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Rule Orientation and Behavior: Development and Validation of a Scale Measuring Individual Acceptance of Rule Violation

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There is individual variation in the extent to which individuals believe it is acceptable to violate legal rules. However, we lack a specific measure that assesses this key internal element of legal decision-making and offending. This article describes the development, validation, and testing of the Rule Orientation scale. At its core, the construct captures the extent to which one thinks about rules in a rigid, rule-oriented manner or in a manner that recognizes exceptions. In the first study, we develop the Rule Orientation scale, demonstrate its convergent and divergent validity with key legal and moral reasoning scales, and find that Rule Orientation relates to hypothetical offending behavior across a variety of low-level crimes. In the second study, we examine whether Rule Orientation predicts the propensity to engage in digital piracy both with and without the explicit threat of punishment. The results indicate that Rule Orientation plays a crucial role in predicting offending behavior and, importantly, does so across enforcement contexts. The findings suggest that an individual with low Rule Orientation may be able to justify offending regardless of whether a system explicitly declares an enforcement campaign, regardless of how the individual perceives the severity of the threatened sanction, and regardless of whether the individual believes social norms support law violation. In understanding ethical decision-making, criminal decision-making, and other strands of legal decision-making, identifying such individual variation is crucial.

Keywords: deterrence, compliance, enforcement, rule orientation

Individuals vary in the extent to which they believe it is acceptable to break the law. Some people believe that under some conditions, it is acceptable to violate legal rules. For instance, one may believe it acceptable to break the rules if the rules have not been made public, if they are not enforced, or if others clearly

violate the rules. Other people may see fewer or even no conditions under which it is acceptable to break the rules. Such people may continue to comply with a particular legal rule even if, for instance, the law is not enforced, is widely violated, or is at odds with their own morals. People may thus vary in their rule orientation, or their personal inclination to see conditions under which violating rules is acceptable. People with a high level of rule orientation will have a more rigid view, seeing fewer conditions under which it is generally acceptable to violate rules. People with low rule orientation will have a more flexible view, seeing more conditions under which it is acceptable to violate rules. In essence, there is likely variation in rule orientation that indicates how much individuals perceive general, acceptable circumstances for violating the law.

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When the construct was called Rule Conditionality, the factor analysis was presented at a Socio-Legal Studies Workshop at the University of California, Irvine School of Law and was submitted through the Social Science Research Network to be presented at the 2015 Conference on Empirical Legal Studies, though the submission was rejected for presentation from the conference and was promptly removed from the SSRN submission portal. Both of these submissions utilized only the first of the two studies presented in the current manuscript and used the previous name of the construct (i.e., Rule Conditionality, which was reverse scored, in place of Rule Orientation).

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Variation in rule orientation likely affects one's own propensity to break the rules. People who are more rule oriented are likely to be more compliant for a variety of reasons. For instance, they will not break rules because they see fewer exceptions to one's general duty to obey the law. Rule orientation is thus related to Tyler's perceived obligation to obey the law (POOL; Tyler, 1997, 2006). According to Tyler, individuals vary in their perceptions of a general duty to obey the law. Those who perceive a greater duty are more likely to comply with the law and its enforcers' directives (Tyler, 1997). Rule orientation and the general duty to obey the law should be related. Individuals who are less rule oriented would perceive more circumstances under which breaking the law is acceptable, and should be less likely to feel obliged to obey the law and the directives of authorities. On the

other hand, people who are more rule oriented would perceive fewer acceptable circumstances to violate the law or directives of authorities. Rule orientation is distinct from POOL because it assesses how willingly individuals justify illegal behavior in general. In addition, whereas Tyler sees POOL as largely arising out of the legal system's legitimacy, procedural justice, and institutional environment (Tyler, 2006), rule orientation is not necessarily tied to, nor is it necessarily derived from, one's experiences with the justice system. For example, one is not expected to be more or less rule oriented based solely on one's perceptions of how the laws were created, whether they are enacted fairly, or how one perceives the legitimacy of the legal system and its actors. For some individuals, these factors may not contribute to rule orientation as much as other factors, such as whether other individuals are clearly violating the rules. As such, a higher duty to obey the law will likely coincide with more rule orientation, but as the duty to obey the law is a single facet contributing to one's rule orientation, the two constructs are distinct.

Rule orientation and its relation to one's own rule violation fits well within a broader set of measures developed in criminology, psychology, and ethics. Indeed, to find the general circumstances under which individuals would accept rule violation, we reviewed several distinct bodies of literature on compliance behavior to examine the most salient conditions under which violations of the law occur. First, from the neutralization literature, we see that people vary in their ability to justify behavior through neutralizing their shame or guilt (Maruna & Copes, 2005; Minor, 1981; Piquero, Tibbetts, & Blankenship, 2005; Shields & Whitehall, 1994; Sykes & Matza, 1957). According to neutralization theory, individuals use neutralization techniques (e.g., denial of injury, denial of responsibility, denial of the victim, and condemning the condemner) to justify particular criminal acts. That is, after committing a crime (e.g., bank fraud), an individual might use a denial of injury (e.g., thinking the amount of money stolen was small and as such would do little harm to the multi-billion-dollar bank) to justify the act post hoc. Whereas neutralization theory seeks to understand the techniques that those who have committed crimes use to justify the particular crimes they committed, rule orientation assesses the extent to which ordinary people see general circumstances that legitimize breaking legal rules. Despite this difference, it is expected that a lower level of rule orientation would more likely enable people to engage more in neutralization techniques. People with lower rule orientation are likely better able to neutralize their rule-breaking behavior, whereas people who are more oriented to the rules may be worse at neutralizing their rule-breaking behavior.

Rule orientation is also related to work on morals and rule-violating behavior. From the moral flexibility capacity literature, we see that those with more flexible world views perceive immoral behaviors as legitimate (Shalvi, Dana, Handgraaf, & De Dreu, 2011; Shalvi, Gino, Barkan, & Ayal, 2015; Shalvi & Leiser, 2013). People vary in their moral judgments about immoral behavior, with some firmer than others (Shalvi et al., 2011; Shalvi et al., 2015; Shalvi & Leiser, 2013). Holding a firm moral view means thinking of behavior as a dichotomy of either moral or immoral. Those with a less firm moral view perceive immoral behavior as varying on a continuum from immoral to moral (see Schweitzer & Hsee, 2002). Less morally firm people are more able to utilize moral justifications that enable them to feel honest despite engaging in immoral behavior. The more an individual is able to char-

acterize an immoral behavior as being morally acceptable, the more likely that individual is to engage in that behavior (Bersoff, 1999). Moral firmness affects people's own moral decision-making processes and their propensity to behave morally. Rather than assess a world view or moral views about immoral behavior, rule orientation is intended to capture one's orientation to rules.

