

**Withstanding Moral Disengagement: Moral Self-Efficacy as Moderator in Counterproductive Behavior Routinization**

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**Abstract**

Moral disengagement plays an important role in the routinization of counterproductive work behavior (CWB) as a key mediator. What remains unclear are the factors that could attenuate the power of moral disengagement in this process. Building on social-cognitive theory, we hypothesize the moderating role of moral self-efficacy and suggest the importance of two different dimensions: self-reflective and behavioral moral self-efficacies. While the former should buffer the CWB-moral disengagement path over time, the latter should buffer the moral disengagement-CWB path. After presenting the psychometric properties of the moral self-efficacy scale in two independent samples (Study 1: United Kingdom, N=359; Study 2: Italy, N=1308), we test the posited multi-wave moderated-mediated model. Results from a structural equation model supported our hypotheses. Results demonstrate that the routinization of CWB through the mediation of moral disengagement over time is conditionally influenced by the two moral self-efficacy dimensions. Employees high in capability to look back and question the assumptions that affected their behavior (i.e. self-reflective moral self-efficacy) are less likely to morally disengage as a result of previous engagement in CWB. Employees high in capability to morally self-regulate (i.e. behavioral moral self-efficacy) are less likely to engage in CWB as a result of their moral disengagement. Results of the conditional indirect effect suggest that previous engagement in CWB is not translated in future engagement in CWB for those individuals high in both moral self-efficacy dimensions.

**Keywords:**

Moral Disengagement, Slippery Slope, Moral Self-Efficacy, Self-Reflection, Self-Regulation, Counterproductive Work Behavior, Moderation

*'You know sometimes I would say flippant things but I was often very conscious that I didn't say anything personal about anybody and it was sort of jokes but there was never a target. They were never targeted at anybody. It is sort of a corporate sense of humor and a corporate language that is used.'* (Manager quoted in Jenkins, Zapf, Winefield, & Sarris, 2012, p. 495)

*'In the time Kerry and I have shared this office, I have noticed that she sometimes doesn't greet me when I come in to the room. Now I use this to justify not only not greeting her, but where possible, ignoring her entirely.'* (Employee quoted in Zabrodska, Ellwood, Zaeemdar, & Mudrak, 2016, p. 148).

Counterproductive work behavior (CWB) is an umbrella term referring to a broad range of misbehavior at work (Spector & Fox, 2005) from purposely wasting or siphoning off resources and falsely calling in sick to ignoring, insulting, making fun of or bullying others. The enactment of CWB is becoming increasingly widespread. Recent US research indicates that almost 41% of employees have witnessed some forms of unethical conduct in their workplace (Ethics Resource Center - ERC, 2013).

Moral disengagement plays a key role in fostering and routinizing CWB over time (Fida et al., 2018; Newman et al., 2020; Welsh et al., 2015). Moral disengagement is a social-cognitive process that deviates people's moral compass (to use the metaphor described by Moore & Gino, 2013) through the legitimization and justification of misbehaviors (Bandura, 2016; Newman et al., 2019). Moral disengagement involves the temporarily cognitive reframing of misbehaviors to make them acceptable. This enables people to engage in misbehavior without self-censure. Moral disengagement is also affected by previous misconduct. The engagement in misbehavior makes it more likely that people will continue to morally disengage because they become more tolerant towards misconduct (Bandura 1986, 2016) 'until eventually acts originally regarded as abhorrent can be performed without much distress' (Bandura 1986, p. 385).

While several studies have focused on the effect of moral disengagement and its antecedents, the question of how to mitigate the power of moral disengagement and its role in the routinization of CWB has received less attention. This is an important theoretical issue because moral disengagement is a powerful process through which the self-regulatory system is temporarily bypassed (Bandura, 2002), making CWB routinization more likely. However, the routinization of misconduct is not necessarily a linear process (i.e. the more people engaged in CWB in past the

more they engage in CWB in the future): there are several factors that can intervene in this process and make the routinization more or less likely (e.g., Chugh & Kern, 2016; Gaspar et al., 2015; Zhong & Robinson, 2021).

In this paper we investigate the role of individuals' personal resources in the moral domain as boundary conditions for the routinization of CWB through moral disengagement. In particular, we hypothesize that moral self-efficacy buffers the process leading to the routinization of CWB. While for individuals with low moral self-efficacy CWBs are more likely to be routinized through moral disengagement, for those with high moral self-efficacy CWB routinization through moral disengagement is less likely.

We focus on this personal resource because self-efficacy beliefs attest to the power of personal agency more than any other psychological construct (Bandura, 1986, 2001). Although self-efficacious individuals are in general more self-regulated and motivated to behave in line with their standards this does not mean they are morally infallible. Their possible misconduct could be an exception rather than the norm (Baumeister & Juola Exline, 1999) and thus the result of a temporary deviation of the moral compass through processes like moral disengagement (Chugh & Kern, 2016; Moore & Gino, 2013). However, because self-efficacious individuals are generally more oriented to self-monitor and learn from their past experience (Bandura, 1993; 1997), we anticipate that their possible past misconduct is less likely to be routinized. While some scholars see moral disengagement as trait/attitude-like (see the literature review by Moore, 2015), suggesting the possible incompatibility between moral disengagement and high moral agentic capabilities, we conceive moral disengagement in line with Bandura's theory as a social cognitive process temporarily bypassing the self-regulatory system (Bandura, 2016).

In our model (Figure 1) we propose two moral self-efficacy dimensions, namely self-reflective and behavioral self-efficacy, that can buffer the CWB-moral disengagement-CWB process in different ways. *Self-reflective moral self-efficacy* refers to the meta-cognitive capability to re-think past misbehavior and learn from ethical failures and we expect it to buffer the CWB-moral

disengagement path. *Behavioral moral self-efficacy* refers to the meta-cognitive capabilities to self-regulate behavior in morally challenging situations and we expect it to buffer the moral disengagement-CWB path. We present two empirical studies conducted in two different contexts (i.e., the United Kingdom and Italy). While the first one is a preliminary study, which aims to examine the psychometric properties of our moral self-efficacy measure, the second one aims to test the posited model by adopting a multi-wave design.

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The present research offers a theoretical contribution to Bandura's moral disengagement theory. While a significant body of literature has investigated the factors predicting moral disengagement as well as its consequences (Detert et al., 2008; Duffy et al., 2012; Fida, Paciello, Tramontano, Fontaine, et al., 2015; Kennedy et al., 2017; McFerran et al., 2010; Moore et al., 2019), we know less about the role of individual personal resources in mitigating the disinhibitory powers of moral disengagement. Moral self-efficacy captures personal agentic capabilities that may hinder the more automatic recourse to moral disengagement. Both reflective and behavioral moral competences can help individuals withstand moral disengagement and interrupt the routinization of misconduct. While agentic capabilities regulating moral conduct have been described by Bandura (2016), their relationship with moral disengagement has not been theorized and likewise their power in attenuating moral disengagement in the routinization of CWB neither suggested nor tested.

Hereby, we also contribute to the literature on self-efficacy. The role of self-efficacy has been clearly demonstrated in relation to performance, wellbeing and job attitudes (Bandura, 1997; Gong et al., 2020; Jaina & Tyson, 2004; Judge et al., 2007; McNatt & Judge, 2008; Shoji et al., 2016; Stajkovic & Luthans, 1998). However, we know less about the specific self-efficacy capabilities regulating moral conduct. In this research, we demonstrate the importance of looking not only at the behavioral moral competences (e.g., the capability to resist the pressure to misbehave) but also the self-reflective ones. When individuals are able to think back and reflect on their moral failures, they

become more aware of the possible cognitive self-deceiving mechanisms (e.g., moral disengagement) temporarily affecting moral regulation.

Finally, the model under study contributes to existing business ethics literature by providing a malleable perspective of unethical behavior in the workplace based on an examination of the moderation of the CWB routinization process through the mediation of moral disengagement. It helps explain why the routinization process is more likely for some individuals than for others. As highlighted in the business ethics literature, most studies have investigated the processes conducive to misconduct rather than focusing on the personal factors that can contribute to more competent moral functioning (Margolis, 2009; Moore & Gino, 2013; Zhang et al., 2018).

#### *Routinization of CWB: The Mediating Role of Moral Disengagement*

Moral standards generally guide individuals' moral conduct. However, they do not always guarantee behaviors consistent with them. People who fail to comply with moral standards need to resort to processes like moral disengagement to protect their moral Self. Moral disengagement temporarily silences moral standards. Misbehaviors are cognitive reframed and people can engage in misbehavior without self-censure while saving moral standards (e.g., Bandura, 2016; Moore & Gino, 2013; Newman et al., 2019).

