplace samples	**Organisational constraints such as having limited support from others, having time constraints, and limited access to resources, are moderately associated with increases in counterproductive work behaviours (level C).** This study looks at organisational constraints, and how these stressors influence counterproductive work behaviours amongst other variables. They find that	Correlations between self-reported organisational constraints and: - CWB = 0.38 - CWBI = 0.36 - CWBO = 0.37 - Sabotage = 0.30	Unclear how many reviewers appraised studies Unclear if methodological quality of studies was assessed	C

			organisational constraints (OC) such as time availability and support from others correlate with counterproductive work behaviours (CWB). Constraints (measured as time and resource availability, training, support from others) had significant relationships with counterproductive work behaviour. OC was most strongly related to interpersonal aggression, and least strongly to theft. Overall, this study suggests that the characteristics of the work environment can lead to frustration and stress, and this can influence unethical behaviours.	- Interpersonal aggression = 0.41 - Theft = 0.29 - Production deviance = 0.36 - Withdrawal = 0.32	Limited search (only PsycINFO and Medline, no management & business databases) No information about the included studies' design	
11 Schyns and Schilling (2013)[74]	Meta-analysis of 57 independent samples	Population not specified, but does not report excluding non-organisational samples	**Perceptions of destructive leadership are moderately related to counterproductive work behaviours (level C).** This meta-analysis examines the relationships that destructive leadership has with leader-related, job-related, organisation-related, and more general person-related outcomes. Overall, there is a correlation between destructive leadership and follower attitudes and performance with a second highest correlation between destructive leadership and CWB. Results indicated negative correlations between destructive leadership and positive followers' outcomes and behaviours (for example, attitudes towards the leader, well-being, and individual performance) and positive correlations with negative outcomes (for example, turnover intention, resistance towards the leader, counterproductive work behaviour).	Correlation between DS and CWB = 0.38	The search range only included PsycINFO and GoogleScholar so relevant studies may have been missed Unclear what type of studies were included Unclear if methodological quality of studies was assessed	C
12 Sulea et al (2015)[75]	Meta-analysis of 35 empirical studies, overall n = 9,897	Employees, population not specified	**There is a positive correlation between negative affect and counter-productive work behaviours (level C).** The authors found that negative affect (NA) is positively related to interpersonal and organisational CWB (0.27 and 0.35).	CWB and negative affect = 0.27 and 0.35 CWB and Conscientiousness	Unclear what type of studies were included Unclear if	C

			In addition, it was found that low levels of agreeableness and conscientiousness (two of the big five personality factors) are associated with CWB. Thus, employees who demonstrate low levels of these personality traits may therefore be more likely to engage in CWB.	= 0.33 CWB and Agreeableness = –0.19	methodological quality of studies was assessed	
13 Whelpley and McDaniel (2016)[76]	Meta-analysis of 21 studies, total n = 5,135	Students, blue-collar workers, professionals, university alumni, cross-sections of the working population	**Having a lower self-esteem is associated with increases in counterproductive work behaviours (level C).** The study finds a negative correlation relationship between self-esteem and CWB such that individuals with higher self-esteem would be expected to engage in fewer CWBs (in line with consistency theory). The moderator analyses showed that global self-esteem had a stronger relation with CWB than organisation-based self-esteem.	Self-esteem and CWB: r = –0.26 Global self-esteem and CWB: r = −0.30	Cross-sectional studies only	C

14 Woo et al (2014)[77]	Meta-analysis of 139 studies	University student and workplace samples	**Openness to experience is associated with counterproductive work behaviours (level C).** This research suggests that openness to experience (or openness) personality variables are related to CWB; in other words, openness to experience influences engagement in counterproductive work behaviour. Small but statistically significant relationships were found between CWB and the global dimension of openness; the two aspects of intellect and culture; and the six facets of intellectual efficiency, ingenuity, curiosity, aesthetics (that is, being imaginative), tolerance, and depth (that is, interested in personal growth). The direction of these correlations differed between factors: there were positive associations between CWB and intellect, intellectual efficiency, ingenuity, and depth; while the relationships between CWB and openness, culture, curiosity, aesthetics, and tolerance were negative. This suggests that individuals with any of these personality traits may be more or less likely to engage in CWB, depending on which traits they possess.	CWB and openness (observed mean r = –0.03); intellect (0.01); culture (–0.04); = intellectual efficiency (0.05); ingenuity (0.04); curiosity (–0.09); aesthetics (–0.05); tolerance (–0.07); depth (0.02). All effect sizes are small.	Only very small effect sizes were found, limiting its practical relevance Unclear what type of studies were included Unclear if methodological quality of studies was assessed	C

Overview of excluded meta-analyses

Clarke (2006)[78]	Focuses on the link between organisational safety climate and employee safety compliance and participation.
Al-Rafee, S. and Cronan (2006)[79]	Not a meta-analysis, conceptual model of IT unethical behaviour apparently focused on outside work organisations (piracy).

Davis (2006)[80]	Focuses only on the effect of behavioural integrity on employee attitudes (rather than predictors of unethical behaviour).
Fine (2010)[81]	Not a meta-analysis. Investigated the comparative validity of integrity test with CWB (self-report) across a variety of industries on (n = 2,456) job applicants. Suggests integrity test as a job requirement.
Gardner (2015)[82]	Not relevant for workplace setting, outcomes were institutional misconduct, community recidivism and violent behaviour in correction of treatment settings with population of offenders.
Langevine (2013)[83]	Not a meta-analysis but literature review building on management accounting literature and on organisational justice literature. Developed a framework showing how fair management control systems can reduce managers' unethical behaviours. Core component here is fairness.
McLeod (2016)[84]	Study provides recommendations for researchers studying organisation-level consequences of ethics-related factors.
Ones (2012)[85]	Not relevant for the research question.
Reader and Gillespie (2013)[86]	Focuses on medical rule-breaking and patient neglect.
Schmidt (2016)[87]	Not relevant for the research question. Debate over validities of integrity tests to predict job performance and CWB.
Simons (2015)[88]	Outcome measures (performance, trust, and so on) are not relevant to the REA question.
Sommestad et al (2014)[89]	Most findings are based on single (level D) studies.
Stamkou (2016)[90]	Not a real meta-analysis, but a meta-analyses of the outcome of a series of 14 studies conducted by the authors.
Trevino (2014)[91]	Not a meta-analysis. *Annual Review of Psychology*, useful for conceptual framework and definitions.
Van Iddekinge (2012)[92]	Not relevant for the research question.

Appendix 4: Overview of single studies

Author and year	Design + sample size	Sector / population	Main findings	Effect size	Limitations	Level
1 Beeri et al (2013)[93]	Employees in a regional council in Israel	Uncontrolled pre-post design (1-year) with (n = 108)	**The sole existence of a code of ethics is not enough to produce ethical outcomes (level C).** Implementation of an ethics programme resulted in increased self-report outcomes of awareness of code of ethics, ethical decision-making, and ethical climate. Changes in ethical leadership (EL) over time were not found. Findings suggest the sole existence of a code of ethics is not enough to produce ethical outcomes. EL was found to predict outcomes such as ethical climate, organisational commitment, and quality of working life. This suggests EL plays a decisive role in fostering ethics and positive outcomes in organisations.	Ethical leadership > ethical climate Before adoption ß = 0.63 After adoption ß = 0.58	Self-report outcomes Confounding factors not accounted for Weak longitudinal design	C
2 Bellizzi and Hasty (2003)[94]	Experimental vignette study Sample 1 n = 480 Sample 2 n =134 Sample 3 n = 102	Sales managers	**Performance influences whether unethical behaviour is excused – top sales performers are treated more leniently that low performers, despite a history of unethical practice (level A).** Study 1 demonstrated that when behaving unethically, top sales performers are treated more leniently than poor sales performers, even when they show history of unethical practice or despite the presence of a stated company policy. Study 2 found no reduction in leniency towards top sales performers when a specific training programme designed to communicate top management's desire to treat ethical matters equally based on the severity of the act was introduced. In Study 3, a stronger company policy that specified a prescribed level of punishment also failed to equalise the discipline between high and low performers.	Not reported	Artificial setting	A

			This suggests that top performers, especially in a target driven environment, may 'get away' with unethical behaviour more readily than low performers.			
3 Charness et al (2013)[95]	Between-subjects experimental design n = 585	Undergraduate students	**Competition for status increases unethical behaviour (level A).** This research investigates the role of competition in unethical behaviour – namely, does competition to be the best motivate unethical activity? The findings suggest that individual unethical behaviour may be exacerbated in competition for status. Results suggest that individuals are indeed motivated to increase their status and may do so by sabotaging others' work or misrepresenting their own work in order to score more highly on a performance curve. This finding was enhanced where the performance of others was clear, suggesting that knowledge of others' performance when it impacts an individual's wage or bonus may exacerbate unethical behaviour.	Not reported, some appear strong based on text	Artificial setting	A