Individuals, however, do not just vary to the extent to which they see immoral behavior as black or white or in shades of gray, but also to the extent to which they actually engage with morally questionable behavior in the first place. The study of moral disengagement has shown that individuals vary in the extent to which they are able to inhibit moral self-regulatory processes (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001). Similar to moral firmness, the more one utilizes moral disengagement mechanisms, through inhibiting the self-regulatory process and the subsequent cognitive distress, the more likely one is to engage in immoral behavior. A large body of research indicates a clear connection between moral disengagement and antisocial behaviors (Hyde, Shaw, & Moilanen, 2010) ranging from fraud and immoral behavior in the workplace (Moore, Detert, Klebe Treviño, Baker, & Mayer, 2012) to aggression and violence (Gini, Pozzoli, & Hymel, 2014). Both moral firmness and moral disengagement show that there is individual variation in how people view the morality of immoral behavior. Both concepts are directly relevant for the study of legal decision making (Epstein & Knight, 1997; Feldman, 2014; Gillman, 2001; Segal & Spaeth, 2002), such that individuals with a less firm or more disengaged moral mindset are likely to judge illegal behavior in a different way from those with firmer or less disengaged mindsets. Such moral variation is clearly vital for illegal decision making and predicting which individuals are more likely to break legal rules. In line with the general, individual-level moral variation in moral disengagement and moral firmness, rule orientation captures individual variation in perspectives in the legal realm.

Rule orientation is a new theoretical development that is related to key elements of distinct constructs in separate literatures. It provides an integrated measure that extends these lines of thinking specifically to legal decision making. A key component of rule orientation is acknowledging that individuals vary in the extent to which they perceive acceptable circumstances for violating legal rules. To identify a variety of these circumstances, we reviewed a broad body of social and behavioral science literatures on compliance behavior. From these literatures, we identified five types of such circumstances (also see Feldman, 2011): (a) the lack of knowledge of the law (e.g., see May, 2004, 2005a, 2005b; Nielsen & Parker, 2012; Vandenbergh, 2003; Winter & May, 2001), (b) when the amoral calculation of benefits minus costs (i.e., a *cost-benefit analysis*) of violation are higher than those of compliance (e.g., Becker, 1968; Ehrlich, 1972; Thornton, Gunningham, & Kagan, 2005), (c) when there are social norms in terms of most others breaking the law or when others think it is acceptable to break the law (e.g., Cialdini, 2007; Cialdini & Trost, 1998; Feldman & Harel, 2008; Keizer, Lindenberg, & Steg, 2008; Tyran & Feld, 2006), (d) when laws go against personal morals (e.g., Grasmick & Green, 1980; Kornhauser, 2003; Paternoster & Simpson, 1993; Tyler, 2006), and (e) when there is a lack of procedural justice in lawmaking and law enforcement (e.g., Sunshine & Tyler, 2003; Tyler, 1990; Tyler, 2006; Tyler & Darley, 1999). From these

circumstances, we developed the first measure, which we call Rule Orientation, that assesses how people vary in terms of their rule orientation.

The present article describes the first two empirical studies of the Rule Orientation scale. In the first study, we describe the initial validation of the scale to establish whether it measures variation in how people accept justifications for illegal behavior. We systematically compare Rule Orientation with key legal and moral reasoning scales to establish the scale's convergent and discriminant validity. We examine whether the concept predicts people's intention to break the law, over and above existing constructs. First, because deterrence threats have been linked to behavior (see Fellner, Sausgruber, & Traxler, 2013; Nagin, 2013), we examine the effect of Rule Orientation above and beyond the effect of a deterrent threat on behavior. It is expected that even after accounting for the effect of the deterrent threat on behavior, Rule Orientation will be associated with the propensity to engage in crime. More important, however, because correlations between deterrent threats and individual threat perceptions are generally weak (see Apel, 2013) and that one's subjective perception of the threat of legal punishment is an important correlate of behavior (see Apel, 2013; Lochner, 2007), we also include subjective perceptions of punishment severity. Examining whether Rule Orientation maintains predictive utility above and beyond the effect of subjective deterrence is important. Finally, because perceptions of social norms have been linked to behavior even after accounting for the perceived threat of legal punishment (see Cialdini, 2007; Grasmick & Green, 1980) and the regulatory actions of an enforcer (Böckenholt & van der Heijden, 2007), as well as across types of behaviors (see Balvig & Holmberg, 2011; Colgate & Ginns, 2015; Goldstein, Cialdini, & Griskevicius, 2008; Sandmo, 2005), we also include an indicator of subjective social norms. Each of these constructs has previously been associated with illegal behavior; thus, it is essential to determine whether Rule Orientation would be associated with the propensity to break the law above and beyond these existing correlates.

The second study has two additional aims. First, it uses a sample of individuals who regularly use the Internet to make a proportion of their incomes to examine whether Rule Orientation is related to offending behavior across a variety of digital offending scenarios. Second, it examines whether the effect of Rule Orientation, versus the effect of other key moral and legal decision-making measures, on the propensity to engage in hypothetical behavior is moderated by enforcement context. It does so using two commonly occurring types of digital piracy.

Study 1

In the first study, we describe the initial validation of the Rule Orientation scale. It systematically compares Rule Orientation with key legal and moral reasoning scales to establish the scale's convergent and discriminant validity. Through a broad scope of relevant literature, we selected an array of well-established measures that assess key elements of moral and legal reasoning. We selected the following scales and concepts: Perceived Obligation to Obey the Law (Tyler, 2006), General Neutralization Acceptance (Esbensen & Osgood, 1999), Attitudes toward the Criminal Legal System (Cohn, Bucolo, Rebellon, & Van Gundy, 2010; Martin & Cohn, 2004), and Justice System Legitimacy (Tyler, 1997; Tyler &

Huo, 2002). General Justice System Procedural Justice (Penner, Viljoen, Douglas, & Roesch, 2014), Dogmatism (Trohdall & Powell, 1965), Mechanisms of Moral Disengagement (Moore et al., 2012), and Moral Reasoning Scale (Cohn et al., 2010). We expect Rule Orientation to converge with all of these moral and legal reasoning measures, with the exception of the measures of procedural justice and justice system legitimacy for the reasons previously discussed.

In the second set of analyses, we examine how Rule Orientation predicts the propensity to engage in crime across a variety of low-level offenses. A dichotomous indicator of an enforcement threat as well as subjective perceptions of perceived punishment severity and of social norms for law violation are also accounted for in the models to examine whether Rule Orientation relates to behavior above and beyond these previously established key factors.

Method

Participants. Participants were recruited through Amazon Mechanical Turk (Mason & Suri, 2012), which provides an online forum to access individuals interested in completing tasks such as surveys and questionnaires for a nominal fee. To reach our consent page, participants were required to be United States citizens over the age of 18 years. Of the 134 participants who started the study, 128 completed the study. The final sample consisted of 128 adults in the United States, ages ranging from 19 to 69 years ($M = 35.4$, $SD = 12.7$). The sample was approximately evenly split between men (53.9%) and women (46.1%). The sample self-identified as majority White (69.5%), followed by Asian (10.2%), Hispanic or Latino (7.8%), Black (4.7%), and other race (7.8%). Race was dichotomized into White versus non-White because there were too few participants of other pan-racial categories to analyze separately. Approximately 13.3% lived in a household earning more than \$100,000 per year, 12.5% between \$75,000-\$100,000, 15.6% between \$50,000-\$75,000, 17.9% between \$35,000-\$50,000, 15.6% between \$25,000-\$35,000, 14.8% between \$15,000-\$25,000, and 10.2% less than \$15,000. After providing consent, participants were presented with all legal and moral reasoning scales and the hypothetical online offending vignettes. Presentation order of the scales and the vignettes was randomized.

Measures.