Moral disengagement includes a set of eight intercorrelated social-cognitive mechanisms (Bandura, 2016). Moral justifications sanctify wrongdoing so that it is invested with honorable purposes. Euphemistic labelling sanitizes wrongdoing through the use of masking and milder words that make misbehaviors appear more benign and less repugnant. Advantageous comparison is the mechanism that renders wrongdoing seemingly harmless by comparing it with more reprehensible and outrageous behaviors. Through the displacement of responsibility, the responsibility for wrongdoing is attributed to authority figures who may have dictated or condoned it more or less explicitly. Similarly, through the diffusion of responsibility, misbehavior is seen as characteristic of the social group and the responsibility thus perceived to be dispersed across the members of a group. The distortion of consequences operates by minimizing, hiding or disregarding the actual

consequences of the wrongdoing. Dehumanization operates by disinvesting the targets of misbehavior from human qualities such as intelligence and rationality or by attributing them with subhuman characteristics such as deviance and incompetence. Finally, the attribution of blame operates by making the victims responsible for the mistreatment they suffer, for instance by labelling their actions as an offence against social norms and thus deserving of punishment.

Moral disengagement has received a lot of attention in the literature for its role in explaining misconduct at work (see Newman et al., 2019 for a recent literature review) such as CWB (e.g., Fida et al., 2015; Huang et al., 2017), corruption (Moore, 2008), corporate wrongdoing (e.g., White et al., 2009), passive and/or destructive bullying and bystander behavior (Ng et al., 2019). A growing number of studies focus on moral disengagement not only as an antecedent of misconduct but also as its consequence, i.e. misbehaving also predicts higher levels of moral disengagement (Fida et al., 2018; Fontaine et al., 2014; Shu et al., 2011; Welsh et al., 2015). The engagement in misconduct may lead to moral desensitization over time as individuals become more tolerant towards the discomfort engagement in CWB brings. In this way CWBs may progressively be normalized and seen as less reprehensible and more easily justifiable (Bazerman & Gino, 2012; Fida et al., 2021; Paciello et al., 2008). In line with this, Fida et al. (2018) demonstrated this interplay between moral disengagement and cheating behavior over time. Welsh et al. (2015) similarly provided evidence of the role of moral disengagement in mediating the slippery-slope effect: moral disengagement allows individuals who misbehaved to justify future misconduct. Thus, based on this literature we hypothesize (see Figure 1): H1. Engagement in CWB is positively associated with moral disengagement: the more individuals misbehave at work the more they are likely to morally disengage; H2. Moral disengagement positively influences CWB over time: the more individuals morally disengage the more they are likely to misbehave at work; H3. Moral disengagement mediates the relationship between prior and later engagement in CWB.

*Routinization of CWB: The Moderating Role of Self-Reflective and Behavioral Moral Self-Efficacy*

Literature on misconduct highlights that although there is a positive relationship between past

and future misbehavior, there is also evidence that this relationship is more complex and not necessarily linear (Baumeister & Juola Exline, 1999; Chugh & Kern, 2016; Gaspar et al., 2015; Zhong & Robinson, 2021). Among the different factors which could moderate the CWB-moral disengagement-CWB path we examine the role of self-efficacy in the moral domain.

Self-efficacy is the belief “in one’s capabilities to organize and execute the courses of action required to produce given levels of attainments” (Bandura, 2000, p. 16) and it “has proven to be one of the most focal concepts in contemporary psychology research” (Judge et al., 2007, p. 107). Self-efficacy affects the way people think, feel and behave. Self-efficacy beliefs are knowledge structures that reflect the degree of control people are able to exert over themselves to positively adapt and change. Studies attest that individuals who believe in their adaptive capabilities (e.g., self-regulated learning, emotional and social regulation) are more resilient, perform better, engage in more positive behavior, and are more positively adjusted (Bandura, 1997).

We conceive moral self-efficacy as *the set of beliefs which individuals have about their capabilities to self-reflect and self-regulate moral behavior*. “Without deliberative and reflective conscious activity, humans are simply mindless automatons. Cognitive capabilities provide us with the means to function as mindful agents” (Bandura, 2006b, p. 167). *Self-reflective moral self-efficacy* refers to beliefs about one’s own capability to self-reflect on past moral failures as well as the capability to anticipate possible repairing behaviors. *Behavioral moral self-efficacy* refers to the perceived capabilities to self-regulate moral behavior in tempting and pressing situations. Both dimensions operate in concert at the service of moral Self and foster ethical behavior while refraining misconduct. We hypothesize that these two moral self-efficacy dimensions may mitigate susceptibility to the routinization of misconduct through moral disengagement.

When people adopt moral standards, moral self-efficacy allows them to align and regulate their conduct accordingly. However, this does not exclude their possible moral fallibility. In fact, as suggested by the literature on self-control (Baumeister & Juola Exline, 1999), self-regulatory capabilities could be depleted and this could explain why also self-efficacious individuals might,



under certain circumstances, misbehave. Despite this, highly efficacious individuals are more resilient and with higher self-compassion and hence more likely to “bounce back” after a failure (Bandura, 1997; Liao et al., 2021), and learn from their mistakes rather than routinize CWB and deviate their moral compass.

Self-reflective moral self-efficacy captures the capability to look back and to foresee future actions as well as the capability to question the assumptions that affected past moral failures. Individuals confident of their self-reflective capabilities in the moral domain are more likely to be capable of recognizing the psychological and social processes that have affected their choices to engage in CWB. Although moral standards may have been selectively silenced by moral disengagement to justify CWB, this is only temporarily (Bandura, 2002). Hence, the activation of moral disengagement does not exclude that past misconduct might be rethought. High moral self-reflective individuals have the personal resources to face their past behavior and learn from it. Although the looking back might have some negative consequences, for instance on the individual’s self-view and their emotional states, self-efficacious individuals are generally more resilient and kind to themselves and more capable to cope with the negative emotions resulting from this process (Liao et al., 2021; Schwarzer & Warner, 2013). Their agentic capabilities should allow them to overcome this state by facing their moral responsibilities and change future behaviors accordingly. As suggested by an anonymous reviewer, while there may be negative consequences in the short-term, self-reflection might have long-term benefits. On the contrary, for individuals lower in self-reflective moral self-efficacy it is more likely that past misconduct is further justified by post-hoc rationalization processes.

In line with this, we hypothesize the following: H4. Self-reflective moral self-efficacy is negatively associated with moral disengagement over time: individuals with higher self-reflective moral self-efficacy are less likely to morally disengage; H5. Self-reflective moral self-efficacy buffers the CWB- moral disengagement relationship over time: this relationship is stronger for individuals with low self-reflective moral self-efficacy.

Behavioral moral self-efficacy captures the regulatory capabilities which serve to keep the conduct in line with moral standards and ensure that self-corrective adjustments are on track, “whatever one’s current purpose is (whether overriding another impulse or simply reacting to perturbations from other sources)” (Carver & Scheier, 2016, p. 3). Behavioral moral self-efficacy is the expression of two complementary moral self-regulatory sub-processes: proactively doing the right thing when facing moral challenges; and inhibiting misconduct for instance when tempted or facing social pressures (Bandura, 2016). Both proactive and inhibitory capabilities are possible because individuals are able to self-monitor, self-judge patterns of behavior, and to anticipate their possible consequences as well as the affective reactions to one’s own behavior (Bandura, 1991). Individuals high in behavioral moral self-efficacy are more morally attentive and able to recognize and resist the temptations and pressures to misbehave. They are likely to evaluate choices to engage in CWB more negatively, while ethical ones are evaluated more positively. They should also be able to anticipate the negative consequences of misconduct, and the possible long-term advantages of the ethical choice. Individuals confident in their behavioral self-regulatory capabilities should be able to see themselves as responsible for their own actions in tempting situations and be able to resist them. As discussed above, although individuals high in behavioral moral self-efficacy are in general morally attentive and able to recognize and resist the temptations and pressures to misbehave this does not prevent moral lapses. However, they should be more able to better regulate themselves when facing further moral challenges in the future.

In line with this, we hypothesize the following: H6. Behavioral moral self-efficacy negatively affects CWB over time: individuals high in behavioral moral self-efficacy are less likely to engage in CWB; H7. Behavioral moral self-efficacy buffers the moral disengagement -CWB relationship over time: this relationship is stronger for individuals with low behavioral moral self-efficacy.

By taking together all the hypotheses, we also posit: H8. The indirect effect of CWB at T1 on CWB at T3 through moral disengagement is conditional on individual levels of self-reflective and behavioral moral self-efficacy. Specifically, the indirect effect is stronger for individuals with low

levels of self-efficacy.

### **Study 1.**

This study was designed to preliminary test the psychometric properties of the moral self-efficacy scale and examine its construct and discriminant validity. We investigated the unique contribution of both self-reflective and behavioral moral self-efficacy on CWB above and beyond other relevant work self-efficacy dimensions (i.e. task, emotional, empathic, assertive self-efficacy, Barbaranelli et al., 2018) including Hannah and Avolio's (2010) moral efficacy, which is the only attempt in the literature to investigate self-efficacy in the moral domain.

Although a similar label, our moral self-efficacy captures a broader set of moral capabilities. While Hannah and Avolio (2010) describe moral efficacy only in terms of proactive moral self-regulation, as described above our moral self-efficacy includes also the inhibitory self-regulatory belief. It is indeed well known that self-regulation of moral conduct also requires the capability to self-control (Baumeister & Juola Exline, 1999; DeWall et al., 2011). According to this perspective this capability allows individuals to inhibit the possible impulse to engage in wrongdoing when for example being provoked or experiencing high levels of frustrations (Berkowitz, 1989). In addition, we also considered self-reflective beliefs which allows individuals to learn from their mistakes and not reiterate them over time.

