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# What Causes Unethical Behavior? A Meta-Analysis to Set an Agenda for Public Administration Research

Public  
 Administration  
 and the  
 Disciplines  
 & Research  
 Synthesis

*Editor's Note:* The distinctive content of this article accounts for its dual identity as a Research Synthesis and Public Administration and the Disciplines feature. The meta-analysis explains the article's inclusion in the Research Synthesis feature. The articles that are the object of the meta-analysis are drawn from extensive experimental research in fields outside public administration, which explains the connection to our Public Administration and the Disciplines feature. Authors Nicola Belle and Paola Cantarelli make a case for how the meta-analysis of experimental research could begin to transform public administration research about ethics.

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**Abstract:** *This article uses meta-analysis to synthesize 137 experiments in 73 articles on the causes of unethical behavior. Results show that exposure to in-group members who misbehave or to others who benefit from unethical actions, greed, egocentrism, self-justification, exposure to incremental dishonesty, loss aversion, challenging performance goals, or time pressure increase unethical behavior. In contrast, monitoring of employees, moral reminders, and individuals' willingness to maintain a positive self-view decrease unethical conduct. Findings on the effect of self-control depletion on unethical behavior are mixed. Results also present subgroup analyses and several measures of study heterogeneity and likelihood of publication bias. The implications are of interest to both scholars and practitioners. The article concludes by discussing which of the factors analyzed should gain prominence in public administration research and uncovering several unexplored causes of unethical behavior.*

Adherence to the highest standards of ethical conduct is inherent in the mission of government organizations, the purpose of which is to serve the public interest. Indeed, a long-standing tradition in the public administration literature suggests that ethics and morality are two founding principles of civil service. Using normative approaches, scholars have specified what civil servants should do and how they should behave (e.g., Cooper 2012; Perry 2015; Pugh 1991; Rainey 2009; Rohr 1986, 1998). The members of the American Society for Public Administration (ASPA) have committed themselves to the demonstration of personal integrity and the promotion of ethical organizations, two principles in the Code of Ethics approved by the ASPA National Council in 2013 (ASPA 2016; Svava 2014). Nevertheless, daily news uncovers major and minor acts of dishonesty by public officials. The relevance of this concern is demonstrated by the fact that one stream of research in public administration is focused on investigating administrative evil and how it threatens traditional public values (e.g., Adams and Balfour 2015).

Despite the importance of ethics in government, which remains "at the heart of what we are about as a professional field" (Perry 2015, 187), public administration research in this area has been scant (for a review, see Menzel 2015). Adams and Balfour's search for "scholarly articles on ethics topics in leading public administration journals indicates that, at their zenith in the last two decades of the twentieth century, ethics topics hovered around 5 percent of all articles. In addition, their topical coverage is slim" (2010b, 781). Also, a recent virtual issue of *Public Administration Review* containing selected studies that the journal has published since 2002 on the topics of "corruption, unethical behavior, and ethics," included only 13 articles. In short, "studies addressing this topic are needed, important, and long overdue" (Adams and Balfour 2010b, 783). The paucity of public administration scholarship on ethics contrasts with a spurt in other disciplines within the social sciences, such as business, economics, management, and psychology, in which the investigation of the determinants of unethical behavior has drawn increasing attention among scholars in recent years (e.g., Moore and Gino 2015).

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The public administration research on ethics is characterized by a methodological delay relative to other fields. To the best of our knowledge, unlike the evidence available in public administration journals to date (for reviews, see Menzel 2015; Von Maravić 2008), it has become standard practice in other disciplines to investigate the causes of unethical behavior using randomized experiments (e.g., Moore and Gino 2015). Because the public administration literature on unethical behavior has relied almost exclusively on observational designs, our field still lacks a solid understanding of the causal mechanisms underlying unethical behavior in public organizations.

The primary aim of our work is to help fill this gap by providing a comprehensive synthesis of the experimental literature in this area. We collected data from 137 experiments in 73 articles and identified 12 causes of unethical behavior. To address brevity concerns, this article report results in full detail for the seven factors (social influences, greed, egocentrism, monitoring, moral reminders, self-justification, and self-view) for which we meta-analyzed more than 10 primary experiments. Findings for the remaining five factors (self-control depletion, slippery slope effect, loss aversion, goal setting, and time pressure) are summarized in table 1 and made available in the online supplement (tables S8–S12 and table S15). To identify the factors for which we report fully detailed analyses, we used the 10-study cutoff that is usually suggested as a threshold for conducting meaningful publication bias analyses (e.g., Banks, Kepes, and Banks 2012; Cantarelli, Belardinelli, and Belle 2016; Kepes et al. 2012).

We limited our meta-analyses to experimental research for two main reasons. First, we are interested in investigating the causal mechanisms that drive unethical behavior; randomized trials best serve this purpose because “no other scientific method regularly matches the characteristics of causal relationships so well” (Shadish, Cook, and Campbell 2002, 7). Second, we hope to motivate scholars in our field to conduct future experimental research on the determinants of unethical behavior that will capitalize on what we know now, complement normative debates, and triangulate observational findings. The ultimate goal of presenting experimental meta-evidence

from other disciplines is to inspire public administration scholars to conduct randomized controlled trials on samples of public administration students and employees, which may help nurture the resurgence of public ethics research in our own field. Indeed, Adams and Balfour talk about “the complicity of academic research in perpetuating the ethical theory/ethical practice disconnection by marginalizing the study of public service ethics” (2010b, 767).

Because almost a decade has passed since the last research synthesis on the determinants of unethical conduct (Kish-Gephart, Harrison, and Treviño 2010), and experimental research has grown fast, we believe the time is ripe for a comprehensive meta-analysis of experimental literature on the causes of unethical behavior. We are convinced that our study substantially advances previous meta-analytic work on the same topic. In particular, we depart from Kish-Gephart, Harrison, and Treviño (2010) in several important ways. For instance, those authors analyzed only two out of the 137 experiments included in our sample. This lack of overlap is not surprising if we consider that the spurt of experimental scholarship on the determinants of unethical conduct is a very recent phenomenon. Indeed, 86 percent of the experiments on unethical behavior that we meta-analyze were published after 2008, which is the last year covered by Kish-Gephart, Harrison, and Treviño’s meta-analysis. The novelty of our meta-analytic synthesis is also demonstrated by a striking discrepancy between the determinants of unethical behavior identified by Kish-Gephart, Harrison, and Treviño and those resulting from our comprehensive meta-analysis of experimental work on this topic.