Rule Orientation. To assess Rule Orientation, we developed 12 questions that allow respondents to indicate the extent to which they perceive acceptable conditions for breaking the law in general (for items, see Table 1). Participants were asked to indicate the extent to which they agreed or disagreed with each statement. Each item began with the text, "It is acceptable to break a legal rule if" (e.g., "It is acceptable to break a legal rule if the legal rule is clearly against your moral principles"). Answer choices were given on a 7-point Likert scale ranging from *strongly agree* to *strongly disagree*. All interitem correlations were positive, ranging from .271 to .826, and all were significant at the $p < .001$ level. Rule Orientation was calculated as the mean of the 12 items ($M = 4.49$, $SD = 1.26$). Items were reverse-scored such that higher scores would indicate more Rule Orientation, such that an individual who scores high on the Rule Orientation scale accepts a *smaller* variety of possible justifications for violating laws. Results of a Shapiro-Wilk test indicate that the distribution of scores did

Table 1
12-Item Factor Loadings for Two-Factor Solution With Varimax Rotation

Rule Orientation item	Factor loading	
	1	2
The legal rule is clearly against your moral principles	.644	
This legal rule makes unreasonable demands of you	.765	
Obedying this legal rule is very expensive for you	.778	
This legal rule is not enforced	.791	
Most of your direct colleagues/friends also break this legal rule	.806	
You are in one way or another unable to do what this legal rule asks of you	.716	
Most of your direct colleagues and/or friends think breaking the legal rule is justified	.804	
You do not know this legal rule	.702	.409
You do not understand this legal rule	.754	.464
This legal rule has not been published	.593	.565
You feel that this legal rule was made without representing your interests	.871	
You think this legal rule is enforced unfairly	.829	

Note. Factor loadings < .4 are omitted. Participants were asked to indicate the extent to which they agreed or disagreed with each statement. Each item began with the text, "It is acceptable to break a legal rule if."

not differ from a normal distribution ($p = .200$). A reliability analysis suggested Rule Orientation had high internal consistency ($\alpha = .928$).

Perceived obligation to obey the law. We measured the perceived obligation to obey the law using Tyler's 6-item scale (POOL; Tyler, 2006, p. 46). Participants were asked to rate their agreement with each statement (e.g., "I always try to obey the law even if I think that it is wrong") on a 4-point scale ranging from *strongly disagree*-*strongly agree*. We calculated the POOL index to be the mean of the six items ($M = 2.72, SD = .65$), with a higher score indicating a higher perceived obligation to obey the law. A reliability analysis suggested POOL had high internal consistency ($\alpha = .841$).

General neutralization acceptance. We used the measure of neutralization acceptance from Esbensen and Osgood (1999) that captures the respondents' agreement with reasons for engaging in some forms of delinquent behavior (see also Topalli, Higgins, & Copes, 2014). Using a 5-point scale ranging from *strongly disagree*-*strongly agree*, respondents were asked how much they agreed with nine statements (e.g., "It is okay to lie if it doesn't hurt anyone"). To determine a participant's neutralization acceptance score, responses on these items were summed. Higher scores on this scale indicated greater neutralization acceptance ($M = 15.4, SD = 3.59$). A reliability analysis suggested the scale had moderate internal consistency ($\alpha = .681$).

Attitudes toward the criminal legal system. The 24-item Attitudes toward the Criminal Legal System Scale (ATCLS) from Martin and Cohn (2004) was used to assess positive attitude toward the legal system (see also Cohn, Bucolo, Rebellon, & Van Gundy, 2010). Participants were asked to rate their level of agreement on a 5-point Likert scale from *strongly disagree* to *strongly agree* with a series of statements (e.g., "Most of our laws are effective at protecting people," or "Our current system of punish-

ment is effective at preventing crime"). A mean index was created such that higher scores indicated more positive attitudes toward the legal system ($M = 2.98, SD = .67$). A reliability analysis suggested ATCLS had high internal consistency ($\alpha = .930$).

Justice system legitimacy. The measure of legitimacy followed from the measure used by Tyler (Legitimacy; Tyler, 1997; Tyler & Huo, 2002). Respondents indicated, on a 5-point scale ranging from *strongly disagree* to *strongly agree*, their agreement with 11 statements about the justice system and its actors (e.g., "I have a great deal of respect for the police," "The basic rights of citizens are protected in the courts.") Higher values indicated higher levels of perceived legitimacy of the law ($M = 2.62, SD = .63$). A reliability analysis suggested the scale had high internal consistency ($\alpha = .889$).

General justice system procedural justice. Based upon Tyler's (2000) theoretical conceptualization of the aspects of procedural justice, the Procedural Justice Scale (Penner et al., 2014) was developed to analyze one's personal experience of procedural fairness within the justice system (GJSPJ). The original scale consisted of 20 opinion items rated on a 4-point Likert scale (*strongly disagree* to *strongly agree*). Considering the present study did not sample offenders, for the purposes of this study, the items were modified to reflect general perceptions of what occurs within the justice system, rather than personal experiences within the system. For example, the item "In my general understanding of the justice system . . . I was given the chance to express my opinions and feelings" was modified into "In my general understanding of the justice system . . . Individuals are given the chance to express their opinions and feelings." The mean of the 20 items was then taken, with higher scores indicating higher perceptions of procedural justice ($M = 2.62, SD = .55$). The internal reliability of this modified scale was high ($\alpha = .937$).

Dogmatism. Trohdall and Powell (1965) developed Rokeach's (1960) original 40-item dogmatism scale into a 10-item scale so that it could be included in shorter surveys. The scale assesses the extent to which individuals question the existing authority (i.e., low dogmatic) or tend to accept, noncritically, value-judgments of authority figures (i.e., high dogmatic; see Steffensmeier, 1974). Using a 5-point Likert scale (*strongly disagree* to *strongly agree*), respondents rated their agreement with 10 statements (e.g., "In this complicated world of ours, the only way we can know what's going on is to rely on leaders or experts who can be trusted"). A mean score was then taken, with higher scores indicating more dogmatism ($M = 2.84, SD = .75$). The internal reliability of the scale was high ($\alpha = .842$).

Mechanisms of moral disengagement. Derived from Bandura's work (e.g., Bandura, 1999; Bandura et al., 1996, 2001), Moore and colleagues (2012) created an 8-item unidimensional measure of the general propensity to morally disengage (MMD). Using a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*, participants rated their agreement with each statement (e.g., "People shouldn't be held accountable for doing questionable things when they were just doing what an authority figure told them to do", or "People who get mistreated have usually done something to bring it themselves"). A mean score was created, with higher values indicating more moral disengagement ($M = 2.46, SD = 1.29$). The internal reliability of this scale was high ($\alpha = .908$).

Moral reasoning scale. We used an 8-item personal morality subscale derived from the work of Shelton and McAdams (1990) and Cohn and colleagues (2010). The Moral Reasoning Scale (MRS) assesses prosocial moral behavior in the everyday human experience. The scale asks participants to rate the likelihood that they would perform eight different prosocial acts (e.g., donate money found on the street to a local charity). Participants rated these scenarios on a 5-point Likert Scale ranging from *definitely would not do* to *definitely would do*. Considering a workplace may be more appropriate than a school setting for adults, several of the items were modified to reflect the workplace rather than a school. For example, the item “The **school** I attend needs . . .” was modified into “The **company** I work for needs. . .” Similar to Cohn and colleagues, we dropped one item (“helping a person whose car is stuck in the snow”) from the scale because it had a low component loading (less than .45). A reliability analysis indicated that as in Cohn and colleagues (2010), the 7-item modified scale was internally reliable ($\alpha = .878$). We calculated the average response across the seven items included in our scale ($M = 2.66$, $SD = 1.42$). Higher scores indicate more advanced moral reasoning and an increased likelihood of performing prosocial acts.