### *Methods*

#### *Sample and Procedure*

After we gained approval from the institutional ethics committee board, data for Study 1 were collected from employees in the United Kingdom using Prolific Academic (ProA, <http://www.prolific.ac>). Prolific is a web platform for recruiting participants. As highlighted by Peer et al. (2017) ProA produces high-quality and reliable data with diverse samples who are more naïve to common experimental research tasks. We included employees in a full-time job. Participants were compensated 0.80 GBP for the time spent completing the 5 to 8-minute survey. Three individuals were removed from the analyses because they failed quality control attention checks

(Oppenheimer et al., 2009). The final sample included 359 employees (64% women). The age ranged from 20 to 66 ( $M = 36.5$ ;  $SD = 9.8$ ). Most of the employees were British (91.6%) of white ethnicity (91.1%) and with a permanent job position (91%). Almost half of the sample had an undergraduate university level education (45.6%), 23.1% post-secondary education, 19.2% postgraduate university level education and 12% secondary education. 29.8% of the participants were professionals (e.g., doctor, nurse, teacher, engineer), 24.2% clerical support workers (e.g., secretary, payroll clerk), 20.3% managers (e.g., business executive, managing director), 10% technician or junior professionals (e.g., junior nurse, construction supervisor) and the others included service or sales workers, or skilled agricultural or craft and related trades workers. One quarter of the participants worked 2-5 years for their organization (33.7%), 25.1% between 5 and 10 years, 22.6% more than 10 years, 15.9% between 1 and 2 years and finally 2.8% less than 1 year.

### *Measures*

*Moral self-efficacy* was developed by the first author and included *behavioral* and *self-reflective moral self-efficacy* subscales (see Supplementary Appendix 1). Items were developed following Bandura's guidelines (Bandura, 2006a). In particular, items needed to be specific, related to the moral functioning and describe situations with different levels of challenges in the moral domain. Items were discussed with the co-authors and other colleagues with expertise in business ethics, moral functioning, and social-cognitive theory. Items were revised, where necessary to improve the coherence between the items and the theoretical definition. A preliminary version of the scale included 17 items. During the discussion, experts were first asked to read the definition of moral self-efficacy and the two dimensions. Then they were presented with the items and they were asked to independently reflect about the degree to which each item was coherent with the conceptual definition<sup>1</sup>. This was followed by a collective discussion led by the first author of the paper. Item by item colleagues were asked to provide their comments. If one of them had any specific concerns about an item, they explained their points and the authors suggested a revision accordingly (i.e. whether to delete the item or reword it). As a result of this process, 7 items were

deleted and one item reworded (see Supplementary Appendix 2).

Behavioral moral self-efficacy included seven items capturing both the proactive and the inhibitory sub-processes. The proactive items described situations in which individuals would behave ethically when facing moral challenges (example items: “Keep doing your work honestly, even when your colleagues misbehave”). The inhibitory items described challenging situations in which individuals would resist the temptation of behaving unethically (example items: “Avoid a short-cut that may simplify your work life”). Self-reflective moral self-efficacy included three items describing the capabilities to reflect upon moral failures and to anticipate possible repairing behaviors (example item: “Reflect upon your actions when you realize you have broken a rule”). Respondents were asked to rate their perceived capabilities on a 5-point scale (from 1 = “Not at all capable” to 5 = “Completely capable”). The analysis of reliability supported the good internal coherence of both behavioral and self-reflective subscales (.87 and .82 respectively).

*Moral Efficacy* was measured by using the scale by Hannah and Avolio (2010) (see [www.mindgarden.com](http://www.mindgarden.com) for the full list of items). It includes five items measuring individuals’ confidence in attaining moral performance (example item is: “*I am confident that I can . . . determine what needs to be done when I face ethical dilemmas*”). Participants rated their levels of confidence on a 5-point scale (from 1 = “Not at all confident” to 5 = “Totally confident”). The analysis of reliability supported the good internal coherence of the scale (.90).

*Work self-efficacy* was measured adapting the scale developed by Barbaranelli et al. (2018). Three items measured empathic SE, three emotional SE, three assertive SE, and three task SE. Participants rated their perceived level of capabilities using a 5-point Likert scale (from 1 = “Not at all Confident” to 5 = “Completely Confident”). The analysis of reliability supported the good internal coherence of each of the scales (empathic self-efficacy = .79; emotional self-efficacy = .72; assertive self-efficacy = .87; task self-efficacy = .73).

*Counterproductive Work Behavior (CWB)* was measured by using the short form of the CWB Checklist scale (Spector et al., 2010). The scale includes 10 items. An example of an item is

“Stayed home from work and said you were sick when you weren’t”. Participants rated the frequency of their behavior on a 5-point scale (from 1 = “Never” to 5 = “Always”). The analysis of reliability showed the good internal coherence of the scale (.83).

*Control variables.* Gender and job tenure were used as control variables. Gender was included considering previous studies suggesting males score higher in deviant behavior (e.g., Berry et al., 2007; Frieze & Li, 2010) and women higher in prosocial and citizen behavior (e.g., Frieze & Li, 2010). Job tenure was also taken into account in line with previous studies suggesting a negative relationship with unethical behavior (Berry et al., 2007).

#### *Analytical Approach*

To examine the psychometric properties of the moral self-efficacy scale we conducted a confirmatory factor analysis (CFA) and the analysis of the reliability coefficients. According to our theoretical model self-reflective moral self-efficacy was defined as a latent variable measured by three items. Behavioral moral self-efficacy was defined as a second order latent variable measured by the inhibitory and the proactive facets, each of them measured by their items. As evidence of the discriminability between the two moral self-efficacy dimensions we compared the posited 2-factor model with an alternative one positing all the moral self-efficacy items loading into a single factor (alternative 1-factor model). Evidence of discriminant validity was also examined considering the other self-efficacy dimensions included in the study (i.e., work self-efficacy and Hannah’s and Avolio moral efficacy). In particular, we compared a model in which each set of items loaded into the intended factor (7-factor model) with an alternative in which all the dimensions loaded into a single factor (unique primary factor model). In order to test for common method bias, we also compared the 7-factor model with a model positing a second-order factor loaded by the primary 7 factors (second-order factor model). The model fit was examined considering: the chi square, the comparative fit index (CFI) and standardized root mean square residual (SRMR) (Byrne, 2012).

Furthermore, we conducted a hierarchical regression model to test the unique contribution of moral self-efficacy subscales on CWB above and beyond moral efficacy and work self-efficacy

scales. Specifically, moral self-efficacy subscales were entered after the covariates and the other personal related dimensions.

### *Results*

Results from the CFA supported the factor structure of the moral self-efficacy scale with one factor measuring behavioral self-efficacy and the other self-reflective self-efficacy (Table 1, M1). Factor loadings were all significant ( $p < .01$ ) and higher than 0.68. The correlation among behavioral and self-reflective self-efficacy subscales was high and significant ( $r = 0.66$ ). The alternative 1-factor model (M2) showed a worst fit than the posited 2-factor model. The difference between the two  $\chi^2$  provided evidence of the discriminability of the two self-efficacy subscales<sup>2</sup>.

When considering also the other self-efficacy scales, results (Table 1) showed that the 7-factor model positing 7 correlated but distinct self-efficacy factors (M3) was significantly better than the alternative unique factor model (M4) as well as the alternative second-order factor model (M5). This provides evidence of the discriminant validity of the moral self-efficacy scale.

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The pattern of correlations among the study variables (see Table 2) was in line with our expectations. As shown, these correlations are all below 0.5 attesting the clear construct validity of moral self-efficacy subscales (Nunnally & Bernstein, 1994). Results of the hierarchical regression (Table 3) showed that behavioral moral self-efficacy was significantly associated with CWB above and beyond Hannah and Avolio's moral efficacy and the work self-efficacy dimensions. The analysis of the regression coefficients highlighted that emotional self-efficacy was the only other dimension associated with CWB. Neither self-reflective moral self-efficacy, Hannah and Avolio's moral efficacy or task, empathic and assertive self-efficacy subscales were associated with CWB.

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### *Discussions*

As demonstrated by the results of this study, moral self-efficacy is a valid and reliable scale. Its

two-factor structure has been supported also when considering other relevant self-efficacy dimensions. Although correlated with these dimensions, both self-reflective and behavioral moral self-efficacy dimensions capture distinct perceived capabilities. Results of the regressions showed that only behavioral self-efficacy was uniquely associated with CWB. This might be due to the specificity of this dimension. While self-reflection is mainly focused on the capabilities to reflect on past misbehaviors, behavioral moral self-efficacy is specifically related to capabilities to self-regulate the behavior. In addition, these two dimensions are highly correlated, and this might also explain why self-reflective self-efficacy although correlated with CWB this association is not significant in the regression.