### Ethics Literature and Research in Public Administration

Normative debates about public administration ethics focus on two sets of administrative values: bureaucratic ethos and democratic ethos (Pugh 1991). One key element of the former is that in providing public services, civil servants have to consider managerial values such as efficiency, effectiveness, loyalty, and accountability (Pugh 1991). Without an explicit reference to public ethics values, and with the prominence of technical rationality, bureaucratic ethos can turn into administrative evil (Adams 2011; Adams and Balfour 2010a, 2015; Zanetti and Adams 2000), under which “ordinary

**Table 1** Meta-Analytic Estimates of the Effects of the 12 Factors on Unethical Behavior

Factor	<i>N</i>	Summary effect size (Hedges’s <i>g</i> , random effects)	SE	Lower Limit	Upper Limit	Z-Value	Treated Sample Size	Control Sample Size	<i>p</i>
Social influences	33	0.48	0.04	0.39	0.57	10.73	1,866	1,815	.000
Greed	26	0.45	0.09	0.28	0.63	5.11	1,451	1,325	.000
Egocentrism	20	0.58	0.07	0.45	0.71	8.47	1,529	1,241	.000
Monitoring	19	−0.84	0.14	−1.11	−0.57	−6.05	1,356	1,220	.000
Moral reminders	15	−0.43	0.07	−0.56	−0.29	−6.30	704	788	.000
Self-justification	13	0.88	0.14	0.59	1.16	6.05	632	563	.000
Self-view	12	−0.56	0.07	−0.70	−0.42	−8.09	433	427	.000
Self-control depletion*	8	0.22	0.18	−0.13	0.57	1.24	363	365	.215
Slippery-slope effect*	7	0.53	0.08	0.38	0.68	6.88	368	369	.000
Loss aversion*	5	0.50	0.14	0.22	0.78	3.51	156	156	.000
Goal setting*	4	0.29	0.08	0.13	0.45	3.50	272	309	.000
Time pressure*	4	0.64	0.12	0.40	0.89	5.17	142	127	.000

Notes: Data from one experiment can be included in more than one factor. Factors marked with the asterisk indicate meta-analyses for which we do not provide fully detailed results in-text but we provided all analyses and information in the online supplement (Tables S8–S12 and Table S15).

people, within their normal professional and administrative roles, can engage in acts of evil without being aware that they are doing anything wrong. Under conditions of moral inversion, people may even view their evil activity as good” (Adams 2011, 275). Two instances of administrative evil from the twentieth century include the systematic planning, execution, and perpetuation of the Holocaust by German bureaucrats and the 1986 NASA space shuttle *Challenger* disaster (Adams and Balfour 2015; Adams, Balfour, and Reed 2006; Zanetti and Adams 2000). Early evidence of administrative evil can also be found in Stanley Milgram’s (1963) work. Participants in his experiments hurt others in obedience to the instructions of an authority that had no real power to enforce commands, notwithstanding the absence of punishment for noncompliance and despite their self-reported disapproval of the action (Milgram 1963).

Unlike bureaucratic ethos, democratic ethos (Pugh 1991) stresses political and regime values. The democratic ethos serves as the moral foundation of public ethics by promoting, for example, the public interest, citizens’ empowerment, social equity, justice, and benevolence (e.g., Pugh 1991). Rohr (1986, 1998) argued that democratic ethos should be a part of the training for civil servants and that emphasis should be put on developing virtues rather than avoiding moral scandals and corruption. In particular, the two regime values that public administrators should abide by are the U.S. Constitution and the Supreme Court cases that interpret and apply it.

Very recently, prominent scholars in public administration and public service ethics started investigating how the New Public Governance arrangements, characterized by a decline of the nation-state and the rise of market-based governments, threaten ethical public organizations and public values. For example, the focus on economic rationality and the outsourcing of basic public administration functions may have fueled the disconnect between ethical theory and ethical practice (Adams and Balfour 2010a, 2010b).

Scholars also have developed models of ethical decision making and investigated how human beings increase the morality of their behaviors over time. Kohlberg (1980) proposed a six-step model to describe how individuals develop as moral persons. While individuals are only self-interested in step one, by step six, they aspire to ethical behaviors that focus on universal principles of justice and are capable of high moral reasoning and ethical analysis. Neo-Kohlbergian models of moral reasoning (e.g., Rest et al. 1999) have also nurtured this debate in the social sciences. Scholars in public administration have built on Kohlberg’s work to investigate the moral reasoning of civil servants in several cultural contexts (e.g., Lim Choi 2006; Rizzo and Swisher 2004; Stewart, Sprinthall, and Kem 2002).

Applied research in public administration ethics recently has been summarized by Menzel (2015). Building on his previous research syntheses (i.e., Menzel 2005; Menzel and Carson 1999), Menzel (2015) identified several research themes on ethics and integrity in public administration, referencing 109 articles on the topic

published in *Public Administration Review* and *Public Integrity* between 2005 and 2014. All 109 articles analyzed in the review employed an observational and cross-sectional research design, either using a qualitative or a quantitative approach or both. None of this empirical work in public administration ethics employed experimental techniques.

## Method

### Search for Primary Data

We completed our search for primary data in July 2015 using a three-step procedure. First, we identified articles by applying a snowball technique, starting with the references of two seminal studies that have theoretically and methodologically informed most recent research into the determinants of unethical behavior: Fischbacher and Föllmi-Heusi (2013) and Mazar, Amir, and Ariely (2008). In particular, we read the title and abstract of all articles included in the references of those two studies, and we retrieved in Google Scholar all manuscripts citing the two seminal studies and including terms “unethical” and “experiment” anywhere in the text.

The second step of our search for primary data entailed repeating for the meta-analysis of Kish-Gephart, Harrison, and Treviño (2010) the same process that we followed in the first step. To the best of our knowledge, this is the most recent and most relevant research synthesis available for the purpose of our investigation, despite substantive differences in theoretical framework and final sample of primary study searching criteria as compared with our work.

Lastly, we performed a search in Google Scholar using “unethical behavior” and “dishonest” as keywords to be found in the title. Our three-step procedure led to the identification of 2,306 English-written records potentially of interest for our meta-analysis. Upon the elimination of redundant records and further analysis of the articles’ abstracts, 172 articles were retained for in-depth consideration and potential inclusion in our research.

### Decision Rules

Of the 172 articles identified through our search, we retained those that met two criteria. First, the independent variable(s) had to be experimentally manipulated. Second, the dependent variable(s) had to be (a) measure(s) of unethicality. This included actual behavior, self-reported intention to behave, and self-reported judgment of the degree of unethicality. Most experiments in our final sample employed measures of actual behavior (table S15). We assessed each of the 172 articles in the initial list for inclusion separately. We discussed our individual decisions until reaching consensus. As mentioned earlier, we only meta-analyzed experiments because they are best suited for establishing causal relationships and because our findings can inform the much-needed future experimental research in public administration ethics.