4 Chen et al (2016)[96]	1 Experimental study and 2 cross-sectional studies	Study 1 & 2: Retail employees in China Study 3: US sample recruited through Amazon Mechanical Turk	**Competition with other organisations enhances unethical pro-organisational behaviour (level A).** This study focuses on the sometimes-neglected facet of unethical behaviour at work – behaviour that occurs to benefit the group, rather than self-interest (also known as unethical pro-organisational behaviour). The authors found that moral disengagement (the ability to separate actions from moral norms) and organisational identification plays a part in this relationship. Overall, participants with higher levels of organisational identification were more likely to report UPB, enhanced by moral disengagement, especially when faced with ethical dilemmas where the organisation was in competition with another. In other words, UPB may be in part due to strong feelings of association to an organisation and the ability to rationalise from usual moral standards.	None reported	Some results are based on correlational data (Study 1 and 2)	A
5 Clor-Proell et al (2015)[97]	2 x 2 between-subjects experimental design n = 59	Undergraduate students	**Goal difficulty and promotion availability interact to influence fraud such that having difficult goals when there are promotion opportunities is associated with lower fraud (level A).** This study investigates the effect of goal difficulty and promotion on fraudulent behaviour. Overall, the findings suggest that promotion availability and challenging goals may influence fraudulent behaviour in production settings. In other words, the level of goal difficulty and promotion availability influenced fraudulent behaviour. Where difficult goals were set, the possibility of promotion undercut participants' fraudulent behaviour. Where goals were more achievable, promotion availability was not strongly related to fraudulent behaviour.	None reported	Low external validity due to artificial setting and small sample	A

6 DeConinck (2003)[98]	2 x 2 randomised design (experimental vignette study) n = 96)	Sales managers and executives	**Sales managers deliver harsher punishment for unethical behaviour when a code of ethics exists (level B).** This study suggests that the presence of a code of ethics and perceived injustice in promotion decisions can influence sales manager willingness to discipline unethical behaviour. The authors found that harsher punishments were recommended, and equivalent unethical behaviour was rated as more unethical when a code of ethics was present in the scenario. In contrast, less severe punishment when injustice had occurred (operationalised as being passed on for a promotion opportunity), and behaviour was perceived as more unethical when there was no injustice.	Not available	Low internal validity Actual population and sample unclear Unclear whether the vignettes were pre-tested	B
7 Derfler-Rozin et al (2016)[99]	Study 1: excluded Study 2, 3a and 3b: experimental design n = 202 n = 80 n = 121	S2: adults recruited via Amazon Mechanical Turk S3a: US university students S3b: UK-based university students	**Where task variety is low in a role, cheating and rule-breaking are more likely (level A).** This study investigates the role of task variety on rule-breaking, and finds that where roles have low task variety, attention should be paid to possibility of rule-breaking. In one study, participants were assigned to a low task variety or high task variety task, followed by 'opportunity to cheat' exercise. They found that those with higher task variety were less likely to cheat than those in a low variety condition, suggesting deliberative thinking is associated with lower levels of rule-breaking. They suggest that this is due to the way we process information in low variety tasks, where cognitive reflection is low, versus high variety tasks that require deliberative thinking. For example, participants in the high variety condition exhibited higher results in a cognitive reflection task. Results in the cognitive reflection task also mediated the relationship between rule-breaking and task variety, suggesting that changes in task variety are related to rule-breaking by way of deliberative thinking.	Study 2: 0.05, but effect sizes differ for each condition – bigger effect size with 'low task variety' than 'high task variety' Study 3: none reported	Study 3: Measure of 'rule-breaking' artificial and didn't exclude (or at least don't report) excluding participants who guessed purpose of study but did exclude participants who guessed this in Study 2.	A

8 Desmet et al (2015)[100]	Study 1: Cross-sectional survey (excluded) Study 2: Randomised controlled study Study 3: Randomised control study	S2: 120 supervisors from organisations in Netherlands S3: 100 Dutch university students	**Where market competition is high, leaders are more lenient on pro-organisational unethical behaviour and more likely to justify it on the basis of instrumental concerns (for example beating competition) (level A).** This study investigates whether market competition influences the way unethical behaviour is perceived and reprimanded. The authors hypothesise that, where there is high market competition, leaders are more likely to reference instrumental considerations (for example, beating competition) rather than moral concerns. In Study 2, respondents were required to judge how far they would reprimand an employee in certain situations (for example in a highly competitive market). They found that where markets were presented as competitive, if a transgression led to gains for a company, the respondents chose less severe disciplinary measures. The findings from Study 2 were replicated in a laboratory setting in Study 3. Where there was a competitive market scenario, less serious types of punishment were chosen if the transgression led to profit in comparison with the loss condition.	Only standard deviations reported	Small sample sizes in both experiments, limited generalisability from student sample	A
9 Diekmann et al (2011)[101]	Randomised controlled trial	Students at University of Zurich n = 466	**Knowledge of others' norm violations increases norm violations (level A).** The authors conducted an experiment to understand the effect of being aware of others' norm violations (in other words, engagement in behaviour that goes against behavioural standards). They suggest that norm violations can be contagious – and that ignorance can form a 'protective barrier' against norm violations. Participants were either given no information (control group) or shown information that showed that norm violation was common. There was no difference between the types of information shown on violations – but there was a difference to the control condition, suggesting that being given information on the deceptions of others is associated with more norm	None reported	Artificial setting	A

			violations.			
10 Graham, Ziegert and Capitano (2015)[102]	Randomised controlled study	Working adults recruited via Amazon through Amazon Mechanical Turk, n = 74	**Unethical pro-organisational behaviour is associated with leadership style and the way they frame messages (level A).** This study examines unethical pro-organisational behaviour (UPB) in the context of leadership behaviour and gain or loss framing. The researchers manipulated the content of statements in a fictional speech from a CEO to investigate the effect of how leaders frame messages. The way in which leaders frame messages, in conjunction with leadership style, can influence unethical pro-organisational behaviour. They found that when a leader was perceived as transformational and used loss framing, higher levels of UPB occurred. In contrast, transactional leadership paired with loss language led to lower levels of UPB. The promotion focus of the individual was also implicated; for example, when individuals had a high promotion focus (in other words, they place importance on gains such as promotion or reward, as opposed to avoiding negative consequences), the impact of leadership style and framing was lower.	None reported	Uses perceptions of scenarios as independent variable, rather than intention or behavioural measures Small sample size	A
11 Greenbaum et al (2017)[103]	Study 1 & 2: cross-sectional (exclude) Study 3: experimental study (n = 151)	Undergraduate students	**Perceptions of abusive supervision strengthens the positive relationship between Machiavellian personality and unethical behaviour (level A).** This study investigates how an abusive supervision can activate employee Machiavellian traits, in turn predicting unethical behaviour, drawing on trait activation theory. They suggest that abusive supervision can act as a situational factor that activates Machiavellian traits. Students were randomly assigned to a 'neutral' or 'abusive' condition and took part in several rounds of a word generation task, rewarded with cash, and completed several personality trait measures. Abusive supervision was manipulated by asking participants to reflect on a past abusive authority figure. While the authors did not find universal support for their hypothesis, it was found that when asked to recall an abusive authority figure, individuals with	Study 3: Moral manipulation = 0.44 Unethical behaviour = 0.27	Artificial setting and non-work sample	A

