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Unable to Resist the Temptation to Tell the Truth or to Lie for the Organization? Identification Makes the Difference

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Abstract
Previous research indicates that the depletion of self-regulatory resources can promote unethical behavior that benefits the self. Extending this literature, we focus on norm-transgressing behavior that is intended to primarily benefit others. In particular, we predicted a differing effect of self-regulatory resource depletion on dishonesty that benefits one's group, depending on the degree of identification with the group. Following a dual process approach, we argue that if identification with the group is strong, then people may have an automatic inclination to benefit their group even perhaps by lying. In contrast, if identification with the group is weak, then the default, uncontrolled impulse may be to tell the truth. Accordingly, identification with the social group should interact with self-regulatory resource depletion in predicting group-benefiting dishonesty. Focusing on pro-organizational dishonesty, we tested our hypotheses in one field study with 1269 employees and in one experimental study with 71 university students. As predicted, the results revealed a highly significant interaction of organizational identification and self-control strength: Depletion of self-regulatory resources increased the level of pro-organizational dishonesty among those who identify highly with the organization, but decreased the level of such behavior among those who identify less.

A growing body of research has shown that even people with good intentions, including those who value morality, frequently engage in unethical behavior (Bazerman and Tenbrunsel 2011; Gino 2015; Feldman 2018). One explanation for this finding is that lying, cheating, and other forms of unethical behavior commonly offer direct benefits for the self. The individual is, therefore, tempted to seek the benefits for *self*, even if doing so requires violation of moral rules. In such a situation, an individual without sufficient resources for self-regulation is more likely to *impulsively* cheat for *selfish gain* (e.g., Gino et al. 2011; Mead et al. 2009; Muraven et al. 2006).

Interest in this subject has increased significantly with the recent exposure of numerous high impact scandals in organizations (Bazerman and Gino 2012), such as Société Générale (Pauly 2010), General Motors (Vlasic 2015), and Volkswagen (Ruddick and Farrell 2015). Crucially, many of these moral disasters involved individuals trying to advance their *organization's benefit* by performing unethical actions (e.g., Barkan 2012; Pohlmann et al. 2016; Greve et al. 2010). Thus, the immoral acts were not undertaken primarily to benefit the individual *self* but rather to promote or protect the *organization's* welfare (also see, Kluver et al. 2014; Umphress et al. 2010; Chen et al. 2016). The important but so far unanswered question, therefore, is what the *impulsive* response is when someone has the opportunity to benefit not primarily the self but one's *organization* by lying.

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We addressed this question by investigating the role of self-regulation in pro–organizational dishonesty. Drawing on Strack and Deutsch's (2004) *reflective-impulsive model* (RIM) and research that highlights the motivational importance of social identity (e.g. Hackel et al. 2017; Tajfel and Turner 1986), we reasoned that in a state of reduced self-regulatory resources, identification with the organization would determine the automatic behavioral response.

Self-Regulation and Unethical Behavior

Self-regulation is the core psychological process of purposefully directing one's thoughts, feelings, and actions (e.g. Carver and Scheier 1981, 2011; Baumeister et al. 2018). It often consists of restraining and overriding impulses that are personally or socially undesirable (e.g. Hoffmann et al. 2012). Hence, this capacity is most needed in situations that create motivational conflict (c.f. Baumeister and Vohs 2007), such as when a selfish desire and the motivation to be a 'good person' clash. More specifically, the opportunity to *personally profit* from dishonesty, for instance, can evoke a conflict between the temptation to lie for *selfish gain* and the desire to maintain a positive self-concept. To resolve this motivational conflict and to override the impulsive response, individuals must regulate their behavior (e.g. Mead et al. 2009; Hoffmann et al. 2018). However, according to *the strength model of self-regulation* (Baumeister et al. 1998), self-regulation relies on a limited resource. The term 'ego depletion' has been used to describe a temporary reduction of self-regulatory resources. The view of self-regulation as an effortful, resource-depleting activity has stimulated a large body of research (for a meta-analysis, see Hagger et al. 2010; for a recent overview of disputes see Baumeister and Vohs 2016; also see Hagger et al. 2016; Vonasch et al. 2017; Baumeister et al. 2018).

One important finding of this research is that also in the realm of moral behavior, a state of diminished self-regulatory resources leads to a focus on short-term, rather than long-term outcomes (e.g., Joosten et al. 2014). Furthermore, and of particular relevance to our work, multiple studies have found that self-regulatory resource depletion promotes unethical behavior (e.g., Gino et al. 2011; Mead et al. 2009; Muraven et al. 2006). Almost all these studies have, however, relied on tempting students to cheat for personal monetary gain (Barnes et al. 2011; Gino et al. 2011; Mead et al. 2009; Muraven et al. 2006; Welsh and Ordóñez 2014). If a group or organization was involved, usually the researchers studied how individuals would willingly harm the organization for personal gain (e.g., by workplace deviance; see Barnes et al. 2011; Christian and Ellis 2011; Joosten et al. 2013). Hence, the evidence presented so far refers only to unethical behaviors that benefit the *self*. Yet very little is

known about the role of self-regulatory resources in unethical behaviors that primarily benefit *others*, such as one's organization.

This raises the question as to whether this general pattern of resource depletion promoting unethical behavior can also be found in relation to pro-organizational dishonesty. To our knowledge, so far essentially only one investigation has looked at self-regulatory resource depletion and *other-benefiting* dishonesty (Cantarero and van Tilburg 2014). Remarkably, this one study showed that the depletion of self-regulatory resources actually reduced the willingness to perform dishonest behavior when it was for the benefit of someone else. Cantarero and van Tilburg (2014) concluded "that whereas people need willpower to avoid deceiving for their own benefit, they need self-control to deceive for the benefit of others" (p. 746).

Taken together, it seems like this phenomenon has generated conflicting findings: Some results suggest that resource depletion promotes dishonesty and unethical behavior (e.g. Gino et al. 2011; Mead et al. 2009; Muraven et al. 2006) whilst other findings show that it actually can reduce the willingness to perform dishonest behavior (Cantarero and van Tilburg 2014). Drawing on the *reflective–impulsive model (RIM)* (Strack and Deutsch 2004) and recent empirical findings on dishonesty, in the following we will show how these seemingly conflicting results can be reconciled and explained. Specifically, we demonstrate how self-control and self-regulatory resources are intrinsically linked to the role of automaticity in dishonest behavior.

Dual Process Theory, Self-Regulatory Resources, and Dishonesty

The role of automaticity in ethical decision-making is explored by recent advances in behavioral ethics (Chugh and Kern 2016), and highlighted in several theoretical models, such as *the social intuitionist model of moral judgment* (Haidt 2001) or *the neurocognitive model of the ethical decision–making process* (Reynolds 2006). One basic assumption that all these models share is the now widely accepted view in social and cognitive psychology that two fundamental different cognitive processes can be distinguished: automatic, impulsive, and effortless versus controlled, reflective, and effortful (Haidt 2001; Reynolds 2006; Tenbrunsel and Smith-Crowe 2008; for an overview of dual-processing accounts in general see Evans 2008). One of the most influential dual-processing accounts to date is Strack and Deutsch's (2004) *reflective-impulsive model (RIM)* of social behavior. This model argues that two simultaneously operating systems, the *reflective* and the *impulsive* system, guide social behavior. The *impulsive* system works constantly and effortlessly. By contrast, the

reflective system depends on resources (Gawronski and Creighton 2013; Hofmann et al. 2011; Krishna and Strack 2017). More specifically, it can be argued that the *reflective* system is driven by self-regulatory resources. Hence, self-regulatory resource depletion is supposed to directly undermine the effectiveness of the *reflective* system and, thus, leads to a stronger effect of *impulsive* influences on behavior (Vohs 2006; Vohs and Faber 2007; Vohs and Heatherton 2000; Schmeichel et al. 2003; Vohs et al. 2008; Friese et al. 2008; Hofmann et al. 2007, Krishna and Strack 2017).

Unlike other dual process models, the RIM attributes an important role to motivational processes and it is most directly concerned with how the two systems compete to determine behavior. Hence, the RIM particularly helps in understanding phenomena in the realm of self-control and motivational conflict (Strack and Deutsch 2014). Moreover, the RIM has been adopted repeatedly in work that suggests that people are very likely to differ in their impulsive reactions and that not everyone is tempted by the same things (e.g. Hofmann et al. 2009, 2007). Thus, the job of self-regulation can be different depending on whether the initial impulse is to avoid or approach a behavior (Rawn and Vohs 2011). Applying this logic to the role of self-regulation in dishonesty, seemingly conflicting previous results can be reconciled.

