ABSTRACT: Understanding how Public Service Motivation (PSM) is tied to ethical or unethical conduct is critically important, given that civil servants and other public sector employees throughout the world have been shown to exhibit high PSM levels. However, empirical evidence about the relationship between PSM and ethical or unethical behavior remains limited, due in part to the challenges of observing unethical conduct and overcoming social desirability bias in self-reported measures. We address these challenges by employing incentivized experimental games to study the relationships between PSM and two types of unethical behavior – corruption and dishonesty – as well as one type of ethical behavior: altruism. Based on data from approximately 1870 university students at three research sites in Russia and Ukraine, we find evidence of a robust negative association between PSM and willingness to engage in corruption and a positive association between PSM and altruistic behavior. Results concerning dishonesty are more mixed. Our findings indicate that corruption and dishonesty are related yet fundamentally distinct concepts, particularly with respect to their compatibility with PSM. The findings additionally demonstrate that hypotheses about PSM and behavioral ethics generated in the Western context generalize well to the starkly different institutional context of the former Soviet Union.
Are individuals with high levels of Public Service Motivation (PSM) more likely to act ethically? Since Perry & Wise’s (1990) seminal formulation of the concept of PSM, scholars of Public Administration have recognized that some individuals are motivated less by self-interest and more by a desire to contribute to the public good, help others, or improve society. And given that a number of the values underlying PSM – compassion, social justice, self-sacrifice – also are the bedrock for ethical behavior (Maesschalck et al. 2008), it follows that high levels of PSM are likely to be associated with ethical conduct. Conversely, it would seem reasonable to expect low levels of PSM to be associated with unethical conduct.

Whether PSM levels predict individuals’ propensity for ethical or unethical behavior has important policy implications, for abundant evidence suggests that civil servants and other public sector employees have higher levels of PSM than their private sector counterparts (see, e.g., Crewson 1997; Houston 2000; Lewis & Frank 2002) and that university students with high PSM levels are more likely to aspire to public sector careers (see, e.g., Vandenabeelee 2008; Liu et al. 2011; Carpenter et al. 2012; Clerkin & Coggburn 2012). Yet due to a dearth of Public Administration research on ethical and unethical conduct, empirical analysis evaluating propositions about PSM’s relationship to ethical behavior is only beginning to emerge.¹ Early evidence of a link between PSM and ethical conduct was indirect, such as Brewer & Selden’s (1998) study showing that federal employees’ motivations for reporting rule violations (i.e., whistle blowing) are more consistent with a theory of PSM than with competing theories. Later studies that examined the correlation between direct measures of PSM and ethical behavior relied on self-reported activities such as volunteering, charitable contributions, or donating blood (e.g., Houston 2005; Coursey et al. 2011; Wright et al. 2016), leaving open the possibility that these measures suffer from respondents’

¹ See Bellé & Cantarelli (2017) for a recent review of the Public Administration literature on unethical conduct.
inclination to exaggerate their engagement in activities perceived as socially desirable. Meanwhile, because of the challenge of observing or collecting accurate self-reported data on illicit behavior, the small handful of studies that have investigated the relationships between PSM and unethical or corrupt practices have relied on hypothetical vignettes (e.g., Lim Choi 2004; Kwon 2012). Consequently, despite these studies’ important contributions, nearly all existing PSM-related research on ethical or unethical conduct falls short of offering evidence regarding the relationships between PSM and observable behavior.

In this article, which draws on three studies conducted with approximately 1870 university students in Russia and Ukraine, we address the challenges of social desirability bias and the difficulties inherent in measuring unethical behavior by employing incentivized experimental games to examine the relationships between PSM and two types of unethical conduct – corruption and dishonesty – and one type of ethical behavior: altruism. Frequently used by behavioral economists, these games offer subjects cash payments, the value of which is conditional on choices made during the study, to elicit observable behavior indicative of revealed preferences. First, to measure subjects’ propensity to engage in corruption, we introduce laboratory corruption games into the study of PSM. Utilizing a modified version of a bribery game developed by Barr & Serra (2010), our corruption indicator captures the multi-dimensional nature of a bribe transaction, such as the need to find a willing bribe partner, the harm incurred to other members of society, and the moral element of engaging in an act explicitly labeled as a “bribe.” Second, we employ a dice task game developed by Barfort et al. (2019) and Olsen et al. (2019) to measure dishonesty. This game

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2 Two recent and important exceptions, Esteve et al. (2016) and Olsen et al. (2019), are discussed below.

3 As we discuss in the Theory section, we focus on these three behaviors because they are classic examples of ethical and unethical conduct in the behavioral ethics literature, and because they exhibit similarities with the types of behaviors studied using self-reported measures in earlier works on PSM and ethical conduct.

4 Barfort et al. (2019) and Olsen et al. (2019) were conducted by the same research team with overlapping samples of Danish university students. The two studies, however, focus on different research questions and accordingly we cite each study separately at points throughout this article.
requires subjects to repeatedly guess the outcome of a dice roll. The subject earns three times as much for correct guesses as for incorrect guesses, and the game’s setup presents participants with the opportunity to earn more money by dishonestly exaggerating the number of correct guesses reported. A comparison of the observed distribution of an individual’s correct guesses over 40 repeated dice rolls to the expected distribution of an honest individual allows for estimation of each subject’s cheat rate. Finally, following studies such as Banuri & Keefer (2016), Hanna & Wang (2017), and Barfort et al. (2019), we measure altruistic behavior using a modified dictator game in which subjects are given an initial endowment and then must choose how much of the payment to keep for themselves and how much to donate to local charities. The game therefore presents subjects with a direct tradeoff between their personal financial gain and the opportunity to help others at one’s own expense. As we discuss below, the external validity of all three games has been demonstrated in various settings, indicating that subjects’ choices in these experimental games reflect choices made in real-world situations.

Using the 16-item PSM scale developed by Kim et al. (2013), we find a substantively large and statistically significant negative correlation between PSM and propensity to engage in corruption and a substantively large and statistically significant positive correlation between PSM and altruistic behavior. These findings are robust controlling for potentially confounding factors such as gender, risk aversion, ability (measured by self-reported GPA), class year, academic field of study, family income, parental occupation, religiosity, and size of participants’ childhood city of residence. Moreover, our use of data from three distinct research sites – and the notable consistency of our results across three subject pools – attests to the robustness of our findings in a way that research conducted at a single site could not. By contrast, while we find that PSM is negatively correlated with dishonesty, the correlations are substantively small and statistically insignificant once we control for potential confounders.
Our unique subject sample is particularly relevant to the study of Public Administration. At all three research sites, a substantial proportion of participants were enrolled in Public Administration or Public Law programs at the time of the study, and alumni of these universities feature prominently in Russia’s and Ukraine’s public sectors. Given the challenge of conducting incentivized experimental games with public officials currently in office, particularly in the authoritarian political environment of contemporary Russia, understanding the relationships between PSM and ethical or unethical behavior among future officials is especially valuable.\(^5\)

Our empirical analyses facilitate two key theoretical contributions. First, our use of multiple experimental games allows us not only to examine the relationships between PSM and both ethical and unethical conduct, but also to disentangle two related yet conceptually distinct types of unethical behavior – corruption and dishonesty – and analyze PSM’s relationships with each. As we discuss below, corruption, defined as the abuse of public office or resources for private gain (Fisman & Golden 2017, 23-25), is a specific type of unethical behavior that is particularly at odds with PSM’s focus on advancing the public interest. Dishonesty, on the other hand, can under certain circumstances be compatible with PSM. The expectation that corruption is less compatible with PSM than dishonesty is borne out in our empirical findings introduced above, which show far more robust correlations between PSM and corruption than between PSM and dishonesty. Among other implications, these findings call into question earlier studies’ tendency to employ indicators of dishonesty as proxies for willingness to engage in corruption.

Our second theoretical contribution pertains to the stark contrast of our research setting – post-Soviet Russia and Ukraine – with that of earlier studies of PSM, which have focused predominantly on North America and Western Europe. The post-Soviet region differs from the West in numerous

\(^5\) In addition to the challenge of gaining access to current public officials, offering monetary incentives to public sector employs raises difficult ethical and, in some contexts, legal questions.
ways that are inhospitable for PSM: bureaucratic traditions in which civil servants serve rulers and the state, not the public; concepts of the “public interest” or the “public good” that are in flux; and high levels of corruption. Yet despite these differences, our results show that theories about PSM and ethical or unethical conduct generated in the context of Western countries generalize surprisingly well to the post-Soviet region.

We account for this finding by considering the ways that different types of theories presume PSM to operate at distinct levels: individual-level psychological factors versus national-level institutional factors. We propose that the former are more likely to generalize than the latter. National-level institutional influences are most relevant for debates about whether the conceptualization and measurement of PSM generalize across countries, or whether the effects of PSM’s role in attracting, retaining, and motivating civil servants found in studies conducted in Western countries generalize to non-Western settings. By contrast, the explanatory mechanisms critical to theories about relationships between PSM and ethical or unethical behavior, such as self-identity and shared values, operate at an individual psychological level. Accordingly, in contrast to recent claims that findings about the relationships between PSM and ethical conduct should generalize across countries with similar national-level characteristics, such as levels of corruption and economic development (see, e.g., Meyer-Sahling et al. 2019), we expect the effect of individuals’ PSM levels on ethical behavior to operate similarly across a wide variety of institutional contexts. Indeed, even within distinct groups influenced by different institutional contexts in a given society, individuals with higher PSM levels should be more likely to act

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6 To emphasize the contrast between the setting of our study and earlier studies, consider Denmark and the Netherlands, the sites of Olsen et al. (2019) and Esteve et al. (2016), respectively, which as discussed below are the two studies most similar to the current one. Denmark is among the least corrupt countries in the world, ranking either first or second out of 180 countries and territories in Transparency International’s Corruption Perceptions Index (TI-CPI) every year between 2016 and 2018. During this three-year interval, the Netherlands consistently ranked eighth. On the other end of the spectrum, Russia’s rankings ranged between 131st to 138th; Ukraine’s, from 120th to 131st. See www.transparency.org/research/cpi/overview.
ethically, a point we demonstrate by showing that the correlations we identify between PSM and ethical behavior hold when separately analyzing the subsample of students in our studies aspiring to become public officials and the subsample of students aspiring to private sector careers.