			high desire for control were more likely to behave unethically.			
12 Harrison et al (2016)[104]	Study 1: cross-sectional study (exclude) Study 2: experimental design (n = 329)	US undergraduate students	**Increases in 'dark' personality traits are associated with increases in unethical behaviour (level C).** This research investigates the relationship between the 'dark triad' of personality traits (psychopathy, Machiavellianism and narcissism) on unethical behaviour. The authors suggest that individuals who score more highly in these personality traits will not only *perceive* greater opportunity to commit fraud, but also be more likely to actually commit these behaviours. Following survey results in their first study, Study 2 aimed to uncover whether this triad of personality traits could predict fraud behaviours. The study had two phases, conducted one week apart. In the first phase, students estimate the real value of a mobile device. In the second stage of the study, students created a classified advert for the same mobile device. This data was used to measure discrepancy between actual value and the value asked for by students, along with the description of the phone (which was presented clearly in used condition). Different dark triad behaviours linked to different portions of the fraud decision-making process, suggesting that certain personality traits are linked to rationalising fraud, for example.	None reported	Study design (eg randomisation and control) S2 somewhat unclear Measures and tasks used not directly related to the workplace There were no negative consequences for the participants in this study, which limits external validity	C
13 Hoogervorst et al (2010)[105]	Randomised controlled studies S1: n = 102 S2: n = 99	Undergraduate students at a Dutch university	**Leaders are more likely to disapprove of unethical behaviour when they have higher levels of accountability (level A).** This study examines the factors influencing leader disapproval of unethical follower behaviour (UFB). Their findings suggest that leaders who are accountable for their actions are more likely to disapprove of unethical behaviour, only when they do not benefit from the outcome of the unethical behaviour. This also suggests that leader disapproval of UFB can be inconsistent. In	None reported	Non-work sample Behavioural intentions measured rather than behaviours themselves	A

			the second study, the researchers sought to understand if followers can predict leader reaction to UFB. They found that participants felt their 'leader' would disapprove of unethical behaviour most when they might get 'found out', and when the leader themselves would not gain benefit from the unethical action. This mirrored the pattern of disapproval displayed by leaders.			
14 Johnson et al (2016)[106]	Randomised controlled experiment, n = 63	Mid-level managers (working professionals in MBA)	**Employees' affective states are associated with their likelihood to acquiesce to pressures to engage in unethical behaviour (level A).** a) Employees' enthusiasm is moderately associated with a decreased likelihood to acquiesce to their superior's pressures to be complicit in unethical behaviour (level A). b) Employees' frustration and happiness are both moderately associated with an increased likelihood to acquiesce to their superior's pressures to be complicit in unethical behaviour (level A). The authors linked affective states with a number of outcomes related to unethical behaviour. First, individuals with high (low) levels of frustration are predicted to be more (less) likely to acquiesce to their superior's suggestions and thus be complicit in unethical behaviour. This means that individuals with low levels of frustration are less likely to acquiesce to their superior's pressures to be complicit in unethical behaviour. They also investigate positive affective states, namely happiness and enthusiasm. They found that individuals with high levels of happiness are predicted to be more likely to acquiesce to their superior's suggestions and thus be complicit in unethical behaviour, while individuals with high (low) levels of enthusiasm/arousal are predicted to be less (more) likely to acquiesce to their superior's suggestions and be complicit in unethical behaviour. Lastly, individuals with low levels of happiness and low levels of fear are predicted to be the least likely to acquiesce to their superior's pressures to be complicit in unethical behaviour.	Six ethical scenarios, no effect sizes reported, only percentages and differences	Small sample size	A

15 Mooijman et al (2017)[107]	Four randomised controlled experiments, n = 70 n = 326 n = 186 n = 116	Study 1: US college students, Study 2: Adults recruited from Mechanical Turk website, Study 3: Adults recruited from Mechanical Turk website, Study 4: US college students	**The perception of sanctions influences their effectiveness as a deterrent (level A).** This study investigates whether sanctions can be effective in influencing compliance, depending on trust and perception of sanctions – does the way that leaders justify punishments influence subsequent compliance? They found that, compared with sanctions provided without a justification or sanctions provided with a just-desserts justification, sanction effectiveness decreased when sanctions were justified as attempts to deter people from rule-breaking.	Study 1: Difference between reporting in deterrence vs no-justification condition d = 0.70 Further effect sizes available in original source	Potentially lack of generalisability because of largely student sample and/or artificial setting	A

16 Mowchan et al (2015)[108]	Two non-randomised before–after studies n = 86 (S1) and n = 62 (S2)	Accounting students in the US (1.7 years' average work experience)	**Impulsivity and authoritarian personality traits are associated with the propensity to acquiesce to pressures by supervisor to engage in unethical behaviour (level A).** This research tests the effect of three personality traits (impulsivity, authoritarianism, and proactivity) on followers' ability to identify ethical dilemmas and intention to resist unethical requests. Results suggest that individuals who are both low in authoritarianism and high in impulsivity are most willing to comply with supervisors' requests for compliant misconduct, while individuals who are both high in authoritarianism and high in proactivity have the greatest intention to resist the unethical requests of their supervisors. In addition, individuals who are both low in authoritarianism and high in impulsivity exhibit the lowest ability to identify ethical dilemmas, and individuals who are both high in authoritarianism and low in proactivity exhibit the greatest ability to identify ethical dilemmas. The authors did not find universal support for their hypothesis, apart from desire control being related to unethical behaviour. However, they also found that those low in desire for control in the neutral condition more than the desire for control in the 'abusive' condition.	Not reported (only ANOVAs), but the zero-order correlation is moderate (impulsivity) and large (authoritarianism)	May not be generalisable outside of accountancy context due to artificial setting	A
17 Pascual-Ezama et al (2015)[109]	Three randomised controlled studies n = 133 (S1), n = 71 (S2), n = 64 (S3)	Spanish undergraduate students	**Having lower levels of direct supervision increases cheating behaviour (level A).** This research tests the hypothesis that working in the physical presence of others influences dishonest behaviour. They found that in isolated tasks, where there is little supervision, cheating behaviour is more likely to occur. This effect was minimised in the presence of familiar peers. In the second experiment, the presence of a 'lure' (a confederate of the experimenter that finished their task early, thus suggesting cheating had occurred) was not enough to incite cheating amongst others.	d = 2.7 to 2.9, representing a large effect size	Small sample size and artificial setting	A

			Lastly, when multiple 'lures' were present, cheating behaviour is similar to that in isolated tasks, suggesting that multiple examples of cheating amongst a peer group can 'nudge' individual's cheating behaviour.			
18 Sanders et al (2016)[110]	Two randomised controlled trial and one cross-sectional study n = 53 (S1) n = 115 (S2) n = 138 (S3)	S1 & S2: Undergraduate Dutch psychology students. S3: recruited via Amazon's Mechanical Turk, organisational leaders with direct reports	**The level of importance a leader places on authenticity in their moral identity, the more likely they are to engage in ethical behaviour (level A).** In the two experiments it was found that: 1 Authentically proud leaders are more likely to engage in ethical behaviour than hubristically proud leaders, and that 2 this effect is moderated by leaders' moral identity, and that 3 this effect is mediated by leaders' motivation to act selflessly. This outcome was replicated with a field survey among organisational leaders (> corroborated that moral identity may bring the positive effect of authentic pride and the negative effect of hubristic pride on leader ethical behaviour to the forefront).	1) S1: R2 = 0.20 S2: η2 = 0.05 2) S1: R2 = 0.06 S2: η2 = 0.04 3) S2: r = 0.27		A
19 Street and Street (2006)[111]	Randomised controlled trial, computer simulation n = 155	Undergraduate business majors	**The association between escalation situations and unethical decision-making is stronger when individuals have a high external locus of control (level B).** This study explored situational factors in unethical decision-making (UDM); namely, whether an escalation situation (defined as having existing negative feedback related to a current course of action) is linked to UDM, and in turn is affected by an individual's locus of control (the extent to which an individual attributes the outcomes of their behaviour to internal or external causes). Overall, they find that escalation situations are linked to unethical decision-making, especially when individuals have a high external locus of control. They found that when an escalation situation occurred (operationalised as monetary differences between expectations and performance on a task),	The pseudo R-2 indicates that 16% of the variance in the likelihood of choosing an unethical decision alternative can be attributed to the variables in the study	Artificial setting	B

			decision-makers were more likely to make unethical decisions. This is also influenced by the severity of the situation – the higher the magnitude, the more likely an unethical decision will be chosen. Further to this, individuals with greater external locus of control were more likely to choose an unethical decision.			
20 Thau et al (2015)[112]	Two-wave cross-sectional survey (n = 228) and a randomised control trial (n = 100)	Study 1: Working individuals from USA Study 2: US university students	**Perceptions of social-exclusion increase unethical behaviour, especially where importance is placed on social inclusion (level A).** Unethical behaviour can occur at work for the perceived advancement of an organisation. The authors found that whether an individual feels included or excluded in their work group can influence unethical behaviour, especially when that individual has a strong preference for inclusion. The risk of exclusion from a group was related to engagement in pro-organisational unethical behaviour, but only when an individual placed importance on inclusion. When unethical behaviour was for self-interest, rather than that of the group, this effect did not hold, highlighting that unethical behaviour may be exacerbated in the workplace by individual and situational/group factors.	1: R2 = 0.19 2: R2 = 0.11	Non-work sample in Study 2	A
21 Valle et al (2017)[113]	S1: Lab RCT (n = 101) and S2 & S3: survey (n = 408 and n = 206)	US students	**Moral disengagement fully mediates the positive effect of perceptions of organisational politics on unethical behaviour (level A).** The authors suggest that perceived organisational politics (POP), which concerns the extent to which an organisation is self-serving and is representative of the 'dark side' of work, is a strain for employees that may lead to moral disengagement (the ability to distance yourself from immoral decision-making or actions) and increase unethical pro-organisational behaviour (UBP). The results suggest that moral disengagement mediates the relationship	POP and UPB = 0.09 (ns) POP and MD = 0.16 MD and UPB = 0.88	Artificial setting	~~A~~

			between POP and UBP – but there is not a relationship between POP and UBP alone. In the second study, the authors examined whether individual differences (in this case, their 'prevention focus', or the importance placed on preventing negative outcomes such as job loss) moderated the extent to which moral disengagement was linked to UBP.			