### Coding

Using the software Comprehensive Meta-Analysis 2.0 (<http://www.meta-analysis.com/index.php>), we created a data set reporting the

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following information for each of the primary studies retained through the previous phases of our analysis: (1) author(s), (2) year of publication, (3) manipulated variable(s) and concrete experimental intervention, (4) outcome variable(s), (5) sample size, and (6) any measures useful to estimate the effect of the experimental manipulations. Examples of (6) included means, standard deviations, *p*-value, *t*-value, *F*-test, and  $\chi^2$ -test. We first coded about 10 primary studies separately, then checked each other's work adopting a critical approach, solved any discrepancies through discussions, and then each coded half of the remaining studies independently.

Lastly, we together checked the final data set twice and used the information in (3) to classify the records in the data set into unique factors determining unethical behavior. In grouping primary studies, we tried to balance two conflicting goals: the minimization of the number of factors, so to make the meta-analysis as parsimonious as possible, and the maximization of homogeneity among manipulations within each factor.

We labeled the 12 factors discussing different alternatives and selecting the final label by consensus. Agreeing with an anonymous reviewer, our meta-analyses share with comparable work (e.g., Cantarelli, Belardinelli, and Belle 2016; Gerrish 2016) the limitation of variable coding by authors. However, we are convinced that the procedures that we adopted in the study and the postestimation analyses presented here not only partially address this concern but also provide enough information to the readers to make informed assessment and use of our work. Nevertheless, we fully acknowledge that using independent coders would have been superior. The coding process led to a final sample comprising 137 experiments from 73 articles and 12 causes of unethical behavior. The descriptive characteristics of each experiment are reported in table S15 of the online supplement. Results are presented in full detail for the seven determinants of unethical behavior with more than 10 experiments meta-analyzed. Findings for the five factors with 10 or fewer experiments meta-analyzed are shown in table 1 and in the online supplement.

### Analyses

We used Comprehensive Meta-Analysis 2.0 to estimate the Hedges's *g* effect size of the factors leading to unethical behavior that we identified through the steps described earlier. We employed combined comparisons (table S1–S8 and table S15) to account for two circumstances. One case is for experiments that could contribute several independent comparisons to the same meta-analysis. Here, the combined pairwise comparisons do not have any intervention group in common. An example of this is Erat and Gneezy's (2012) study 1 in the meta-analysis of social influences: subjects were randomized in five experimental conditions, and the two pairwise comparisons that we combined refer to four independent groups. The other case of combined comparisons is for experiments in which several comparisons are correlated because they have intervention groups, and hence participants, in common. One example of this is Ploner and Regner (2013) in the meta-analysis of monitoring: subjects were randomly assigned to three

experimental conditions, and the two pairwise comparisons that we combined share the same treatment group.

When the *comparison* column in tables S1–S12 displays the word *blank*, no combinations were calculated. Similarly, *combined* under the *outcome* column in tables S1–S12 indicates that multiple standardized outcome measures were averaged. *Blank* indicates that only one outcome measure was imputed. How to include a study with multiple intervention groups in a meta-analysis is still debated: scholarship does not yet provide definitive instructions but rather describes several approaches and generally recommends the one that we adopted (e.g., Borenstein et al. 2009; Higgins and Green 2011). We partially mitigated the legitimate concerns that may arise from our judgment call in this regard by running a series of robustness checks, which included computing weighted averages, calculating unweighted averages, running meta-analyses with one study removed at a time, performing cumulative meta-analyses, and picking one comparison only per experiment. None of the robustness checks that we employed revealed variation in the findings.

We used the *d/g* framework for effect sizes because the primary studies included in our meta-analyses are experiments. In fact, *d*-based effect sizes are more appropriate when primary studies perform difference of means tests or analysis of variance (e.g., Ringquist 2013). Also, we used Hedges's *g* to take advantage of the fact that it is scale free. We preferred expressing the effect size in terms of the number of standard deviations by which the means differ because the scales used in the primary studies to measure the dependent variable were not necessarily inherently meaningful or comparable. We preferred the Hedges's *g* over Cohen's *d*, as the latter may overestimate the population effect size in small samples (e.g., Ringquist 2013). According to Cohen (1988), a standardized summary effect size of .2 is small, of .5 is moderate, and of .8 is large.

Fixed-effects estimations are based on the assumption that the true effect size is identical across all studies. Scholars have argued that this assumption may be implausible in most meta-analytic reviews and suggested that random-effects models should be generally preferred (e.g., Borenstein, Hedges, and Rothstein 2007). Public management scholars have recently provided similar advice (e.g., Gerrish 2016; Homberg, McCarthy, and Tabvuma 2015; Ringquist 2013). Following these indications and the suggestion of an anonymous reviewer, we focused our analyses on the random-effects estimations.

Following the recommendations to provide heterogeneity measures in order to help readers put the point estimate into context (e.g., Aguinis et al. 2011), we tested the statistical significance of the *Q*-value and computed *I*<sup>2</sup> and *T*<sup>2</sup>. A significant *p*-value for the *Q*-statistic provides evidence that the true effect sizes vary across studies. The *I*<sup>2</sup> represents the proportion of observed variance that is real. The *T*<sup>2</sup> is an absolute measure of the variance of the true effect sizes (Borenstein et al. 2009).

To further help readers contextualize the findings, we explored the heterogeneity of results across disciplines, types of experimental settings (laboratory, online, field), types of participants (students, workers, general population), types of observed outcomes (actual behavior, self-reported intentions, self-reported judgments about unethicity of someone else's behavior), and sources (peer-reviewed journal, Social Science Research Network, conference proceedings). More precisely, we conducted subgroup analyses anytime the foregoing variables varied within a factor and anytime there was at least one experiment per category within variables (table S15). To make subgroup analyses by discipline manageable, we merged subdisciplines into disciplines and made judgment calls in the case of multiple attributions. We computed mixed-effects analysis, which uses a random-effects model to combine studies within each subgroup and a fixed-effects model to combine subgroups and yield the overall effect.

Lastly, we addressed concerns of publication bias by analyzing the funnel plots (table S13), the Duval and Tweedie's trim and fill procedure (table S14), and the Egger's test of the regression intercept (table S14). The Duval and Tweedie's trim and fill procedure assesses the symmetry of funnel plot distributions. When asymmetry is present, the trim and fill procedures (1) iteratively trim extreme effect sizes until reaching symmetry, (2) add back the trimmed effect sizes together with imputed effect sizes of the opposite side, and (3) reestimate the meta-analytic parameters. Publication bias is unlikely if the meta-analytically derived effect sizes and the trim-and-fill-adjusted effect sizes are identical or comparable (Duval and Tweedie 2000a, 2000b). The Egger's test of the regression intercept indicates the absence of publication bias when the regression intercept is statistically indifferent from zero (Banks, Kepes, and McDaniel 2012; Borenstein et al. 2009).