### **Study 2.**

This study is designed to test our hypotheses (see Figure 1) using a multi-wave design. We hypothesize that individuals' previous engagement in misconduct is not necessarily translated into a higher moral disengagement and misbehavior routinization. We propose that self-reflective and behavioral moral self-efficacy should act as boundary conditions of the CWB routinization. Individuals high in self-reflective and behavioral moral self-efficacy should be better able to withstand moral disengagement and further misconduct. In addition, we also aim to cross-validate the moral self-efficacy scale by testing its cross-cultural and longitudinal generalizability.

#### *Methods*

##### *Sample and Procedure*

Study 2 is part of a multi-wave research project on a sample of Italian employees who have been surveyed three times at monthly intervals. After gaining approval from the institutional ethics committee board, data were collected by a professional survey company (Qualtrics). Participants were compensated for the time spent completing the questionnaire. The sample was balanced for gender and included employees working at least 1 year for their organization. The sample at Time 1 (T1) included 1308 employees (50.2% males). The age ranged from 18 to 65 ( $M=41.5$ ;  $SD=9.96$ ). Most of the employees had a permanent position (91.5%), a full-time job (95.3%), were white



collars (63.8%), had more than 15 years of working experience (58%). One third of the participants had worked more their 15 years for their organization (34.4%), 30.1% between 1 and 5 years, 20.7% between 6 and 10 years and finally 14.8% between 11 and 15 years. One-month later participants were re-contacted and, due to budget constraints, data collection stopped once we reached 50% response rate. As a result, Time 2 (T2) included 638 employees, 51% males. After a further month, Time 2 sample was re-contacted and, again data collection stopped once we reached 50% response rate. As a result, Time 3 (T3) included 320 employees, 52% males. The analysis of the dropout showed that missing data were completely at random (Little's test:  $\chi^2=59.046$ ,  $df=50$ ,  $p=.179$ ).

### *Measures*

*Moral Self-Efficacy at T1 and T3* was measured with the same scale presented in Study 1. The analysis of the internal consistency evidenced adequate levels for both subscales (T1: behavioral = .89; self-reflective = .85; T3: behavioral = .91; self-reflective = .88).

*Moral Disengagement at T2* was measured by eight items from the work moral disengagement scale (Fida, Paciello, Tramontano, Fontaine, et al., 2015). An example of an item is: "an employee who only suggests breaking rules should not be blamed if other employees go ahead and do it". Participants were asked to rate their level of agreement to a set of statements tapping different moral disengagement mechanisms using a 5-point Likert scale (from 1 = "Not agree at all" to 5 = "Completely agree"). The analysis of the internal consistency evidenced adequate levels (.925).

*Counterproductive Work Behavior (CWB) at T1 and T3* were measured with the same scale presented in Study 1. At T1 participants were asked to rate how often, on a 5-point frequency scale (from 1 = "Never" to 5 = "Always"), they have ever engaged in each of the listed behavior and at T3 participants were asked to focus on the last month. The analysis of the internal consistency evidenced adequate levels (T1 = .92; T3 = .94).

*Control variables.* We included gender and job tenure as Study 1.

*Data Analysis*

In order to cross-validate the moral self-efficacy scale, following the same approach of Study 1 we compared the posited 2-factor model (M1) with an alternative 1-factor model (M2). In addition, we considered Study 1 and 2 samples simultaneously and examined the cross-cultural invariance of the scale. This type of analysis is important because, as noted by Bandura (1997, 1986), the appraisal process conducive to self-efficacy is situated within a context where culture plays an important role by providing a selective and interpretative frame (Oettingen, 1995). Cross-cultural invariance (metric, strong and strict) was investigated within the frame of CFA by comparing a series of nested models (Meredith, 1993). Chi square difference test ( $\Delta\chi^2$ , Scott-Lennix & Lennox, 1995) as well as the difference in the CFI ( $\Delta CFI$ , Cheung and Rensvold, 2002) were considered to assess the tenability of cross-cultural invariance. We also examined moral self-efficacy scale longitudinal invariance considering T1 and T3 data. In this analysis residuals of the same variable across time were correlated to account for the fact that “indicator-specific variance that is reliable is likely to correlate with itself over time” (Little, 2013, p. 164; see also Millsap & Meredith, 2007).

The posited moderated mediated model (Figure 1) was tested by examining a latent moderated structural equation model (LMS, Klein & Moosbrugger, 2000) following a multi-step approach (Sardeshmukh & Vandenberg, 2017). This model provides robust parameters’ estimation and standard errors also when variables have mild violations of normality (Klein & Moosbrugger, 2000). Because of the high correlation between the two moral self-efficacy subscales, both self-reflective and behavioral self-efficacy were entered in the model as moderators and antecedents of the dependent variables (i.e., moral disengagement at T2 and CWB at T3). The model was tested by also including the direct effects of CWB at T1 on CWB at T3. In order to examine the amount of variance explained by the interactive terms, we compared the residual variances of moral disengagement at T2 and CWB at T3 between the model tested with the interactions and the one without. We plotted the significant interactions and estimated the conditional effects by using the Mplus constraints. Results of the a-priori power analysis<sup>3</sup> (power level = .80, number of latent

variables = 5, number of observed variables = 14) suggested the adequacy of our sample size of 1308 employees for testing the posited model (minimum sample size=232; recommended minimum sample for an effect size of .30=150; for an effect size of .20=376; for an effect size of .10=1599).

After having ascertained the significance of the moderations, the model was re-specified by including only the significant moderators, and the conditional indirect effects computed using Mplus constraints (Stride et al., 2015). The indirect effects of the model without interactions were examined using a bootstrap procedure with 5000 bootstrap re-samples. Following Sardeshmukh and Vandenberg (2017) latent variables with more than three items were defined by using item parceling (Coffman & MacCallum, 2005; Little et al., 2002). Because the analysis of drop-out suggested that the missing data were completely at random we used a full information maximum likelihood (FIML) parameter estimate method (Arbuckle, 1996) to handle missing data in the model. All analysis were performed using Mplus 8.5 (Muthén & Muthén, 2017).

## *Results*

### *Moral Self-Efficacy: Cross-Cultural and Longitudinal Invariance*

Results of the CFA (Table 1) supported the appropriateness of the posited 2-factor solution with a significant correlation between behavioral and self-reflective self-efficacy subscales ( $r = 0.73$ ). The analysis of the cross-culture invariance (Table 4) supported the generalizability of the self-efficacy scale across the two countries (Steenkamp & Baumgartner, 1998; Steinmetz, 2013). In particular, configural and metric invariance were fully achieved considering both  $\Delta\chi^2$  and  $\Delta CFI$ . Both scalar and strict invariance were achieved only considering the  $\Delta CFI$ . A not significant  $\Delta\chi^2$  was achieved only when releasing some constraints (partial invariance). Also, in the case of longitudinal invariance (Table 4) configural and metric invariance were fully supported, while both scalar and strict invariance were achieved only considering the  $\Delta CFI$ .

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 INSERT TABLE 4 ABOUT HERE  
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*Moderated Mediation Model*

Table 5 shows the descriptive statistics and correlations of the variables included in the posited model. Both behavioral and self-reflective moral self-efficacies at T1 correlate significantly and negatively with moral disengagement at T2 and both CWB at T1 and at T3; moral disengagement correlate significantly and positively with CWB at T1 and T3. Before analyzing the posited model, we have ascertained the longitudinal invariance of CWB which resulted fully invariant considering both  $\Delta\chi^2$  and  $\Delta CFI$ , with the only exception of one intercept (Table 4). In addition, we examined the stability of both moral self-efficacy dimensions over time. Results of the repeated measures ANOVA show that the means of both behavioral and self-reflective moral self-efficacies at T1 were not statistically different from the means at T3 (behavioral moral self-efficacy:  $F_{(1,319)}=.036$ ,  $p=.849$ ; self-reflective moral self-efficacy:  $F_{(1,319)}=.001$ ,  $p=.981$ ).

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 INSERT TABLE 5 ABOUT HERE  
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Results of the model without interactions ( $\chi^2(56) = 98.842$ ,  $p < .001$ ,  $CFI = .99$ ,  $SRMR = .018$ ;  $RMSEA=.024$ ,  $90\%CI: .016-.032$ ,  $p=1.000$ ) supported the hypotheses that CWB at T1 was associated with moral disengagement at T2 ( $H1$ ,  $\beta = .49$ ,  $p < .001$ ) which in turn affected CWB at T3 ( $H2$ ,  $\beta = .32$ ,  $p < .001$ ) above and beyond the effect of CWB at T1 ( $\beta = .38$ ,  $p < .001$ )<sup>4</sup>. Contrary to our expectations, while behavioral self-efficacy affected CWB at T3 ( $H6$ ,  $\beta = -.14$ ,  $p < .05$ ), self-reflective self-efficacy did not affect moral disengagement ( $H4$ ,  $\beta = -.11$ ,  $p = .056$ ). The examination of the indirect effects also supported the effect of CWB at T1 on CWB at T3 through moral disengagement at T2 ( $H3$ ,  $\beta = .16$  bootstrap  $95\%CI: .079; .235$ ).

Results of the model with only the interactions on moral disengagement at T2 (-2Loglikelihood = -10536.739, number of free parameters = 60) supported the hypotheses that only self-reflective self-efficacy moderated the CWB- moral disengagement path ( $H5$ ,  $\beta = -.20$ ,  $p < .05$ ). As showed in Figure 2, this path is much stronger for individuals low in self-reflective self-efficacy ( $\beta = .77$ ,  $p < .001$ ) than for those high in this dimension ( $\beta = .30$ ,  $p < .001$ ).