Our study is most closely related to recent work by Esteve et al. (2016) and Olsen et al. (2019). The former shows a positive correlation between PSM and pro-social behavior measured by contribution levels in a public goods game conducted with university students in the Netherlands; the latter finds a negative correlation between PSM and dishonesty as measured by a dice task game conducted with university students in Denmark. However, our research advances the literature in several important ways. First, this article is the first to introduce laboratory corruption games – as distinct from experimental games designed to measure dishonesty – into the study of PSM. More broadly, it is one of only a handful of studies to explicitly investigate the relationship between PSM and corruption, and, of these, the first study to employ a direct, comprehensive, and validated measure of PSM. Second, as noted above, our reliance on multiple experimental games, rather than a single experimental task, allows us to develop insights about PSM’s relationships to corruption and dishonesty as distinct yet related concepts. If we had only employed the dice task game, we would have found only a weak relationship between PSM and dishonesty, in direct contrast to Olsen et al.’s (2019) results. But our more nuanced findings allow us to contrast a weak relationship between PSM and dishonesty with the robust negative association between PSM and willingness to engage in corruption, thereby drawing attention to the ways in which corruption is a type of unethical behavior particularly incompatible with PSM. Third, in contrast to existing studies, we demonstrate that our findings hold not only in our sample as a whole but also when we focus separately on students planning to pursue a public sector career and students seeking to embark on

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7 Kwon (2012), for example, analyzes the relationship between PSM and corruption but uses an indicator of a related yet distinct concept – intrinsic motivation – as a measure of PSM.
private sector career paths. Finally, as one of the first studies to integrate Russia and Ukraine into debates over PSM, we both generate novel empirical data for the study of PSM and analyze the generalizability of theories about PSM from a fresh perspective, including consideration, as introduced above, of the ways that different theories operate at different levels of analysis.

The following section examines the existing literature on PSM and its relationships to corruption, dishonesty, and altruistic behavior in greater detail. We then turn to discussion of our research design before presenting our results.

Theory

Public Service Motivation (PSM) frequently is defined as individuals’ predispositions for responding to motives related to the well-being of others, the public interest, and the improvement of society as a whole (Perry & Wise 1990), or in the words of Vandenabeele (2007, 547) “the beliefs, values, and attitudes that go beyond self-interest and organizational interest, that concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate.” In accordance with Perry & Wise’s (1990) initial formulation, scholars frequently conceive of PSM as a multi-dimensional concept, combining a foundational dimension of Self-Sacrifice with rational, norm-based, and affective elements – which Kim et al. (2013) refer to as Attraction to Public Service, Commitment to Public Values, and Compassion, respectively.9

Following Schott et al. (2019, 1201), we emphasize that PSM is distinct from related concepts such as pro-social motivation. Whereas PSM-motivated individuals seek to benefit society at large and serve abstract ideals such as the “public interest,” pro-socially motivated individuals more narrowly seek to benefit people with whom they come in contact and/or the organizations of which

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8 Olsen et al.’s (2019, 577-578) sample, for example, is limited to students planning to pursue public sector careers.
9 We use the terminology of Kim et al. (2013) rather than the original Perry (1996) index given that we employ Kim et al.’s index in our empirical analyses below.
they are a part. As discussed in subsequent sections, this distinction is important with respect to how we delineate the relationships between PSM and corruption from PSM and dishonesty, as well as how we choose the type of experimental games to employ and why these choices distinguish our study from earlier work (e.g., Esteve et al. 2016).

We follow Treviño et al. (2016, 952) in defining ethical behavior as “behavior that is subject to or judged according to generally accepted moral norms of behavior.” As Treviño et al. (2014, 636-637) further clarify, scholars of behavioral ethics frequently focus on three related types of behavior: “unethical behavior that is contrary to accepted moral norms in society (e.g., lying, cheating, stealing); routine ethical behavior that meets the minimum moral standards of society (e.g., honesty, treating people with respect); and extraordinary ethical behavior that goes beyond society’s moral minima (e.g., charitable giving, whistleblowing).” This study’s focus on corruption and dishonesty falls squarely in the first category; its focus on contributions to charities as a form altruistic behavior falls squarely in the third category.

We place particular emphasis on the relationships between PSM and corruption because the deleterious effects of corruption are well-established and because PSM seems particularly antithetical to corruption, even more so than to other unethical behaviors.\(^\text{10}\) Corruption is frequently defined as the abuse of public office or resources for private gain (Fisman & Golden 2017, 23-25), which places it directly at odds with the Commitment to Public Values component of PSM. Corruption also causes harm to other citizens, making it incompatible with the Compassion component of PSM.\(^\text{11}\) And corruption requires placing self-interest over the public good, in direct contradiction to the Self-Sacrifice component of PSM.

\(^{10}\) Among many other consequences, corruption reduces economic growth and undermines governments’ provision of services and public goods. See Olken & Pande (2012, 491-495) and Svensson (2005, 36-39).

\(^{11}\) Corruption’s harms to others range from public safety hazards resulting from firms bribing inspectors to avoid enforcement of regulations to the loss of revenues for public goods resulting from corrupt officials’ embezzlement.
We simultaneously incorporate dishonesty into our study because it has been the focus of one of the few other studies on PSM to utilize incentivized experimental games (Olsen et al. 2019), and because other scholars who have employed dice task games to measure dishonesty frequently imply that measures of dishonesty serve as reasonable proxies for corruption (e.g., Hanna & Wang 2017; Barfort et al. 2019). Yet dishonesty, while clearly an example of unethical conduct, may or may not cause harm to others and does not inherently undermine the public interest. Indeed, high PSM individuals could potentially be more prone to engage in some forms of dishonesty, such as circumventing a rule perceived to be at odds with the public good or lying to compassionately protect a fellow citizen (Schott & Ritz 2018, 37). It is therefore essential to analyze separately the relationships between PSM and corruption and PSM and dishonesty.

Finally, our study seeks to analyze not only the relationships between PSM and unethical conduct but also the relationships between PSM and ethical conduct. We focus on altruistic behavior as a critically important form of what Treviño et al. (2014, 637) refer to as “extraordinary” ethical conduct – conduct that exceeds society’s moral standards – given that self-sacrifice plays a foundational role in the conceptualization of PSM. Indeed, altruism is so closely linked to PSM that some scholars conflate the two. Recent work by Piatak & Holt (2020) has taken important steps toward untangling PSM and altruism, proposing that altruism is a subset of the motivations encompassed by PSM. But Schott et al.’s (2019, 1202-1203) suggestion that altruism is better understood as a class of behaviors defined by an action that provides a benefit to a recipient at a cost to the donor rather than as a type of motivation is more in line with our conceptualization and operationalization of altruism. In recognizing motivation and behavior as two distinct stages of human action, Schott et al.’s (2019) approach reflects the similar distinction in the literature on ethical behavior between ethical decision making and behavior. As Tenbrunsel & Smith-Crowe (2008, 552-555) emphasize, intentionality is not a prerequisite to ethical conduct: Decision making
based on criteria other than ethics regularly produces the same actions as morally aware decision making, resulting in what they refer to as “unintended ethicality.” This is not to deny the importance of ascertaining underlying motivations, but given our study’s focus on PSM’s relationships to observable behaviors, conceptualizing altruism as a behavior facilitates empirical analysis of whether the values expressed by individuals with high PSM are, in fact, associated with specific types of actions of interest to Public Administration scholars and other social scientists, such as willingness to sacrifice personal financial gain in order to support charitable causes.

**PSM and Ethical or Unethical Behavior**

There are a number of reasons why individuals with higher PSM levels might be more likely to engage in ethical conduct and less likely to engage in unethical conduct. First, PSM and ethical behavior exhibit a number of shared underlying values, including a focus on fairness, social justice, and self-sacrifice (see, e.g., Maesschalck et al. 2008). Second, defining traits of PSM, such as a strong desire to help others and to pursue the greater good even when this requires sacrificing personal interests, are also cornerstones of ethical conduct (Wright et al. 2016, 648-649). Third, individuals with high PSM may be more prone to moral reasoning based on internal virtues rather than external incentives, which may also foster ethical behavior (Stazyk & Davis 2015; see also Lim Choi 2004). Finally, for all of these reasons previously mentioned, PSM shares many features with moral identity, a social identity in which an individual’s understanding of herself requires adherence to norms and values. This self-concept, in turn, facilitates self-regulation of behavior (Ripoll 2018, 24-27). Critical to our discussion below pertaining to the generalizability of theories

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12 We recognize that some apparently altruistic behavior results from what Ariely et al. (2009) describe as “image motivation,” defined as the desire to be liked and well-regarded by others (see also Bellé 2015). But while such behavior arguably does not result from unselfish motives, this does not detract from the importance of establishing whether PSM is correlated with a behavior – charitable donations – that clearly benefits others in society.
about PSM and ethical conduct across differing contexts, all of these factors operate at an individual psychological level, rather than at the level of national institutions.

Unfortunately, empirical research on the relationships between PSM and unethical conduct – behavior that is contrary to society’s moral norms – is limited. As a recent review of the literature by Bellé & Cantarelli (2017) makes clear, Public Administration research in general, and research on PSM in particular, rarely has examined the roots of unethical conduct. Public Administration research on corruption is even more scant than analyses of unethical conduct more broadly, as noted in Bozeman et al.’s (2018) recent literature review, and research devoted specifically to PSM and corruption is nearly nonexistent. Kwon’s (2012) study of civil servants in South Korea finds that a concept closely related to PSM – intrinsic motivation – is associated with a lower propensity for corruption, as measured using a hypothetical vignette. Cowley & Smith (2014), meanwhile, show that while intrinsic motivation is higher among public employees relative to private sector workers throughout much of the world, this association is weaker in countries with high levels of corruption. Our study, however, is the first to examine the link between PSM and corruption while utilizing a direct measure of PSM and an indicator of corruption based on observable behavior. In line with broader expectations about PSM and unethical conduct, we test the hypothesis that PSM and corruption will be negatively correlated:

*Hypothesis 1:* Higher PSM levels will be associated with a lower propensity to engage in corruption.