## Results

In this section, we report the results of the meta-analyses for seven of the 12 factors influencing unethical behavior that we identified through our systematic literature review. Adopting the 10-study cutoff that is usually suggested as a threshold for conducting meaningful publication bias analyses, the meta-analyses of these seven factors included more than 10 primary experiments. For each of those seven factors, we summarize the corresponding relevant theories, indicate the number of experiments included in the meta-analysis, and describe the experimental manipulations employed in primary studies. Accordingly, we report (1) Hedges's *g* summary effect sizes under the random-effects model; (2) heterogeneity measures; (3) findings of subgroup analyses by discipline, experimental setting, participants, and observed outcomes, when applicable; and (4) measures of publication bias (funnel plot, Duval and Tweedie's trim-and-fill procedure, and Egger's regression test), when applicable. For the five meta-analyses with fewer than 10 primary experiments, we report summary results in table 1 and all analyses and information in the online supplement.

### Social Influences

Scholars have recently begun to investigate how social influences determine unethical behavior. Within this branch of studies, researchers have indicated three primary drivers. First, social identity theory suggests that individuals abide by social rules that provide them with the opportunity to maintain or enhance their in-group

social identity (Rubin and Hewstone 1998; Tajfel 1982; Tajfel and Turner 1986). This mechanism holds even when applied to unethical examples. In fact, scholars have suggested that individuals will imitate unethical examples if the actor is an in-group member but not if the actor is an out-group member (Gino, Ayal, and Ariely 2009). Second, interdependence theory (Insko et al. 2011) and self-serving altruism (Gino, Ayal, and Ariely 2013) suggest that individuals are able to rationalize their dishonesty if the unethical behavior also creates benefits for others, regardless of whether they are group members or strangers.

Finally, along the same lines, the empathy-altruism hypothesis posits that empathic emotions increase the willingness to help a victim (Batson et al. 1991). The willingness to help the victim will be greater when the victim is identified rather than nonidentified because in the former condition, people are more likely to adopt the perspective of the identified person (affect-based mechanism) and/or overestimate the relevance of a singular victim (cognitive-based mechanism) (Kogut and Ritov 2005; Small and Loewenstein 2003). Thus, when the victim of the wrongdoing is identified, individuals are likely to judge the unethicity of others more severely and/or refrain from engaging in unethical conduct that might harm the victim (Gino, Shu, and Bazerman 2010; Yam and Reynolds 2014).

We identified 33 experiments testing the effects of social influences on individuals' unethical behavior. The first type of experiments in this meta-analysis tested the effects of the exposure to unethical behavior on participants' unethicity (e.g., Paternoster et al. 2013). The second type of studies compared the degree of unethicity between individuals acting as part of a group and individuals acting alone (e.g., Gino, Ayal, and Ariely 2013). The third type consisted of experiments contrasting unethical behavior of participants willing to benefit others with the levels of unethicity of subjects acting just in their own interest (e.g., Rigdon and D'Esterre 2015). The fourth group of experiments compared the effects of being exposed to an identified victim as opposed to an unidentified victim on individuals' unethicity (e.g., Yam and Reynolds 2014).

The results from the meta-analysis of the 33 independent experiments ( $n = 3,681$ ) showed a significant effect of social influences on individuals' unethicity. The Hedges's *g* was .48 ( $p < .001$ ) (table S1). The heterogeneity test indicated significant variability among studies ( $Q$ -value (32) = 57.15 ( $p = .004$ );  $I^2 = 44.01$  percent;  $T^2 = .028$ ). We conducted a subgroup analysis to test for heterogeneity across disciplines. Hedges's *g* point estimates of the effect sizes were .37 ( $p = .002$ ,  $N = 2$ ) for business, .53 ( $p < .001$ ,  $N = 6$ ) for economics, .25 ( $p = .008$ ,  $N = 2$ ) for operations, and .49 ( $p < .001$ ,  $N = 22$ ) for psychology ( $Q$ -value = 5.87,  $p = .118$ ). Therefore, we failed to reject the null hypothesis that effect sizes were the same across disciplines. In other words, we did not find clear evidence that summary effect sizes are different in different disciplines.

We also conducted a subgroup analysis to test for heterogeneity across experimental settings. Hedges's *g* point estimates of the effect sizes were .55 ( $p < .001$ ,  $N = 22$ ) for experiments conducted in laboratory settings and .30 ( $p = .001$ ,  $N = 4$ ) for online experiments ( $Q$ -value = 5.18,  $p = .075$ ). Thus, we failed to reject at the .05 level but not at the .10 level the null hypothesis that effect sizes were the

same across experimental settings. In fact, we found that the effect size was marginally greater for laboratory experiments compared with online experiments.

Lastly, we conducted a subgroup analysis to test for heterogeneity across types of outcome observed in primary studies. Hedges's  $g$  point estimates of the effect sizes were .50 ( $p < .001$ ,  $N = 25$ ) for experiments measuring actual behavior, .41 ( $p < .001$ ,  $N = 4$ ) for experiments measuring intentions to behave, and .47 ( $p = .009$ ,  $N = 3$ ) for experiments measuring judgment of the degree of unethicality ( $Q$ -value = .79,  $p = .852$ ). Therefore, we found no evidence of heterogeneity of effects sizes across types of outcomes being measured in original studies. Evidence of publication bias was mixed (table S14).

### **Greed**

Recent experimental work drawing on distributive justice (Deutsch 1985), equity theory (Adams 1965), and social comparison processes (Festinger 1954; Wheeler, Koestner, and Driver 1982) suggests that individuals are more likely to engage in unethical behavior if they perceive that they are treated unfairly relative to their peers (e.g., Gino and Pierce 2011; Houser, Vetter, and Winter 2012; Yam, Reynolds, and Hirsh 2014). Individuals compare their input-to-output ratio with a referent other around them, and whenever perceptions of inequity arise, they will tend to take actions to restore equity (Adams 1965). This includes engaging in unethical behavior (Gino and Pierce 2009, 2011). Scholars have suggested that perceptions of inequity may be triggered by the mere presence of abundant wealth available in the environment, even in the absence of differentials in the input-to-output ratio (Gino and Pierce 2009). In other words, individuals may become greedy and engage in unethical behavior to restore fairness in the presence of both pay differentials and wealth abundance in the environment.

We identified 26 experiments testing the effects of greed on individuals' unethical behavior. The first type of experiments in this meta-analysis tested the effects of inducing individuals to think about money or exposing them to wealth abundance in the environment on their unethicality (e.g., Gino and Mogilner 2014). The second type of studies investigated the causal effect of offering individuals a monetary incentive on their levels of dishonesty (e.g., Sharma et al. 2014). The third type of studies tested whether individuals are more likely to engage in unethical behavior when they are worse off relative to their peers (e.g., John, Loewenstein, and Rick 2014).