Excluded single studies

Author and year		Reason for exclusion
Andrighetto (2015)[114]	Between-subjects experimental design n = 318	Excluded: limited relevance for REA question Results suggest that both the desire for others' esteem and the desire to meet others' expectations can motivate social norms compliance; however, the latter was found to induce compliance even when one could violate with no material or immaterial sanction in sight. This desire stems from the perceived legitimacy of such expectations to motivate compliance, rather than an altruistic aversion to disappoint others (guilt aversion). Study suggests guilt aversion is not a primary determinant of motivation to comply with norms.
Brandhorst (2016)[115]	Quasi-experiment n = 152	Excluded: limited relevance for the REA question Study can be considered a high-fidelity simulation of a process control task aimed at investigating strategies of violation of safety rules and procedures. Results show that individuals, in industrial settings, differentiate between rules and procedures violations based on goal conflict. Findings on the violation strategies of defiant compliance and scrape violation suggest that people attempt to compensate for the extended procedure as well as to optimise the outcome. This led to assume that people try to comply with the rule on the one hand but attempt to avoid the personal disadvantages by optimising the procedure within the boundaries of the given rules on the other hand. Overall findings suggest the interplay between organisational causes (goal conflicts), situational factors (failure or success), and personal factors (mental resources and self-interest).

Beam (2003)[116]	Cross-sectional n = 118 participants	Excluded: artificial setting, results are based on the association between intentions to behave (to trade illegally) rather than actual behaviour, and subjective probabilities of motivators or deterrents. Study sought to investigate motivations and deterrents of illegal insider trading (= buying shares of a company using 'privileged information' that others – the public – don't have access to). Deterrents tested were certainty (probability of being caught), severity (of legal punishment), social stigma (peer punishment), guilt (self-punishment). Motivational factors were expected gains, cynicism, perceived fairness of laws.
Bews (2002)[117]	Longitudinal self-report survey (n = 907)	Excluded: not relevant to the research question of drivers of unethical behaviour; study looked at the consequences of ethics and ethical conduct of managers in facilitating trustworthiness.
Brauer (2005)[118]	Controlled without pre-test	Excluded: based largely on correlational data, does not allow causal conclusions. Perceived personal implication was consistently the best predictor of social control behaviour, such that the more someone felt that a deviant behaviour affected them personally, the more they were likely to communicate their disapproval to the deviant confederate. Perceived deviance of the behaviour was a less powerful predictor of social control.
Childs (2012)[119]	Experiment with 200 undergrads	Excluded: little relevance to the research question and ecological validity issues. Study was conducted in artificial setting in an introductory-level business course, and investigated the impact of framing (gain vs losses) on lying. Primary interest though was checking whether students who identified themselves as business students were more likely to cheat, which results showed it was the case.
Chong (2016)[120]	2 x 2 between-subjects experimental design n = 66	Excluded: limited relevance for the REA question. A peer monitoring control system was found to provide an ideal opportunity for people to build slack into their budgets; it is suggested that the extent of slack that individuals alone build into their budgets is less extreme due to heightened sense of personal accountability. Results also showed that in a weak organisational ethical climate, subordinates were more likely to engage in opportunistic behaviour, that is, as budgetary slack creation was higher. Overall, the mean value of budgetary slack creation was the lowest in the absence of a peer monitoring control system and in a strong organisational ethical climate.
Cumming (2015)[121]	Literature review	Excluded: not a controlled or longitudinal study, but a literature review on causes and consequence of different forms of financial market misconduct and potential agency conflicts and the impact of regulating financial market misconduct.

Cornelis (2013)[122]	2 lab experiments, 1 self-report field study	Excluded: not relevant to the research question. Investigated leaders' enactment of procedural fairness based on individual-level attributes (of leaders and followers), therefore weak recommendations compared with other levels of analysis.
Derfler-Rozin et al (2016)[123]	4 studies	Excluded Study 1 only: observational study with no controls.
Gamliel and Peer (2013)[124]		Excluded: This paper aims to uncover whether implicit risks in cheating and ethics research elicit a similar response as explicit risk, thus supporting external validity – more theoretical in application than answering our research question. An average of 60% of participants in the experimental conditions recognised the study was related to ethical behaviour compared with 11% in the control condition, which may significantly bias results.
Gailliot, et al (2012)[125]	Studies 1–3 are randomized controlled studies Study 5 is a cross-sectional study Study 6 is a non-randomised controlled study	Excluded: limited relevance for our research question Study 1: Participants that completed a 'depletion' (that is, effortful) task displayed more unethical behaviour (t (43) = 2.03, $p < 0.05$). Study 2: Self-control was measured, and participants randomly assigned to groups. Participants with depleted self-control picked more curse words than other participants in the control group. Study 3: Participants in the depleted self-control group indicated lower levels of reciprocity (indicating the amount of hours they would volunteer for). Study 4: Not relevant, studies romantic partner's willingness to collude on a task. Study 5: This study examined self-reported 'trait' self-control and following 'others' rules. Self-control positively correlated with following instructions in a journal completion task. Study 6: Participants who had completed a difficult task showed depleted levels of self-control, leading to lower levels of instruction following on another task.

Grym and Liljander (2016)[126]	Randomised controlled study	Excluded: limited relevance for REA question. This study on the effect of ethical priming on cheating highlights that a moral reminder can mitigate cheating in a university setting. Participants were randomly assigned to a non-reminder and remind group, and those in the 'non-reminder' group had significantly higher self-reported test scores. In the non-reminder group, male participants also reported significantly higher scores than female participants (although when outliers were removed from the analysis, females reported lower scores in both conditions).
Kroher (2015)[127]		Excluded: Only abstract available.
Moore (2012)[128]		Excluded: Purpose mainly to design instrument.
Nogami (2009)[129]	Randomised controlled before–after study	Excluded: Limited relevance for the REA question. Results indicated that participants behaved differently depending on anonymity status and reward status.
Piff (2012)[130]	Cross-sectional studies and lab / vignette studies	Excluded: Unclear study design, limited relevance for the REA question. S1 and S2: Upper-class individuals were more likely to break the law while driving, relative to lower-class individuals. S3–S7 (lab studies): Upper-class individuals were more likely to exhibit unethical decision-making tendencies (S3), take valued goods from others (S4), lie in a negotiation (S5), cheat to increase their chances of winning a prize (S6), and endorse unethical behaviour at work (S7) than were lower-class individuals. Mediator and moderator data demonstrated that upper-class individuals' unethical tendencies are accounted for, in part, by their more favourable attitudes toward greed.
Roeser (2015)[131]		Excluded: Limited generalisability (artificial setting, participants were recruited through an online service tool), and limited relevance to the REA question: examines the association between the dark triad and unethical behaviour as a function of time of day.

Tayler (2010)[132]	Randomised controlled study (simulation, game)	Excluded: limited relevance. 1 Formal controls directly influence people's sense of what behaviours are appropriate in the setting (personal norms), and 2 indirectly alter people's tendency to conform to the behaviour of those around them (descriptive norms). 3 These effects persist even after the controls are changed, so that the effects of current controls can be strongly influenced by past control strength.