As discussed above, Olsen et al.’s (2019) recent study finds evidence that PSM is negatively associated with dishonesty among university students in Denmark, as measured by a repeated dice task game. However, per our earlier discussion, we believe that arguments suggesting a negative relationship between PSM and dishonesty are weaker than the case for a negative relationship between PSM and corruption. Indeed, in another recent study, Christensen & Wright (2018) found
in laboratory experiments with US university students that priming subjects with exercises known to activate a sense of PSM did not increase willingness to cheat in an incentivized dice task game similar to that used by Olsen et al. In order to disentangle and evaluate the relationships between PSM, corruption, and dishonesty, we employ the same approach as Olsen et al. (2019). Our replication of their study further allows us to examine whether their findings in the low-corruption context of Denmark generalize to the high-corruption contexts of Russia and Ukraine:

_Hypothesis 2:_ Higher PSM levels will be associated with lower dishonesty.

Compared to research on PSM and unethical conduct, there are relatively more empirical studies of PSM and ethical behavior – conduct that meets or, in the case of “extraordinary” ethical behavior, conduct that exceeds society’s moral standards. Until recently, however, studies of PSM and ethical conduct relied on indirect evidence of the link between PSM and pro-social behaviors. Brewer & Selden (1998) demonstrated, for example, that whistleblowers in the federal government are more motivated by regard for the public interest, and less motivated by personal reward or job security, than colleagues who are unwilling to whistle blow. Houston (2005), meanwhile, found that public employees – who in earlier studies had been shown to exhibit higher levels of PSM – are more likely than their private sector counterparts to volunteer for charities or donate blood. More recent work has considered the relationship between various forms of ethical conduct and direct measures of PSM, such as the PSM scale developed by Perry (1996). Lim Choi (2004) demonstrated that U.S. civil servants with higher levels of PSM are more likely to select the moral choice when presented with hypothetical vignettes about ethical dilemmas, while other scholars showed a positive association between PSM and pro-social behavior such as willingness to

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13 Note that Christensen & Wright (2018) differs from Olsen et al. (2019) in that the former experimentally stimulated PSM and then compared the behavior of those who had or had not been primed. Olsen et al., by contrast, focus simply on whether individuals with higher PSM are more likely to act dishonestly. Moreover, as Christensen & Wright (2018, 6) recognize, it may be the case that their intervention was ineffective at stimulating PSM or that their null finding resulted from unusually low cheat rates in their experiments.
volunteer and engage in charitable activity (Clerkin et al. 2009; Coursey et al. 2011; Lee & Jeong 2015; Piatak & Holt 2020) or to report unethical behavior in one’s organization (Wright et al. 2016). Meyer-Sahling et al. (2019) push this line of research further, demonstrating via a survey experiment conducted with Chilean government employees that experimentally priming PSM increases willingness to report ethical problems to management.

Despite these studies’ important contributions, their reliance on self-reported measures of ethical behavior is subject to bias resulting from survey respondents’ efforts to portray themselves in a positive light. Only one study, Esteve et al. (2016), has linked PSM to what they describe as observable “pro-social behavior,” showing that participants with higher PSM contribute more in an incentivized public goods game. But public goods games measure a number of traits. Some of these traits, such as willingness to contribute to one’s community clearly are related to PSM, but others – such as trust and propensity to collaborate – are less directly relevant.\(^\text{14}\) The modified dictator game we employ presents participants with a tradeoff between increased personal financial gain and donations to a charity, thereby offering a measure of altruistic behavior that is both more directly tied to key components of PSM such as Compassion and Self-Sacrifice and also more in line with earlier studies that employed non-experimental measures of charitable giving or propensity to volunteer. Following Esteve et al. (2016) and earlier studies using self-reported behavior, we hypothesize that PSM will be positively correlated with charitable donations. We again emphasize, however, that whereas these earlier works focused on developed countries, the evidence we present from the distinctively different context of Russia and Ukraine offers a chance to assess the generalizability of theories about PSM and ethical conduct:

\(^\text{14}\) In a public goods game, participants choose whether to keep their initial endowment or contribute some of their private funds to a public pool. The publicly “invested” funds are increased by a fixed multiplier and then distributed equally among all participants, including those who did not contribute.
Hypothesis 3: Higher PSM levels will be associated with higher levels of altruistic behavior.

The Generalizability of PSM’s Relationships to Ethical and Unethical Conduct

Beyond providing novel evidence about the relationship between PSM and ethical or unethical conduct, as well as new insights into the distinctions between corruption and dishonesty as they relate to PSM, an additional contribution of this article is to analyze these issues in a starkly different context: the post-Soviet region. Extending the study of PSM to new contexts offers insights into the extent to which findings based on developed countries generalize to developing or transition countries, and vice versa. Such analysis invites attention to the ways that different theories presume PSM to operate. Drawing on influential works about the theoretical underpinnings of PSM, such as Perry (2000), Vandenabeele (2007), and Perry and Vandenabeele (2008), we propose that theories based on individual-level psychological factors are more likely to generalize than theories based on national-level institutional factors.

The majority of discussions about the generalizability of PSM have focused on the extent to which PSM is a universal concept or whether PSM is expressed in unique ways depending on the national context (see, e.g., Vandenabeele et al. 2006; Liu et al. 2008; Kim 2009; Giauque et al. 2011; Mikkelsen et al. 2020). For this line of inquiry, the post-Soviet region would seem to pose a particularly tough test of generalizability, given that public officials in this region, and to a significant extent citizens themselves, traditionally have been expected to serve the interests of the state – first the Tsars and later the Communist Party – rather than the public interest, complicating the notion of “public service” (Hill & Gaddy 2013, ch. 3; Houston 2014). Moreover, the collapse of the Soviet Union in the early 1990s and the chaos of the following decade created significant flux in prevailing moral frameworks, undermining consensus about the meaning of ideas such as the
“public good” (Nezhina & Barabashev 2019, 111-113). Meanwhile, other analyses regarding the generalizability of PSM theories have considered the applicability to non-Western settings of findings showing that higher PSM levels are associated with better performance among public sector employees and that public sector employees on average have higher PSM levels than their private sector counterparts (see, e.g., Van der Wal 2015, 83). In this respect, the post-Soviet region would again seem to present a tough test of generalizability, as a number of factors may make the region’s public sector both unattractive to high-PSM individuals and unlikely to foster PSM in public sector employees. For example, Houston (2014, 847) has suggested that communism left the Eastern Bloc with a bureaucratic culture that is “devoid of a public service ethos,” while the post-Soviet region exhibits some of the highest levels of public sector corruption in the world. Corruption, as discussed above, is in many ways is antithetical to PSM.\footnote{Russia and Ukraine consistently ranking in the bottom third of prominent cross-national corruption ratings. See, e.g., Transparency International’s Corruption Perceptions Index at transparency.org/research/cpi/overview.}

As shown in Figure 1, PSM operates in these aforementioned theories via institutional factors and often at a national level. Distinct national cultures and path-dependent bureaucratic traditions influence understandings of concepts such as the “public good” or “public interest” (Vandenabeele et al. 2006, 20-21; Schott & Ritz 2018, 31; Ripoll 2018, 27), shaping the ways in which PSM is conceptualized in a given national context and the applicability of the original four-factor configuration of the PSM scale developed by Perry (1996). Similarly, national institutional factors such as bureaucratic traditions and levels of corruption would seem likely to affect whether high-PSM individuals are attracted to and selected for public organizations, and whether they perform better once in the public sector. But should national-level institutional factors also affect the generalizability of the relationships between PSM and ethical or unethical conduct, as recent work

\footnote{It should be noted, however, that as we discuss in the Research Design section below and in Section B of the Online Appendix, measures of PSM developed by Kim et al. (2013) appear to generalize well to the post-Soviet context.}
on PSM and behavioral ethics has suggested? For instance, in their study of PSM and Chilean public sector workers’ willingness to report ethical problems to management, Meyer-Sahling et al. (2019, 451) emphasize that Chile’s OECD status and low corruption rating makes the country “a propitious environment for inferring about the causes of ethical behavior in OECD contexts” and therefore their findings might “travel to other OECD country settings.” Similarly, Olsen et al. (2019, 573) emphasize that Denmark is a “crucial case” for studying PSM and dishonesty because Denmark “consistently has been found to be one of the least corrupt countries in the world.”

**Figure 1: Levels of Analysis and the Generalizability of PSM Theories**

Yet the mechanisms emphasized in theories of why PSM should be associated with ethical conduct operate primarily at the individual psychological level, rather than at a national institutional level. As shown in Figure 1, to the extent that institutions enter into these theories, they play an antecedent role, with institutions ranging from the family to religious organizations to professional associations shaping individuals’ PSM levels (see, e.g., Perry 1997). Detailing this process, Perry and Vandenabeele (2008, 57) emphasize that “motivation has its root in institutional content,” with mechanisms such as socialization and social learning embedding institutional logics at the level of
individuals and influencing the extent to which public service becomes essential to one’s values and identity (see also Perry 2000; Moynihan and Pandey 2007; Vandenabeele 2007). But once institutions have served to inculcate values and identities, it is at the individual level that these values and identities shape a person’s capacity for self-regulation, determining the behavioral choices one makes in a given context or situation (Perry and Vandenabeele 2008, 66-70; see also Perry 2020, ch. 2). With respect to ethical behavior in particular, Ripoll (2018) builds on these more general theories that rely on self-identity as a link between institutions and behavior to emphasize that PSM can usefully be understood as a type of moral identity, a social identity that fosters self-regulation of behavior in line with norms and values that encourage ethical conduct so as to maintain an individual’s self-concept of herself.