The results from the meta-analysis of the 26 independent experiments ( $n = 2,776$ ) showed a significant effect of greed on individuals' unethicality. The Hedges's  $g$  was .45 ( $p < .001$ ) (table S2). The heterogeneity test indicated significant variability among studies ( $Q$ -value (25) = 139.00 ( $p < .001$ );  $I^2 = 82.02$  percent;  $T^2 = .164$ ). We conducted a subgroup analysis to test for heterogeneity across disciplines. Hedges's  $g$  point estimates of the effect sizes were .28 ( $p = .574$ ,  $N = 2$ ) for business, .20 ( $p = .342$ ,  $N = 7$ ) for economics, .34 ( $p = .001$ ,  $N = 2$ ) for operations, and

.62 ( $p < .001$ ,  $N = 15$ ) for psychology ( $Q$ -value = 6.72,  $p = .081$ ). Therefore, we failed to reject at the .05 level but not at the .10 level the null hypothesis that effect sizes were the same across disciplines.

We also conducted a subgroup analysis to test for heterogeneity across experimental settings. Hedges's  $g$  point estimates of the effect sizes were .52 ( $p < .001$ ,  $N = 16$ ) for experiments conducted in laboratory settings and .53 ( $p < .001$ ,  $N = 2$ ) for online experiments ( $Q$ -value = .002,  $p = .966$ ). Thus, we found no evidence of heterogeneity of the summary effect sizes across experimental settings. Publication bias analyses returned mixed results (table S14).

### **Egocentrism**

Self-construal theory suggests that one way in which individuals define themselves is through their unique traits and independence from others. In the state of independent self, individuals are less likely to update their self-concept when acting unethically and less likely to consider the degree to which their behaviors violate social norms and/or affect others (e.g., Cojuharenco et al. 2011; Sedikides and Brewer 2001). Along the same lines, social value orientation (Messick and McClintock 1968; Van Lange 1999) argues that pro-self-oriented individuals care about maximizing their benefits and are not concerned about the outcomes they cause onto others. Thus, they are expected to have less stringent moral standards and to be more likely to undertake an unethical conduct (Folmer and De Cremer 2012). Interdependence theory also claims that the desire to maximize one's own outcome allows individuals not to update their self-concept when behaving unethically (Insko et al. 1990; Wiltermuth 2011).

We retrieved 20 experiments testing whether individuals who perceive themselves as independent rather than related to others tend to be more dishonest. The first type of experiments in this meta-analysis tested whether unethical behavior increases with competition (e.g., Rigdon and D'Esterre 2015). The second type of studies investigated whether the conflict of interest causes higher levels of unethicality (e.g., Sah and Loewenstein 2015). The last type of experiments tested whether individuals who are more focused on their own self-interest tend to behave more dishonestly (e.g., Winterich, Mittal, and Morales 2014).

The results from the meta-analysis of the 20 independent experiments ( $n = 2,770$ ) showed a significant effect of egocentrism on unethicality. The Hedges's  $g$  was .58 ( $p < .001$ ) (table S3). The heterogeneity test indicated significant variability among studies ( $Q$ -value (19) = 51.54 ( $p < .001$ );  $I^2 = 63.13$  percent;  $T^2 = .054$ ). We conducted a subgroup analysis to test for heterogeneity across disciplines. Hedges's  $g$  point estimates of the effect sizes were .83 ( $p < .001$ ,  $N = 3$ ) for business, .27 ( $p = .082$ ,  $N = 3$ ) for economics, and .60 ( $p < .001$ ,  $N = 11$ ) for psychology ( $Q$ -value = 4.80,  $p = .091$ ). Therefore, we failed to reject at the .05 level but not at the .10 level the null hypothesis that effect sizes were the same across disciplines.

We also conducted a subgroup analysis to test for heterogeneity across experimental settings. Hedges's  $g$  point estimates of the effect sizes were .48 ( $p < .001$ ,  $N = 10$ ) for experiments conducted in

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Individuals may become greedy and engage in unethical behavior to restore fairness in the presence of both pay differentials and wealth abundance in the environment.

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laboratory settings and .64 ( $p < .001$ ,  $N = 8$ ) for online experiments ( $Q$ -value = 1.65,  $p = .199$ ). Thus, effect sizes did not seem to vary by experimental settings. Lastly, we ran a subgroup analysis by type of participants. Hedges's  $g$  point estimates of the effect sizes were .87 ( $p < .001$ ,  $N = 3$ ) for alumni, .48 ( $p < .001$ ,  $N = 4$ ) for the general population, and .46 ( $p < .001$ ,  $N = 11$ ) for students ( $Q$ -value = 19.09,  $p < .001$ ). Thus, effect sizes significantly varied across types of participants. Measures of publication bias suggested that it is unlikely (table S14).

### Monitoring

The extant literature has suggested that monitoring individuals' behavior reduces unethicality in two ways. On the one hand, monitoring decreases the perceptions that unethical acts go undetected (Welsh and Ordóñez 2014) and that the unethical actor will not be held responsible (Mazar and Aggarwal 2011). On the other hand, monitoring draws individuals' attention to their moral standards and encourages self-awareness. In particular, individuals who are aware of being watched are less likely to engage in unethical actions without updating their self-concept (Alge, Greenberg, and Brinsfield 2006; Welsh and Ordóñez 2014). We identified 19 experiments that tested the effects of monitoring individuals' behavior on their levels of unethicality. Most experiments in this meta-analysis investigated whether individuals are more likely to engage in unethical behavior when they are not being monitored compared with when they are controlled (e.g., Rixom and Mishra 2014). The remaining studies compared unethical behavior under higher or lower degree of visibility of the dishonest actor or action (e.g., Ploner and Regner 2013).

The results from the meta-analysis of the 19 independent experiments ( $n = 2,575$ ) showed a negative effect of monitoring on individuals' unethicality. The Hedges's  $g$  was  $-.84$  ( $p < .001$ ) (table S4). The heterogeneity test indicated significant variability among studies ( $Q$ -value (18) = 178.03 ( $p < .001$ );  $I^2 = 89.89$  percent;  $T^2 = .32$ ). We conducted a subgroup analysis to test for heterogeneity of summary effect sizes across disciplines. Hedges's  $g$  point estimates of the effect sizes were  $-.61$  ( $p < .001$ ,  $N = 6$ ) for business, and  $-.99$  ( $p < .001$ ,  $N = 12$ ) for psychology ( $Q$ -value = 1.94,  $p = .163$ ). Therefore, we did not find convincing evidence that effect sizes varied across disciplines. Publication bias analyses revealed that it is unlikely (table S14).