Most of the previous work that investigated self-regulation and unethical behavior (e.g. Gino et al. 2011; Mead et al. 2009; Muraven et al. 2006) suggests that the opportunity to profit from dishonesty evokes a motivational conflict between the temptation to lie for selfish gain and the broad desire to behave ethically. This implies that in such situations, dishonesty is the *impulsive*, effortless response and, thus, self-regulatory resources are needed to power the *reflective* system, to resist the temptation, and to behave honestly. By now, numerous researchers from social psychology and behavioral economics concluded that in tempting situations truth telling likely requires cognitive effort and lying is presumably the automatic response (Shalvi et al. 2012; Ariely 2013; Bereby-Meyer and Shalvi 2015; also see Suchotzki et al. 2017).

Although there are also different approaches, such as the cognitive approach to dishonesty and deception, which hold that truth telling is the automatic response and that cognitive effort is needed to lie (see further Suchotzki et al. 2017; Verschuere and Shalvi 2014), findings from both research fields can be reconciled. Based on previous research, it can be concluded that impulsive dishonesty is especially facilitated by two circumstances: a tempting situation (implying the presence of a high motivation to lie and a situation where lying is easy) and a state of diminished self-regulatory resources (e.g.; Gino et al. 2011; Shalvi et al. 2012; Suchotzki et al. 2017). However, this also implies that, in a state of diminished self-regulatory resources, a closer look at the situation and the motivation to lie is warranted since both can vary.

Remarkably, this logic applies to previous research that shows that diminished self–regulatory resources actually can reduce the willingness to perform dishonest behavior. Unlike previous research, Cantarero and van Tilburg's (2014) theoretical argument suggests a different motivational conflict, namely between the self-benefiting temptation to maintain moral integrity by telling the truth and lying in order not to hurt the other person. Accordingly, in this setting, honesty is the *impulsive*, effortless response and, thus, self-regulatory resources are needed to power the *reflective* system and to lie in order not to hurt some stranger's feelings. The important but so far unanswered question, therefore, is what the *impulsive*, effortless response would be when someone has the opportunity to benefit not primarily the self, and not a stranger, but one's *group*.

A Resource-Based Model of Pro-organizational Dishonesty

When it comes to lying to benefit one's group, the issue is more complex. Individuals like to think of themselves as good and honest people. Hence, if organizational members lie they may benefit their organization but potentially at the expense of a positive self-concept (Cantarero and van Tilburg 2014; Mazar et al. 2008). They may prefer their organization or group to succeed, even perhaps by illicit means, but they also may wish to avoid negative internal and external consequences. Thus, the prospect of lying to benefit one's organization or group potentially introduces two different motivational conflicts.

One pits the *impulse* to advance one's group against the broad desire to behave ethically. The other, however, pits the *impulse* to protect one's self-interests and integrity against pressures to do whatever it takes (including lying) to help the group succeed. The important question, therefore is, what determines which of the conflicts is salient for the individual and, hence, what the *impulsive*, effortless response is. According to Verschuere and Shalvi (2014), the key to answering this question is *motivation*. Thus, they raised the hypothesis that lying may prevail as the impulsive, effortless reaction when it brings about important profit to the *self* and that truth telling may be the impulsive, effortless response absent clear motivations to lie.

Applied to other-benefiting dishonesty and the organizational context, we argue that this perspective must be broadened beyond the *individual self*, to specifically consider the *group self* (Ellemers, 2012; also see, Kluver et al. 2014). When the group is part of one's self-concept, the group is likely positively valenced (Nussinson et al. 2012) and so

there is an inherent concern for the welfare of the group and for meeting the needs of the group. As social identity theory (Tajfel and Turner 1979, 1986) holds, group membership affects individual behavior only to the extent that a person is subjectively identified with the relevant group. As a result, when social identity is salient, self-perception and behavior become depersonalized in the sense that the benefit of the group may overrule personal fairness standards (e.g. Ellemers 2012; Turner et al. 1994). Hence, social identities are a fundamental motivational force in social life.

In fact, research shows that group members who strongly identify with their group are more motivated to facilitate the success of their group and to behave on behalf of their group's interests (e.g. Blader and Tyler 2009; Blader et al. 2017). New research on this topic using neuroimaging highlights the dynamic nature of identity and the fact that social identities are likely to shape group members' perception, evaluations, and automatic reactions (e.g. Packer and Van Bavel 2015; Hackel et al. 2017). This approach also suggests that when people identify strongly with a group, they are more likely to make decisions that benefit the group, even if doing so involves personal costs. When the *self* shifts from an individual to a collective level, self-interest is extended to the collective self and as a result such group-benefiting behavior occurs (Packer and Van Bavel 2015; De Cremer and Van Vugt 1999; Hackel et al. 2017). Accordingly, in large groups, such as organizations, strong identification is connected with collective-level outcomes (e.g. Ashforth and Mael 1989; Albert et al. 2000; Ashforth et al. 2008b; Haslam and Ellemers 2005; for a meta-analysis of organizational identification research, see Riketta 2005) and so presumably also with the *impulse* to advance one's group's interests by fair means or foul (Conroy et al. 2017).

However, without the *impulse* to benefit the group, misrepresenting the truth actually may require executive control. As Verschuere and Shalvi (2014) put it: "Truth telling may be the natural response absent clear motivations to lie" (p. 417). If one's identification with the group is low, presumably, the motivation to lie in order to benefit one's group is low as well. In that case, in line with Cantarero and van Tilburg's (2014) findings, the depletion of self-regulatory resources would actually make people less likely to misrepresent the truth to benefit the group. Hence, our central hypothesis was that identification with the group, or more specifically identification with the organization, would often be decisive (also see, Kluver et al. 2014).

If identification with the organization is strong, then people may have an automatic inclination to benefit their organization. Such strongly identified individuals may be more prone to lie on behalf of the organization when they have the opportunity and when their self-regulatory resources are depleted. In contrast, if identification with the organization is weak, the self is more aligned with broader moral principles,

and self-regulatory resource depletion would promote the default of telling the truth and protecting the self, more specifically one's self-concept (Mazar et al. 2008). Hence, we hypothesized that—given the opportunity to benefit the organization by lying—organizational identification interacts with self-regulatory resource depletion in predicting pro-organizational dishonesty.

Overview of the Present Research

To provide a valid test of our theory, we conducted two studies with actual organizational members (see also, Kluver et al. 2014): a field study with employees from various organizations (Study 1) and a laboratory experiment with students, all being members of one university (Study 2). Both studies examined the interaction of self-regulatory resource depletion and organizational identification on dishonesty intended to benefit one's organization. Study 1 aimed to provide the first systematic investigation of this effect in the field. The main goal of Study 2 was to replicate and extend the results of Study 1 in a controlled environment, using a laboratory experiment that manipulated the depletion of self-regulatory resources.

Study 1

Using a broad sample of employees working in diverse organizations, Study 1 provided an initial test of the hypothesis that organizational identification would interact with self-regulatory resource depletion in predicting pro-organizational dishonesty.

Method

Participants and Design

The study was designed as an online survey of employees, employed by organizations from various industries. One thousand two hundred and seventy-two respondents finished the questionnaire and met all quality and selection criteria (59% female, mean age 40.58 years, age range 19–67 years, SD = 11.25 years). On average, participants had been working for their organization for 10.90 years (SD = 10.92 years) and 6.74 years (SD = 7.25 years) in their current job position. Nine hundred and eighty-five participants (77%) indicated that they were working full time; 287 participants (23%) stated that they worked part time but at least 20 h a week. Almost half of the participants (49%) worked in the private sector, 42% in the public sector, and 9% in the third sector. We conducted regression analyses, including all predictor variables (cf. Table 2). According to Cohen et al. (2003,

p. 410), three cases were identified as outliers (externally studentized residuals > 3; centered leverage > 2 k/n) and, therefore, were excluded from subsequent analyses (analyses including the outlier data yielded similar results for the interaction of self-regulatory resource depletion and organizational identification; $\beta = .08$, $p = .005$). Hence, Study 1 had a final sample of 1269 participants.