Appendix 5: Measures of ethical behaviour

Counterproductive work behaviour	Counterproductive work behaviour (CWB) was the most commonly used construct in the papers reviewed. Gonzalez-Mule et al[133] define CWB as *'intentional behaviours that violate organizational norms and are contrary to the legitimate interests of the organization and its members'*. There are, however, inconsistencies in the specific behaviours that are included under the umbrella of CWB across studies. Sulea et al[134] explain that CWB are known by many names, including workplace aggression, employee deviance, sabotage, and withdrawal. To measure CWB, researchers across the reviewed studies focus on either a general set of behaviours (CWB), distinguish between CWB targeted at individuals (CWB-I) and those targeted at the organisation (CWB-O), or select specific types of deviant behaviours such as absenteeism. For example, in a meta-analysis of the effects of organisational constraints on employee behaviours, Pindek and Spector[135] identify the following forms of deviance: CWB, CWB-I, CWB-O, sabotage, interpersonal aggression, theft, production deviance, withdrawal, absenteeism.
Non-compliance	Another related concept is compliance and non-compliance with organisational decisions and expected behaviours. In contrast to CWB, which describes a broad set of behaviours that contradict organisational interests, compliance and non-compliance relate to adherence to specific organisational policies. Clarke[136] defines safety compliance as 'adhering to safety procedures and carrying out work in a safe manner'. Similar approaches have been taken by Sommestad et al[137] in

	relation to compliance with security policies, and Jones et al[138] describing adherence and non-adherence to medical advice outside of workplace settings
Breaking moral norms	Kish-Gephart et al (2010)[139] distinguished between unethical and counterproductive workplace behaviours. In their definition, unethical behaviour relates to *'any organizational member action that violates widely accepted (societal) moral norms'*. In contrast, CWB, withdrawal and other forms of negative behaviours in organisations violate only organisational norms (for example job performance, being on time), which do not necessarily match or have relevance to wider societal norms (for example honesty, compassion).
Withdrawal	It could be argued that behaviours that proactively harm individuals or organisations are conceptually different from behaviours where employees withdraw their contribution to the work process, yet the two are often conflated in practice.[140] However, by testing the relationships between CWB, withdrawal and their antecedents, Carpenter and Berry[141] showed that withdrawal behaviours are a subset of CWB targeted at the organisation, as they share correlations with similar antecedents Reader and Gillespie[142] also used the term 'neglect', describing the failure of caregivers to meet the needs of their patients.

7 Notes

[1] Financial Reporting Council. (2018) *The UK corporate governance code*. Available at: www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.pdf [Accessed 10 January 2019].
[2] CIPD. (2017). *Do investors see the value of people data?* London: Chartered Institute of Personnel and Development. Available at: www.cipd.co.uk/knowledge/strategy/governance/investors-people-data [Accessed 7 January 2019].
[3] Shaughnessy, J.J. and Zechmeister, E.B. (1985) *Research methods in psychology*. New York: Alfred A. Knopf.
[4] Cohen, J. (1988) *Statistical power analysis for the behavioral sciences.* 2nd ed. Hillsdale, NJ: Lawrence Erlbaum Associates.
[5] Kish-Gephart, J., Harrison, D. and Treviño, L. (2010) Bad apples, bad cases, and bad barrels: meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*. Vol 95, No 1. pp1–31 (p2).
[6] Umphress, E.E., Bingham, J.B. and Mitchell, M.S. (2010) Unethical behavior in the name of the company: the moderating effect of organizational identification and positive reciprocity beliefs on unethical pro-organizational behavior. *Journal of Applied Psychology*. Vol 95, No 4. pp769–80.
[7] Kish-Gephart et al (2010).
[8] Gonzalez-Mule, E., Mount, M.K. and Oh, I.S. (2014) A meta-analysis of the relationship between general mental ability and nontask performance. *Journal of Applied Psychology.* Vol 99, No 6. pp1222–43.
[9] Kish-Gephart et al (2010).
[10] Belle, N. and Cantarelli, P. (2017) What causes unethical behavior? A meta-analysis to set an agenda for public administration research. *Public Administration Review*. Vol 77, No 3. pp 327–39.
[11] Kish-Gephart et al (2010).
[12] O'Boyle, E.H., Forsyth, D.R., Banks, G.C. and McDaniel, M.A. (2012) A meta-analysis of the Dark Triad and work behavior: a social exchange perspective. *Journal of Applied Psychology*. Vol 97, No 3. pp557–79.
[13] Harrison, A., Summers, J. and Mennecke, B. (2016) The effects of the dark triad on unethical behavior. *Journal of Business Ethics.* Vol 153, No 1. pp53–77. doi: 10.1007/s10551-016-3368-3.
[14] Belle and Cantarelli (2017).
[15] Ibid.
[16] Thau, S., Derfler-Rozin, R., Pitesa, M., Mitchell, M.S. and Pillutla, M.M. (2015) Unethical for the sake of the group: risk of social exclusion and pro-group unethical behavior. *Journal of Applied Psychology*. Vol 100, No 1. pp98–113.
[17] Mowchan, M., Lowe, D.J. and Reckers, P.M. (2015) Antecedents to unethical corporate conduct: characteristics of the complicit follower. *Behavioral Research in Accounting*. Vol 27, No 2. pp95–126.
[18] Kish-Gephart et al (2010).
[19] Johnson, E.N., Lowe, D.J. and Reckers, P.M. (2016) The influence of mood on subordinates' ability to resist coercive pressure in public accounting. *Contemporary Accounting Research*. Vol 33, No 1. pp261–87.
[20] Kish-Gephart et al (2010).
[21] Street, M. and Street, V.L. (2006) The effects of escalating commitment on ethical decision-making. *Journal of Business Ethics*. Vol 64, No 4. pp343–56.
[22] Charness, G., Masclet, D. and Villeval, M.C. (2014) The dark side of competition for status. *Management Science*. Vol 60*,* No 1. pp38–55.
[23] Lowe, J.D. and Reckers, P.M.J. (2012) An examination of the contribution of dispositional affect on ethical lapses. *Journal of Business Ethics*. Vol 111, No 2. pp179–93.

[24] Whelpley, C.E. and McDaniel, M.A. (2016) Self-esteem and counterproductive work behaviors: a systematic review. *Journal of Managerial Psychology.* Vol 31, No 4. pp850–63.
[25] Kaplan, S., Bradley, J.C., Luchman, J.N. and Haynes, D. (2009) On the role of positive and negative affectivity in job performance: a meta-analytic investigation. *Journal of Applied Psychology*. Vol 94, No 1. pp162–76.
[26] Sulea, C., Maricuţoiu, L., Dumitru, C.Z. and Pitariu, H.D. (2015) Predicting counterproductive work behaviors: a meta-analysis of their relationship with individual and situational factors. *Psihologia Resurselor Umane.* Vol 8, No 1. pp66–81.
[27] Kaplan et al (2009).
[28] Mowchan et al (2015).
[29] Kish-Gephart et al (2010).
[30] Ibid.
[31] Belle and Cantarelli (2017).
[32] Cohen-Charash, Y. and Spector, P.E. (2001) The role of justice in organizations: a meta-analysis. *Organizational Behavior and Human Decision Processes*. Vol 86, No 2. pp278–321.
[33] Greenbaum, R.L., Hill, A., Mawritz, M.B. and Quade, M.J. (2017) Employee Machiavellianism to unethical behavior: the role of abusive supervision as a trait activator. *Journal of Management*. Vol 43, No 2. pp585–609.
[34] Sanders, S., Wisse, B., Van Yperen, N.W. and Rus, D. (2016) On ethically solvent leaders: the roles of pride and moral identity in predicting leader ethical behavior. *Journal of Business Ethics*. Vol 150, No 3. pp631–45. doi: https://doi.org/10.1007/s10551-016-3180-0.
[35] Hoogervorst, N., De Cremer, D. and Van Dijke, M. (2010) Why leaders not always disapprove of unethical follower behavior: it depends on the leader's self-interest and accountability. *Journal of Business Ethics*. Vol 95, No 1. pp29–41.
[36] Bedi, A., Alpaslan, C. and Green, S. (2016) A meta-analytic review of ethical leadership outcomes and moderators. *Journal of Business Ethics.* Vol 139, No 3. pp 517–36.
[37] Beeri, I., Dayan, R., Vigoda-Gadot, E. and Werner, S.B. (2013) Advancing ethics in public organizations: the impact of an ethics program on employees' perceptions and behaviors in a regional council. *Journal of Business Ethics*. Vol 112, No 1. pp 59–78.
[38] Schyns, B. and Schilling, J. (2013) How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. *Leadership Quarterly*. Vol 24, No 1. pp138–58.
[39] Ibid.
[40] Belle and Cantarelli (2017).
[41] Pascual-Ezama, D., Dunfield, D., De Liaño, B.G.G. and Prelec, D. (2015) Peer effects in unethical behavior: standing or reputation? *PloS One*. Vol 10, No 4. pp1–14.
[42] Mooijman, M., Van Dijk, W.W., Van Dijk, E. and Ellemers, N. (2017) On sanction-goal justifications: how and why deterrence justifications undermine rule compliance. *Journal of Personality and Social Psychology*. Vol 112, No 4. pp577–88.
[43] Kish-Gephart et al (2010).
[44] Martin, K.D. and Cullen, J.B. (2006) Continuities and extensions of ethical climate theory: a meta-analytic review. *Journal of Business Ethics.* Vol 69, No 2. pp175–94.
[45] Kish-Gephart et al (2010).
[46] Beeri et al (2013).
[47] Belle and Cantarelli (2017).
[48] Kish-Gephart et al (2010).
[49] Derfler-Rozin, R., Moore, C. and Staats, B.R. (2016) Reducing organizational rule breaking through task variety: how task design supports deliberative thinking. *Organization Science*. Vol 27, No 6. pp1361–79.
[50] Chen, M., Chen, C.C. and Sheldon, O.J. (2016) Relaxing moral reasoning to win: how organizational identification relates to unethical pro-organizational behavior. *Journal of Applied Psychology*. Vol 101, No 8. pp1082–96.