### Moral Reminders

Self-concept maintenance theory suggests that reminding individuals about their moral standards may be an effective way to reduce unethical behavior. When reminded about their moral standards, individuals cannot get away with behaving unethically without updating their self-concept (Mazar, Amir, and Ariely 2008; Shu et al. 2012). Focus theory of normative conduct suggests that injunctive messages set behavioral expectations (Cialdini 2007; Cialdini et al. 2006). Codes of ethics can communicate injunctive messages by detailing behaviors that will be judged acceptable versus nonacceptable (Bing et al. 2012; Gino, Ayal, and Ariely 2009). We identified 15 experiments ( $n = 1,492$ ) that tested the effects of moral reminders on individuals' unethicality. Experiments in this meta-

analysis exposed participants either to a code of ethics (e.g., Mazar, Amir, and Ariely 2008) or to ethical priming exercises (e.g., Welsh and Ordóñez 2014).

Meta-analytic results showed a significant effect of moral reminders on individuals' unethical behavior. The Hedges's  $g$  was  $-.43$  ( $p < .001$ ) (table S5). The heterogeneity test indicated that the variability among studies is not significant at the .05 level ( $Q$ -value (14) = 21.66 ( $p = .086$ );  $I^2 = 35.35$  percent;  $T^2 = .023$ ). We conducted a subgroup analysis to test for heterogeneity of summary effect sizes across disciplines. Hedges's  $g$  point estimates of the effect sizes were  $-.37$  ( $p < .001$ ,  $N = 8$ ) for business and  $-.43$  ( $p = .003$ ,  $N = 4$ ) for psychology ( $Q$ -value = .16,  $p = .694$ ). Therefore, there is no evidence of heterogeneity of summary effect sizes across disciplines.

We also conducted a subgroup analysis to test for heterogeneity across experimental settings. Hedges's  $g$  point estimates of the effect sizes were  $-.54$  ( $p < .001$ ,  $N = 10$ ) for experiments conducted in laboratory settings and  $-.34$  ( $p = .002$ ,  $N = 2$ ) for online experiments ( $Q$ -value = 2.08,  $p = .149$ ). Thus, effect sizes did not seem to vary by experimental settings. Also, we ran subgroup analyses by type of participants. Hedges's  $g$  point estimates of the effect sizes were  $-.34$  ( $p = .002$ ,  $N = 2$ ) for the general population,  $-.47$  ( $p < .001$ ,  $N = 7$ ) for students,  $-.72$  ( $p < .001$ ,  $N = 4$ ) for students and university employees, and  $-.07$  ( $p = .58$ ,  $N = 2$ ) for workers ( $Q$ -value = 13.87,  $p = .003$ ). Thus, we found strong evidence that effect sizes differed by type of participants.

Lastly, we ran a subgroup analysis by observed outcome. Hedges's  $g$  point estimates of the effect sizes were  $-.45$  ( $p < .001$ ,  $N = 13$ ) for actual behavior and  $-.34$  ( $p = .002$ ,  $N = 2$ ) for intentions to behave ( $Q$ -value = .59,  $p = .444$ ). Thus, effect sizes did not vary by outcomes measured in primary studies. Measures of publication bias suggest that it is unlikely (table S14).

### Self-Justification

Social cognitive theory (Bandura 1986) suggests that the availability of justifications encourages unethical behavior through an increased moral disengagement. The disengagement of moral standards and self-sanctions can occur, for example, when justifications make the conduct look less immoral; consequences of the dishonest act are minimized, ignored, or misconstrued; responsibility for the dishonest act is displaced or diffused; or victims of the wrongdoing are devalued or blamed (Bandura 1999). Similarly, self-concept

maintenance theory (Mazar, Amir, and Ariely 2008) argues that the availability of justifications for dishonest conduct leads to increased unethical behavior by allowing individuals not to update their self-image as honest and good. The mechanism of self-justifications seems to hold regardless of the fact that the justification is relevant or irrelevant for the unethical choice at

hand (Hsee 1996; Schweitzer and Hsee 2002). We identified 13 independent experiments ( $n = 1,195$ ) testing whether the availability of self-justifications leads to greater unethical behavior.

Meta-analytic findings showed a significant effect of the availability of self-justifications on unethicality. The Hedges's  $g$  was .88

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Self-concept maintenance theory suggests that reminding individuals about their moral standards may be an effective way to reduce unethical behavior.

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( $p < .001$ ) (table S6). The heterogeneity test indicated significant variability among studies ( $Q$ -value (12) = 70.89 ( $p < .001$ );  $I^2 = 83.07$  percent;  $T^2 = .214$ ). We conducted a subgroup analysis to test for heterogeneity across disciplines. Hedges's  $g$  point estimates of the effect sizes were .86 ( $p < .001$ ,  $N = 3$ ) for economics and .92 ( $p < .001$ ,  $N = 9$ ) for psychology ( $Q$ -value = .04,  $p = .840$ ). Therefore, we found no evidence of heterogeneity of summary effect size across disciplines.

Furthermore, we ran a subgroup analysis by observed outcomes. Hedges's  $g$  point estimates of the effect sizes were .92 ( $p < .001$ ,  $N = 10$ ) for actual behavior and .77 ( $p < .001$ ,  $N = 3$ ) for intentions to behave ( $Q$ -value = .34,  $p = .56$ ). Thus, effect sizes did not vary by outcomes measured in primary studies. Publication bias is unlikely in this case (table S14).

### Self-View

Self-concept maintenance theory suggests that individuals strive to create and maintain an image of themselves as good and ethical persons. On the other side, though, it recognizes that dishonesty pays and individuals are not immune to the temptation of benefiting from misconduct. To solve the tension, individuals tend to engage in unethical behavior only up to the point at which they are not forced to weaken their self-concept (Mazar, Amir, and Ariely 2008). The theories of de-individuation (Zimbardo 1969) and objective self-awareness (Duval and Wicklund 1972) suggest that individuals who are more aware of the link between themselves and their actions are less capable of engaging in unethical behavior without updating their self-image. We identified 12 independent experiments ( $n = 859$ ) testing the effects of higher concerns for an honest and good self-view on individuals' unethical behavior.

Meta-analytic results showed a significant effect of concerns for self-view on unethicality. The Hedges's  $g$  was  $-.56$  ( $p < .001$ ) (table S7). The heterogeneity test indicated that the variability among studies is not significant at the .05 level ( $Q$ -value (11) = 10.18 ( $p = .515$ );  $P = 0.00$  percent;  $T^2 = 0.00$ ). We conducted a subgroup analysis to test for heterogeneity of summary effect sizes across disciplines. Hedges's  $g$  point estimates of the effect sizes were  $-.48$  ( $p = .010$ ,  $N = 2$ ) for business and  $-.58$  ( $p < .001$ ,  $N = 10$ ) for psychology ( $Q$ -value = .21,  $p = .648$ ). Thus, no evidence of heterogeneity of summary effect size is apparent across disciplines.