Procedure

Participants were recruited from the SoSci Panel, a noncommercial online access panel (cf. Leiner 2016). The panel is based on voluntary participation. As an incentive to participate, a chance to win one of five 25 Euro gift cards in a lottery was offered. Within 2 weeks after sending out the invitation email, data collection was completed. Data cleaning was performed applying data quality parameters (low quality score ≤ 200; relative speed index ≤ 1.8) provided and suggest by Leiner (2013). In addition to these quality standards, we restricted our sample to individuals who were, at the time of the survey, employed by an organization with a work time of at least 20 h a week.

Measures

Organizational identification was assessed with Mael and Ashforth's (1992) six-item scale ($\alpha = .85$). For the purpose of this study, the scale was translated into German and then back translated to check that the questions elicited the intended information. Participants indicated their agreement with the six statements on a 7-point scale ranging from 1 (*completely disagree*) to 7 (*completely agree*).

To measure the momentary availability of self-regulatory resources, we used the validated 10-item German short version of the State Self-Control Capacity Scale (Bertrams et al. 2011). Participants indicated on a 7-point scale ranging from 1 (*not at all true*) to 7 (*totally true*) how much each statement reflected how they were feeling at that moment. Sample statements are "I feel drained" and "I feel like my willpower is gone". The original coding of the scale was reversed. Accordingly, in this study, high scores indicate high levels of self-regulatory resource depletion. The reliability in the current study was satisfying; Cronbach's $\alpha = .89$.

Pro-organizational dishonesty was assessed with the six-item measure ($\alpha = .80$) developed and validated by Umphress et al. (2010). A sample item is "If it would help my organization, I would misrepresent the truth to make my organization look good". Respondents expressed their agreement of their willingness to engage in pro-organizational dishonesty on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The original scale was translated into and adapted to German by the authors. The reliability in the current study was acceptable; Cronbach's $\alpha = .80$.

Previous research suggests that moral identity (Aquino and Reed 2002) can play an important buffering role in the effect of self-regulatory resource depletion on unethical behavior (Gino et al. 2011; Joosten et al. 2013). Therefore, we assessed and controlled for the self-importance of moral identity (internalization scale) with five items from a German translation (Merz and Tanner 2009) of Aquino and Reed's (2002) instrument. Participants were instructed to imagine a person with the following characteristics: caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, and kind. Subsequently, participants indicated their agreement to five items ($\alpha = .78$), such as "Being someone who has these characteristics is an important part of who I am" on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Another individual difference variable that appears to be related to the moral self-regulatory process, or more precisely to its deactivation, is cynicism (e.g., Andersson and Bateman 1997; Detert et al. 2008). It has been shown that trait cynicism is positively related to moral disengagement and unethical behavior (Detert et al. 2008). In the workplace, most often specific forms of cynicism are of interest (e.g., Andersson and Bateman 1997). Given our specific research question, cognitive distancing by developing a cynical attitude toward the job (Maslach et al. 2001) needed to be controlled for. We operationalized this construct using the 5-item ($\alpha = .84$) cynicism scale of the authorized German translation of the Maslach Burnout Inventory-General Survey (MBI-GS; Büssing and Glaser 1998). Participants responded to each item using a 6-point scale ranging from 1 (*never*) to 6 (*very often*).

In addition, given the large sample of employees working in diverse organizations, we also assessed and controlled for several organizational and demographic characteristics that, according to previous research, may influence unethical behaviors in an organizational context. As such, we controlled for sector (1 = private sector, 0 = public/other sector; e.g., Sardžoska and Tang 2015), organization size (1 = 500 and more employees, 0 = less than 500 employees; e.g., Schminke 2001), job tenure (length in present position in years; e.g., Pennino 2002), and working hours (1 = full-time, 0 = part-time; e.g., Thorsteinson 2003).

Moreover, according to previous research especially two demographic variables may influence misconduct, namely gender and age (e.g., Kish-Gephart et al. 2010; Peterson et al. 2001). Accordingly, we also controlled age (in years) and gender (1 = female, 0 = male).

Results

Pro-organizational Dishonesty

Table 1 reports the descriptive statistics of the main variables measured in this study. Moderated hierarchical

regression was used to test the predicted effect of self-regulatory resource depletion on pro-organizational dishonesty, depending on the degree of identification with the organization. In Step 1, we entered the control variables age, gender, type of employment, sector, organization size, job tenure, cynicism and moral identity and in Step 2 self-regulatory resource depletion and organizational identification as predictor variables. Finally, in Step 3, we added the two-way interaction between self-regulatory resource depletion and organizational identification. Prior to creating the interaction term, the predictors were mean-centered. The regression results for self-reported pro-organizational dishonesty are shown in Table 2.

The results provided support for our predictions, as the interaction term of self-regulatory resource depletion and organizational identification was a significant predictor of pro-organizational dishonesty ($\beta = .09$, $p = .001$) and explained more variance ($\Delta R^2 = .01$, $p = .001$) than Step 2 of the regression analysis. To facilitate the interpretation of the interaction, we conducted a simple slope analysis (e.g., Dawson 2014). Figure 1 shows the plot of this effect. It suggests that, as expected, self-regulatory resource depletion was positively related to higher levels of pro-organizational dishonesty among those employees who identify more strongly (1 SD above its mean) with the organization, $b = .09$, $t(1195) = 2.01$, $p = .045$. Among those who identify less with the organization (1 SD below its mean), as predicted, self-regulatory resource depletion was negatively related to pro-organizational dishonesty, $b = -.09$, $t(1195) = -2.03$, $p = .043$.

Supplementary Analyses

Previous research has shown that moral identity can play an important buffering role in the effect of self-regulatory resource depletion on unethical behaviors that benefit the self and/or harm others (e.g., Gino et al. 2011). Thus, to test the robustness of our finding and to rule out alternative effects of self-regulatory resource depletion on pro-organizational dishonesty, in an additional step we added the interaction term of self-regulatory resource depletion and moral identity; this term was not significant ($\beta = .03$, $p = .269$) and did not yield a significant change in explained variance; the interaction of self-regulatory resource depletion and organizational identification was still a highly significant predictor of pro-organizational dishonesty ($\beta = .09$, $p = .002$).

To further check the robustness of this finding and to determine whether the impact of the control variables was meaningful in the principal analysis, we estimated an additional regression model without control variables. Also in this model, the interaction term of self-regulatory resource depletion and organizational identification was a highly significant predictor of pro-organizational dishonesty

Table 1 Means, standard deviation, and correlations (Study 1)

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Resource depletion	2.92	1.09										
2. Organizational identification	4.33	1.28	-0.21**									
3. Pro-organizational dishonesty	2.58	1.14	0.05+	0.26**								
4. Moral identity (internalization)	6.00	0.94	-0.07*	0.11**	-0.09**							
5. Cynicism	2.63	1.20	0.63**	-0.34**	0.07*	-0.04						
6. Job tenure	6.79	7.21	-0.05+	0.02	-0.13**	0.01	0.00					
7. Full-time employment	0.78	0.41	0.01	0.11**	0.17**	-0.01	0.01	0.00				
8. Organization size	0.44	0.50	-0.01	-0.17**	-0.11**	0.00	0.07*	-0.01	0.03			
9. Private sector	0.50	0.50	0.01	0.12**	0.18**	-0.02	0.05+	0.00	0.19**	0.10**		
10. Gender	0.58	0.49	0.07*	-0.02	-0.14**	0.05+	-0.01	0.05+	-0.08**	-0.25**	-0.08**	
11. Age	40.66	11.25	-0.16**	0.05+	-0.11**	-0.01	-0.11**	0.59**	-0.10**	-0.08**	-0.21**	-0.20**

$N = 1207$ with listwise deletion. Gender is dummy-coded (1 = female, 0 = male); private sector is dummy-coded (1 = yes, 0 = no); organization size is dummy-coded (1 = 500 employees and more, 0 = less than 500 employees); full-time employment is dummy-coded (1 = full-time employment, 0 = part-time employment); $^+p < .10$; $^*p < .05$; $^{**}p < .01$

Table 2 Results of moderated regression analysis predicting pro-organizational dishonesty (Study 1)