	adherence to medical advice outside of workplace settings
Breaking moral norms	Kish-Gephart et al (2010)[139] distinguished between unethical and counterproductive workplace behaviours. In their definition, unethical behaviour relates to *'any organizational member action that violates widely accepted (societal) moral norms'*. In contrast, CWB, withdrawal and other forms of negative behaviours in organisations violate only organisational norms (for example job performance, being on time), which do not necessarily match or have relevance to wider societal norms (for example honesty, compassion).
Withdrawal	It could be argued that behaviours that proactively harm individuals or organisations are conceptually different from behaviours where employees withdraw their contribution to the work process, yet the two are often conflated in practice.[140] However, by testing the relationships between CWB, withdrawal and their antecedents, Carpenter and Berry[141] showed that withdrawal behaviours are a subset of CWB targeted at the organisation, as they share correlations with similar antecedents Reader and Gillespie[142] also used the term 'neglect', describing the failure of caregivers to meet the needs of their patients.

7 Notes

[1] Financial Reporting Council. (2018) *The UK corporate governance code*. Available at: www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.pdf [Accessed 10 January 2019].
[2] CIPD. (2017). *Do investors see the value of people data?* London: Chartered Institute of Personnel and Development. Available at: www.cipd.co.uk/knowledge/strategy/governance/investors-people-data [Accessed 7 January 2019].
[3] Shaughnessy, J.J. and Zechmeister, E.B. (1985) *Research methods in psychology*. New York: Alfred A. Knopf.
[4] Cohen, J. (1988) *Statistical power analysis for the behavioral sciences.* 2nd ed. Hillsdale, NJ: Lawrence Erlbaum Associates.
[5] Kish-Gephart, J., Harrison, D. and Treviño, L. (2010) Bad apples, bad cases, and bad barrels: meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*. Vol 95, No 1. pp1–31 (p2).
[6] Umphress, E.E., Bingham, J.B. and Mitchell, M.S. (2010) Unethical behavior in the name of the company: the moderating effect of organizational identification and positive reciprocity beliefs on unethical pro-organizational behavior. *Journal of Applied Psychology*. Vol 95, No 4. pp769–80.
[7] Kish-Gephart et al (2010).
[8] Gonzalez-Mule, E., Mount, M.K. and Oh, I.S. (2014) A meta-analysis of the relationship between general mental ability and nontask performance. *Journal of Applied Psychology.* Vol 99, No 6. pp1222–43.
[9] Kish-Gephart et al (2010).
[10] Belle, N. and Cantarelli, P. (2017) What causes unethical behavior? A meta-analysis to set an agenda for public administration research. *Public Administration Review*. Vol 77, No 3. pp 327–39.
[11] Kish-Gephart et al (2010).
[12] O'Boyle, E.H., Forsyth, D.R., Banks, G.C. and McDaniel, M.A. (2012) A meta-analysis of the Dark Triad and work behavior: a social exchange perspective. *Journal of Applied Psychology*. Vol 97, No 3. pp557–79.
[13] Harrison, A., Summers, J. and Mennecke, B. (2016) The effects of the dark triad on unethical behavior. *Journal of Business Ethics.* Vol 153, No 1. pp53–77. doi: 10.1007/s10551-016-3368-3.
[14] Belle and Cantarelli (2017).
[15] Ibid.
[16] Thau, S., Derfler-Rozin, R., Pitesa, M., Mitchell, M.S. and Pillutla, M.M. (2015) Unethical for the sake of the group: risk of social exclusion and pro-group unethical behavior. *Journal of Applied Psychology*. Vol 100, No 1. pp98–113.
[17] Mowchan, M., Lowe, D.J. and Reckers, P.M. (2015) Antecedents to unethical corporate conduct: characteristics of the complicit follower. *Behavioral Research in Accounting*. Vol 27, No 2. pp95–126.
[18] Kish-Gephart et al (2010).
[19] Johnson, E.N., Lowe, D.J. and Reckers, P.M. (2016) The influence of mood on subordinates' ability to resist coercive pressure in public accounting. *Contemporary Accounting Research*. Vol 33, No 1. pp261–87.
[20] Kish-Gephart et al (2010).
[21] Street, M. and Street, V.L. (2006) The effects of escalating commitment on ethical decision-making. *Journal of Business Ethics*. Vol 64, No 4. pp343–56.
[22] Charness, G., Masclet, D. and Villeval, M.C. (2014) The dark side of competition for status. *Management Science*. Vol 60*,* No 1. pp38–55.
[23] Lowe, J.D. and Reckers, P.M.J. (2012) An examination of the contribution of dispositional affect on ethical lapses. *Journal of Business Ethics*. Vol 111, No 2. pp179–93.