Next, we conducted a subgroup analysis to test for heterogeneity across experimental settings, Hedges's  $g$  point estimates of the effect sizes were  $-.64$  ( $p < .001$ ,  $N = 7$ ) for experiments conducted in laboratory settings and  $-.45$  ( $p < .001$ ,  $N = 4$ ) for online experiments ( $Q$ -value = 1.67,  $p = .197$ ). Therefore, we failed to reject the null hypothesis that effect sizes were the same across experimental settings. In other words, we found no evidence of significant differences between laboratory and online studies.

Lastly, we ran subgroup analyses by types of participants. Hedges's  $g$  point estimates of the effect sizes were  $-.45$  ( $p < .001$ ,  $N = 4$ ) for the general population,  $-.68$  ( $p < .001$ ,  $N = 6$ ) for students, and  $-.52$  ( $p = .006$ ,  $N = 2$ ) for students and university employees ( $Q$ -value = 2.18,  $p = .337$ ). Thus, we found no evidence that effect sizes differed by type of participants. Lastly, we did not find any sign of publication bias (table S14).

### Discussion

We conducted a comprehensive meta-analysis of 137 independent experiments from 73 articles to identify the determinants of unethical behavior. Our results (table 1) supported the previous literature, suggesting that specific types of social influences (such as examples of unethical behavior by in-group members or interdependence with other individuals benefiting from our unethical actions), greed, egocentrism, self-justifications, exposure to incremental dishonesty (slippery-slope effect), loss aversion, challenging performance goals, and time pressure increase unethical behavior. Moreover, in line with theoretical predictions based on the research, our meta-analytic findings revealed that monitoring of employees, providing moral reminders (e.g., exposing subjects to a code of ethics), and individuals' willingness to maintain a positive self-view decrease unethical conduct. We did not find clear evidence that self-control depletion increases unethical behavior.

Heterogeneity measures ( $Q$ -value,  $I^2$ ,  $T^2$ ) indicated significant variability among primary data for the following factors: social influences, greed, monitoring, egocentrism, and self-justification. Significant levels of heterogeneity are frequent in meta-analyses of social science research (e.g., Cantarelli, Belardinelli, and Belle 2015; Kish-Gephart, Harrison, and Treviño 2010) and sometimes are used to justify the preference for random-effect models (e.g., Gerrish 2016).

The nature of our primary data prevented us from running meta-regressions, which are commonly used to test the moderating effect of primary studies' features such as discipline, publication status, experimental design, and type of participants (e.g., Gerrish 2016; Homberg, McCarthy, and Tabvuma 2015). Of the 137 experiments included in our meta-analyses, about 97 percent were published in peer-reviewed journals; 63 percent were conducted in the laboratory and 12 percent online (for about 23 percent of the experiments in our final sample, we could not specify the experimental setting due to the lack of enough details in the primary study); and 77 percent used samples of students (table S15). Furthermore, the number of experiments in each meta-analysis did not provide the degrees of freedom recommended in the literature to run meta-regressions (Borenstein et al. 2009). For instance, while the articles in our meta-analysis were published in several disciplines, including business, ethics, management, economics, and psychology (table S15), the sample size of each of our meta-analyses did not allow us to run meta-regression with discipline as a covariate. However, we conducted subgroup analyses within the factors influencing unethical behavior considering discipline, types of experimental setting, types of participant, types of outcome observed in primary studies, and sources as eligible grouping variables. Out of all the subgroup analyses that we ran, we found evidence of significant heterogeneity among summary effect sizes at the .05 level in two cases. Specifically, effect sizes varied across types of participants for the meta-analysis on egocentrism and moral reminders. Following recent recommendations and practice (e.g., Cantarelli, Belardinelli, and Belle 2016; Kepes et al. 2012), publication bias plots (table S13) and indices (table S14) were computed for the meta-analyses based on at least 10 primary experiments. We found no evidence of publication bias for four factors (egocentrism, moral reminders, self-justification, and self-view) and mixed evidence for three factors (social influences, greed, and monitoring).

The evidence from the experiments included in our meta-analyses apply equally to public and private settings. In fact, 134 out of 137 primary studies were designed to investigate the behavioral mechanisms that drive unethical behavior across human relations, situations, time, and without reference to any specific jobs, professions, and types of organization. In the two experiments by Brief et al. (1996), participants were asked to play the role of a top-level executive making decisions about financial reporting. Ponemon (1992) used a sample of auditors of a public accounting firm undergoing training. We acknowledge that results from laboratory experiments may raise concerns about the generalizability of findings to real public administration settings. However, existing evidence indicates the external validity of experiments employing samples of students in laboratories may be stronger than expected (e.g., List and Levitt 2005).

### Implications for Public Administration Research and Practice

Among the factors that our meta-analyses identified as determinants of unethical behavior, the following may be elevated to prominence for public administration research and practice. First, results from the meta-analyses on social influences suggest that being exposed to corrupted colleagues may enhance the likelihood that one engages in unethical conduct. These findings are particularly relevant because “[c]orruption in the public sector hampers the efficiency of public services, undermines confidence in public institutions and increases the cost of public transactions” (OECD 2015). Moreover, corruption “may distort government’s public resource allocations” (Liu and Mikesell 2014, 346).

Second, meta-analytic evidence that monitoring reduces unethical behavior provides support for government initiatives around the globe aimed at increasing monitoring of public service providers through transparency and openness. For instance, U.S. president Barack Obama introduced his open government initiatives by saying, “My Administration is committed to creating an unprecedented level of openness in Government” (White House 2009). Indeed, we agree with an anonymous reviewer that this can have a potentially broader implication for theory and practice in public administration. Namely, the search for institutional designs for accountability in which the inclusion of monitoring mechanisms into structures could affect ethical behavior.

Third, one of our meta-analyses showed that moral reminders can be a useful tool to prevent and reduce unethical behavior in the workplace. This finding speaks to the debate on the effectiveness of codes of ethics in promoting ethical competence (e.g., Meine and Dunn 2013; Svava 2014) and supports the introduction of codes of ethics for government service worldwide. Examples include the Code of Conduct for Commissioners adopted by the European Commission and the Standards of Ethical Conduct for Employees of the Executive Branch published in 1992 by the U.S. Office of Government Ethics. Professional organizations have also been active in promoting high standards of ethical conduct among practitioners in the public sector. For instance, ASPA recently revised its Code of Ethics for public servants and established an

Ethics Committee (ASPA 2015). Similarly, the International City/County Management Association’s Code of Ethics aims at “providing principles of conduct to members” (Eskridge, French, and McThomas 2012, 127). Svava (2014) recently summarized the historical development of arguments in favor and against the adoption of a code of ethics for public administration; discussed code of ethics’ usefulness, content, and enforcement; and made suggestions about how ASPA can help civil servants address ethical challenges. Indeed, our meta-analytic findings leaves unanswered questions about how effective codes of ethics serve as moral reminders. For example, future work should investigate whether a code needs to emphasize positive or negative behaviors and consequences or both or how employees can be best reminded of ethics in the context of implementing and using the codes.