Predictor	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
Age	−0.07	−1.90[+]	−0.07	−2.16*	−0.06	−1.85[+]
Gender	−0.11	−3.76**	−0.12	−4.09**	−0.12	−4.07**
Full-time employment	0.12	4.29**	0.09	3.26**	0.10	3.45**
Private sector	0.11	3.96**	0.08	2.87**	0.08	2.83**
Organization size	−0.12	−4.32**	−0.08	−2.88**	−0.08	−3.02**
Job tenure	−0.08	−2.45*	−0.09	−2.69**	−0.09	−2.77**
Cynicism	0.06	2.31*	0.16	4.61**	0.17	4.91**
Moral identity	−0.08	−2.74**	−0.10	−3.93**	−0.11	−3.98**
Resource depletion (RD)			−0.01	−0.22	0.00	0.09
Organizational identification (OI)			0.29	10.01**	0.29	10.09**
RD × OI					0.09	3.42**
ΔR^2		0.10**		0.07**		0.01**

$N = 1207$ with listwise deletion, β standardized regression coefficient. Gender is dummy-coded (1 = female, 0 = male); full-time employment is dummy-coded (1 = full-time employment, 0 = part-time employment); private sector is dummy-coded (1 = yes, 0 = no); age, job tenure, cynicism, moral identity, ego depletion, and organizational identification = mean-centered; [+]$p < .10$; *$p < .05$; **$p < .01$
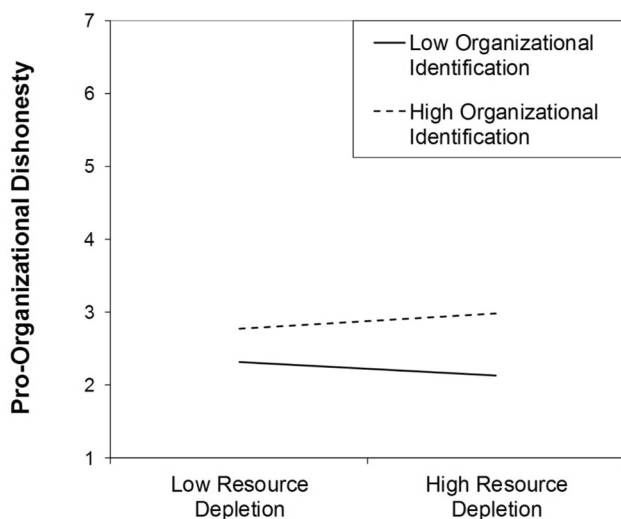

Fig. 1 Pro-organizational dishonesty as a function of level of self-regulatory resource depletion and organizational identification (Study 1)

($\beta = .08$, $p = .005$) and explained significantly more variance ($\Delta R^2 = .01$, $p = .005$) than self-regulatory resource depletion and organizational identification by themselves. This implies that the control variables did not account for the finding.

Discussion

Study 1 provided first support for the prediction that the effect of self-regulatory resource depletion on pro-organizational dishonesty depends on the level of identification with the organization. Depletion of self-regulatory resources was indeed associated with a higher willingness to engage in pro-organizational dishonesty, but only among employees who identified highly with the organization. Among those who identified less or not at all with the organization, depletion of self-regulatory resources was associated with a lower willingness to engage in pro-organizational dishonesty. The interaction was found to be significant after controlling for a host of variables, including demographic factors and moral identity, but it was also significant if the analysis skipped those controls. In sum, the results support our theory that self-regulatory resource depletion interacts with organizational identification in predicting pro-organizational dishonesty.

Study 2

Study 2 was designed to replicate and extend Study 1, using a laboratory experiment that manipulated self-regulatory resource depletion. Study 1 supported the predicted relationship between self-regulatory resource depletion, organizational identification, and dishonesty that benefits one's organization. However, the correlational design precluded causal conclusions. In addition, rather than observing behavior directly, we assessed participant's self-reported willingness to engage in pro-organizational dishonesty at the time of the survey.

To overcome these limitations and to rule out other potential influences, such as organizational culture, we replicated Study 1 in a controlled environment with a lab experiment in which participants, all being members of one organization,

were randomly assigned to one of two conditions: self-regulatory resource depletion and no self-regulatory resource depletion. In this experiment, university students were given an opportunity to cheat on a math test. The cover story introduced this test as a competition between several universities, which thereby meant that scoring well on the test (including, by implication, lying) could boost the university's reputation and status at the expense of the competing other universities. It was thus a test of whether people would lie to benefit their organization. Self-regulatory resource depletion was manipulated by having participants form a habit and then, in the depletion condition, have to break that habit to perform correctly. Breaking habits requires overriding responses, and therefore, should deplete the self's resources. Beforehand, we measured how much people identified with the university, to test our hypothesis. As in Study 1, we assessed moral identity and important demographic variables. To rule out the possibility that people who are generally high in prosociality are more likely to lie for the organization, in Study 2 we additionally assessed participants' social value orientation.

Method

Participants and Design

Seventy-five students (38 female; mean age was 20.46 years, SD = 1.55) from a private German university participated in the study either for partial course credit or a show-up fee of 5 Euro. Participants were randomly assigned to one of two conditions: self-regulatory resource depletion and no depletion. The experimenter was unaware of the assigned condition. All students were led to believe that they would compete with two other universities, and were given the opportunity to lie in order to uphold the reputation of their own university. The experiment was conducted using a web-based platform for experiments (SoPHIE—Software Platform for Human Interaction Experiments; Hendriks 2012). After signing an informed consent form, each participant was taken to a small room, equipped with a computer, and was asked to follow the directions on the screen. Hence, during the study, participants interacted neither with each other nor with the experimenter. At the end of the study, participants answered a final questionnaire and were debriefed. As with previous studies (e.g., Kouchaki and Smith 2014), an open suspicion check was administered in the final questionnaire to assess the effectiveness of the deception used in this experiment. Two participants were suspicious of the procedure (i.e., suspected not all of the matrices to be solvable) and two others correctly guessed the link between organizational identification and unethical behavior and therefore were excluded from the analysis. Accordingly, Study 1 had a final sample of 71 participants, of whom 36 were in the depletion condition (20 females; mean age 20.53 years,

SD = 1.83) and 35 in the no-depletion condition (16 females; mean age 20.29 years, SD = 1.29).

Procedure

At the outset, participants were told that the study was funded by the German Federal Ministry of Education and Research in order to test whether the type of university (i.e., private vs. public university) has an influence on students' task-related performance. They were informed that the study allegedly would be conducted at three different local universities, and that the results of the three student groups on several unrelated tasks would be compared. Furthermore, it was stressed that by participating in this study, the students would be representing their university and, therefore, should give their best.

The study was introduced as consisting of three parts: first, a preliminary questionnaire (in which we assessed organizational identification), second, the unrelated performance assessment tasks—including a concentration task (which we used to manipulate self-regulatory resource depletion), and a math problem-solving task (which we used to assess lying in order to uphold the reputation of their university)—and third, a final questionnaire (including measure of one's social values orientation, one's self-importance of moral identity, demographic questions and a suspicion check). Throughout the study, participants were asked to follow the directions on the screen. Hence, they received the written instructions for each task just before engaging in it.

Measures and Manipulation

In the preliminary online questionnaire, organizational identification was assessed with Mael and Ashforth's (1992) six-item scale. Sample items are "When someone criticizes my university, it feels like a personal insult" and "This university's successes are my successes". Participants indicated their agreement with the six statements on a 7-point scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). The reliability was satisfying; Cronbach's $\alpha = .84$.

As part of the performance assessment, participants completed an alleged concentration task, which actually was a procedure we adapted from Baumeister et al. (1998), and which has also been used successfully to manipulate the depletion of self-regulatory resources in numerous other studies (Hagger et al. 2010). Participants had to complete the task on paper but the instructions were provided on the screen. First, they were instructed to take the typewritten sheet of paper on their desk. The material had been placed there by the experimenter before the participant entered the room. Each two-sided sheet of paper provided to the participants was identical with text on it from an advanced statistics book. In the first part of this task, all participants

were instructed to write their participant code on the paper and then to cross out each instance of the letter "e" in the text printed on the front page. They had 5 min to work on this part. The time was presented on the screen, counting in seconds from 5:00 down to 0:00. When the time was up, the instructions of the second part of this task were automatically presented on the screen. There, participants in the control condition were told that they had another 5 min to cross off all instances of the letter "e" in the text printed on the back page.