Important implications follow from these distinctions between theories in which PSM operates at a national institutional level and theories in which PSM operates at an individual psychological level. There are sound reasons, noted above, to question whether theories based on national institutional factors should generalize to the post-Soviet region, and it may also be the case that levels of PSM in the former Soviet Union are lower than in other regions due to these institutional factors. But to the extent that psychological theories about the effects of individual values and identities generalize across different settings, we would expect the relationships between PSM and ethical behavior to remain relatively stable across a wide variety of institutional contexts. In other words, even across countries whose institutions produce different average levels of PSM – or across subgroups influenced by distinct institutional contexts within a given country – individuals with

\[17\] Vandenabeele & Van de Walle (2008, 229-232) do, in fact, provide evidence that PSM levels are lower in Eastern Europe than in other regions, though recent analysis by Mikkelson et al. (2020) has emphasized that cross-national comparisons of PSM levels should be conducted with caution due to a lack of scalar invariance in PSM measures.
relatively higher PSM should be more likely to act relatively more ethically, leading to similar correlations between PSM and ethical conduct.\textsuperscript{18}

We examine these issues in two contexts. First, we evaluate the issue of cross-national generalizability in the concluding section of the article by analyzing the extent to which our data from Russia and Ukraine collectively support Hypotheses 1-3, which draw on theories initially formulated in Western contexts.\textsuperscript{19} Second, we consider the relationships between PSM and ethical behavior across two distinct subgroups in our sample that face different institutional incentives and have noticeably different average PSM levels: students who aspire to public sector employment versus students who aspire to private sector employment:\textsuperscript{20}

\textit{Hypothesis 4}: Among subjects expressing preferences for public sector and among subjects expressing preferences for private sector employment, higher PSM levels will be associated with lower propensity for corruption, lower dishonesty, and higher levels of altruistic behavior.

\textbf{Research Design}

\textit{Sampling and Implementation}

We conducted our studies with undergraduate and masters students at three different sites: A top-five Russian university located in Moscow, a major regional Russian university, and a Ukrainian legal academy located in a major regional city.\textsuperscript{21} At the two Russian sites, we recruited

\textsuperscript{18} We would expect the signs of correlations to be similar, though variation of magnitudes would seem likely across institutional contexts. Institutions affect behavior not only via intrinsic motivations as in the theories of PSM and ethical behavior discussed above, but also via extrinsic motivations (e.g., rewards and punishment). Accordingly, in a society whose institutions incentivize both low- and high-PSM individuals primarily to act ethically or unethically, the magnitude of the correlations between PSM and ethical behavior would presumably be compressed.

\textsuperscript{19} We do not formalize a hypothesis about cross-national generalizability, as our research design does not facilitate a statistical test of such a hypothesis.

\textsuperscript{20} We note that this hypothesis was added as we conducted analyses in response to questions raised by reviewers. Our evaluations of this hypothesis should therefore be considered exploratory rather than confirmatory.

\textsuperscript{21} For other research projects for which we intended to use these data, we were interested in students’ sectoral career preferences and therefore sought to ensure that our samples included a sufficient number of students with an interest in public sector careers. At the Russian research sites, we therefore focused on social science departments, with a particular emphasis on Public Administration students. In Ukraine, where Public Administration programs are less developed, we chose a law academy as a site where we could reasonably expect a concentration of students with public
students using flyers, emails, and classroom announcements by research assistants and also allowed students to invite other students to participate via a module at the end of the survey. The survey and experimental games were conducted online using Qualtrics. To mitigate concerns about participants’ attentiveness in an online study, we employed screener questions (Berinsky et al. 2014). The overall level of attentiveness was high, and results for both studies are robust to the exclusion of inattentive participants. The Moscow study, which was conducted between May 27 and June 15 of 2016, included 804 participants; the regional study, which was conducted between December 8, 2017 and January 22, 2018, included 376.22

For the Ukrainian research site, we recruited a random sample stratified by class year and department using enrollment data provided by the university administration. Research assistants visited classrooms and requested the participation of students from the sample. When students were not present, their names were replaced with the next person on the list until quotas for each department and class year were filled.23 Those that agreed to participate were then directed to the university’s computer labs and presented with instructions on the computer screens. The survey and experimental games were again conducted using Qualtrics. The study was carried out between October 25 to November 3, 2017 and included 695 participants.

On average, Moscow study participants received the approximate equivalent of 14 USD, participants in the regional study received the approximate equivalent of 9 USD, and participants in sector ambitions. See Section D of the Online Appendix for demographic information about the samples and discussion of the samples’ representativeness of the larger student body.

22 A pilot study with approximately 175 students was also conducted at a U.S. university located in the Midwest in spring 2015. Notably, the pilot study also produced similar results to those presented below (see Section G of the Online Appendix). However, given that we modified the experimental games prior to launching the study in the post-Soviet region, our findings are not strictly speaking comparable.

23 Response rates varied by department from 14 percent to 41 percent, with an average response rate for the sample of 27 percent. Students rarely refused to participate, but on any given day for any given classroom a number of students were either absent or in a different location than indicated by the university administration.
the Ukraine study received the approximate equivalent of 4 USD. It was made clear to participants that the payoffs for each of the experimental games were independent and that their total payoffs would be the sum of their earnings from across the games. All experimental games were conducted at the outset of the study to ensure that responses to survey questions would not influence participants’ choices. The language of the research instruments in all three studies was Russian.

**Measurement – Experimental Games**

A significant challenge for studies of unethical conduct such as dishonesty or corruption is that respondents may be unlikely to offer sincere responses to interview or survey questions. Respondents also may be prone to exaggerate self-reported behavior related to ethical conduct. To mitigate these challenges, we employed experimental games that utilize incentive payments to elicit observable behavior, allowing researchers to make inferences about participants’ preferences from the choices they make when confronted with decisions that lead to real-world financial loss or gain. Three games were employed to measure propensity for corruption, dishonesty, and altruistic behavior. Full scripts for these games can be found in Section C of the Online Appendix.

**Bribery Game:** The bribery game used in the study builds off of Barr & Serra (2010). Participants were randomly assigned to the role of citizen or bureaucrat and subjects in both roles received an initial endowment of equal value. The citizen then was presented with a scenario in

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24 The average payment size for the Moscow study was set to be roughly equal to payments for similar studies in other major cities (Barfort et al. 2019’s study in Copenhagen, for example, paid an average of 13 USD to participants). For the regional and Ukraine studies, we then adjusted payments in accordance with cost of living and purchasing power in each city vis-à-vis Moscow. We emphasize that the relative stakes within each game (e.g., payoffs for guessing correctly vs. incorrectly in the dice-task game) are held constant across sites. It also should be noted that subjects’ choices in many experimental games are surprisingly robust to changes in the stakes. See Olsen et al. (2019, 575) for discussion of dishonesty experiments and Larney et al. (2019) for consideration of dictator games.

25 All participants first engaged in a modified dictator game, then in 20 rounds of the dice task game, then in the bribery game, then in a lottery game measuring risk aversion, and then in another 20 rounds of the dice task game. Survey questions, including items for the PSM scale, then followed.

26 The university at which the Ukraine study was conducted is located in a region where Russian is the predominant language and one of the official regional languages.
which she could more than double her initial endowment by obtaining a permit. When she seeks to obtain the permit, however, she is denied and informed that to avoid a long reapplication process, she may offer a bribe to the bureaucrat. Bribing entails a risk of punishment, so for offering a bribe the citizen loses approximately one-third of the initial endowment, regardless of whether the bureaucrat accepts the offer.\textsuperscript{27} The bureaucrat next decides whether to accept the bribe, incurring a fine of approximately two-fifths of the initial endowment for engagement in corruption, a cost larger than that imposed on the citizen to reflect the greater harm done to society when officials act corruptly. If the bureaucrat accepts the bribe, the citizen receives the permit and the correspondingly higher payoff.\textsuperscript{28} Additionally, when the citizen offers and the bureaucrat accepts a bribe, then two additional participants (chosen at random) each incur a small loss (approximately one-seventh of the initial endowment), representing the harm that corruption inflicts on society at large.

We constructed payoffs so that participants could, with the aid of a payoff matrix, easily identify the range of bribes that increase the overall payoffs for both the bureaucrat and citizen and therefore should be accepted by participants guided solely by self-interest. However, if the bureaucrat incorporates considerations other than financial payoffs into her decision and rejects the citizen’s offer, the citizen is strictly worse off, receiving a payoff of about two-thirds the initial endowment with which she began the game. The primary indicator of interest for the purpose of our study was whether an individual offers (in the role of citizen) or accepts (in the role of bureaucrat) a bribe.

\textit{Dice Task Game:} To measure dishonesty, the study utilized the dice task game developed by Barfort et al. (2019) and Olsen et al. (2019). Respondents were asked to imagine a dice roll, guess a number between 1 and 6, and then click to the next screen. On this screen a picture of a dice

\textsuperscript{27} To avoid the conflation of risk aversion and aversion to corruption, we chose, following Barr & Serra (2010), not to make punishment probabilistic.

\textsuperscript{28} We use strategy elicitation for the bureaucrat role, in which the participant indicates whether she would accept or reject each possible bribe amount. After the study concluded, payoffs were determined by randomly sorting participants into pairs of citizens and bureaucrats. This process was made explicit to participants.
was shown with a randomly generated outcome. Participants were then asked to record the number they had imagined and then click to the next screen. For correct guesses, participants earned three times more than for incorrect guesses. Since there was no way for our research team to observe participants’ guesses, an incentive existed to dishonestly report guesses that matched the randomly generated outcome in order to increase one’s payoff. Participants engaged in 20 rounds of this exercise at two points in the study, for a total of 40 rounds. An honest participant on average would guess between 6 and 7 rolls correctly. Comparison of a participant’s number of successful guesses reported to the expected distribution of successful guesses under the assumption of honest reporting allows for estimation of the participant’s cheat rate.

*Pro-Social Preferences Game:* To measure altruistic behavior, we employed a modified dictator game, an approach frequently used by economists (see, e.g., Banuri & Keefer 2016; Hanna & Wang 2017; Barfort et al. 2019). We allotted participants a sum of money and then allowed participants to keep this money or donate to charity. Actual donations were made in accordance with the participants’ preferences. The game therefore places participants in a scenario that encompasses a direct tradeoff between personal financial gain and efforts to promote broader societal goals.