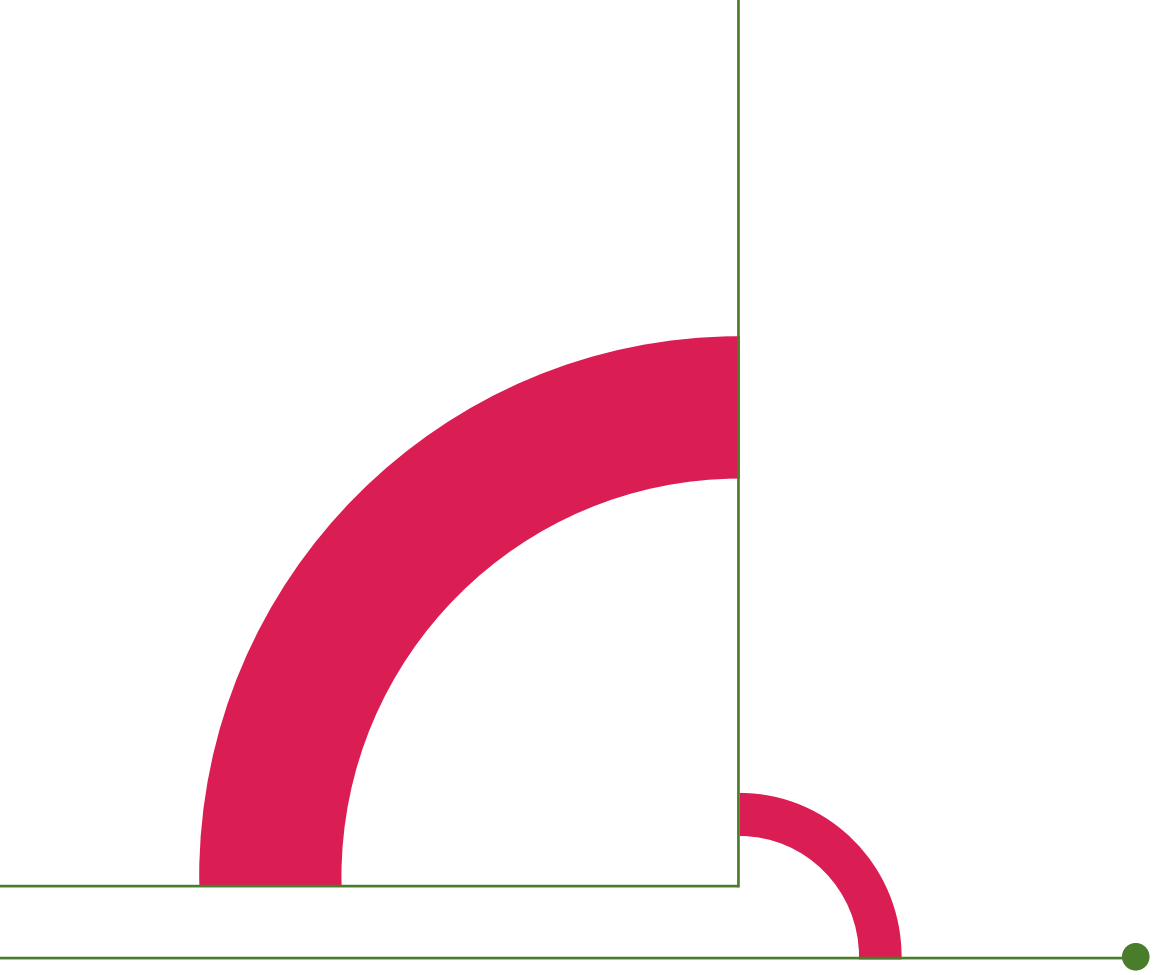
[24] Whelpley, C.E. and McDaniel, M.A. (2016) Self-esteem and counterproductive work behaviors: a systematic review. *Journal of Managerial Psychology.* Vol 31, No 4. pp850–63.
[25] Kaplan, S., Bradley, J.C., Luchman, J.N. and Haynes, D. (2009) On the role of positive and negative affectivity in job performance: a meta-analytic investigation. *Journal of Applied Psychology*. Vol 94, No 1. pp162–76.
[26] Sulea, C., Maricuţoiu, L., Dumitru, C.Z. and Pitariu, H.D. (2015) Predicting counterproductive work behaviors: a meta-analysis of their relationship with individual and situational factors. *Psihologia Resurselor Umane.* Vol 8, No 1. pp66–81.
[27] Kaplan et al (2009).
[28] Mowchan et al (2015).
[29] Kish-Gephart et al (2010).
[30] Ibid.
[31] Belle and Cantarelli (2017).
[32] Cohen-Charash, Y. and Spector, P.E. (2001) The role of justice in organizations: a meta-analysis. *Organizational Behavior and Human Decision Processes*. Vol 86, No 2. pp278–321.
[33] Greenbaum, R.L., Hill, A., Mawritz, M.B. and Quade, M.J. (2017) Employee Machiavellianism to unethical behavior: the role of abusive supervision as a trait activator. *Journal of Management*. Vol 43, No 2. pp585–609.
[34] Sanders, S., Wisse, B., Van Yperen, N.W. and Rus, D. (2016) On ethically solvent leaders: the roles of pride and moral identity in predicting leader ethical behavior. *Journal of Business Ethics*. Vol 150, No 3. pp631–45. doi: https://doi.org/10.1007/s10551-016-3180-0.
[35] Hoogervorst, N., De Cremer, D. and Van Dijke, M. (2010) Why leaders not always disapprove of unethical follower behavior: it depends on the leader's self-interest and accountability. *Journal of Business Ethics*. Vol 95, No 1. pp29–41.
[36] Bedi, A., Alpaslan, C. and Green, S. (2016) A meta-analytic review of ethical leadership outcomes and moderators. *Journal of Business Ethics.* Vol 139, No 3. pp 517–36.
[37] Beeri, I., Dayan, R., Vigoda-Gadot, E. and Werner, S.B. (2013) Advancing ethics in public organizations: the impact of an ethics program on employees' perceptions and behaviors in a regional council. *Journal of Business Ethics*. Vol 112, No 1. pp 59–78.
[38] Schyns, B. and Schilling, J. (2013) How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. *Leadership Quarterly*. Vol 24, No 1. pp138–58.
[39] Ibid.
[40] Belle and Cantarelli (2017).
[41] Pascual-Ezama, D., Dunfield, D., De Liaño, B.G.G. and Prelec, D. (2015) Peer effects in unethical behavior: standing or reputation? *PloS One*. Vol 10, No 4. pp1–14.
[42] Mooijman, M., Van Dijk, W.W., Van Dijk, E. and Ellemers, N. (2017) On sanction-goal justifications: how and why deterrence justifications undermine rule compliance. *Journal of Personality and Social Psychology*. Vol 112, No 4. pp577–88.
[43] Kish-Gephart et al (2010).
[44] Martin, K.D. and Cullen, J.B. (2006) Continuities and extensions of ethical climate theory: a meta-analytic review. *Journal of Business Ethics.* Vol 69, No 2. pp175–94.
[45] Kish-Gephart et al (2010).
[46] Beeri et al (2013).
[47] Belle and Cantarelli (2017).
[48] Kish-Gephart et al (2010).
[49] Derfler-Rozin, R., Moore, C. and Staats, B.R. (2016) Reducing organizational rule breaking through task variety: how task design supports deliberative thinking. *Organization Science*. Vol 27, No 6. pp1361–79.
[50] Chen, M., Chen, C.C. and Sheldon, O.J. (2016) Relaxing moral reasoning to win: how organizational identification relates to unethical pro-organizational behavior. *Journal of Applied Psychology*. Vol 101, No 8. pp1082–96.

[51] Desmet, P.T., Hoogervorst, N. and Van Dijke, M. (2015) Prophets vs. profits: how market competition influences leaders' disciplining behavior towards ethical transgressions. *Leadership Quarterly*. Vol 26, No 6. pp1034–50.
[52] Bedi, A. and Schat, A.C. (2013) Perceptions of organizational politics: a meta-analysis of its attitudinal, health, and behavioural consequences. *Canadian Psychology/Psychologie Canadienne.* Vol 54, No 4. pp246–59.
[53] Valle, M., Kacmar, K.M. and Zivnuska, S. (2017) Understanding the effects of political environments on unethical behavior in organizations. *Journal of Business Ethics*. doi: 10.1007/s10551-017-3576-5.
[54] Pindek, S. and Spector, P. (2016) Organizational constraints: a meta-analysis of a major stressor. *Work and Stress.* Vol 30, No 1. pp7–25.
[55] Diekmann, A., Przepiorka, W. and Rauhut, H. (2011) Die präventivwirkung des nichtwissens im experiment/Experimental evidence for the preventive effect of ignorance. *Zeitschrift für Soziologie*. Vol 40, No 1. pp74–84.
[56] Belle and Cantarelli (2017).
[57] Kish-Gephart et al (2010).
[58] Ibid.
[59] Schweitzer, M.E., Ordóñez, L. and Douma, B. (2004) Goal setting as a motivator of unethical behavior. *Academy of Management Journal*. Vol 47, No 3. pp422–32.
[60] Welsh, D.T. and Ordóñez, L.D. (2014) Conscience without cognition: the effects of subconscious priming on ethical behavior. *Academy of Management Journal.* Vol 57, No 3. pp723–42.
[61] Clor-Proell, S.M., Kaplan, S.E. and Proell, C.A. (2015) The impact of budget goal difficulty and availability on employee fraud. *Journal of Business Ethics*. Vol 131, No 4. pp773–90.
[62] Bellizzi, J.A. and Hasty, R.W. (2003) Supervising unethical sales force behavior: how strong is the tendency to treat top sales performers leniently? *Journal of Business Ethics*. Vol, 43, No 4. pp337–51.
[63] Kish-Gephart et al (2010).
[64] See note 52.
[65] See note 36.
[66] See note 10.
[67] Clarke, S. (2013) Safety leadership: a meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviours. *Journal of Occupational and Organizational Psychology*. Vol 86, No 1. pp22–49.
[68] See note 32.
[69] See note 25.
[70] See note 5.
[71] See note 44.
[72] See note 12.
[73] See note 54.
[74] See note 38.
[75] See note 26.
[76] See note 24.
[77] Woo, S.E., Chernyshenko, O.S., Stark, S.E. and Conz, G (2014) Validity of six openness facets in predicting work behaviors: a meta-analysis. *Journal of Personality Assessment*. Vol, 96, No 1. pp76–86.
[78] Clarke, S. (2006) The relationship between safety climate and safety performance: a meta-analytics review. *Journal of Occupational Health Psychology*. Vol 11, No 4. pp315–27.
[79] Al-Rafee, S. and Cronan, T.P. (2006) Digital piracy: factors that influence attitude toward behavior. *Journal of Business Ethics*. Vol 63, No 3. pp237–59.
[80] Davis, A.L. and Rothstein, H.R. (2006) The effects of the perceived behavioral integrity of managers on employee attitudes: a meta-analysis. *Journal of Business Ethics*. Vol 67, No 4. pp407–19.