Following Dewall et al. (2007), participants assigned to the self-regulatory resource depletion condition, however, were given different instructions. They were asked to turn to the text on the back page and to cross out the letter "e" according to the given rules and presented examples. Specifically, participants in the self-regulatory resource depletion condition were now asked to cross out all instances of the letter "e" except for those that appeared in a word with a vowel preceding it by two letters (e.g., *take*) or those that were immediately followed by a vowel (e.g., *read*). Apart from these two exceptions, however, they were told that the general rule—to cross out the "e"—would apply (e.g., *behavior*). Accordingly, in the first part all participants established a strong behavioral habit of crossing out every "e". In the second part, however, only those in the self-regulatory resource depletion condition had to override this habitual response and, therefore, had to exert self-control. After 5 min, this task was over and all participants were asked to fill out a questionnaire, including the Brief Mood Introspection Scale (BMIS; Mayer and Gaschke 1988) and three items that served as the manipulation check ("It took a lot of effort to perform this task", "I had to exert self-control during this task", "I found it very difficult to perform this task"). Participants were asked to rate their level of agreement with these statements on a 7-point scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). The reliability was acceptable ($\alpha = .84$).

To assess pro-organizational dishonesty, we presented another performance task, allegedly to assess their math problem-solving skills (Kouchaki and Smith 2014; Wiltermuth 2011). This number matrix task presented all students with the opportunity to falsely report higher performance levels to uphold the reputation of their university. In total, 15 matrices were displayed, each of which appeared on the screen for 15 s and contained 12 three-digit numbers (e.g., 2.19). Participants were instructed to identify the two numbers in each matrix that exactly add up to 10 and, subsequently, to indicate whether or not they found the matching pair for each matrix. They were not asked to specify the two numbers and, thus, were led to believe that the truthfulness of their statements could not be verified, what effectively provided them with the opportunity to lie. However, unbeknownst to the participants, seven of the matrices did

not contain two numbers that summed to 10 and thus were unsolvable. Therefore, we actually could verify the truthfulness of their statements and by this means assess whether a participant lied to uphold the university's reputation. Accordingly, pro-organizational dishonesty was operationalized as instances of lying, i.e., the number of false claims of solution.

As in Study 1, to control for a potential effect of moral identity (e.g., Gino et al. 2011; Joosten et al. 2013), we assessed self-importance of moral identity (internalization scale) with the five items ($\alpha = .79$) of the Aquino and Reed's (2002) instrument on a 7-point scale ranging from 1 (*strongly disagree*) to 7(*strongly agree*). Again, as in Study 1, we assessed the age (in years), and the gender (1=female, 0=male) of the participants (e.g., Kish-Gephart et al. 2010).

Previous research further suggests that people differ substantially with regard to their concerns for the interests of others when making social decisions (Reinders Folmer and De Cremer 2012). Thus, to rule out the possibility that people who are generally high in prosociality are more likely to behave unethically for the organization, we assessed participants' social value orientation by using a series of decomposed games (e.g., van Lange et al. 1997). Accordingly, participants were asked to imagine that they have been randomly paired with another person, referred to as the "other", who they do not know and that they will not meet in the future. Subsequently they had to choose nine times; each time among three alternative outcome distributions with points for the other and oneself. An example is the choice among the following three options: A: 480 points for self and 80 points for other; B: 540 points for self and 280 for other; and C: 480 points for self and 480 for other (for the exact wording and outcome distributions see e.g., van Lange et al. 1997). Option C yields the greatest joint outcome and, thus, represents the prosocial choice. Participants were classified as prosocial if at least six of the nine choices were prosocial responses.

Results

Manipulation Check

The two conditions required different levels of self-regulatory resource exertion. Participants in the depletion condition rated the experimental task as being significantly more difficult ($M = 3.72$, SD = 1.63) than the participants in the no-depletion condition ($M = 1.74$, $SD = 1.07$), $t(69) = 6.03$, $p < .001$, $d = 1.44$. They also indicated that they had to exert significantly more self-control ($M = 4.83$, SD = 1.73) than participants in the no-depletion condition ($M = 3.20$, SD = 2.04), $t(69) = 3.64$, $p = .001$, $d = .86$. Furthermore, it took participants significantly more effort to perform the depleting task ($M = 4.72$, SD = 1.75) than it took participants

in the control condition ($M = 2.57$, SD $= 1.54$), $t(69) = 5.49$, $p < .001$, $d = 1.30$. Overall, the index of self-regulatory resource exertion, created by averaging the three items ($\alpha = .85$), clearly showed that the level of self-regulatory resource exertion of participants in the depletion condition was significantly higher ($M = 4.43$, SD $= 1.48$) than the self-regulatory resource exertion level of those in the no-depletion condition ($M = 2.50$, SD $= 1.25$), $t(69) = 5.92$, $p < .001$, $d = 1.41$. Thus, the manipulation of self-regulatory resource depletion was successful.

Depleted ($M = 4.54$, SD $= 0.83$) and non-depleted ($M = 4.70$, SD $= 0.85$) participants did not differ significantly in their mood ratings (Mayer and Gaschke 1988), $t(69) = -0.80$, $p = .425$, $d = -0.19$. Thus, the depletion manipulation affected self-regulatory effort but did not influence mood. Furthermore, there was neither a significant difference between the depleted ($M = 0.39$, SD $= 0.49$) and non-depleted ($M = 0.46$, SD $= 0.51$) participants with regard to their prosocial orientation, $t(69) = -0.58$, $p = .567$, $d = -0.14$; nor did the depleted ($M = 6.24$, SD $= 0.82$) and non-depleted ($M = 6.14$, SD $= 0.99$) participants differ significantly in their self-importance of moral identity ratings, $t(69) = 0.45$, $p = .657$, $d = 0.11$.

Pro-Organizational Dishonesty

Table 3 reports the descriptive statistics of the main variables measured in this study. We predicted a differing effect of self-regulatory resource depletion on dishonesty that benefits one's organization, depending on the degree of identification with the organization. Table 3 indicates that the variance for pro-organizational dishonesty is greater than the mean, suggesting overdispersion. Descriptive analyses furthermore show that pro-organizational dishonesty is highly skewed with a preponderance of zeros (44%, 31 out of 71 participants did not lie once). Therefore, to test this hypothesis, we carried out zero-inflated Poisson models, which are commonly used to model count data with zero inflation (Cameron and Trivedi 2013; Coxe et al. 2009). In Model 1, we entered the control variables age, gender, prosocial orientation and moral identity, in Model 2 additionally self-regulatory resource depletion and organizational identification as predictor variables, and in Model 3 their interaction. The interaction term was based on the mean-centered scores of organizational identification and the dummy-coded scores of self-regulatory resource depletion. The dependent variable was measured by the number of unsolvable matrices that the participant claimed to have solved. The results of the moderated zero-inflated Poisson regression are displayed in Table 4.

As predicted, in the counts portions of Model 3 the interaction term of self-regulatory resource depletion and organizational identification was a highly significant predictor of pro-organizational dishonesty ($b = 1.05$, $p < .001$). Positive and significant Vuong-Z-statistics (Vuong 1989) suggest that Model 3 is superior to Model 1 ($Z = 2.35$, $p = .009$) and to Model 2 ($Z = 2.20$, $p = .010$). To further examine the highly significant two-way interaction, we conducted a simple slope analysis (e.g., Dawson 2014). Figure 2 shows that self-regulatory resource depletion increased the level of pro-organizational dishonesty among those students who identify highly with the university, $b = 1.03$, $z = 3.13$, $p = .002$—and it significantly decreased the level of such behavior among those who identify less, $b = -1.29$, $z = -2.34$, $p = .019$.

Supplementary Analyses

To test the robustness and accuracy of our findings, we also ran our analyses without the control variables. Also in this model, the interaction term of self-regulatory resource depletion and organizational identification was a significant predictor of pro-organizational dishonesty ($b = .60$, $p = .016$). This implies that the control variables did not account for the finding.