Propensity to engage in offending. Four hypothetical offending scenarios were created based on van Gelder and de Vries (2014). Each scenario described a different hypothetical offending situation. Respondents were asked to imagine that they were in the described situation. To optimize ecological validity, an attempt was made to design scenarios that described relatively common, low-level hypothetical offending situations. To optimize external validity, four scenarios were used and were presented in a random order (see Appendix for vignettes).

The dependent variable, hypothetical offending, was measured with one item per vignette. The item asked about the likelihood that the respondent would choose the criminal option (e.g., “Would you download the program?”). Responses were scored using a 5-point scale ranging from *very unlikely* to *very likely*. Following the procedure of van Gelder and de Vries (2014), we aggregated the responses on all scenarios to arrive at more reliable and both externally and ecologically valid measures. Aggregating the responses across multiple scenarios also reduces error variance and ensures a more valid estimate of the typical response to a potentially criminal situation. A composite hypothetical offending measure was created by mean scoring the offending variable across the four vignettes. On a scale of 1–5, the mean score of offending across scenarios within the deterrence context was 2.20, $SD = 0.94$, $\alpha = .733$, and the mean score of offending across scenarios within the nondeterrence context was 2.95, $SD = 1.11$, $\alpha = .771$. The moderate reliability within each deterrence context is expected considering that the offending scenarios cover a variety of low-level offenses. The variables were then combined. The final offending variable had a mean of 2.58, $SD = 1.07$, and was not significantly skewed (.087, $SE = .149$).

Although individuals’ responses to hypothetical dilemmas often exhibit higher levels of moral reasoning than are used in real-world versions of the same situations (Arsenio & Ford, 1985), responses to hypothetical decision-making situations are often used to index judgment and reasoning. Furthermore, previous work using similarly structured hypothetical vignettes has supported the validity of such instruments in studies of adolescent development and behavior

(Brown, Clasen, & Eicher, 1986; Steinberg & Silverberg, 1986). For example, adolescents who endorse antisocial responses to hypothetical dilemmas are in fact more likely to commit delinquent acts and to use illegal substances (Brown et al., 1986; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Lamborn & Steinberg, 1993). Such hypothetical vignette scenarios have become increasingly common in the criminological literature (see Ajzen, 1991; Exum & Bouffard, 2010).

Explicit deterrence message. Approximately half of the participants (49%) were randomly assigned to receive a deterrence message at the conclusion of every hypothetical offending scenario (see Appendix for materials). The deterrence messages were designed to provide a scenario in which the probability of being caught and probability of being punished are high. Participants were selected at random to receive the deterrence messages, and analyses confirmed that presentation did not differ by participants’ scores on any moral or legal reasoning measure, age, gender, or race/ethnicity.

Key covariates. Considering the perceived threat of legal punishment is an important correlate of behavior (see Apel, 2013; Lochner, 2007), one question assessing perceptions of punishment severity was included at the conclusion of each vignette. A composite measure of the punishment severity was created by aggregating responses to the same question that followed each scenario (e.g., “If you were caught for [the crime], how severe would you estimate the impact to be on you?”). Responses were scored using a 5-point scale ranging from *not at all serious* to *very serious*, and the final variable was a mean across the vignettes, $M = 3.16$, $SD = .05$, $\alpha = .745$. However, even after accounting for the perceived threat of legal punishment, perceptions of social disapproval are important correlates of behavior (see Cialdini, 2007; Grasmick & Green, 1980). Thus, one question assessing perceptions of descriptive social norms (Cialdini, 2007) was included at the conclusion of each vignette (e.g., “Do you think most other people like you would download the program?”). Responses were scored using a 5-point scale ranging from *very unlikely* to *very likely*, and a composite measure of descriptive norms was created by aggregating and mean-scoring responses to the same question that followed each scenario, $M = 3.45$, $SD = 1.85$, $\alpha = .888$. Higher scores indicate that participants perceive that the offense is more socially normative.

Plan of analysis.

Convergent and discriminant validity. The first purpose of this study was to create a self-report assessment that examines the construct of Rule Orientation. Psychometric analyses were conducted on the 12 Likert-type items. No outliers were detected for the Likert-type scale items and no excessive skewness or kurtosis was present for any individual items. To explore construct validity, we performed a principal component analysis with varimax rotation with Kaiser normalization hypothesizing that any identified factors would be correlated. As recommended by Clark and Watson (1995), this was followed by a scree plot (Floyd & Widaman, 1995) before reliability analyses. To explore the single factor solution, nonrotated factor loadings were inspected. Item-total correlations were also examined from the scale. Cronbach’s α was calculated as an indicator of internal consistency. To assess for convergent and divergent validity, Pearson bivariate correlations were conducted with Rule Orientation Perceived Obligation to Obey the Law (POOL), General Neutralization Acceptance

(GNA), Attitudes toward the Criminal Legal System (ATCLS), Justice System Legitimacy (Legitimacy), General Justice System Procedural Justice (GJSPJ), Dogmatism, Mechanisms of Moral Disengagement (MMD), and the Moral Reasoning Scale (MRS). To explore demographic differences in Rule Orientation, *t* tests and analyses of variance (ANOVAs) were conducted.

Utility for predicting offending behavior. The article’s second aim was to examine how Rule Orientation, as compared with key moral and legal decision-making measures, related to offending across enforcement contexts. It did so across a series of hypothetical offending vignettes. These vignettes enabled us to examine how Rule Orientation relates to behavior above and beyond the effect of a deterrence threat. The use of a variety of hypothetical offending vignettes enabled us to examine whether Rule Orientation is related to offending behavior across a variety of offending scenarios, such that the relation between Rule Orientation and behavior was not exclusive to a particular offense; rather it was indicative of probability of offending across a variety of low-level, common offenses. To examine hypothetical offending and to compare predictive utility for Rule Orientation versus other key legal and moral decision-making measures, a series of OLS regressions were conducted including a dichotomous indicator of explicit deterrence.

Results

The first set of analyses examined construct validity and a principal component analysis of Rule Orientation. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy value (.901) was close to 1, indicating an adequate sample size. The Bartlett’s Test of Sphericity was significant ($p < .001$), suggesting the correlation matrix was not an identity matrix. Principal component analysis with oblique rotation with the 12 Rule Orientation items revealed two eigenvalues above the 1.0 threshold (Factor 1 = 6.865, Factor 2 = 1.193) accounting for 57.21% and 67.15% of cumulative variance (see Table 1). Inspection of the single factor solution provided better interpretability and utility of the Rule Orientation construct. For the single factor solution, all items had factor loadings between .521 and .868; thus, no items were dropped from the scale (see Table 2). The 12-item scale with one factor was therefore conceptualized as the Rule Orientation scale.

Table 2 presents the item means, SDs, factor loadings, and item-total correlations. Item-total correlations for the 12 items ranged from $r = .513$ to $r = .822$. A reliability analysis suggests the Rule Orientation scale had excellent internal consistency (Cronbach’s $\alpha = .928$), and as seen in Table 2, the removal of any item would have resulted in only a small change in internal consistency.