[81] Fine, S., Horowitz, I., Weigler, H. and Basis, L. (2010) Is good character good enough? The effects of situational variables on the relationship between integrity and counterproductive work behaviors. *Human Resource Management Review.* Vol 20, No 1. pp73–84.
[82] Gardner, B.O., Boccaccini, M.T., Bitting, B.S. and Edens, J.F (2015) Personality Assessment Inventory scores as predictors of misconduct, recidivism, and violence: a meta-analytic review. *Psychological Assessment*. Vol 27, No 2. pp534–44.
[83] Langevin, P. and Mendoza, C. (2013) How can management control system fairness reduce managers' unethical behaviours? *European Management Journal*. Vol 31, No 3 pp209–22.
[84] McLeod, M.S., Payne, G.T. and Evert, R.E. (2016) Organizational ethics research: a systematic review of methods and analytical techniques. *Journal of Business Ethics*. Vol 134, No 3. pp429–43.
[85] Ones, D.S., Viswesvaran, C. and Schmidt, F.L. (2012) Integrity tests predict counterproductive work behaviors and job performance well: comment on Van Iddekinge, Roth, Raymark, and Odle-Dusseau (2012). *Journal of Applied Psychology.* Vol 97, No 3. pp537–42.
[86] Reader, T.W. and Gillespie, A. (2013) Patient neglect in healthcare institutions: a systematic review and conceptual model. *BMC Health Services Research*. Vol 13, No 1. pp156–71.
[87] Schmidt, F.L., Oh, I.S. and Shaffer, J.A. (2016) The validity and utility of selection methods in personnel psychology: practical and theoretical implications of 100 years of research findings. Available at: www.researchgate.net/publication/309203898 [Accessed 16 April 2019].
[88] Simons, T., Leroy, H., Collewaert, V. and Masschelein, S. (2015) How leader alignment of words and deeds affects followers: a meta-analysis of behavioral integrity research. *Journal of Business Ethics*. Vol 132, No 4. pp831–44.
[89] Sommestad, T., Hallberg, J., Lundholm, K. and Bengtsson, J. (2014) Security policy compliance: a systematic review of quantitative studies. *Information Management and Computer Security*. Vol 22. No 1. pp42–75.
[90] Stamkou, E., van Kleef, G.A., Homan, A.C. and Galinsky, A.D. (2016) How norm violations shape social hierarchies: those who stand on top block norm violators from rising up. *Group Processes and Intergroup Relations*. Vol 19, No 5. pp608–29.
[91] Treviño, L.K., Den Nieuwenboer, N.A. and Kish-Gephart, J.J. (2014) (Un)ethical behavior in organizations. *Annual Review of Psychology*. Vol 65. pp635–60.
[92] Van Iddekinge, C.H., Roth, P.L., Raymark, P.H. and Odle-Dusseau, H.N (2012) The criterion-related validity of integrity tests: an updated meta-analysis. *Journal of Applied Psychology*. Vol 97, No 3. pp499–530.
[93] See note 37.
[94] See note 62.
[95] See note 22.
[96] See note 50.
[97] See note 61.
[98] DeConinck, J. (2003) The impact of a corporate code of ethics and organizational justice on sales managers' ethical judgments and reaction to unethical behavior. *Marketing Management Journal*. Vol 13, No 1. pp23–31.
[99] See note 49.
[100] See note 51.
[101] See note 55.
[102] Graham, K.A., Ziegert, J.C. and Capitano, J. (2015) The effect of leadership style, framing, and promotion regulatory focus on unethical pro-organizational behavior. *Journal of Business Ethics*. Vol 126, No 3. pp423–36.
[103] See note 33.
[104] See note 13.
[105] See note 35.
[106] See note 19.
[107] See note 42.
[108] See note 17.

[109] See note 41.
[110] See note 34.
[111] See note 21.
[112] See note 16.
[113] See note 53.
[114] Andrighetto, G., Grieco, D. and Tummolini, L. (2015) Perceived legitimacy of normative expectations motivates compliance with social norms when nobody is watching. *Frontiers in Psychology*. Vol 6, No 1413.
[115] Brandhorst, S. and Kluge, A. (2016) The spectrum of safety-related rule violations: development of a rule-related behavior typology. *Journal of Cognitive Engineering and Decision Making*. Vol 10, No 2. pp178–96.
[116] Beams, J.D. and Chatraphorn, P. (2016) The effects of tipping and losses on insider trading. *Journal of Forensic and Investigative Accounting*. Vol 8, No 2. pp108–14.
[117] Bews, N.F. and Rossouw, G.J. (2002) A role for business ethics in facilitating trustworthiness. *Journal of Business Ethics*. Vol 39, No 4. pp377–90.
[118] Brauer, M. and Chekroun, P. (2005) The relationship between perceived violation of social norms and social control: situational factors influencing the reaction to deviance. *Journal of Applied Social Psychology*. Vol 35, No 7. pp1519–39.
[119] Childs, J. (2012) Demonstrating the need for effective business ethics: an alternative approach. *Business and Society Review*. Vol 117, No 2. pp221–32.
[120] Chong, V.K. and Law, M.B. (2016) The effect of a budget-based incentive compensation scheme on job performance: the mediating role of trust-in-supervisor and organizational commitment. *Journal of Accounting and Organizational Change*. Vol 12, No 4. pp590–613.
[121] Cumming, D., Dannhauser, R. and Johan, S. (2015) Financial market misconduct and agency conflicts: a synthesis and future directions. *Journal of Corporate Finance*. Vol 34. pp150–68.
[122] Cornelis, I., Van Hiel, A., De Cremer, D. and Mayer, D.M. (2013) When leaders choose to be fair: follower belongingness needs and leader empathy influences leaders' adherence to procedural fairness rules. *Journal of Experimental Social Psychology*. Vol 49, No 4. pp605–13.
[123] See note 49.
[124] Gamliel, E. and Peer, E. (2013) Explicit risk of getting caught does not affect unethical behavior. *Journal of Applied Social Psychology*. Vol 43, No 6. pp1281–88.
[125] Gailliot, M.T., Gitter, S.A., Baker, M.D. and Baumeister, R.F. (2012) Breaking the rules: low trait or state self-control increases social norm violations. *Psychology*. Vol 3, No 12. pp1074–83.
[126] Grym, J. and Liljander, V. (2016) To cheat or not to cheat? The effect of a moral reminder on cheating. *Nordic Journal of Business*. Vol 65, No 3/4. pp18–37.
[127] Kroher, M. and Wolbring, T. (2015) Social control, social learning, and cheating: evidence from lab and online experiments on dishonesty. *Social Science Research*. Vol 53. pp311–24.
[128] Moore, C., Detert, J.R, Klebe Treviño, L., Baker, V.L. and Mayer, D.M. (2012) Why employees do bad things: moral disengagement and unethical organizational behavior. *Personnel Psychology*. Vol 65, No 1. pp1–48.
[129] Nogami, T. and Yoshida, F. (2013) Rule-breaking in an anonymous situation: when people decide to deviate from existing rules. *International Journal of Psychology*. Vol 48, No 6. pp1284–90.
[130] Piff, P.K., Stancato, D.M., Côté, S., Mendoza-Denton, R. and Keltner, D. (2012) Higher social class predicts increased unethical behavior. *Proceedings of the National Academy of Sciences*. Vol 109, No 11. pp4086–91.
[131] Roeser, K., McGregor, V.E., Stegmaier, S., Mathew, J., Kübler, A. and Meule, A. (2016) The dark triad of personality and unethical behavior at different times of day. *Personality and Individual Differences*. Vol 88. pp73–77.
[132] Tayler, W.B. and Bloomfield, R.J. (2011) Norms, conformity, and controls. *Journal of Accounting Research*. Vol 49, No 3. pp753–90.
[133] See note 8.

[134] See note 26.
[135] See note 54.
[136] See notes 67 and 78.
[137] Sommestad, T., Hallberg, J., Lundholm, K. and Bengtsson, J. (2014) Variables influencing information security policy compliance: a systematic review of quantitative studies. *Information Management and Computer Security*. Vol 22, No 1. pp42–75.
[138] Jones, C.J., Smith, H.E. and Llewellyn, C.D. (2016) A systematic review of the effectiveness of interventions using the Common Sense Self-Regulatory Model to improve adherence behaviours. *Journal of Health Psychology.* Vol 21, No 11. pp2709–24.
[139] See note 5.
[140] See note 25.
[141] Carpenter, N.C., Berry, C.M. and Houston, L.(2014) A meta-analytic comparison of self-reported and other-reported organizational citizenship behavior. *Journal of Organizational Behavior*. Vol 35, No 4. pp547–74.
[142] Reader, T.W. and Gillespie, A. (2013) Patient neglect in healthcare institutions: a systematic review and conceptual model. *BMC Health Services Research*. Vol 13. pp156–71.



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