Discussion

Study 2 demonstrated that when it comes to dishonesty that benefits one's organization, the effect of self-regulatory

Table 3 Means, standard deviation, and correlations (Study 2)

|	M	SD	1	2	3	4	5	6
1. Resource depletion	0.51	0.50						
2. Organizational identification	5.08	1.21	0.12					
3. Pro-organizational dishonesty	1.24	1.41	−0.06	0.22[+]				
4. Moral identity (internalization)	6.18	0.90	0.07	0.17	0.08			
5. Prosocial orientation	0.43	0.50	−0.08	−0.01	−0.05	0.14		
6. Gender	0.50	0.50	0.11	−0.15	−0.05	0.04	0.06	
7. Age	20.41	1.58	0.07	−0.08	0.08	0.14	−0.08	−0.08

$N = 70$ with listwise deletion. Self-regulatory resource depletion is dummy-coded (1 = depletion, 0 = no depletion); prosocial orientation is dummy-coded (1 = prosocial orientation, 0 = no prosocial orientation); gender is dummy-coded (1 = female, 0 = male); the actual range of instances of cheating (i.e., number of false claims of solution) was 0–5; [+]$p < .10$

Table 4 Results of moderated zero-inflated poisson regression analysis predicting pro-organizational dishonesty (instances of cheating; Study 2)

	Model 1 (M1)			Model 2 (M2)			Model 3 (M3)		
	b	SE	z	b	SE	z	b	SE	z
Count model coefficients (Poisson with log link)									
Age	− 0.12	0.08	− 1.52	− 0.04	0.09	− 0.42	− 0.07	0.08	− 0.84
Gender	0.00	0.27	0.00	− 0.22	0.26	− 0.85	− 0.32	0.23	− 1.38
Prosocial orientation	0.04	0.27	0.15	− 0.29	0.29	− 1.01	− 0.47	0.23	− 2.05*
Moral identity (internalization)	0.18	0.19	0.94	0.22	0.15	1.45	0.25	0.15	1.61
Resource depletion (RD)				0.39	0.26	1.52	− 0.29	0.27	− 1.11
Organizational identification (OI)				0.03	0.12	0.26	− 0.32	0.14	− 2.33*
RD×OI							1.05	0.22	4.73**
Zero-inflation model coefficients (binomial with logit link)									
Age	− 0.83	0.49	− 1.71[+]	− 0.39	0.54	− 0.73	− 13.76	21.43	− 0.64
Gender	0.69	0.97	0.72	− 0.98	1.84	− 0.53	− 67.56	141.69	− 0.48
Prosocial orientation	1.03	0.99	1.05	− 0.96	2.68	− 0.36	− 13.80	28.38	− 0.49
Moral identity (internalization)	0.26	0.53	0.49	0.81	0.92	0.88	2.98	23.48	0.13
Resource depletion (RD)				4.11	4.11	1.00	142.90	198.24	0.72
Organizational identification (OI)				− 1.24	1.08	− 1.15	− 70.73	98.85	− 0.72
RD×OI							62.53	87.40	0.72
Vuong z-statistic	(M3, M1)=2.35**			(M3, M2)=2.20*					

$N = 70$. b=unstandardized regression coefficient. Gender is dummy-coded (1=female, 0=male); self-regulatory resource depletion is dummy-coded (1=self-regulatory resource depletion, 0=no self-regulatory resource depletion); prosocial orientation is dummy-coded (1=prosocial orientation, 0=no prosocial orientation); age, moral identity (internalization) and organizational identification=mean-centered; [+]$p<.10$; *$p<.05$; **$p<.01$

Fig. 2 Pro-organizational dishonesty (instances of lying) as a function of self-regulatory resource depletion and level of organizational identification (Study 2)
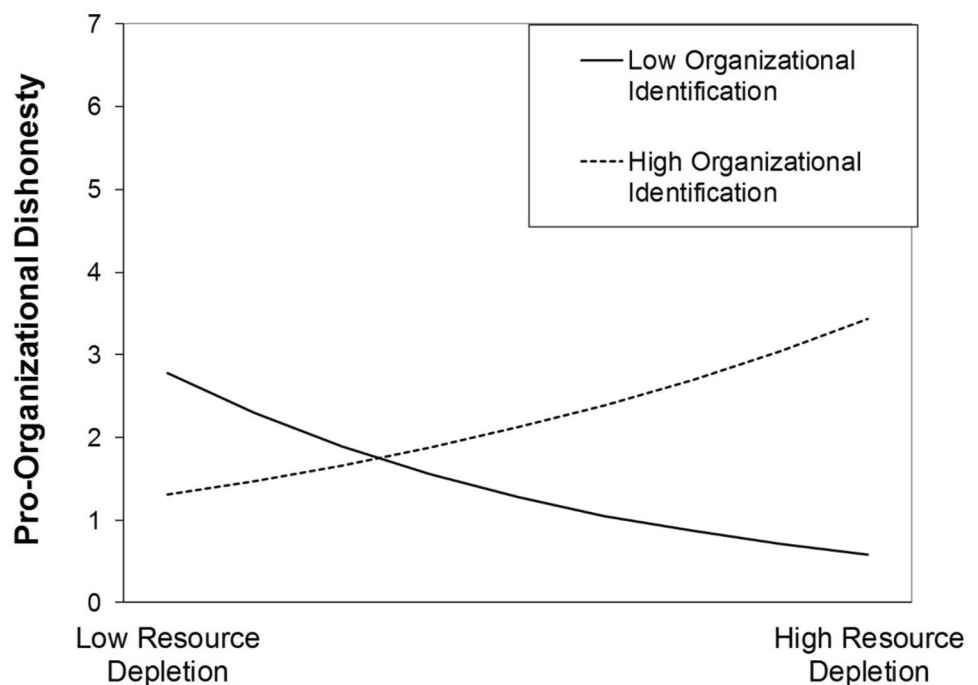
resource depletion differed according to the degree of identification with the organization. Depletion of self-regulatory resources increased participants' tendency to falsely report higher performance levels, but only among students who identified highly with their university. Among those who identified less or not at all, self-regulatory resource depletion significantly decreased dishonest behavior. Thus, Study 2 offers further support for the crucial role of social identification in moderating the effect of self-regulatory resource depletion on lying to benefit one's organization, as well as permitting causal inference.

General Discussion

A survey field study and a laboratory experiment both found corroborating evidence that self-regulatory resource depletion interacts with organizational identification in predicting pro-organizational dishonesty. In Study 1, a field study with employees working for organizations from various industries, low state self-control capacity was associated with a higher willingness to engage in pro-organizational dishonesty but only among employees who identify highly with the organization. Among employees who identify less or not at all with the organization, low state self-control capacity was associated with a lower willingness to engage in pro-organizational dishonesty. These findings were conceptually replicated in the controlled environment of a lab experiment in Study 2. We manipulated the extent of self-regulatory resources and found that a depletion of self-regulatory resources increased the level of pro-organizational dishonesty among those students who identify highly with the university and decreased the level of such behavior among those who identify less. Overall, our findings support our prediction that the effect of self-regulatory-resource depletion on dishonesty that benefits one's organization depends on the degree of identification with the organization.

Theoretical Contribution

Despite important theoretical research on unethical prosocial behavior (e.g., Haidt 2007; Janoff-Bulman and Carnes 2013; Rai and Fiske 2011), with very few exceptions (e.g., Chen et al. 2016; Castille et al. 2016; Lee et al. 2017, Hildreth et al. 2016; Thau et al. 2015; Umphress et al. 2010), empirical research on unethical behavior has been mainly concerned with behaviors that produce benefits exclusively for the *self* rather than for *others*. The proposed theoretical framework and the empirical findings presented in this study, however, contribute to the empirical literature on other-benefiting unethical behavior. For individuals who are highly identified with the group, the group becomes self and, consequently, unethical behavior that benefits the group

becomes tempting. In a state of diminished self-regulatory resources, a highly identified group member is hence more prone to lie for the benefit of the group.

Thus, our results demonstrate that the predominant perspective on unethical behavior, as a behavior that is mainly driven by selfishness and self-centered motivations such as greed, is oversimplified and limits our understanding of actual social behavior (also see, Lu et al. 2017). Our study shows that consistent with *the new synthesis in moral psychology* (Haidt 2007, 2008) and the *Homo duplex* view put forward by Kluver et al. (2014), which goes beyond the *Homo economicus* and the *Homo heuristicus* view, a psychologically realistic portrait of human nature needs to account for *group-related* motivations.

Associated with this, our research also contributes to the existing literature about the role of self-regulatory resource depletion in predicting unethical behavior. With few notable exceptions (e.g., Cantarero and van Tilburg 2014), so far the strength model of self-regulation (Baumeister et al. 2000; Baumeister and Vohs 2016) has been applied mainly to unethical behaviors that benefit the self (e.g., Gino et al. 2011; Mead et al. 2009; Muraven et al. 2006). Accordingly, our study contributes to research on the effects of self-regulatory resource depletion in general by broadening the perspective, beyond the *individual* self, to specifically consider the *group* self (Ellemers 2012; Kluver et al. 2014).