*External Validity:* These experimental games facilitate measurement based on observed behavior, but an important question concerns the extent to which behavior in the experimental setting correlates with real-world behavior. Fortunately, abundant evidence indicates that concerns about the artificiality of these experimental measures should not be overstated. Barr & Serra (2010) demonstrate a remarkable connection between real-world conditions and outcomes in their bribery games, which were conducted at Oxford University: Oxford students from foreign countries that rank poorly on global corruption indicators were significantly more likely to engage in corruption in the laboratory than students from low-corruption countries. Dice task games have been similarly validated, with several studies showing that dishonesty in these games is correlated with cheating,
fraud, and rule breaking in schools, the workplace, and prisons (Cohn et al. 2015; Hanna & Wang 2017; Cohn & Maréchal 2018). Finally, with respect to our measure of altruistic behavior, a number of studies show that donations in laboratory games are strong predictors of real-world pro-social behavior such as charitable giving (see, e.g., Benz and Meier, 2008; Franzen & Pointner 2013). In short, when real-world behavior is difficult to observe, the existing evidence suggests that indicators derived from experimental games offer a valuable alternative. We return to these questions and discuss issues related to other forms of external validity in the article’s concluding section.

*Measurement – Public Service Motivation and Control Variables*

To measure Public Service Motivation (PSM), we used a 16-item scale developed by Kim et al. (2013). This version of the scale builds on Perry’s (1996) original scale but was designed by an international team of scholars to account for cross-cultural distinctions. The scale consists of an unweighted average of a series of attitudinal questions, shown in English and in Russian translation in Section A of the Online Appendix, measuring four dimensions of PSM: (1) Attraction to Public Service (APS), (2) Commitment to Public Values (CPV), (3) Compassion (COM), and (4) Self-Sacrifice (SS). The Online Appendix also presents the results of confirmatory factor analysis (CFA) showing that the four-factor model is a reasonable fit to the data for all three research sites.29 Moreover, at all sites reliability coefficients (Cronbach’s α) for the full PSM scale were above 0.85 and at or above the 0.70 threshold for acceptable internal consistency for each of the four dimensions with the exception of CPV in the Moscow study.

We additionally collected data on demographic and attitudinal indicators that could potentially be correlated with both PSM and propensity to engage in corruption, dishonesty, or altruistic

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29 For all samples, the fit is improved if the COM dimension is excluded, but for the sake of comprehensively evaluating the relationship between PSM and ethical and unethical behavior we retain all dimensions in our analyses. Our findings are qualitatively and quantitatively similar if we exclude the COM dimension.
behavior. Perry (1997), Maesschalck et al. (2008), and Perry et al. (2008) suggest that various processes of socialization affect an individual’s level of PSM, including parental socialization, religious socialization, and professional identification. Our analyses therefore include control variables for religiosity, parental occupation, family income, and the size of the city or town in which respondents resided during childhood. Professional identification may be less relevant for our student-based sample, but we measure respondent’s class year and academic specialization in order to account for the different socialization processes across departments (e.g., economics versus public administration). Finally we collect data on factors frequently correlated with behavioral patterns in experimental games, including gender, ability (measured with self-reported GPA), and risk aversion. To measure risk aversion, we used a series of paired lottery choices in which participants selected between a series of fixed payoffs and lotteries with a 50 percent chance of receiving no payment and a 50 percent chance of receiving a higher payment (see Holt & Laury 2002). The indicator of interest is the number of certain payoffs an individual chooses before switching to a riskier – though potentially higher paying – lottery.

**Results**

*Descriptive Statistics*

Before turning to our primary analysis, we present a brief overview of the outcomes from the experimental games and summary statistics for the PSM scale, beginning with the bribery game. As can be seen in Table 1, 61 percent of participants in the Moscow study engaged in a bribe transaction, compared to 47 percent and 29 percent in the Russian regional study and Ukraine study, respectively. Two factors should be considered when interpreting the lower rate in the Ukraine study. First, this study was conducted on university territory in a computer laboratory, which may have created an environment in which students felt more compelled to avoid behavior labeled as
“corrupt.” Second, the sample composition of the two Russian studies, in which participants were primarily from the social sciences, differed markedly from the Ukraine study in which 83 percent of participants were studying to be lawyers, judges, and prosecutors.

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Study</th>
<th>Experimental Games</th>
<th>Public Service Motivation</th>
<th>Demographic &amp; Attitudinal Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Min.</td>
</tr>
<tr>
<td></td>
<td>Bribe</td>
<td>0.61</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>Correct Guesses</td>
<td>15.3</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>Cheat Rate</td>
<td>0.26</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>Donations</td>
<td>0.50</td>
<td>0.32</td>
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</table>

<table>
<thead>
<tr>
<th>Study</th>
<th>PSM Index</th>
<th>APS</th>
<th>CPV</th>
<th>COM</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia: University in Moscow</td>
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<td>0.17</td>
<td>0</td>
<td>1</td>
<td>803</td>
</tr>
<tr>
<td>Russia: Regional University</td>
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<td>0.18</td>
<td>0</td>
<td>1</td>
<td>375</td>
</tr>
<tr>
<td>Ukraine: Legal Academy</td>
<td>0.70</td>
<td>0.16</td>
<td>0</td>
<td>1</td>
<td>693</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study</th>
<th>Male</th>
<th>Risk Aversion</th>
<th>GPA</th>
<th>Family Income</th>
<th>Religious</th>
<th>Home City Size</th>
<th>Parent Employed in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia: University in Moscow</td>
<td>0.40</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
<td>804</td>
<td>0.31</td>
<td>0.46</td>
</tr>
<tr>
<td>Russia: Regional University</td>
<td>0.52</td>
<td>0.18</td>
<td>0</td>
<td>1</td>
<td>803</td>
<td>0.53</td>
<td>0.21</td>
</tr>
<tr>
<td>Ukraine: Legal Academy</td>
<td>0.60</td>
<td>0.18</td>
<td>0</td>
<td>1</td>
<td>803</td>
<td>0.69</td>
<td>0.21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study</th>
<th>Risk Aversion</th>
<th>GPA</th>
<th>Family Income</th>
<th>Religious</th>
<th>Home City Size</th>
<th>Parent Employed in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia: University in Moscow</td>
<td>0.50</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>804</td>
<td>0.46</td>
</tr>
<tr>
<td>Russia: Regional University</td>
<td>0.52</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>803</td>
<td>0.53</td>
</tr>
<tr>
<td>Ukraine: Legal Academy</td>
<td>0.60</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>803</td>
<td>0.69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study</th>
<th>Field of Study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Admin.</td>
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</tr>
<tr>
<td>Public Law</td>
<td>0.05</td>
</tr>
<tr>
<td>Public Sec. Pref.</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Notes: *Bribe* is a dichotomous indicator of whether a participant offered (in the role of citizen) or accepted (in the role of a bureaucrat) a bribe in the corruption game. *Correct Guesses* refers to the number of correct guesses in the dice task game; *Cheat Rate* refers to the corresponding estimate for the proportion of rolls on which an individual cheated. A negative cheat rate reflects fewer correct guesses than the expected number of correct guesses – 6.7 – for a fully honest individual rolling a dice 40 times (see Footnote 30 for discussion of cheat rate calculations). *Donations* refers to the proportion of the initial endowment donated to charity in the modified dictator game. *PSM Index* refers to the Public Service Motivation index, *APS* to the Attraction to Public Service dimension of PSM, *CPV* to the Commitment to Public Values dimension, *COM* to the Compassion dimension, and *SS* to the Self-Sacrifice dimension; all of these indicators have been rescaled to range from 0 to 1. *Risk Aversion*, *GPA*, *Family Income*, and *Home City Size* have also been rescaled to range from 0 to 1. *Male*, *Religious*, and the parental occupation variables are dichotomous indicators, where *Religious* represents whether or not the respondent considers herself religious. *Pub. Admin* and *Public Law* represent the proportion of students studying Public Administration or Public Law at the Russian or Ukrainian research sites, respectively. *Pub. Sect. Pref* is a binary indicator of whether the subject prefers a public sector or a private sector career.
With respect to measures of dishonesty from the dice task game, Table 1 shows that the average number of reported correct guesses was approximately 15 in the Moscow study, 19 in the Ukraine study, and 21 in the Russian regional study – far higher than the approximately 6.7 correct guesses that would be expected on average from a fully honest individual reporting correct guesses for 40 dice rolls. Following Barfort et al. (2019) and Olsen et al. (2019), we estimate cheat rates, or the proportion of the 40 rolls on which an individual likely reported dishonestly.\textsuperscript{30} Average cheat rates range from 0.26 in Moscow (meaning that on average participants reported dishonestly on just over every fourth dice roll) to 0.38 in the Ukraine study and 0.42 in the Russian regional study. To provide further intuition for the dice-task game results, Figure 2 compares the distribution of observed correct guesses over 40 dice rolls to the expected distribution for a fully honest participant. As can be seen, only three percent of the sample in the Moscow study, six percent in the regional Russia sample, and two percent of the Ukraine sample purely maximized payoffs by reporting 40 correct guesses in the dice task game. In Moscow, 16 percent reported 7 or fewer correct guesses – the amount of or lower than the number of correct guesses an honest individual would be expected to make by chance. In the regional Russia study, the comparable figure was 12 percent; in the Ukraine study, 10 percent. Meanwhile, approximately 63 percent of respondents in the Moscow study, 79 percent of respondents in the regional Russia study, and 77 percent of respondents in the Ukraine study reported 10 or more correct guesses, despite the fact that the probability of honestly guessing right 10 or more times is around 12 percent.