The Rule Orientation scale was correlated with age, such that older adults report more orientation to rules than younger adults, $r = .234$, $p = .011$. This is expected, considering age was also related to the perceived obligation to obey the law both here, $r = .340$, $p < .001$ and in previous work (Tyler, 1990). Amount of Rule Orientation did not differ by gender ($p = .592$) or race ($p = .213$), and was unrelated to household income ($p = .562$). Table 3 presents the bivariate correlations between the Rule Orientation scale and POOL, GNA, ACLS, JSL, GJSPJ, Dogmatism, MMD, and MRS. As expected, Rule Orientation demonstrated convergent validity with hypothesized measures, such that individuals who were more rule oriented perceived a greater obligation to obey the law, less neutralization, better attitudes toward the criminal legal system, more justice system legitimacy, and less moral disengagement. Rule Orientation was only slightly related to procedural justice, indicating that Rule Orientation is largely distinct from one’s perceptions of procedural fairness within the justice system. Finally, Rule Orientation was unrelated to everyday prosocial moral reasoning. This is likely because Rule Orientation is not likely to be related to performing prosocial acts in general. These results indicate that the Rule Orientation scale demonstrates adequate convergent and divergent validity with key legal and moral reasoning scales as expected. However, correlations are not so high as to indicate that Rule Orientation is not a distinct construct from any particular measure.

Predicting hypothetical offending in an explicit deterrence context. To analyze how Rule Orientation was related to hypothetical offending, how its predictive utility of offending compares with established key legal and moral decision-making measures, and whether its predictive utility remains after accounting for perceived punishment severity and perceived social norms, a series of stepwise regressions were run. Considering only Rule Orientation, POOL, Neutralization, Dogmatism, and MMD were related

Table 2
12-Item Factor Loadings for One-Factor Solution, Varimax Rotation With Kaiser Normalization

Item	Mean	SD	Factor loading	Corrected item-total correlation	Cronbach’s α if item deleted
The legal rule is clearly against your moral principles	4.31	1.61	.604	.579	.927
This legal rule makes unreasonable demands of you	3.82	1.70	.737	.715	.922
Obeying this legal rule is very expensive for you	5.10	1.58	.755	.711	.922
This legal rule is not enforced	4.57	1.71	.769	.738	.921
Most of your direct colleagues and/or friends also break this legal rule	5.50	1.50	.788	.743	.921
You are in one way or another unable to do what this legal rule asks of you	3.63	1.68	.682	.668	.923
Most of your direct colleagues and/or friends think breaking the legal rule is justified	5.41	1.46	.786	.741	.921
You do not know this legal rule	4.06	1.83	.665	.652	.924
You do not understand this legal rule	4.66	1.57	.724	.714	.922
This legal rule has not been published	3.51	1.93	.521	.513	.931
You feel that this legal rule was made without representing your interests	4.97	1.71	.868	.822	.917
You think this legal rule is enforced unfairly.	4.34	1.81	.815	.780	.919

Table 3

Bivariate Correlations Between Offending, Rule Orientation, Perceived Obligation to Obey the Law (POOL), Neutralization, Attitudes Towards the Criminal Legal System (ATCLS), Justice System Legitimacy (Legitimacy), General Justice System Procedural Justice (GJSPJ), Dogmatism, Mechanisms of Moral Disengagement (MMD), and Moral Reasoning Scale (MRS)

Construct	1	2	3	4	5	6	7	8	9
Offending (1)	1.00								
Rule Orientation (2)	-.59***	1.00							
POOL (3)	-.25**	.34***	1.00						
Neutralization (4)	.15*	-.13	-.33***	1.00					
ATCLS (5)	-.07	.29*	.15	.25**	1.00				
Legitimacy (6)	-.10	.22*	.56***	-.13	.31***	1.00			
GJSPJ (7)	.02	.11	.45***	.04	.33***	.82***	1.00		
Dogmatism (8)	.29*	-.32***	.20*	-.12	-.41***	.30***	.32***	1.00	
MMD (9)	.55***	-.66***	.03	.04	-.39***	.31***	.33***	.60***	1.00
MRS (10)	.05	.09	.11	-.06	-.14	.07	.04	.08	-.03

* $p < .05$. ** $p < .01$. *** $p < .001$.

to offending in the bivariate correlations (see Table 3), ATCLS, Legitimacy, GJSPJ, and MRS were not included in regression analyses. In the first step, only the control variables, including gender (dichotomized), age, race (dichotomized White vs. non-White), household income, perceived punishment severity, perceived social norms, and a dichotomous indicator of the deterrence context were entered into the model (see Table 4). Results indicate that age, punishment severity, social norms, and the deterrence context were each related to offending, such that younger individuals, individuals who perceived less punishment severity, more social norms supporting offending, and those who did not receive the deterrence message engage in more offending. Gender, race, and household income were unrelated to offending. Rule Orientation was added to Step 2. Results indicate that Rule Orientation was associated with offending ($\beta = -.383, p < .001$), such that individuals who are less oriented to rules engage in more offending. The percentage of explained variance in offending significantly increased ($F = 33.04, p < .001$) from 49.8 to 62.1%. POOL, Neutralization, Dogmatism, and MMD were each added individually to identify which of these other key measures uniquely predicted the propensity to offend. Results indicated that Perceived Obligation to Obey the Law ($\beta = -.138, p = .056$) and Neutralization ($\beta = .100, p = .155$) were not related to the propensity to offend. Both Dogmatism ($\beta = .204, p = .005$) and MMD ($\beta = .386, p < .001$) were both related to offending. As a result, only Dogmatism, MMD, and Rule Orientation were included in the next set of models.

The next set of models specifically examined the effects of each key measure on the propensity to offend, independent of the effects of other key indicators (see Table 5). In the next model, both Rule Orientation and Dogmatism were included simultaneously in the model. Results indicated that Rule Orientation ($\beta = -.353, p < .001$) but not Dogmatism ($\beta = .112, p = .091$) was related to offending. In the final model, Rule Orientation and MMD were included simultaneously. Results indicated that both Rule Orientation ($\beta = -.219, p = .008$) and MMD ($\beta = .257, p = .001$) were related to offending.

Discussion

The first study describes the development, preliminary validation, and initial testing of a scale that examines the Rule Orienta-

tion construct. Rule Orientation is a new scale in the study of law and behavior that assesses individual variation in the extent to which people accept conditions for violating legal rules. Rule Orientation allows us to understand which people think about legal rule violation in gray terms (i.e., seeing more acceptable conditions) and which people see violations in black and white terms (i.e., a rule is a rule and there are no acceptable conditions to break it).

The results of this study indicate that the distribution of scores of the Rule Orientation variable follow a normal distribution, suggesting that there is a spectrum of Rule Orientation. Overall, findings indicate that the Rule Orientation scale has excellent internal reliability, high factor loadings, and item-total correlations. As expected, Rule Orientation demonstrates convergent validity with key legal and moral reasoning scales, such as POOL, GNA, ATCLS, JSL, Dogmatism, and MMD. However, correlations are not so large as to indicate that Rule Orientation is merely an alternative assessment of the same existing construct.

The findings also indicate that Rule Orientation has important predictive qualities for the study of the violation of legal norms and criminal decision-making. This study uses a variety of scenarios depicting relatively common, low-level hypothetical offending situations. The results suggest that Rule Orientation is consistently related to offending across low-level hypothetical scenarios. More important, its predictive utility remains after accounting for key mechanisms such as perceived social norms, punishment severity, and moral disengagement. It is particularly noteworthy that of all the moral and legal reasoning scales tested here, Rule Orientation is a strong, consistent predictor of hypothetical, low-level law violation.