Results of the model with only the interactions on CWB at T3 (-2Loglikelihood = -10532.737, number of free parameters = 60) supported the hypotheses that only behavioral self-efficacy moderated the moral disengagement -CWB path (H7,  $\beta = -.21, p < .05$ ). As showed in Figure 3, this path is much stronger for individuals low in behavioral self-efficacy ( $\beta = .60, p < .001$ ) than for those high in this dimension ( $\beta = .15, p = .155$ ). Figure 4 presents a graphical representation of the results of the models described above.

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 INSERT FIGURE 2, 3 AND 4 ABOUT HERE  
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The final model tested including only the significant and posited moderations (-2Loglikelihood = -10553.541, number of free parameters = 52) supported our hypotheses about the moderated mediation (H8, moderation of self-reflective moral self-efficacy  $b = -.152, p < .05$ ; moderation of behavioral moral self-efficacy  $b = -.260, p < .01$ , explained variance of the interaction on moral disengagement = 0.7%; explained variance of the interaction on CWB T3 = 5.1%). Results showed that engagement in CWB at T1 influenced CWB at T3 thorough moral disengagement  $\beta = .31 (p < .001)$  for individuals low in both self-reflection and behavioral moral self-efficacy but it was not significant ( $\beta = .05; p = .198$ ) for those individuals high in these dimensions (see Table 6 for all the conditional indirect and direct effects). In addition, the conditional indirect effects also show that if individuals have low self-reflection but high behavioral self-efficacy the indirect effect is not significant. However, this is not the case if low behavioral self-efficacy is associated with high self-reflection. In relation to the role exerted by the covariates results showed that men and employees with lower job tenure scored higher in moral disengagement ( $b = -.15$  and  $b = -.15, p < .01$ ).

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 INSERT TABLE 6 ABOUT HERE  
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### *Discussions*

Results of this study supported the robustness of the scale and the longitudinal stability especially of factor loadings as well as of intercepts. The hypothesis about the mediational role of moral disengagement in CWB routinization (H3) was also supported. In line with prior studies

(Fida et al., 2018; Welsh et al., 2015), engagement in CWB is associated with a higher propensity to morally disengage (H1) which in turn increases the likelihood of further engagement in CWB (H2). However, the results of the moderated mediation showed that the routinization of CWB through moral disengagement is conditionally influenced by individuals' perceived capability in the moral domain (H8). As hypothesized, while self-reflective moral self-efficacy moderated the CWB-moral disengagement path (H5), behavioral moral self-efficacy moderated the moral disengagement-CWB path (H7). Results of the conditional indirect effects also showed that when behavioral moral self-efficacy is high the indirect effect from past engagement to future engagement in CWB is absent also when self-reflective moral self-efficacy is high. This supports the idea that behavioral moral self-efficacy is crucial in interrupting the routinization of CWB through moral disengagement. This however does not undermine the role of self-reflective moral self-efficacy: in fact, the moderational impact of behavioral self-efficacy in reducing the routinization process is stronger (i.e., beta coefficients of CWB at T1 on CWB at T3 are smaller) at higher levels of self-reflective self-efficacy (see the third row of Table 6); in addition, the strongest routinization effect is reached when both behavioral and self-reflective moral efficacies are low. Moreover, it is also important to consider that these two dimensions are highly correlated and they both capture capabilities in moral functioning. In line with the literature (Zimmerman, 2002) it is likely these two self-efficacy dimensions mutually influence each other in the self-regulation of moral behavior. Future studies should further investigate the role of this possible interplay in the routinization of CWB.

### **General Discussions**

This study increases our knowledge about the important role played by personal resources in the moral domain in interrupting the possible routinization of CWB. Results of our research provide clear evidence about the non-linearity of misconduct routinization (Chugh & Kern, 2016; Gaspar et al., 2015; Zhong & Robinson, 2021). In particular, we demonstrated that self-reflective and behavioral moral self-efficacy operate in concert, although in a different way, in mitigating the disinhibitory role of moral disengagement in the routinization of CWB over time. Working in

accordance but at different points in the process, self-reflective and behavioral self-efficacy enable individuals to prevent routinization of past misconduct through moral disengagement.

Results suggest that individuals' perceived capabilities to look back (self-reflective self-efficacy) decreases the likelihood of moral disengagement as part of routinization of CWB. Self-reflective self-efficacy allows individuals to engage in reflection *on action* (Schön, 1991) and become more aware of their fallibility. Results of this learning should make individuals more aware of the cognitive moral disengagement processes influencing their moral behaviors. Differently from self-reflective self-efficacy, behavioral moral self-efficacy decreases the power moral disengagement has on engagement in CWB. Although individuals might be high in moral disengagement, our results suggest that this does not necessarily mean that moral disengagement automatically increases the likelihood of engagement in CWB. Behavioral moral self-efficacy allows individuals to engage in reflection *in-action* (Schön, 1991) and make the self-corrective adjustments to be on track. They are able to monitor themselves and their conduct, engage in evaluative processes that allow them to self-judge and anticipate the consequences of the possible (mis)behavior.

This research contributes moral disengagement literature by providing evidence of the role of agentic capabilities in mitigating its disinhibitory power which contributes to the routinization of CWB. In fact, although self-efficacious individuals are not infallible, they have the resources to restore their moral compass and are thus less likely to be at mercy of moral disengagement. For individuals with low moral self-efficacy, moral disengagement is more likely to become a powerful, progressive and transformative process through which self-sanctions are gradually diminished until misbehavior is normalized and can be routinely performed with little anguish. Individuals low in moral self-efficacy are less aware of the internal and social forces that work in interrelated ways to disengage their moral standards and bypass the moral control system, making it difficult to mitigate or stop the process to prevent the thoughtless routinization of their misconduct.

Results of our research contribute to the literature on self-efficacy and misconduct

(Barbaranelli et al., 2018; Fida, Paciello, Tramontano, Barbaranelli, et al., 2015; Hannah & Avolio, 2010; Spector & Fox, 2005). When investigating self-efficacy in relation to CWB we should apply a domain-specific approach (Bandura, 1997) and focus on the specific agentic capabilities in the self-regulation of moral behavior. We demonstrated that for preventing CWB routinization we should consider moral self-efficacy capabilities by including not only the behavioral self-regulative capabilities but also the capability to reflect on one's own moral behaviors and failures. In our conceptualization of self-reflective moral self-efficacy the focus is on learning from past moral failures in line with self-efficacy theory which emphasize the capability of people to learn from mistakes (Bandura, 1993; 1997). Although it would be important to further explore how recollection of past moral acts may also play a positive role in withstanding moral disengagement, it is likewise worth considering the emerging literature on moral licensing (Griep et al., 2021; Merritt et al., 2010). This work shows that recollection of past moral acts may be used to license future immoral behavior. Having done good in the past, people may feel morally entitled to engage in CWB using their acquired moral credits to justify their behavior.

Our research further contributes to the literature on moral efficacy (Hannah & Avolio, 2010). Hannah and Avolio (2010) conceptualize moral efficacy as belief in one's ability to do the right thing. Our operationalization of moral self-efficacy on the other hand includes not only the proactive capability to self-regulate but also the capability to inhibit misconduct as well as the capability to self-reflect. As discussed above we demonstrated that both behavioral and reflective dimensions of moral self-efficacy are key mechanisms of personal agency for the progressive routinization path of CWB.

### *Practical implication*

Results of this research have some important practical implications because it broadens our understanding of how to prevent the routinization of CWB through the mediation of moral disengagement. As suggested by Zsolnai "conventional business ethics tools such as ethical codes, ethics officers, ethical training programs and the like, seem to be ineffective in counteracting the



strong moral disengagement of today's business, political and intellectual leaders" (Zsolnai, 2016, p. 428). In line with the literature highlighting the possibility to develop self-efficacy beliefs (Bandura, 1997), we describe below some suggestions.

Organizations should create opportunities to reflect on the complexity of ethical decision making and the capabilities needed to master moral challenges. In accordance with the literature highlighting the importance of an inductive approach in business ethics training (Sims & Felton, 2006), we suggest using realistic scenarios for developing moral self-efficacy. Scenarios should vary in their moral intensity. They should be designed by focusing on situations requiring the exercise of specific moral capabilities. Scenarios should present situations in which the character is tempted to misbehave and has the opportunity to behave in that way. It should include clear moral disengagement cues that would require specific moral capabilities to withstand. The Appendix 3 provides examples of scenarios designed as a result of this research for business ethics training.

Scenarios can offer participants the opportunity to discuss their own experiences and the way they have managed similar situations. These scenarios can provide an experience of moral challenges in a safe environment and the opportunity to practice the capabilities needed for "doing the right things". Scenarios could be used as a starting point for a discussion in which participants can think as they were one of the characters, or they could be used as a script for role plays. Trainees could also be asked to act as if they were a role model. During the discussion, trainees could become more aware about themselves and their moral failures, as well as the experiences of other people and hence develop self-reflective capabilities.