\textsuperscript{30} Each participant’s reported number of correct guesses $Y_i$ is a function of the number of dice rolls $K = 40$, the probability of a correct guess $p = 1/6$, and individual $i$’s CheatRate, such that $Y_i = K(p + (1-p)\text{CheatRate})$. Rearranging produces the estimated cheat rate:

$$\text{CheatRate} = \frac{6}{5} \left( \frac{Y_i}{40} - \frac{1}{6} \right)$$

Note that a downside of this estimator is that for sufficiently small $Y_i$ (i.e., for individuals who are both honest and unlucky), the estimated cheat rate can be negative.
Figure 2: Number of Correct Guesses for 40 Dice Rolls

*Expected Distribution with Full Honesty vs. Observed Distribution*

A. Russia - Moscow Study (N = 804)

B. Russia - Regional Study (N = 376)

C. Ukraine Study (N = 695)

Note: x-axes represent number of correct guesses; y-axes represent proportion of participants.
Finally, in the modified dictator game participants in the Moscow study on average donated approximately 50 percent of their initial endowment to charity, compared to 53 percent in the regional Russia study and 60 percent in the Ukraine study. It again should be noted that the Ukrainian students participated in a university laboratory, whereas the participants at both Russian sites participated online at a time and location of their choosing, meaning that results across the Russian and Ukrainian studies are not strictly comparable.

In all studies, altruistic behavior is negatively correlated with dishonesty and propensity to engage in corruption, while dishonesty and propensity to engage in corruption are positively correlated. In the Moscow study, those who gave or accepted bribes in the bribery game donated around 13 percentage points less of the initial endowment than those who did not. In the regional study and Ukraine study, the corresponding figures were 12 and 19 percentage points. Meanwhile, in all three studies those who engaged in a bribe transaction in the bribery game had a cheat rate between 10 and 11 percentage points higher in the dice game. In all cases these differences are statistically significant at $p < 0.001$. That said, while the measures of propensity for corruption and dishonesty clearly are related, they capture distinct information about unethical behavior, as discussed in more detail in the analyses below.

Finally, Table 1 provides descriptive statistics for PSM scores. The 5-point scales on which these were initially measured have been rescaled to range from 0 to 1.\textsuperscript{31} Overall PSM scores were similar across the Moscow and regional study – 0.57 and 0.61, respectively – and moderately higher in the Ukraine study at 0.70.\textsuperscript{32} At all three research sites, average scores for the Commitment to

\textsuperscript{31} We use this rescaling to make our results regarding PSM and cheating in the dice-task game comparable to Olsen et al. (2019), although we emphasize that without assessment of measurement invariance such cross-national comparisons warrant caution. On the original 5-point PSM scale, sample averages were 3.62 for the Moscow study, 3.67 for the regional Russia study, and 3.86 for the Ukraine study.

\textsuperscript{32} As discussed in Section B of the Online Appendix, multi-group confirmatory factor analysis does not produce evidence of metric invariance across the research sites, indicating that comparisons of mean values – as well as the
Public Values (CPV) dimension of PSM were highest, followed by Compassion (COM), Attraction to Public Service (APS), and then Self-Sacrifice (SS).

**PSM as a Predictor of Corruption, Dishonesty, and Altruistic Behavior**

This section now turns to our primary analyses. Table 2 presents results evaluating willingness to engage in a behavior framed explicitly as a corrupt activity, as measured by whether or not participants offered (in the role of citizen) or accepted (in the role of bureaucrat) a bribe in the bribery game. Because the outcome variable is dichotomous, we employ linear probability models. Results are robust to the use of logit regressions and average marginal effects from logit models are similar in magnitude to the coefficients in Table 2.

The PSM index has been rescaled to range from 0 to 1, such that regression coefficients can be interpreted as the average percentage point difference in the likeliness of individuals at the high end of the PSM spectrum to engage in a bribe transaction compared to individuals at the low end of the spectrum. Odd numbered columns show bivariate regressions; even numbered columns show specifications including control variables for confounders that could potentially be correlated with both PSM and propensity to engage in corruption, including gender, risk aversion, ability (measured as self-reported GPA), class year, field of study, religiosity, family income, parental occupations, and size of the city in which the participant resided during childhood.

The analyses show that consistent with Hypothesis 1 individuals with higher levels of PSM exhibit substantially lower levels of propensity to engage in a corrupt act. In the Moscow study, participants exhibiting the highest levels of PSM are on average approximately 76 percentage points less likely than participants exhibiting the lowest levels of PSM to engage in a bribe transaction; in

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magnitude of the relationships between PSM and ethical or unethical behavior analyzed below – across research sites should be conducted with care.
Table 2: PSM as a Predictor of Propensity to Engage in Corruption

Dependent Variable: Gave/Accepted Bribe in Bribery Game

<table>
<thead>
<tr>
<th>Russia</th>
<th>Russia</th>
<th>Ukraine</th>
</tr>
</thead>
<tbody>
<tr>
<td>University in Moscow</td>
<td>Regional University</td>
<td>Legal Academy</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>PSM</td>
<td>-0.759***</td>
<td>-0.657***</td>
</tr>
<tr>
<td></td>
<td>(0.086)</td>
<td>(0.092)</td>
</tr>
<tr>
<td>Male</td>
<td>0.108**</td>
<td>-0.031</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.059)</td>
</tr>
<tr>
<td>Risk Aversion</td>
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<td>-0.133</td>
</tr>
<tr>
<td></td>
<td>(0.099)</td>
<td>(0.126)</td>
</tr>
<tr>
<td>GPA</td>
<td>0.040</td>
<td>-0.098</td>
</tr>
<tr>
<td></td>
<td>(0.092)</td>
<td>(0.145)</td>
</tr>
<tr>
<td>Family Income</td>
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<td>0.009</td>
</tr>
<tr>
<td></td>
<td>(0.078)</td>
<td>(0.136)</td>
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<tr>
<td>Home City Size</td>
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<td>-0.022</td>
</tr>
<tr>
<td></td>
<td>(0.048)</td>
<td>(0.081)</td>
</tr>
<tr>
<td>Religious</td>
<td>-0.008</td>
<td>-0.057</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td>(0.055)</td>
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<tr>
<td>Parent Employed in:</td>
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<td>Public Profession</td>
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<td>0.060</td>
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<tr>
<td></td>
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<td>(0.055)</td>
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<td>Private Profession</td>
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<td>(0.045)</td>
<td>(0.065)</td>
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<td>Non-Profit Sector</td>
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<td>-0.020</td>
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<tr>
<td></td>
<td>(0.063)</td>
<td>(0.106)</td>
</tr>
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<td>Military</td>
<td>-0.102†</td>
<td>-0.085</td>
</tr>
<tr>
<td></td>
<td>(0.057)</td>
<td>(0.123)</td>
</tr>
<tr>
<td>Legal Profession</td>
<td>0.053</td>
<td>0.064</td>
</tr>
<tr>
<td></td>
<td>(0.070)</td>
<td>(0.113)</td>
</tr>
<tr>
<td>Field of Study:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Administration</td>
<td>-0.059</td>
<td>-0.015</td>
</tr>
<tr>
<td></td>
<td>(0.041)</td>
<td>(0.058)</td>
</tr>
<tr>
<td>Public Law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.041***</td>
<td>0.937***</td>
</tr>
<tr>
<td></td>
<td>(0.050)</td>
<td>(0.118)</td>
</tr>
<tr>
<td>Class Year Dummies</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>(0.089)</td>
<td>(0.186)</td>
</tr>
<tr>
<td>N</td>
<td>802</td>
<td>789</td>
</tr>
<tr>
<td>R²</td>
<td>0.070</td>
<td>0.112</td>
</tr>
</tbody>
</table>

Note: *** p<0.001, ** p<0.01, * p<0.05, † p<0.10. Linear Probability Models with robust standard errors in parentheses. For the Ukraine study (Columns 5 and 6), standard errors are clustered at the session level. PSM refers to the Public Service Motivation index. The Public Administration variable compares students at the Russian universities studying Public Administration to students studying in other academic departments; the Public Law variable compares students at the Ukrainian legal academy studying in departments specializing in the preparation of judges, prosecutors and investigators with students studying in departments specializing in civil or commercial law or preparation of defense attorneys. The parental occupation variables are not mutually exclusive and represent a student with at least one parent in the given occupation relative to students with neither parent in this occupation. See the note to Table 1 for additional information about other control variables.

For the Russian regional and Ukraine studies, the corresponding figures are 53 and 62 percentage points, respectively. Results are robust to the inclusion of a full set of control variables, and for all specifications at all three research sites the findings are statistically significant at p < 0.001.

Additionally, as shown in Section E of the Online Appendix, there is a large and nearly always
statistically significant negative relationship between each of the four dimensions of PSM and propensity for corruption at each of the research sites.

Our robust results concerning PSM and corruption differ from our findings concerning dishonesty. Table 3 presents results from OLS regressions analyzing the association between PSM and cheat rates in the dice task game. Regression coefficients can be interpreted as the percentage point difference in cheat rates between a high and low-PSM individual. In contrast to Olsen et al. (2019) who, using the same dice task we employed, identify a robust negative correlation between PSM and cheating among Danish students, we find more mixed results. For the Moscow study, moving from the lowest to highest PSM levels is associated with approximately a 13 percentage points decline in the cheat rate, and the bivariate results are statistically significant at \( p < 0.05 \). However, the magnitude of this correlation is strikingly lower than the approximately 70 percentage point decline found in Olsen et al.’s (2019) Danish sample. And while Olsen et al. (2019) found a robust negative correlation between each dimension of PSM and cheating, ranging in magnitude from 19 to 44 percentage points, the dimensions in our study are associated with a decline in the cheat rate of around 7 to 11 percentage points at the Moscow site, as shown in Section E of the Online Appendix. Beyond the Moscow study, results diverge further. For both the overall PSM scale and its dimensions, there are few statistically significant relationships in the regional and Ukraine studies. In short, we find only mixed support for Hypothesis 2 that higher PSM will be associated with lower levels of dishonesty. In the article’s concluding section, we consider possible interpretations and implications of the divergent findings between our study and Olsen et al.’s (2019) study in greater detail.