Whereas previous research almost exclusively (for a notable exception, see Yam et al. 2014) predicted and empirically confirmed that the depletion of self-regulatory resources promotes unethical behavior, the present study proposed and confirmed that self-regulatory resource depletion can either promote or inhibit unethical behavior, namely when it benefits others. Hence, this research complements prior work on the effect of self-regulatory resource depletion on other-benefiting dishonesty (Cantarero and van Tilburg 2014) and extends it by providing and testing a theoretical model suggesting that the effect of self-regulatory resource depletion varies depending on the extent to which a person has integrated the main beneficiary of the dishonest behavior in his/her self-concept. In sum, the present research integrates the concepts of self-regulatory resource depletion and social identification into a new theoretical model predicting other-benefiting dishonesty, and provides first empirical evidence for it.

Most importantly, however, by drawing on both the strength model of self-regulation (Baumeister et al. 2000) and the reflective-impulsive model (RIM) (Strack and Deutsch 2004), our work offers further important theoretical contributions to the literature on pro-organizational misconduct. Unlike previous approaches to pro-organizational misconduct, our resource-based framework takes into account the fact that the immediate situation is a powerful

determinant of human behavior (De Cremer and Vandekerckhove 2017). Specifically, with our model we address the question of how an individual behaves in a specific situation where there is a *temptation* to either lie to benefit the organization or to tell the truth. Hence, our approach and results imply that a more complete understanding of unethical pro-organizational behavior requires a conceptual distinction between *long-term* and *short-term* forces.

Moreover, a serious limitation of previous research on ethical decision-making is that it likely places too much emphasis on deliberative ethical decision-making, despite growing evidence that ethical judgments and behavior are often automatic and non-deliberative (Weaver and Clarke 2015). Thus, to improve our understanding of psychological underpinnings of ethical decision-making, it is crucial to use dual process models and to look in addition to cognitive factors also at the role of emotions and motivations (De Cremer and Vandekerckhove 2017). Our research is based on the idea that two simultaneously operating systems, the *reflective* and the *impulsive* system, guide social behavior (Strack and Deutsch 2004) and that self-regulatory resources (Baumeister et al. 1998) power the *reflective* system (Vohs 2006; Krishna and Strack 2017). Hence, our theoretical approach incorporates both pathways, the *calculative* and *impulsive* (Kish-Gephart et al. 2010), and attributes importance to motivational processes. Accordingly, a key theoretical contribution is that the present work distinguishes between *reflective* and *impulsive* pro-organizational behaviors and, thus, provides a first understanding of *impulsive* and automatically driven pro-organizational misconduct.

Related to this, our work also contributes meaningfully to the study of identity and identification in organizations. First, our findings demonstrate the motivational importance of social identity in automatic behavior. From previous research, we already know that the nature of an individual's identity has bearing on the extent to which ethical behavior comes more easily to people (Gino et al. 2010, Joosten et al. 2013). Accordingly, moral identity has become an important object of research (e.g. Aquino and Reed 2002; Weaver and Clarke 2015). However, in the present work, we introduce a dual process approach to the study of organizational identification effects and show how social identity is linked to automatic behavior.

Second, our results contribute to the growing body of literature on the potentially negative consequences of organizational identification. Previous research has primarily addressed potentially beneficial aspects and outcomes of organizational identification, such as organizational citizenship behavior and low turnover intention (Riketta 2005). Only recently, researchers have begun to argue that organizational identification may also have a potential dark side (Conroy et al. 2017), resulting from an "over-identification" and a loss of an independent sense of self (also

see Johnson and Downing 1979). Although theoretically the notion of "over-identification" has been proposed in previous work (e.g., Ashforth 2016; Dukerich et al.1998; Galvin et al. 2015; Umphress and Bingham 2011; Vadera and Pratt 2013; also see Leavitt and Sluss 2015), empirical findings underpinning this view are scarce (e.g., Chen et al. 2016; Umphress et al. 2010). Our research provides such empirical support and, crucially, identifies one condition in which a very strong organizational identification is likely to increase dishonest and deceptive behavior that benefits one´s organization, namely in a state of diminished self-regulatory resources. Hence, in the face of self-regulatory resource depletion, organizational identification, according to the present result, indeed shows its dark side, resulting from an "over-identification" with the organization and a loss of an independent sense of self (e.g., Ashforth et al. 2008b; Dukerich et al. 1998).

Yet, on the other hand, a myriad of empirical studies has highlighted the importance of organizational identification for both the organization and its members and showed its association with desirable attitudes (Riketta 2005). Thus, in line with previous research (Umphress et al. 2010; Umphress and Bingham 2011), it cannot be argued that identification with the organization is inherently bad. On the contrary, we acknowledge that social identification and a shared social identity matter and are beneficial in many ways (Haslam 2014), but at the same time, the present findings point to the fact that a lack of individual identification and loss of an independent sense of self can have detrimental effects. Thus, organizational identification seems to be subject to the "too much of a good thing" effect (Avanzi et al. 2012; Pierce and Aguinis, 2013; Zhong et al. 2014) according to which, organizational identification can be beneficial but only up to a certain degree.

Limitations and Future Research

One potential limitation of our study and, thus, a possible direction for future research, concerns the assessment of lying to benefit one`s organization. In Study 1, rather than actual behavior, we assessed employees' self-reported willingness to engage in dishonesty. One alternative way to measure dishonest propensities could be judgments from co-workers or supervisor reports, although they are obviously problematic as well. First, in line with previous research (Umphress et al. 2010) it can be assumed that co-workers and supervisors most likely would not have had the necessary insights to report the employee`s willingness to misrepresent the truth for the organization. Second, and more importantly, even if coworkers could report on each other's prior unethical actions, they would be unable to know whether the other person suffered from self-regulatory resource depletion while performing those misdeeds.

Other problems associated with self-report data are lower effectiveness and a social desirability bias. The specific way of data collection via the SoSci Panel, however, very likely reduces social desirability effects because participants knew that the survey was completely anonymous, for scientific purposes only, and not in any way associated with the organization they were employed by. However, given that research shows that lying behavior can be also affected by the specific channel of communication (e.g. Conrads 2014), future research needs to examine the effect of different channels of communication i.e., face-to face, phone, computer-mediated, and online on pro-organizational dishonesty. Comparing the effect of self-regulatory resource depletion on lying to customers face-to-face versus on the phone might be one possibility.

Moreover, it might be argued that the effect size of the interaction in Study 1 was rather small. However, the reason for the small amount of explained variance is very likely the nature of the study (i.e., field research in which existing variables are measured and not experimentally manipulated; see also Cohen et al. 2003, p. 286 ff.). Detecting moderator effects in field studies is deemed to be notoriously difficult (McClelland and Judd 1993; Shieh 2009) and for those studies that do find significant interaction effects, small effect sizes seem to be the rule rather than the exception (Aguinis et al. 2005; Dawson, 2014). Given the evident difficulty of detecting interaction effects in non-experimental studies, it has been suggested "that even those explaining as little as 1% of the total variance should be considered important" (McClelland and Judd 1993, p. 377). Murphy and Russell (2017) recommended in such cases to additionally carry out experimental studies to provide a better estimate of the strength of the interaction effect and insight into causal processes. Accordingly, in Study 2, we manipulated self-regulatory resource depletion and then measured pro-organizational dishonesty by giving students the opportunity to lie in a test to uphold the reputation of their university. This operationalization allowed us to observe actual dishonest behavior for the benefit of the organization and, thus, overcome limitations of Study 1. Nevertheless, future studies should specifically examine the role and different ways of measuring pro-organizational dishonesty in the workplace. In addition, using a longitudinal design and daily-diary methodology in future research might shed further light on the dynamics involved over time.