Another practical implication of this study is using the moral self-efficacy scale for competency mapping. Individuals could use the results from the questionnaire as a reflection tool to identify the areas for further development and consolidation. For example, some individuals might perceive themselves as being more capable of regulating ethical behavior in situations in which their colleagues behave unethically. On the other hand, they might feel less capable of resisting the temptation to misbehave when they are treated unfairly.

*Strengths and Limitations*

A key strength of this research is the use of a multi-wave study allowing us to test the role of the different dimensions of moral self-efficacy in buffering the routinization of misconduct over time through the mediation of moral disengagement. This type of design strengthens the claims about the causal relationship among the variables and in part mitigates the problems associated with common method bias. However, it is important to highlight that the path from CWB T1 to moral disengagement T2 was not controlled for moral disengagement at T1. In addition, while the explained variance for the interaction on CWB was higher (5%), the moderation on moral disengagement was below 1%. These results clearly highlight the importance of further investigating the antecedents of moral disengagement and its moderators.

Another strength of this research is the examination of the psychometric properties of the newly developed moral self-efficacy scale in two different countries (Italy and the United Kingdom) also in terms of cross-cultural and longitudinal invariance. In our study metric invariance is fully achieved for both self-efficacy subscales dimensions. This implies that the unit of measurement of the scales is identical across the two countries and over time allowing for meaningful relationship comparisons of both our moral self-efficacy subscales with other scales across countries/languages/time. Since scalar and strict invariance are reached only considering the  $\Delta$ CFI, we recommend caution when comparing factor and scale means across countries/time: however, it is important to note that means comparisons were not part of this research. As far as residual variances are concerned, Millsap and Meredith (Millsap & Meredith, 2007) noted that while the so-called strict factorial invariance may represent an ideal, it is most of the time untenable in real application; in line with this Little (Little, 2013) considered tests on residual variance as “overly restrictive” (p. 143), and highlighted how enforcing strict invariance may be problematic.

Although we used a multi-wave study and conducted the research in two different countries, the data on CWB came from a single source, a potential limitation in relation to the reliability of the reports. The use of single informant data for measuring personal related variables as moral self-

efficacy subscales and moral disengagement is not uncommon in the literature on social-cognitive dimension (Bandura et al., 1996; Chen et al., 2001; Moore et al., 2012), and they are not considered problematic also when assessing CWB (Fox et al., 2007). However, future studies should consider multi-source data especially in relation to employees' behavior to further validate the results. In addition, another limitation of the study is related to the specification error due to not having included in the model other important factors associated with moral disengagement and CWB. For instance, emotions, moral identity, emotional intelligence, ethical leadership and organizational norms are some examples of important antecedents of these constructs. A key task for future studies, is to explore the role of organizational contextual factors in particular. A climate of mistreatment for instance where incivility, aggression, and bullying are the norm (Yang et al., 2014) is likely to increase moral disengagement and thus lead to higher likelihood of further routinization of misbehaviors. Future studies should investigate if the moderating role of moral self-efficacy would be attenuated by a negative/permissive organizational ethical context. However, since such an environment violates broader societal norms, individuals high in moral self-efficacy may be more aware of the social pressures to participate in wrongdoing and more capable of withstanding moral disengagement processes also in this context.

### **Conclusions**

This research draws on social-cognitive theory (Bandura, 1986) to investigate the role of moral self-efficacy beliefs in preventing the routinization of misconduct through the mediation of moral disengagement. Moral disengagement is a social cognitive process where the self-regulatory system is temporarily bypassed (Bandura, 2016), meaning that moral control is not disengaged permanently or in all situations. In our research we have provided initial evidence that while individuals can and do morally disengage, they do not all continue down this progressive, 'slippery slope'. We have demonstrated that some individuals are more able to stop, become aware, correct and regain moral control. Drawing on Bandura's theory of self-efficacy, results of our research showed that individuals are self-efficacious to varying degrees, and thus vary in their self-regulatory moral

capabilities: this can help explain how certain individuals are more able than others to withstand moral disengagement over time and interrupt the routinization of CWB.

Moral self-efficacy beliefs enable individuals to withstand and mitigate moral disengagement where the path of least resistance would be to give into the mutually reinforcing patterns of misbehavior and moral disengagement. This research suggests the importance of developing and strengthening moral agentic capabilities for withstanding and mitigating moral disengagement in order to achieve competent moral functioning. Moral self-efficacy should be cultivated for “let[ing] go of being a ‘good’ person– and become[ing] a better person” (Chugh, 2018).

### Footnotes

<sup>1</sup> Experts’ evaluation was not recorded, and it was not possible to compute inter-rater agreement.

<sup>2</sup> In order to test the posited second order structure of the behavioral moral self-efficacy dimension we compared a single factor model with the second order one. Results supported the hypothesized second order factor structure (1 factor model:  $\chi^2(14) = 86.975$ ,  $p < .001$ , CFI = .90, SRMR = .050; RMSEA=.120, 90%CI: .097-.145,  $p < .000$ ; Second order model:  $\chi^2(13) = 44.100$ ,  $p < .001$ , CFI = .96, SRMR = .041; RMSEA=.082, 90%CI: .056-.109,  $p=.023$ ).

<sup>3</sup> Power analysis was conducted considering an overall effect size estimate ([www.danielsoper.com/statcalc/calculator.aspx?id=89](http://www.danielsoper.com/statcalc/calculator.aspx?id=89)). While the direct effects of CWB on moral disengagement and of moral disengagement on CWB could be expected to be moderate (between .30 and .40; see for example Fida et al., 2018 and Ogunfowora et al., 2021), the interactive effects are generally smaller. Because we did not have any previous empirical evidence of the effect of moral self-efficacy on the study variables, we run the power analysis three times considering a large (.30), medium (.20) and small (.10) effect size.

<sup>4</sup> An alternative model estimated using the study variables [CWBT1→(Moral Self-Efficacy dimensions T1, CWBT3)→Moral DisengagementT2→CWBT3, Moral Self-Efficacy dimensions T1→CWBT3] had a worst fit to the data ( $\chi^2(59)=244.490$ ,  $p < .001$ , CFI=.97, SRMR=.101; RMSEA=.049, 90%CI: .043-.055,  $p=.587$ ;  $\Delta\chi^2(3)=145.648$ ,  $p < .001$ ), supporting the goodness of the

fit of the hypothesised model.

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**Table 1.***Results Confirmatory Factor Analysis (Study 1 and Study 2)*

Results CFA		$SB\chi^2$	df	CFI	SRMR		SB scaled $\Delta\chi^2$	$\Delta$ df	p
Study 1	M1. Posited 2-factor model	110.77*	33	.94	.06				
	M2. Alternative 1-factor model	295.32*	35	.79	.08	M1 vs M2	205.75	2	.000
	M3. 7-factor model	521.11*	303	.94	.06				
	M4. Unique primary factor model	1869.7*	324	.59	.10	M3 vs M4	1152.02	21	.000
	M5. Second-order factor model	591.67*	316	.93	.07	M3 vs M5	67.78	13	.000
Study 2	M1. Posited 2-factor model	220.33*	33	.95	.04				
	M2. Alternative 1-factor model	630.23*	35	.85	.06	M1 vs M2	224.57	2	.000

*Note.* \*All chi-square and RMSEA tests were statistically significant ( $p < .05$ ).

**Table 2.***Zero-order correlations and descriptive statistics (Study 1)*

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	1.64	0.48	-									
2. Job tenure	4.71	1.44	-.101	-								
3. Behavioral moral self-efficacy	3.66	0.72	.038	.043	.87							
4. Self-reflective moral self-efficacy	3.92	0.71	.096	-.077	.577**	.82						
5. Emotional self-efficacy	3.21	0.66	-.036	.005	.448**	.377**	.72					
6. Task self-efficacy	4.12	0.57	.126*	.075	.384**	.380**	.380**	.73				
7. Empathic self-efficacy	3.67	0.67	.112*	-.050	.409**	.509**	.509**	.354**	.79			
8. Assertive self-efficacy	3.69	0.78	-.147**	.065	.364**	.447**	.447**	.413**	.306**	.87		
9. Moral efficacy	3.57	0.76	-.138**	.043	.461**	.357**	.357**	.388**	.305**	.550**	.90	
10. CWB	1.80	0.51	-.062	-.028	-.245**	-.142**	-.191**	-.034	-.081	-.054	-.127*	.83

*Note.* M = Mean. SD = Standards Deviation; CWB = Counterproductive work behavior.

Gender is coded 1 = male, 2 = female.

N = 359. \* $p < .05$  (two-tailed) \*\* $p < .01$  (two-tailed).

In the diagonal Cronbach's alpha coefficients

**Table 3.***Results of the hierarchical regressions (Study 1)*

		CWB			
		$\beta$	p	R <sup>2</sup>	$\Delta R^2$
Step 1.	Gender	-.084	.123		
	Job Tenure	-.032	.537	.005	
Moral Efficacy		-.075	.265		
Task self-efficacy		.105	.090		
Step 2.	Empathic self-efficacy	-.070	.271		
	Emotional self-efficacy	-.175**	.008		
	Assertive self-efficacy	.072	.282	.058	.053**
Step 3.	Behavioral moral self-efficacy	-.226**	.001		
	Self-Reflective moral self-efficacy	.004	.951	.091	.033**

*Note.* CWB = Counterproductive Work Behavior.