Finally, Table 4 presents OLS regressions analyzing the association between PSM and altruistic behavior, as measured by the proportion of the initial endowment donated to charity in the dictator
Table 3: PSM as a Predictor of Dishonesty

**Dependent Variable: Cheat Rate in Dice Task Game**

<table>
<thead>
<tr>
<th></th>
<th>Russia University in Moscow (1)</th>
<th>Russia Regional University (2)</th>
<th>Russia Legal Academy (3)</th>
<th>Ukraine Legal Academy (4)</th>
<th>Ukraine Legal Academy (5)</th>
<th>Ukraine Legal Academy (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSM</td>
<td>-0.126* (0.063)</td>
<td>0.092 (0.101)</td>
<td>-0.041 (0.063)</td>
<td>-0.033 (0.069)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.009 (0.020)</td>
<td>-0.001 (0.041)</td>
<td>-0.045 (0.028)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Aversion</td>
<td>0.044 (0.050)</td>
<td>0.011 (0.094)</td>
<td>0.090† (0.053)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>0.096† (0.056)</td>
<td>-0.110 (0.094)</td>
<td>-0.055 (0.062)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Income</td>
<td>0.033 (0.051)</td>
<td>0.005 (0.091)</td>
<td>0.092 (0.085)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home City Size</td>
<td>0.043 (0.027)</td>
<td>-0.050 (0.053)</td>
<td>-0.009 (0.043)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious</td>
<td>0.022 (0.019)</td>
<td>-0.028 (0.035)</td>
<td>0.013 (0.027)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Employed in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector</td>
<td>0.033 (0.020)</td>
<td>0.094** (0.035)</td>
<td>-0.008 (0.023)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Sector</td>
<td>-0.027 (0.025)</td>
<td>-0.113* (0.040)</td>
<td>-0.023 (0.021)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Profit Sector</td>
<td>-0.082** (0.030)</td>
<td>0.004 (0.070)</td>
<td>-0.020 (0.045)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td>-0.024 (0.030)</td>
<td>-0.127 (0.083)</td>
<td>-0.028 (0.039)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Profession</td>
<td>0.018 (0.039)</td>
<td>0.091 (0.087)</td>
<td>0.043 (0.037)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field of Study:

|                  |                               |                               |                           |                           |                           |                           |
| Public Administration |                               |                               |                           |                           |                           |                           |
| Public Law        | -0.025 (0.023)                 | 0.005 (0.039)                  |                           |                           |                           |                           |

Constant: 0.333*** (0.038), 0.212** (0.069), 0.361*** (0.065), 0.554*** (0.131), 0.406*** (0.048), 0.456*** (0.103)

Class Year Dummies: no, yes, no, yes, no, yes

N: 803, 790, 375, 367, 693, 667

R²: 0.007, 0.036, 0.003, 0.071, 0.001, 0.062

Note: *** p<0.001, ** p<0.01, * p<0.05, † p<0.10. OLS regressions with robust standard errors in parentheses. For the Ukraine study (Columns 5 and 6), standard errors are clustered at the session level. See notes to Tables 1 and 2 for details about control variables.

In line with Hypothesis 3, the results show a robust positive relationship between PSM and altruistic behavior. In bivariate regressions, an individual with high PSM levels on average donates 54 percentage points more of the initial endowment than the low-PSM individual in the Moscow study, 37 percentage points more in the regional Russian study, and 50 percentage points more in the Ukraine study. In all cases results are significant at $p < 0.01$ or $p < 0.001$, even in specifications including a full set of control variables. Moreover, all four dimensions of PSM are positively and...
mostly statistically significantly associated with altruistic donations, as shown in Section E of the Online Appendix.

Table 4: PSM as a Predictor of Altruistic Behavior

<table>
<thead>
<tr>
<th></th>
<th>Russia University in Moscow (1)</th>
<th>Russia Regional University (2)</th>
<th>Russia Legal Academy (3)</th>
<th>Ukraine (4)</th>
<th>Ukraine (5)</th>
<th>Ukraine (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSM</td>
<td>0.544*** (0.065)</td>
<td>0.474*** (0.068)</td>
<td>0.366*** (0.097)</td>
<td>0.315**    (0.098)</td>
<td>0.504*** (0.068)</td>
<td>0.426*** (0.079)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.128*** (0.023)</td>
<td>-0.116** (0.038)</td>
<td>-0.077** (0.026)</td>
<td>-0.120†    (0.066)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Aversion</td>
<td>-0.104 (0.064)</td>
<td>0.109 (0.078)</td>
<td>-0.120† (0.066)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>-0.026 (0.061)</td>
<td>0.060 (0.098)</td>
<td>0.052 (0.072)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Income</td>
<td>0.002 (0.052)</td>
<td>0.048 (0.095)</td>
<td>0.096 (0.081)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home City Size</td>
<td>0.036 (0.030)</td>
<td>-0.045 (0.052)</td>
<td>0.015 (0.043)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious</td>
<td>0.032 (0.022)</td>
<td>0.003 (0.034)</td>
<td>0.041 (0.028)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Employed in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector</td>
<td>0.011 (0.022)</td>
<td>0.004 (0.034)</td>
<td>-0.020 (0.024)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Sector</td>
<td>0.069* (0.027)</td>
<td>0.075† (0.043)</td>
<td>0.029 (0.027)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Profit Sector</td>
<td>0.019 (0.039)</td>
<td>0.009 (0.060)</td>
<td>0.052 (0.046)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td>0.055 (0.037)</td>
<td>0.157* (0.077)</td>
<td>-0.023 (0.047)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Profession</td>
<td>0.052 (0.045)</td>
<td>-0.006 (0.069)</td>
<td>0.048 (0.037)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field of Study:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Administration</td>
<td>0.066* (0.027)</td>
<td>0.000 (0.037)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Law</td>
<td></td>
<td></td>
<td></td>
<td>0.069*    (0.032)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.187*** (0.039)</td>
<td>0.189* (0.080)</td>
<td>0.303*** (0.060)</td>
<td>0.221†     (0.117)</td>
<td>0.253*** (0.052)</td>
<td>0.274* (0.106)</td>
</tr>
<tr>
<td>Class Year Dummies</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>N</td>
<td>803</td>
<td>790</td>
<td>375</td>
<td>367</td>
<td>693</td>
<td>667</td>
</tr>
<tr>
<td>R²</td>
<td>0.083</td>
<td>0.148</td>
<td>0.043</td>
<td>0.112</td>
<td>0.060</td>
<td>0.132</td>
</tr>
</tbody>
</table>

Note: *** p<0.001, ** p<0.01, * p<0.05, † p<0.10. OLS regressions with robust standard errors in parentheses. For the Ukraine study (Columns 5 and 6), standard errors are clustered at the session level. See notes to Tables 1 and 2 for details about control variables.

Beyond our primary analyses about PSM, surprisingly few covariates in the set of control variables are associated with propensity to engage in corruption, dishonesty, or altruistic behavior at a statistically significant level. Males at the Moscow and Ukrainian research sites are more likely to engage in a bribe transaction, and males at all sites donate less money in the dictator game. Subjects
studying Public Administration at the Moscow research site or Public Law at the Ukrainian research site on average offer larger charitable donations in the dictator game, but there are no statistically significant differences by field of study with respect to the corruption or dice roll games.\textsuperscript{33}

Somewhat surprisingly, risk aversion is largely uncorrelated with behavior in any of the games, at least in specifications with full sets of control variables. There is some evidence at the Russian sites that students with parents in the public sector are more likely to cheat and students with parents in the private sector are more likely to donate. But overall, systematic relationships between parental occupation and ethical conduct are not readily apparent.

The analyses so far have relied on our full samples. We now consider the extent to which our findings generalize across sub-groups within the samples and examine a distinction with significance for scholars of Public Administration by comparing students expressing a preference for public versus private sector career paths when given a binary choice. The percentage of students preferring a public sector career ranges from 23 percent at the Moscow site to 30 percent at the regional Russian site to 38 percent at the Ukrainian legal academy (see Table 1).\textsuperscript{34} A follow up survey conducted at the Moscow research site three years after the initial study validated our career preference measure and confirmed that students’ reported career preferences are highly predictive of actual career paths.\textsuperscript{35} Meanwhile, as we show in Section F of the Online Appendix, PSM is

\textsuperscript{33} The regressions in Tables 2-4 compare students enrolled in Public Administration (at the Russian research sites) or Public Law (at the Ukrainian site) with students specializing in other fields of study. However, our findings are robust regardless of how we control for academic specializations.

\textsuperscript{34} Our samples contain a significant number of Public Administration or Public Law students – 25 percent in Moscow, 34 percent in the regional Russian study, and 56 percent in the Ukrainian study – and preferences for public sector careers are, as would be expected, notably higher among these students than in the overall sample (see Table F2 in Section F of the Online Appendix). However, even in these departments a sizable proportion of students – in some cases a majority – aspire to a private sector career; similarly, a number of students studying in other departments aspire to employment in the public sector. We therefore consider sectoral career preferences a more salient measure of public-sector orientation than field of study and accordingly focus here on career preferences. In Section F of the Online Appendix we conduct analyses comparing students specializing in Public Administration or Public Law to students in other fields of study. The findings are similar to those shown here.