Study 2

The first study is primarily intended to explore Rule Orientation's internal properties and to determine whether the measure predicts the propensity to engage in a variety of low-level, hypothetical offenses. This second study has three additional aims. First, it looks more precisely than the first study at the relation between Rule Orientation and a category of offending behaviors using a sample of individuals who are prone to engage in those behaviors. It examines the propensity to engage

Table 4
Multiple Regression Analysis of Hypothetical Offending

Offending	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>
Gender ^a	-.01	.15	.00	.13	.01	.15	.01	.15	-.00795	.15	.02	.13
Age	-.02**	.01	-.23	.01	-.22	.01	-.22	.01	-.23984	.01	-.19	.01
Race ^b	.07	.16	.03	.14	.03	.16	.01	.12	.051599	.16	.08	.14
Punishment severity	-.22***	.05	-.34	.04	-.28	.05	-.31	.05	-.34382	.05	-.33	.04
Social norms	.40***	.05	.59	.05	.38***	.05	.56	.40***	.604183	.05	.59	.05
Deterrence message ^c	-.59**	.17	-.27	.15	-.63***	.17	-.29	.59***	-.55**	.16	-.25	.15
Rule Orientation			-.33	.06	-.38							
POOL ^b					-.23	.12	-.14	.03				
Neutralization												
Dogmatism									.29**	.10	.20	
MMD ^c												
Model <i>R</i> ² _{adjusted}		.49		.62		.51		.52		.53		.63
Root MSE		.76		.66		.75		.74		.73		.65

Note. Model also controls for household income. POOL = Perceived Obligation to Obey the Law; MMD = Mechanisms of Moral Disengagement.

^a Males coded 1. ^b White coded 1, non-White coded 0. ^c Deterrence Message coded 1.

* *p* < .05. ** *p* < .01. *** *p* < .001.

Table 5
Multiple Regression Analysis of Hypothetical Offending

Offending	Model 1			Model 2		
	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β
Gender ^a	.09	.13	.04	.12	.13	.05
Age	-.01*	.01	-.15	-.01*	.01	-.14
Race ^b	.19	.14	.08	.18	.15	.08
Punishment severity	-.19***	.04	-.30	-.18***	.04	-.28
Social norms	.31***	.05	.45	.31***	.05	.46
Deterrence message ^c	-.50***	.14	-.23	-.55***	.15	-.25
Rule Orientation	-.19**	.07	-.22	-.30***	.06	-.35
MMD ^c	.22***	.07	.26			
Dogmatism				.16	.09	.11
Model <i>R</i> ² _{adjusted}		.66			.63	
Root MSE		.63			.65	

Note. MMD = Mechanisms of Moral Disengagement.

^a Males coded 1. ^b White coded 1, non-White coded 0. ^c Deterrence Message coded 1.

* *p* < .05. ** *p* < .01. *** *p* < .001.

in digital offending through using a sample of individuals who regularly use the Internet to make a proportion of their incomes. It does so using two commonly occurring types of digital piracy. Second, it examines whether the effect of Rule Orientation, versus the effect of two key moral and legal decision-making measures that emerged from the first study, on the propensity to engage in hypothetical behavior is moderated by enforcement context. If Rule Orientation only predicts behavior under explicit deterrence threats (e.g., prohibition signs), the usefulness of the measure would be limited to circumstances under which rules are made explicit. Rule Orientation is hypothesized to relate to behavior across both contexts. Finally, it takes a more nuanced look at subjective deterrence. The first study examined only perceptions of punishment severity. From existing studies of deterrence, however, we know that certainty of enforcement is a strong predictor of criminal decision making (Nagin, 2013). To further understand subjective perceptions of deterrence, in the second study, we use a more comprehensive measure of subjective deterrence perceptions measuring both severity and certainty.

Method

Participants. Participants were recruited through Amazon Mechanical Turk (Mason & Suri, 2012). To reach our consent page, participants were required to be United States citizens between the ages of 18 to 35 years. The sample consisted of 201 adults in the United States, ages ranging from 19 to 35 years (*M* = 28.7, *SD* = 3.96). Approximately 64.2% of the sample were men. The sample self-identified as majority White (75.12%), followed by Asian (7.96%), Hispanic or Latino (7.96%), Black (5.97%), or other race (2.99%). Because there were too few participants in each pan-racial category, race was dichotomized into White versus non-White. Approximately 8.96% earned less than \$15,000 per year, 13.14% between \$15–25,000 per year, 16.92% between \$25–35,000 per year, 23.38% between \$35–50,000 per year, 17.41% between \$50–75,000 per year, 10.96% between \$75–100,000 per year, and 8.96% above \$100,000 per year. After

providing consent, participants were presented with all three legal and moral reasoning scales and both hypothetical online offending vignettes, in random order.

Measures.

Rule Orientation. To measure Rule Orientation, the same 12-question inventory from the first study was used. Rule Orientation was calculated as the mean of the 12 items ($M = 4.28$, $SD = 1.03$). Higher scores indicated more Rule Orientation, such that the individual accepted fewer justifications for violating laws. Results of a Shapiro-Wilk test indicate that the distribution of scores did not differ from a normal distribution ($p = .638$). A reliability analysis suggested that Rule Orientation had high internal consistency ($\alpha = .876$).

Perceived Obligation to Obey the Law. Considering the POOL was correlated with offending in the first study, we selected it as a key legal reasoning measure. We again used Tyler's 6-item scale (Tyler, 2006) and calculated the POOL index to be the mean of the six items ($M = 2.67$, $SD = .64$), with a higher score indicating a higher perceived obligation to obey the law. A reliability analysis suggested POOL had high internal consistency ($\alpha = .855$).

Mechanisms of Moral Disengagement. In the first study, MMD (Moore et al., 2012) emerged as a strong predictor of offending. We therefore selected it as a key moral reasoning measure. A mean score was created, with higher values indicating more moral disengagement ($M = 2.66$, $SD = .99$). The internal reliability of this modified scale was high ($\alpha = .822$).

Propensity to engage in online offending. The two online hypothetical offending scenarios from the first study were used as a measure of hypothetical online offending (see Appendix for vignettes). The dependent variable, hypothetical offending, was measured with one item per vignette. The item asked about the likelihood that the respondent would choose the criminal option (e.g., "Would you download the program?"), and responses were scored using a 5-point scale ranging from *very unlikely* to *very likely*. The two measures were highly correlated, $r = .68$, $p < .001$. Following the procedure of van Gelder and de Vries (2014), we mean-scored responses across both scenarios to arrive at more reliable and valid measures. The mean score was 3.33, $SD = 1.28$, with responses ranging from 1 (*very unlikely*) to 5 (*very likely*). The scale had high reliability ($\alpha = .799$).

Explicit deterrence message. Deterrence messages were provided at the conclusion of the vignettes to half of participants (50.3%; see Appendix for materials). The deterrence messages were designed to provide a scenario in which the probability of being caught and probability of being punished are high. Presentation of the deterrence message was random, and analyses confirmed that presentation did not differ by participants' scores on any key predictor.