Some of the additional analyses whose details are not included in the printed version of the manuscript due to length constraints also provide relevant insights for public administration. For instance,

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Our meta-analytic evidence indicates that goal setting and time pressure might increase unethical behavior.

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our meta-analytic evidence indicates that goal setting and time pressure might increase unethical behavior. These findings raise potential concerns about the unintended consequences of performance management reforms on public service providers’ ethical conduct. In fact, commitment to reach unfeasible goals may well enhance the

likelihood that employees use task strategies to achieve them that disregard ethical standards (Grant and Shin 2012). Indeed, Bevan and Hood (2006), Le Grand (2010), and Hood (2012) show that the adoption of a target and terror regime may lead public servants to cut corners and game performance measurement systems. Relatedly, Lavertu (2016) argues that pressures to increase the availability of performance data for public organization may lead to misperceptions and biased decisions by policy makers and citizens.

At the aggregated level, the majority of the factors that we identified through the extensive literature review as encouraging or reducing unethical behavior align nicely with Kohlberg’s (1980) six stages of moral development. Monitoring refers to Kohlberg’s first stage of moral development, that is, obedience. Greed, egocentrism, self-justification, self-view, and goal setting pertain to Kohlberg’s stage two, instrumental egoism. Social influences fall under Kohlberg’s stage three, interpersonal accord and conformity. Moral reminders align with Kohlberg’s stage four, duty and social order. Thus, public organizations interested in making good use of Kohlberg’s work to assess and promote the moral development of their employees can also capitalize on the findings of our meta-analyses.

### Advancing Research and Practice in Public Administration

Our comprehensive meta-analyses revealed several gaps in the experimental research on the causes of unethical behavior, thus pointing to directions that public administration scholars could take to contribute to the advancement of knowledge in this area. First, to the best of our knowledge, no experimental study has been published on the causal effects of ethical leadership on followers’ unethical behavior. Joining recent calls to address this issue (e.g., Hassan, Wright, and Yukl 2014), we urge public administration scholars to spearhead experimental work in this area. Research on

ethical leadership is flourishing in our field (e.g., Downe, Cowell and Morgan 2016; Hassan, Wright, and Yukl 2014) and in the social sciences (e.g., Yukl et al. 2013). However, most of these studies rely on correlational designs that are subject to questions about the internal validity of the findings. The use of randomized experiments might help validate the results of extant observational work showing that ethical leadership promotes ethical conduct among followers (e.g., Hassan, Wright, and Yukl 2014). We acknowledge that conducting experimental research on unethical behavior may be a daunting effort (e.g., Hassan, Wright, and Yukl 2014). Nevertheless, the richness of our data set, which includes peer-reviewed studies published in the top journals of several disciplines (e.g., *Academy of Management Journal*, *Journal of Applied Psychology*, *Journal of the European Economic Association*), demonstrates that experimental work in this area is possible and widely accepted. The parallel advancement in observational research (e.g., Bedi, Alpaslan, and Green 2015) can make up for the limitations that are inherent to artificial manipulations of ethical conduct in an experimental setting (Wright and Grant 2010). As a general rule, it seems always desirable to triangulate findings using different methodologies.

Second, as suggested by one reviewer, public administration scholars should explore how the interface between political and career employees may produce unethical behavior. For instance, do corrupt politicians help breed corruption among others, elected and nonelected, by their example? In general, is the ethical behavior of public servants influenced by exemplars—good and bad—to whom they are exposed in their work? While a group of studies in our meta-analysis tested the role of bad examples on other individuals' unethicality (e.g., Paternoster et al. 2013), none explored the influence of ethical examples on an individual's conduct. Therefore, studying the effects of being exposed to good examples (whether from leaders or not) maybe particularly interesting from a theoretical perspective. As an initial step to fill this gap, scholars can replicate the numerous studies that manipulate unethical behavior by reversing the experimental interventions.

Third, research on empathy and altruism suggests that the desire to help others may trigger unethical behavior, in particular when the beneficiary is identified (e.g., Batson et al. 1991). This finding has potential implications for the study of unethical behavior by street-level bureaucrats and case managers who might be tempted to bend the rules to help clients to whom they are emotionally bound (e.g., Bozeman and Su 2015; Perry and Vandenabeele 2015).

Lastly, scholars in our field should study behavioral mechanisms driving unethical behavior using field experiments. To the best of our knowledge, no experimental research on unethical conduct has been carried on outside a laboratory setting, with real workers performing activities that are part of their real jobs. Compared with laboratory experiments, which are best suited to establish causality in a highly controlled environment, field experiments score higher in terms of realism. "Field experiments are ... attractive to the practitioner because the setting is one that the consumer of the research understands and trusts" (Perry 2012, 480). Moreover, to address concerns of external validity when employing laboratory experiments, we urge colleagues in our discipline to use samples of public administration students and colleagues in any discipline

to always describe the distribution of students by their major area of study. In addition to field experiments, public administration scholars should take full advantage of quasi-experimental methodologies. For instance, when an intervention (e.g., the adoption of a new code of conduct) is introduced in only one of several regions, areas, districts, or organizations that are otherwise similar, difference-in-differences is superior to correlational studies when it comes to internal validity. Public sector reforms often provide naturally occurring experiments that can be wisely exploited to investigate the causes of unethical behavior in the workplace. As an example, the devolution of powers involving the delivery of public services that occurred in the 1990s in the United Kingdom provides a natural experiment with which to compare the likelihood that civil servants would try to game the system under different public service delivery models (Bevan and Hood 2006; Le Grand 2010). Regression discontinuity designs might be effective to understand the determinants of unethicality in the context of naturally occurring experiments.

## Conclusion

In line with previous literature, our meta-analyses of 137 experiments show that specific types of social influences, greed, egocentrism, self-justifications, exposure to incremental dishonesty, loss aversion, challenging performance goals, and time pressure, increase unethical behavior. On the opposite, monitoring of employees, providing moral reminders, and individuals' willingness to maintain a positive self-view decrease unethical conduct.

Our systematic review points to ways in which scholars can advance understanding of ethics in public administration. In particular, we urge researchers in our field to use experimental methodologies to address a number of unanswered questions. For instance, future work should explore the determinants of unethical behavior at the nexus between politicians and career employees. Moreover, we encourage public administration scholars to test whether being exposed to good examples and ethical leaders may affect civil servants' unethicality. Finally, our results suggest that unethical behavior by street-level bureaucrats who empathize with their clients is another area that deserves research attention.

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## Supporting Information

Supplementary material may be found in the online version of this article at <http://onlinelibrary.wiley.com/doi/10.1111/puar.12714/full>.