\textsuperscript{35} Students indicating a preference for public sector employment were 24 percentage points more likely to be employed in the public sector following graduation, a difference that is highly statistically significant ($p < 0.001$). Of the 596 of
Table 5: Heterogeneous Effects By Sectoral Career Preference

\( \beta_1 = \) correlation between PSM and outcome variable for subjects with public-sector orientation

\( \beta_1 + \beta_3 = \) correlation between PSM and outcome variable for subjects with private-sector orientation

\( \beta_2 = \) difference in the correlations for subjects with public-sector vs. private-sector orientation

- Russia University in Moscow
  - Panel A: Bribery in Corruption Game
    - \( \beta_1: PSM \) -0.593** -0.480* -0.543* -0.467* -0.751*** -0.725***
      - Private Sector 0.178 0.144 0.030 0.095 -0.125 -0.147
      - PSM × Private Sector -0.174 -0.221 0.057 -0.015 0.216 0.230
    - Controls no yes no yes no yes
    - \( \beta_1 + \beta_3: -0.767*** -0.701*** -0.486** -0.382* -0.536*** -0.495***
      (0.095) (0.099) (0.186) (0.192) (0.140) (0.149)
  - Panel B: Dishonesty in Dice Task Game
    - \( \beta_1: PSM \) -0.207† -0.158 0.265† 0.325* 0.166 0.156
      - Private Sector -0.050 -0.015 0.135 0.213 0.226† 0.213†
      - PSM × Private Sector 0.110 0.057 -0.325 -0.409* -0.298† -0.284
    - Controls no yes no yes no yes
    - \( \beta_1 + \beta_3: -0.097 -0.100 -0.060 -0.084 -0.138 -0.128
      (0.075) (0.076) (0.134) (0.135) (0.093) (0.096)
  - Panel C: Donations in Dictator Game
    - \( \beta_1: PSM \) 0.478** 0.426** 0.346* 0.259† 0.582*** 0.480**
      - Private Sector -0.068 -0.044 -0.037 -0.074 0.090 0.065
      - PSM × Private Sector 0.072 0.058 0.020 0.082 -0.121 -0.084
    - Controls no yes no yes no yes
    - \( \beta_1 + \beta_3: 0.550*** 0.484*** 0.366** 0.341** 0.461*** 0.396***
      (0.075) (0.077) (0.127) (0.125) (0.102) (0.106)

Note: *** \( p < 0.001, ** \( p < 0.01, * \( p < 0.05, † \( p < 0.10. Panel A presents results from linear probability models; Panels B and C; from OLS regressions. Robust standard errors in parentheses. For the Ukraine study, standard errors are clustered at the session level. \( Private Sector \) takes a value of 1 if a respondent indicated a preference for private sector employment following university graduation and 0 if a respondent indicated a preference for public sector employment. \( \beta_2 \) represents the difference in the mean value of the outcome variables for subjects who prefer private sector employment versus subjects who prefer public sector employment when PSM is at its lowest value. Statistical significance of \( \beta_1 + \beta_3 \) is based on a joint significance test of the null hypothesis \( H_0: \beta_1 + \beta_3 = 0 \). See notes to Tables 1 and 2 for details about control variables.

the original 804 participants we estimate to have graduated by 2019 – all but students in their first year at the time of the initial study – we received at least one response to the follow-up surveys regarding current occupations from 387 students (65 percent).
higher among students indicating a preference for public sector employment at all three research sites. The difference is statistically significant at all sites and substantively ranges from one-fifth of a standard deviation on the normalized PSM scale at the Ukraine site to approximately one-third of a standard deviation at Russian research sites.

Yet in line with Hypothesis 4, our regressions in Table 5, which interact the PSM index with a dummy variable for sectoral career preference, show that the correlations for both PSM and corruption and PSM and altruistic behavior are substantively large and statistically significant within each sub-group at all research sites. Indeed, the magnitude of the correlations are remarkably similar, as shown by the lack of statistical significance for the interaction variable \( PSM \times Private \text{ Sector} \), which represent the difference in correlations across the sub-groups. By contrast, the inconsistency in the relationship between PSM and dishonesty apparent in analyses based on the overall samples also emerges clearly in the sub-sample analyses.

In summary, we find that PSM is robustly negatively associated with propensity to engage in corruption and positively associated with altruistic behavior, both in the overall sample and when disaggregating the sample by sectoral career preferences. Our findings regarding PSM and dishonesty are more mixed. PSM is negatively correlated with dishonesty, but the magnitude of these correlations is relatively small and results are no longer statistically significant when accounting for a full set of control variables. Our finding that the correlations between PSM and corruption and PSM and altruistic behavior are remarkably stable across the sub-groups analyzed above indicates that not only are high-PSM individuals across society as a whole more likely to behave ethically, but also that these relationships between PSM and behavioral ethics are apparent

\[ 36 \]

In Table 6, \( \beta_1 \) represents the correlation between PSM and the outcome variables for subjects preferring a public sector career and \( \beta_2 \) represents the difference in the correlations for subjects with a private versus public-sector orientation. Correspondingly, the sum of \( \beta_1 \) and \( \beta_2 \) represents the correlation between PSM and the outcome variables for subjects preferring a private sector career.
even among subsets of individuals within a given country who face distinctly different institutional incentives. In the concluding section below we discuss the implications of our findings not just for the generalizability of theories about PSM within countries but also for the generalizability of theories about PSM across countries.

Discussion

Given that civil servants and other public sector employees throughout the world have been shown to exhibit high PSM levels, understanding how PSM is tied to ethical or unethical behavior has important implications. With rare exceptions, earlier research on this topic has been limited by reliance on self-reported measures of ethical conduct that are subject to social desirability bias or hypothetical vignettes about unethical behaviors. This study advances the literature by employing incentivized experimental games to study the relationships between PSM and observable behavior indicative of propensity to engage in corruption, dishonesty, and altruistic behavior. Most notably, our study represents the first research on PSM to utilize a behavioral experimental measure of corruption. Moreover, our simultaneous use of three experimental games facilitates nuanced interpretation of the findings in ways that studies employing a single game cannot. In particular, our finding that PSM is robustly negatively correlated to propensity to engage in corruption but only weakly associated with dishonesty indicates that unethical behavior that specifically undermines the public interest may be especially at odds with PSM. Our findings also suggest that caution is warranted when utilizing behavioral measures of dishonesty as a proxy for willingness to engage in corruption. A third contribution of our study is to demonstrate that the hypothesized relationships between PSM and ethical conduct are robust both among subjects aspiring to become public officials and among subjects aiming to pursue private sector careers.
Finally, by integrating Russia and Ukraine into the study of PSM and ethical conduct, which to date has focused nearly exclusively on North America and Western Europe, our analyses facilitate evaluation of whether hypotheses generated in the Western context travel to notably different institutional contexts. In accordance with the distinctions we develop above between theories that presume PSM to operate at a national institutional level and theories that presume PSM to operate at an individual psychological level, we find that the correlations between PSM and ethical or unethical conduct in the post-Soviet region are strikingly similar to those identified in earlier studies conducted in Western settings, despite the region exhibiting bureaucratic traditions at odds with PSM, unsettled norms regarding concepts such as the “public good,” and high levels of corruption. As predicted in Hypotheses 1 and 3, individuals with higher PSM in our study are less willing to engage in corruption and more likely to display altruistic behavior. With this in mind, one issue our study leaves unresolved is the relationship between PSM and dishonesty, for our finding of a weak association between PSM and dishonesty in Russia and Ukraine contrasts with Olsen et al.’s (2019) findings in the Danish setting. While a fruitful topic for future research would be to systematically rule out the possibility that the different national contexts of these studies accounts for divergent findings, we have presented sound theoretical reasons throughout this study to expect the relationship between PSM and dishonesty to be weaker than the relationship between PSM and corruption. Moreover, not only are our findings in line with those of Christensen & Wright (2018), as noted in the Theory section, but also with those of our pilot study conducted in the United States (see Section G of the Online Appendix). Together, these results suggest that Olsen et al.’s (2019) findings may be the outlier.

While our use of experimental games marks a contribution to the existing literature, an important question concerns the extent to which our findings generalize beyond an experimental setting. As discussed in the Research Design section, extensive evidence indicates that subjects’
choices in experimental games are highly correlated with real-world behavior, making indicators derived from experimental games a valuable tool for the study of difficult-to-observe phenomena such as corruption and dishonesty. But other forms of external validity must also be considered and may present potential limitations to our study. While we were able to randomly sample students at the Ukrainian site, drawing probability samples was infeasible at the two Russian sites. Strictly speaking, we cannot rule out the possibility that students in our study differ systematically from their peers who did not participate. Note, however, that our results do not depend on levels of bribing, cheating, or altruistic behavior, but on the correlation between these behavioral traits and PSM.\footnote{See Section D of the Online Appendix for further discussion of the representativeness of our samples.} It is therefore unlikely that our findings simply are an artifact of sampling.

A broader question of external validity concerns our use of student samples. Though the existing evidence indicates that findings based on experiments with student samples often do in fact generalize to other populations (Druckman & Kam 2011; Exadaktylos et al. 2013), the more pressing question is the extent to which our findings are relevant to the concerns of scholars and practitioners of Public Administration. To this end, we emphasize that our samples are comprised of a significant number of students from Public Administration and Public Law programs, and that a significant proportion of our subjects – both in these and other programs – aspire to public sector careers. The follow-up study we conducted at the Moscow site confirms that sectoral career preferences predict post-graduation employment. More broadly, the Moscow site is a prestigious institution whose alumni are well represented in influential government posts, including – as of July 2018 when we were concluding our study – two current ministers and three deputy ministers. Similarly, the Ukrainian legal academy where we conducted research is a prominent training ground for future judges, prosecutors, and investigators. Approximately 10 percent of judges in the district
courts of Ukraine’s capital city, Kyiv, and the city in which this university is based – two of Ukraine’s largest cities – are alumni, and the university has formalized internship programs with the Office of the Prosecutor General of Ukraine and with the recently created National Police.\(^\text{38}\)

Future research nevertheless undoubtedly would benefit from finding ways to analyze the relationships between PSM and unethical behaviors in a non-laboratory context and in non-student samples. Hanna & Wang (2017), for example, validate the dice task game by comparing public employees’ cheating in the laboratory with administrative data on the same employees’ fraudulent absenteeism, the claiming of a paycheck for time not worked. Building on this approach, future studies could collect measures of PSM for samples of subjects for whom such administrative data exists, facilitating analysis of PSM’s associations with real-world unethical behavior.

Our study also makes no claims regarding PSM’s causal impact, only that individuals with high PSM levels are also more likely to engage in ethical behavior and avoid unethical conduct. Moreover, while the robustness of our findings to the inclusion of an extensive set of control variables should mitigate concerns about some forms of endogeneity, our research design cannot account for potentially confounding factors as rigorously as designs that experimentally manipulate explanatory variables. Future experimental work priming individuals in ways known to increase PSM levels, in line with Meyer-Sahling et al. (2019) and Christensen & Wright (2018), may be able to offer insights into whether managers can purposefully activate PSM in socially beneficial ways.

For now, what is clear is that individuals with high PSM are less willing to engage in unethical behavior, particularly behavior such as corruption that undermines the public interest, and more likely to engage in ethical behavior such altruistic charitable donations. These associations hold true not only in Western contexts but also in the starkly different context of the post-Soviet region.

\(^{38}\) Authors’ calculations based on court websites and publicly available government archives.
References