Subjective perceptions of deterrence. To further understand subjective perceptions of deterrence, in the second study, we use a more comprehensive measure of subjective deterrence perceptions measuring both severity and certainty. Similar to the first study, based on Grasmick and Green (1980), one question assessing perceptions of the impact of the punishment severity was included at the conclusion of each vignette. A composite measure of the punishment severity was created by aggregating responses to the same question that followed each scenario (e.g., "If you were caught for [the crime], how severe would you estimate the impact

to be on you?"). Responses were scored using a 5-point scale ranging from *not at all serious* to *very serious*, and the final variable was a mean across the vignettes, $M = 3.07$, $SD = 1.07$, $\alpha = .789$. A question assessing participants' perceptions of the probability of being caught was also included at the conclusion of each vignette (e.g., "If you download this program, how likely are you to get caught by the authorities?"). Responses were scored using a 5-point scale ranging from *very unlikely* to *very likely*. A mean score was taken across the vignettes, $M = 2.23$, $SD = 1.04$, $\alpha = .830$. Because including both variables simultaneously in models introduced collinearity, a composite measure of overall subjective deterrence was created by mean-scoring the variables, $M = 2.65$, $SD = .91$, such that higher scores indicate greater subjective perceptions of deterrence (i.e., larger probability of caught and greater punishment severity).

Social norms. Similar to the first study, one question assessing perceptions of descriptive social norms was included at the conclusion of each vignette (e.g., "Do you think most other people like you would download the program?"). Responses were scored using a 5-point scale ranging from *very unlikely* to *very likely*, and a composite measure of descriptive norms was created by aggregating and mean-scoring responses to the same question that followed each scenario, $M = 3.80$, $SD = .88$, $\alpha = .704$. Higher scores indicate that participants perceive that the offense is more socially normative.

Results

As expected given that the sample was comprised of young adults within a restricted age range, neither Rule Orientation, $r = -.08$, $p = .242$ nor any other measure was correlated with age (see Table 6). The correlations between Rule Orientation and the moral and legal decision-making measures were comparable to those found in the first study, and as in the first study, Rule Orientation did not differ by gender ($p = .396$) or race ($p = .782$).

To analyze how Rule Orientation was related to hypothetical offending and whether it was a better predictor of offending than other key legal and moral decision-making measures, a series of ordinary least-squares regressions were analyzed. Rule Orientation, POOL, and MMD were each included separately and individually in successive models that each accounted for the same set of control variables (gender, age, race, income, and deterrence context). Results of each model indicate that Rule Orientation, POOL, and MMD were each related to digital offending (see Table 7). The second set of analyses examined whether Rule

Table 6
Bivariate Correlations Between Online Offending, Rule Orientation, Perceived Obligation to Obey the Law (POOL), Mechanisms of Moral Disengagement (MMD), and Age

Construct	1	2	3	4
Offending (1)	1.00			
Rule Orientation (2)	-.29***	1.00		
POOL (3)	-.32***	.33***	1.00	
MMD (4)	.25***	-.51***	.02	1.00
Age (5)	-.08	.08	.03	.19

* $p < .05$. ** $p < .01$. *** $p < .001$.

Orientation added predictive utility to models including MMD or POOL. In the first model, Rule Orientation was added to the model containing POOL, and results indicate that both Rule Orientation and POOL were related to offending when included simultaneously. In the next model, Rule Orientation was added to the model containing MMD. Results indicate that MMD was no longer related to offending once Rule Orientation was added to the model.

The effects of Rule Orientation and POOL on online offending were examined once accounting for social norms and subjective deterrence. In the first model, the controls, Rule Orientation, POOL, and social norms were included. Results indicate that even accounting for injunctive social norms, both Rule Orientation and POOL were related to online offending. Subjective perceptions of deterrence were added to the following model. Results indicate that after accounting for subjective deterrence, Rule Orientation but not POOL was related to online offending.

The final set of analyses examined whether POOL or Rule Orientation predicted offending behavior across deterrence contexts, or whether the effect of POOL or Rule Orientation on offending was moderated by deterrence context. The first model examined the interaction of POOL and explicit deterrence, controlling for the same set of control variables. Results indicate that the interaction was significant (see Table 8). As depicted in Figure 1, the perceived obligation to obey the law affected offending if there was an explicit deterrence message ($dy/dx = -.54$, $SE = .17$, 95% confidence interval [CI] $[-.86, -.21]$, $p = .001$). If there was no explicit deterrence message, the perceived obligation to obey the law did not affect offending ($dy/dx = -.08$, $SE = .17$, 95% CI $[-.42, .24]$, $p = .599$). In short, in a context without an explicit deterrence message, POOL was unrelated to online offending behavior. The final model replicated these analyses using Rule Orientation in the place of POOL. Results indicated that explicit deterrence did not moderate the effect of Rule Orientation on online offending (see Table 8). Across the deterrence ($dy/dx = -.21$, $SE = .09$, 95% CI $[-.40, -.04]$, $p = .018$) and no explicit deterrence contexts ($dy/dx = -.24$, $SE = .11$, 95% CI $[-.46, -.03]$, $p = .024$), Rule Orientation was negatively related to online offending (see Figure 2).

Discussion

This study uses a sample of individuals who regularly use the Internet to make a proportion of their incomes to examine whether Rule Orientation is related to the propensity to engage in digital offending. It tests Rule Orientation across enforcement contexts, one with a strong enforcement campaign with explicit deterrence and one without such explicit deterrence. In both contexts, Rule Orientation emerges as a consistent predictor of hypothetical behavior. An individual with low rule orientation may be able to justify offending regardless of whether a system explicitly declares an enforcement campaign, regardless of how the individual perceives the severity of the threatened sanction, and regardless of whether the individual believes social norms support law violation. These individuals, because they are less oriented to the rules and likely better able to justify offending regardless of these external factors, may be less affected by the system’s explicit deterrence context. Low rule orientation may blunt the effect of subjective deterrence, perhaps enabling individuals to violate the law while maintaining a positive self-image (Ariely, 2008; Bersoff, 1999; Shalvi, Gino, Barkan, & Ayal, 2015) and neutralizing shame and guilt, all of which previous research suggests may act as crucial compliance influences in the absence of strong formal enforcement (Grasmick, Bursik, & Kinsey, 1991; Tangney, Stuewig, & Martinez, 2014). Though these hypothesized mechanisms need to be explicitly tested and modeled in longitudinal studies, the current findings have implications for our understanding of deterrence, particularly the deterrability of offenders (Jacobs, 2010; Pogarsky, 2002). Existing studies argue that individual characteristics of potential offenders such as criminal commitment (Pogarsky, 2002) or risk sensitivity (Jacobs, 2010) affect their deterrability. The data in this article suggest that low rule orientation may be a key individual characteristic for identifying individuals who may be more difficult to deter.

General Discussion

Rule Orientation is a new scale in the study of law and behavior that assesses individual variation in the extent to which people accept conditions for violating legal rules. People with a high level of rule orientation have a more rigid view, perceiving fewer

Table 7
Multiple Regression Analysis of Hypothetical Online Offending

Offending	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β
Gender ^a	.35	.18	.13	.28	.17	.10	.21	.17	.08	.31	.18	.12	.19	.17	.07	.28	.17	.10
Age	-.03	.02	-.09	-.02	.02	-.07	-.03	.02	-.09	-.02	.02	-.07	-.02	.02	-.07	-.02	.02	-.07
Race ^b	.21	.20	.07	.24	.19	.08	.15	.19	.05	.25	.19	.09	.18	.19	.06	.26	.19	.09
Deterrence message ^c	-.64***	.17	-.25	-.67***	.16	-.26	-.73***	.16	-.28	-.62***	.17	-.24	-.73***	.16	-.29	-.66***	.16	-.26
Rule Orientation				-.36***	.08	-.29							-.25***	.08	-.20	-.28***	.09	-.22
POOL ^d							-.67***	.13	-.33				-.53***	.14	-.26			
MMD ^e										.31***	.09	.24				.16	.10	.13
Model $R^2_{adjusted}$.11			.19			.22			.17			.25			.20		
Root <i>MSE</i>	1.21			1.15			1.13			1.17			1.11			1.14		

Note. Model also controls for household income.