Please note that the regression coefficients ( $\beta$ ) reported in the table refer to the last step of the regression when all the independent variables were included in the model.

\*\* $p < .01$ .

**Table 4.***Results Cross-Cultural and Longitudinal Invariance (Study 2)*

Moral Self Efficacy Cross-Cultural invariance									
	$SB\chi^2$	df	CFI	SRMR		SB scaled $\Delta\chi^2$	$\Delta$ df	p	$\Delta$ CFI
I1. Configural	341.46 (p<.05)	66	.950	.044					
I2. Metric	360.67 (p<.05)	73	.948	.049	I2 vs I1	12.88	7	.075	-.002
I3. Scalar	402.68 (p<.05)	80	.941	.051	I3 vs I2	44.55	7	.000	-.007
I3p. Scalar partial	372.64 (p<.05)	78	.947	.050	I3p vs I2	7.74	5	.171	-.001
I4. Strict	399.57 (p<.05)	86	.943	.064	I4 vs I3p	27.86	8	.001	-.004
I4p. Strict partial	382.93 (p<.05)	84	.946	.059	I4p vs I3p	11.05	6	.087	-.001
Moral Self Efficacy Longitudinal invariance									
I1. Configural	402.703 (p<.05)	152	.959	.039					
I2. Metric	415.36 (p<.05)	162	.959	.040	I2 vs I1	3.70	10	.960	0
I3. Scalar	446.75 (p<.05)	172	.955	.042	I3 vs I2	33.44	10	.000	.004
I3p. Scalar partial	428.84 (p<.05)	170	.958	.041	I3p vs I2	10.23	8	.249	-.001
I4. Strict	482.58 (p<.05)	180	.951	.059	I4 vs I3p	47.60	10	.000	.007
I4p. Strict partial	436.85 (p<.05)	175	.957	.047	I4p vs I3p	9.21	5	.101	-.006
Counterproductive Work Behavior Longitudinal invariance									
I1. Configural	8.96 (p=.11)	5	.998	.015					
I2. Metric	10.06 (p=.13)	8	.999	.038	I2 vs I1	2.04	3	.75	-.001
I3. Scalar	20.37 (p<.05)	11	.996	.038	I3 vs I2	10.77	3	.00	.003
I3p. Scalar partial	11.45 (p=.32)	10	.999	.034	I3p vs I2	1.29	2	.23	0
I4. Strict	19.01 (p=.12)	13	.998	.035	I4 vs I3p	6.24	3	.00	.001



**Table 5.***Zero-order correlations and descriptive statistics (Study 2)*

	M	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.50	0.50	-								
2. Job Tenure <sup>+</sup>	3.53	1.24	-.101**	-							
3. Behavioral Moral Self-efficacy T1	3.75	0.72	.038	.039	.89						
4. Self-reflective Moral Self-efficacy T1	3.79	0.77	-.001	-.014	.639**	.85					
5. Behavioral Moral Self-efficacy T3	3.73	0.70	.031	.162**	.535**	.414**	.91				
6. Self-reflective Moral Self-efficacy T3	3.75	0.74	.026	.139*	.410**	.474**	.679**	.88			
7. Moral Disengagement T2	1.97	0.83	-.090*	-.090*	-.194**	-.189**	-.348**	-.300**	.93		
8. CWB T1	1.69	0.73	-.062*	-.074**	-.233**	-.219**	-.258**	-.212**	.481**	.92	
9. CWB T3	1.71	0.78	-.053	-.071	-.282**	-.228**	-.341**	-.273**	.521**	.567**	.94

Note. <sup>+</sup> categorical variable: 1=1-5 years (f=394, 30.1%), 2=6-10 years (f=271, 20.7%), 3=11-15 years (f=193, 14.8%), 4=more than 15 years (f=450, 34.4%)

M = Mean. SD = Standards Deviation; CWB = counterproductive work behavior.

T1 = Time 1; T2 = Time 2; T3 = Time 3

Gender is coded 1 = male, 2 = female.

N<sub>T1</sub> = 1308; N<sub>T2</sub> = 638; N<sub>T3</sub> = 302. \**p* < .05 (two-tailed) \*\**p* < .01 (two-tailed)

In the diagonal Cronbach's alpha coefficients

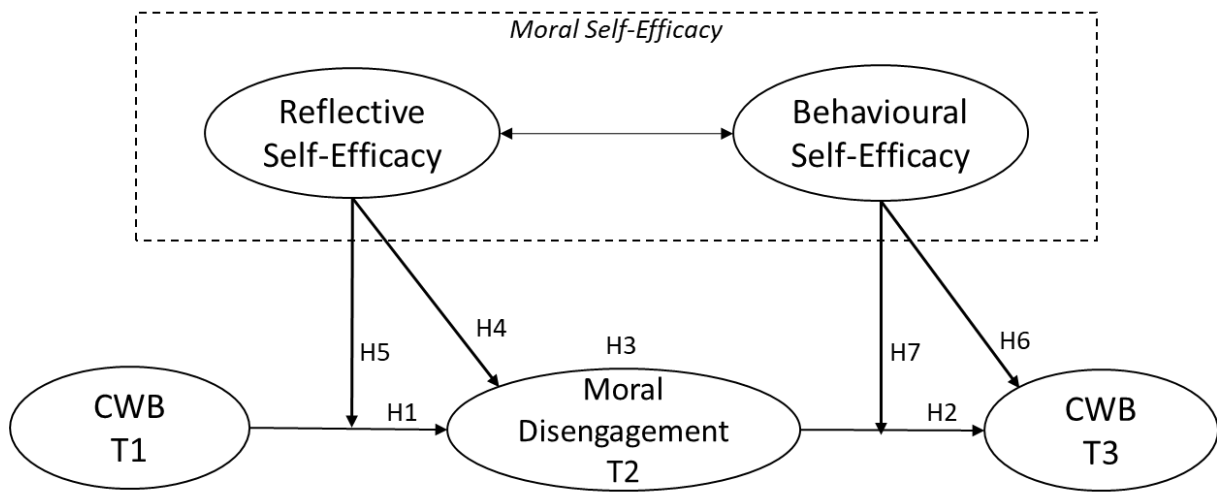
**Table 6.**

*Conditional indirect effects of the path from CWB at T1 to CWB at T3 through Moral Disengagement at T2 (Study 2)*

		Behavioral moral self-efficacy					
		Low		Medium		High	
		Unstandardized b	p	Unstandardized b	p	Unstandardized b	p
Self-reflective moral self-efficacy	Low	.305	.000	.187	.000	.068	.189
	Medium	.259	.000	.158	.000	.058	.190
	High	.213	.000	.130	.000	.047	.198

**Figure 1**

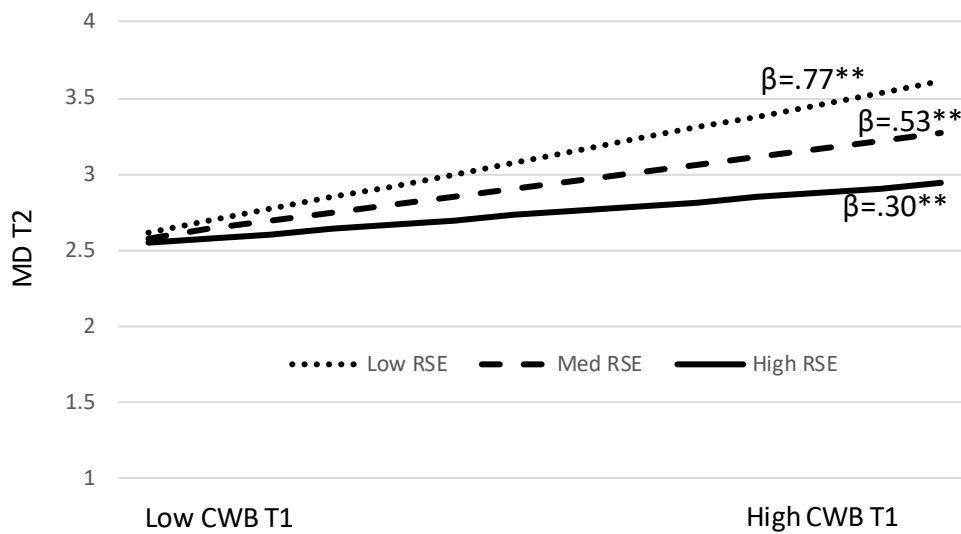
*Model of the hypothesized relationships.*



*Note.* CWB = Counterproductive Work Behavior; T1 = Time 1; T2 = Time 2; T3 = Time 3.