In both studies, organizational identification was measured, using a standardized self-report scale, and not manipulated. This operationalization could give the wrong and in many ways problematic impression that organizational identification is conceived as a completely stable individual difference (Haslam and Ellemers 2005). It is, thus, important to reiterate that the structure of the self is not fixed and static and that we are aware that the strength of the

identification with the organization can change over time. However, the aim of both studies was to test whether self-regulatory resource depletion interacts with organizational identification to predict pro-organizational dishonesty at one specific point in time. This leaves long-term changes of organizational identification out of consideration. Furthermore, Rousseau (1998) differentiates between situated identification, which is temporary, unstable and primarily based on situational cues, and deep structure identification, which is described as a more fundamental and stable connection between the individual and the collective (Ashforth et al. 2008b; Haslam 2012; Riketta et al. 2006). Although, situated identification certainly precedes deep identification, the present study is focused on identification in this deeper, more existential sense "precisely because it more fully implicates the self in the experience of organizational life" (Ashforth et al. 2008b, p. 332). In line with this conceptualization, organizational identification was measured and not manipulated for two reasons: First, a deep-structure sense of organizational identification (Riketta et al. 2006; Rousseau 1998; Kluver et al. 2014) is more likely to be found in real and not in hypothetical organizational settings. And, second, instigating deep structure organizational identification has been proven to be difficult in previous research (van Knippenberg et al. 2006). The fact that the present study has focused on deep structure identification provides, however, an interesting avenue for future research. One question that has not been addressed in the present work and, thus, requires further investigation is whether a situated, temporary identification based solely on situational cues (see e.g., Doosje et al. 1995) also interacts with self-regulatory resource depletion to predict pro-organizational dishonesty.

Another limitation of the present study is that we focused only on one specific form of social identification, namely organizational identification. Yet one may question whether students' identification with their university is psychologically equivalent to organizational identification in general and employees' identification with their company in particular. After all, students are not employed by their university. It is important to note, however, that not the specific type of organizational membership or organization but the perception of oneness with or belonging to the organization is central to the concept of organizational identification (Ashforth 2016; Mael and Ashforth 1992). Hence, according to Mael and Ashforth (1992), the concept of organizational identification can and should be applied to varying organizational contexts, including academic institutions. The scale we used has been designed by Mael and Ashford (1992) and applied to assess former students' identification with their university in their seminal work on organizational identification. Hence, we believe that we tested our assumptions validly. The fact that our participants showed the predicted pattern of behavior despite being not employed by the organization

under concern contributes to the generality of our reasoning beyond employment contexts. To what extent this reasoning applies to other cases of social identification in general or specific cultural and industrial contexts, however, remains an issue for future investigations. Thus, although we believe that our conceptual model is applicable to various forms of social identification; further research is needed to generalize our findings to unethical behavior that benefits other social groups. However, by focusing on organizational identification we were not only able to test and support the predicted effect, to our knowledge, for the first time but also to draw conclusions about its implications for practice.

Practical Implications

Misconduct by members of organizations can have disastrous effects. Not only can misdeeds cause terrible suffering for victims, but even the organization itself may suffer. For instance, the General Motors scandal over a faulty ignition has already cost General Motors $2 billion, and it still faces numerous court battles that could potentially cost billions of dollars in further damages (Larson and Cronin Fisk 2016). The financial damage to Volkswagen from the emissions control deception is already even greater (Ewing and Boudette 2017). Hence, unethical acts carried out to potentially benefit an organization in the short term may in fact harm the organization in the long run. These cases exemplify how dishonest and deceptive behaviors by individual employees can impose costs on society at large, as well as putting their organizations at risk of moral disgrace and legal sanctions. Therefore, it is important to understand why organizational members sometimes give into the temptation to lie for the organization.

One implication of the present findings is that an "over-identification" (e.g., Brown and Mitchell 2010; Galvin et al. 2015) with the organization and a loss of an independent sense of self is detrimental to organizations, its members and society and, therefore, should be prevented. However, so far there is no substantial research on how to counteract over-identification with the organization (Ashforth et al. 2008b; Vadera and Pratt 2013). One factor that potentially promotes an over-identification with the organization might be a practice of culture management, characterized by inflicting mono-cultural conditions through systematic suppression of conflicting values and identities (Willmott 1993). In contrast to an all-embracing identity, Haslam and colleagues (Haslam 2012, 2014; Haslam et al. 2000) suggest that organizations should strive for authentic collective diversity (Haslam et al. 2000) and promote a shared organically pluralistic identity (Haslam and Ellemers 2005). According to this approach, different social and personal identities matter because they contribute to organizational life, each in a specific way. Organizational sustainability, therefore, requires structures that promote expression and development of concerns and interests associated with each (Haslam et al. 2003). Programs and interventions in line with this notion (Haslam et al. 2003; Haslam, 2014; Haslam and Ellemers 2005), thus, might be one way to address the problem of over-identification with one all-embracing organizational identity. However, any attempt of promoting ethical behavior by counteracting over-identification through organizational initiatives represents in itself a process of social identity management. Given that such interventions are inherently political and far from unproblematic, a fundamental objective of such interventions should always be "to enhance the energy and health of both individuals and collectives" (Haslam 2014, p. 12).

Highly identified organizational members have integrated the organization into their self-concept and, consequently, unethical behavior that benefits the organization becomes tempting. From research on self-control, we know that the best way to prevent an instance of self-regulatory failure caused by depleted willpower, or in other words, to secure that someone does not give into a temptation is simply, to avoid it (e.g., Ent et al. 2015). Accordingly, one implication of our results is that in order to prevent pro-organizational dishonesty, organizational members should ideally not be confronted with situations that tempt them to lie for the organization. For instance, if the goods produced or sold by an organization are of high quality, employees are not subjected to situations where they could be tempted to misrepresent the product quality. Clearly, the organizational environment, especially leadership and the reward system, and the societal context (Ashforth and Anand 2003; Ashforth et al. 2008a; Weaver and Clark 2015) play an important role in terms of creating or preventing such tempting circumstances.

Once such a situation arises, however, our results indicate that the depletion of self-regulatory resources increases the level of pro-organizational dishonesty among those members who identify highly with the organization. This finding has important implications for practice. From research on self-regulatory resource depletion we know that responsible decision-making draws on the same limited resource and, therefore, causes a state of diminished self-control resources (Baumeister et al. 1998; Pocheptsova et al. 2009). Job level, on the other hand, is positively associated with organizational identification (Riketta 2005; Umphress et al. 2010). Hence, those in higher positions, who make many important decisions on behalf of the organization, are also those most prone to be ego depleted and highly identified with the organization (Ashforth et al. 2008b) and, as a result, more likely to engage in pro-organizational dishonesty.

Awareness that employees with reduced self-regulatory resources may become prone to perform unethical (and potentially costly) actions on behalf of the organization may be a first step toward reducing these problems. Periodically reaffirming the organization's commitment to ethical

conduct may counteract employees' assumptions that they are helping the organization by lying. Particular vigilance during times of stress and heavy workload (when rates of self-regulatory resource depletion are presumably higher than usual) may be warranted. Moreover, many factors have been shown to reduce or counteract self-regulatory resource depletion (e.g., Hagger et al. 2010; Loschelder and Friese 2016) and some of these could be encouraged so as to prevent the depleted state. Encouraging employees to get enough food and sleep may also facilitate recovery from self-regulatory resource depletion.

When organizational identification is low, however, we found that the depletion of self-regulatory resources can actually lead to less pro-organizational dishonesty. This somewhat counterintuitive result provides further practical implications. Perhaps organizations could benefit from retaining a devil's advocate who is not as committed to the organization because in times of stress and self-regulatory resource depletion, such a person would shift away from willingness to lie for the organization. Whether such a person might even restrain colleagues, who under the same circumstances would lie, is an important question for further work.

In sum, our results demonstrate that conventional approaches in organizations to foster integrity and avoid dishonesty may not adequately address the true nature of unethical behavior. Conventional approaches are based on the idea that behavior is always the outcome of reasoned deliberation. However, following a dual process approach, some ethical behavior is the result of deliberation, while some is not (see also Weaver and Clarke 2015). Our findings show that if we want to reduce other-benefiting dishonesty in the realm of behavior that is governed by automatic reactions, we need to be mindful of the motivational importance of an individual's social identity (see also Weaver and Clarke 2015; Leavitt and Sluss 2015; Packer and Van Bavel 2015; Hackel et al. 2017).

Concluding Remarks

People readily identify with groups, and groups generally benefit from such identification. Our findings suggest, however, that such identification is not without risk and may indeed have a dangerous dark side. When self-regulatory resources are depleted, people who identify most strongly with the organization may become most likely to lie, ostensibly to help the organization but thereby potentially causing it and others serious harm. In such times, ironically, organizations may need to look to its less strongly identified members for ethical guidance.

Compliance with Ethical Standards

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

Ethical Approval This article does not contain any studies with animals performed by any of the authors. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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

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