**Figure 2.**

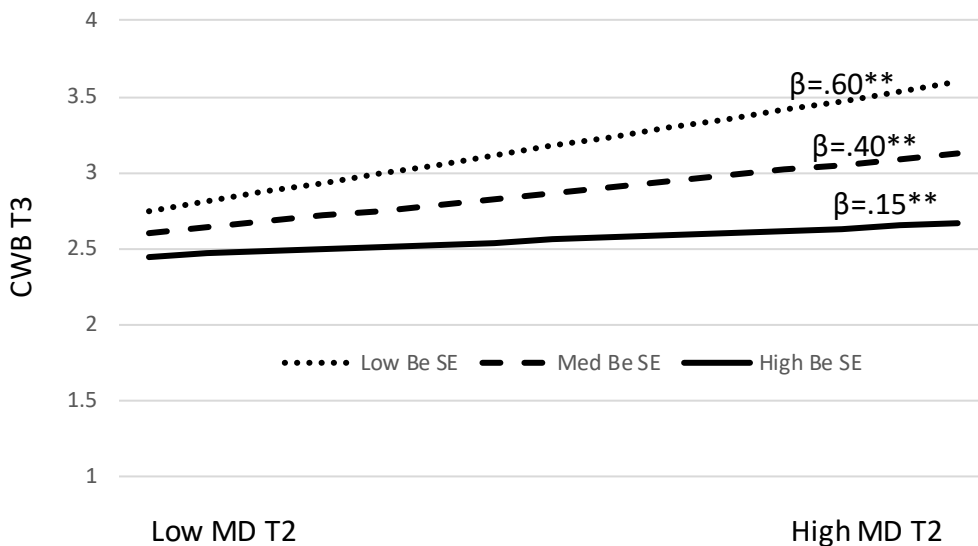
*Interaction effect of self-reflection self-efficacy and CWB on moral disengagement*



*Note.* RSE = Self-Reflective Moral Self-Efficacy; MD = Moral Disengagement; CWB = Counterproductive Work Behavior; T1 = time1; T2 = Time 2; \*\* =  $p < .001$

**Figure 3.**

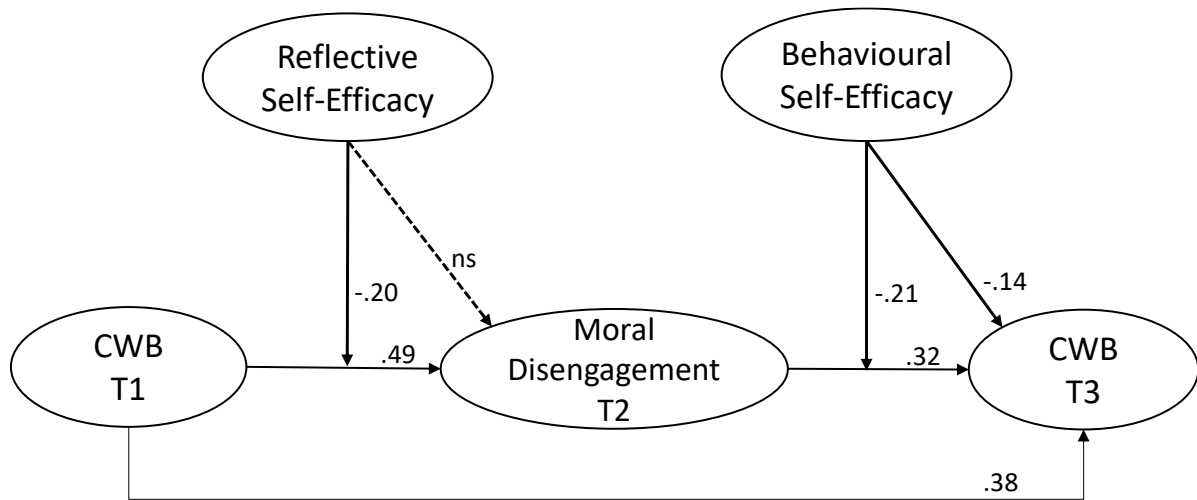
*Interaction effect of Behavioral self-efficacy and moral disengagement on CWB*



*Note.* BeSE = Behavioral Moral Self-Efficacy; MD = Moral Disengagement; CWB = Counterproductive Work Behavior; T2 = Time 2; T3 = Time 3; \*\* =  $p < .001$

**Figure 4.**

*Graphical summary of the results of the tested models following the multi-step approach*



*Note.* CWB = Counterproductive Work Behavior; T1 = Time1; T2 = Time 2.

**Appendix 1: Moral Self-Efficacy items**

*Behavioral Moral Self-Efficacy*

- 1 Keep doing your work honestly even when your colleagues misbehave
- 2 Respect the rules even when your supervisor asks you to turn a blind eye
- 3 Keep your conduct in line with norms even when this is detrimental for your personal interests
- 4 Being fair with people working with you even when they are not doing the same with you
- 5 Refuse to break a rule to solve a work issue
- 6 Avoid a shortcut that may simplify your work life
- 7 Restrain yourself from misbehaving even when you think you have been treated unfairly

*Reflective Moral Self-Efficacy*

- 8 Reflect upon your actions when you realize you have broken a rule
- 9 Re-think your actions when you realize you behave unfairly to others
- 10 Try fixing your mistakes, even when this may make you feel uncomfortable (e.g., massively embarrassed)

Note: items 1, 2, 3 and 4 refer to the proactive facet of the Behavioral Moral Self-Efficacy, items 5, 6 7 refer to the inhibitory one.

## Appendix 2: Preliminary version of the Moral Self-Efficacy Scale

### *Behavioral Moral Self-Efficacy*

- \*Keep doing your work honestly even when your colleagues misbehave
- \*Respect the rules even when your supervisor asks you to turn a blind eye
- \*Keep your conduct in line with norms even when this is detrimental for your personal interests
- \*Being fair with people working with you even when they are not doing the same with you
- Raising concerns about an ethical issue during a meeting with your supervisor (*deleted*)
- Support a colleague treated unfairly even when there is a lot of work to do (*deleted*)
- Keep your conduct in line with norms even when you are late with the things you have to do (*deleted*)
- \* Refuse to break a rule to solve a work issue, even when everyone else is ready to do it (*reworded*)
- Resist the temptation to transgress a norm even when you could easily get away with it (*deleted*)
- \*Avoid a shortcut that may simplify your work life
- Not transgress a norm even when your supervisor pressures you to do so (*deleted*)
- \*Restrain yourself from misbehaving even when you think you have been treated unfairly
- Restrain yourself from misbehaving even in situations of extreme work overload (*deleted*)

### *Self-Reflective Moral Self-Efficacy*

- \*Reflect upon your actions when you realize you have broken a rule
- Take responsibility for your behaviours in situations where you realized you broke a rule, despite the risk of being judged negatively (*deleted*)
- \*Re-think your actions when you realize you behave unfairly to others
- \*Try fixing your mistakes, even when this may make you feel uncomfortable (e.g., massively embarrassed)

\* items include in the final version of the moral self-efficacy scale

### **Appendix 3: Examples of scenarios developed for business ethics trainings in higher education**

We present here, some examples of scenarios for business ethics training designed in line with the moral self-efficacy items described in the paper (see Appendix 1).

The following scenario is intended to develop the self-regulatory capabilities in a situation in which CWB could be seen as “mild” with minimal consequences. In this scenario trainees could reflect about their capabilities to refrain from misbehaving to solve a problem even when someone else is suggesting such behavior and is ready to do so.

*You work for a marketing research company and you are in town to administer some questionnaires. Your target is 250 by the end of the week. People are not very cooperative, and someone has even been rude to you. It is Friday, almost at the end of the day; you meet a friend whom you ask to fill in a questionnaire. You say that you are having some difficulties and are afraid of not being able to finish the last 10 interviews. Your friend is available and with a big smile says to you ‘if you want... I can fill all the 10 questionnaires, it’s not a big deal!’. You know that the company’s supervisor of the area is in a meeting and nobody can control ....*

The next scenario has been designed to let trainees reflect mainly about the proactive self-regulatory capabilities in a morally intense situation in which the ethical behavior requires great effort and personal costs. In line with the moral self-efficacy items, the scenario describes a situation in which the character has the opportunity to morally disengage by blaming someone else.

*You and another colleague work as accountants for a distribution company. An order of \$10,000 has arrived but half of the order is sent back because it is damaged. The company therefore only has to pay the supplier \$5,000. As always, your colleague has called themselves in sick and you need to do a lot of extra things. You made a mistake without realizing and pay the invoice in full (\$10,000) rather than \$5,000. After 3 months when the managers check all the expenses for the quarter, they realize the error and they contact you and your colleague. You just remembered having made that mistake. You can avoid mentioning your role in this – there is no way anyone can verify the truth.*

The next scenario describes a situation in which trainees have the opportunity to reflect about personal costs of citizenship behaviors in a scenario in which it is possible to morally disengage. In this type of scenario, trainees face a dilemma where spheres of life “compete” and both decisions



have some costs.

*You have informed your colleagues that you are available to help them the next day with using a new software which they need to use to complete an important project. All of you have attended a module to learn it but as usual your colleagues did not commit themselves at all and didn't care. You just got a message from close friends who now live in France. They are visiting a nearby city for a few hours tomorrow and have asked you to meet them there for a coffee. You are looking forward to that meeting. You don't have any annual leave left but you know that you don't need a medical certificate for taking sick leave. You know that some colleagues sometimes have called themselves in sick while they were not.*