^a Males coded 1. ^b White coded 1, non-White coded 0. ^c Deterrence message coded 1. ^d POOL = Perceived Obligation to Obey the Law. ^e MMD = Mechanisms of Moral Disengagement.

* $p < .05$. ** $p < .01$. *** $p < .001$.

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Table 8
Multiple Regression Analysis of Hypothetical Online Offending

Offending	Model 1			Model 2			Model 3			Model 4		
	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β	<i>b</i>	<i>SE(b)</i>	β
Gender ^a	.26	.16	.10	.10	.16	.04	.10	.16	.04	.12	.16	.05
Age	-.03	.02	-.08	-.02	.02	-.06	-.02	.02	-.07	-.02	.02	-.06
Race ^b	.17	.17	.06	.08	.17	.03	.09	.17	.03	.09	.17	.03
Deterrence message ^c	-.48**	.15	-.19	-.36**	.15	-.14	-.34*	.15	-.13	-.31*	.15	-.12
Rule Orientation	-.16**	.08	-.13	-.19**	.07	-.16				-.22*	.09	-.18
POOL ^d	-.35**	.13	-.17	-.22	.13	-.11	-.09	.17	-.04			
Social norms	.57***	.09	.39	.44***	.09	.30	.48***	.09	.33	.46***	.09	.31
Subjective deterrence				-.36***	.10	-.26	-.37***	.10	-.26	-.40***	.09	-.29
POOL ^b × Deterrence Context							-.45*	.23	-.16			
Rule Orientation × Deterrence Context										-.02	.14	-.01
Model $R^2_{adjusted}$.37			.42			.41			.41	
Root MSE		1.01			.98			.98			.98	

Note. Model also controls for household income.
^a Males coded 1. ^b White coded 1, non-White coded 0. ^c Deterrence message coded 1. ^d POOL = Perceived Obligation to Obey the Law.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

conditions under which it is generally acceptable to violate rules. People with low rule orientation have a more flexible view, seeing more conditions under which it is acceptable to violate rules. The first study described the development, preliminary validation, and initial testing of the Rule Orientation scale. Results indicated that the Rule Orientation scale has high internal reliability, factor loadings, and item-total correlations, and also demonstrates convergent validity with key legal and moral reasoning scales. The findings also indicate that Rule Orientation has important predictive qualities for the study of the violation of legal norms, specifically that Rule Orientation is consistently related to offending across low-level hypothetical scenarios. Importantly, its predictive utility remains after accounting for key mechanisms such as perceived social norms, punishment severity, and moral disengagement. The second study finds that across enforcement contexts, Rule Orientation emerges as a consistent predictor of hypothetical digital offending. The findings indicate that an individual with low rule orientation may be able to justify offending regardless of whether a system explicitly declares an enforcement campaign,

regardless of how the individual perceives the severity of the threatened sanction, and regardless of whether the individual believes social norms support law violation. These individuals, because they are less oriented to the rules and are better able to justify offending regardless of these external factors, may be less affected by the system's explicit deterrence context.

The current study has a number of strengths, but also limitations. First, both studies use multiple comparisons to thoroughly analyze the association between Rule Orientation and hypothetical behavior. However, though multiple comparisons are necessary, they do raise the potential of familywise error rates. Subsequent replication studies using large sample sizes are clearly necessary. Considering online methods of data collection may increase the anonymity of the participant and allow for greater self-disclosure (Joinson, 1999; Locke & Gilbert, 1995), this type of online administration is particularly appropriate for a study of hypothetical offending in which disclosure and self-presentation are potential concerns. Indeed, data obtained from this online platform have been found to be at least as reliable as those obtained via traditional methods (Buhrmester, Kwang, & Gosling,

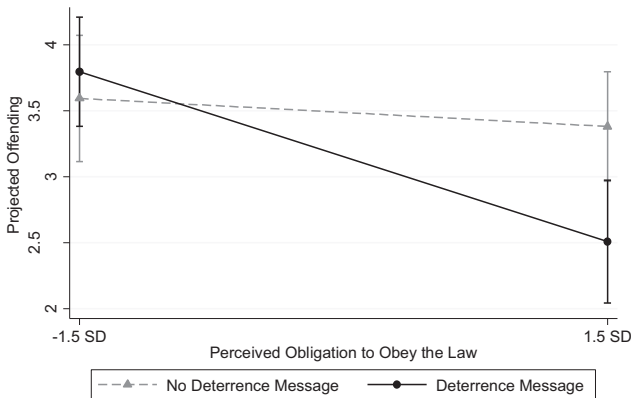


Figure 1. Interaction between Perceived Obligation to Obey the Law and deterrence context predicting projected hypothetical offending, with 95% CIs.

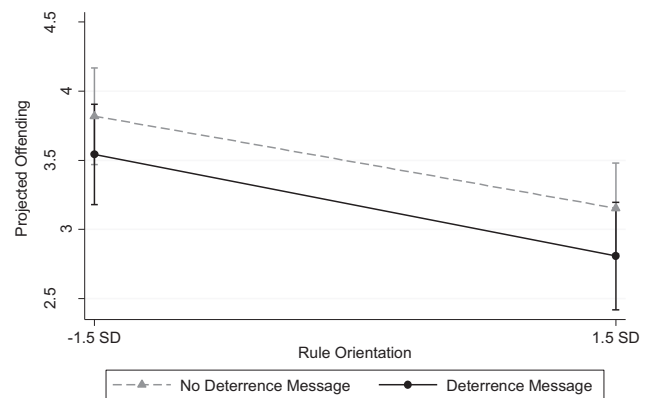


Figure 2. Interaction between Rule Orientation and deterrence context predicting projected hypothetical offending, with 95% CIs.

2011; Casler, Bickel, & Hackett, 2013), particularly if best practices are followed (Rouse, 2015; Shank, 2015). The use of such online platforms in psychological research is growing (see Gosling & Mason, 2015; Shank, 2015). However, importantly, the representativeness of the online participant pool is not well known (Paolacci & Chandler, 2014). Considering, for instance, the limited racial heterogeneity in this sample, replication efforts with more demographically diverse samples that are more representative of the U.S. population is clearly necessary before results can be generalized to the general population.

It is important to note a caveat of our measure of decision-making, specifically the extent to which hypothetical behavior generalizes to real-world decision-making. Hypothetical vignettes have been widely used in the developmental criminological literature for decades (see Cauffman & Steinberg, 2000; Exum & Bouffard, 2010). Although there may be issues of generalizability, a body of research suggests there may be a strong relation between projected offending and actual behavior. For example, this has been found for cheating, shoplifting, drunk driving, and theft, among a wider variety of crimes (see Pogarsky, 2002). To maximize generalizability in this study, we use multiple scenarios to reduce as much as possible the influence of individual experiences, feelings, or cognitions vis-a-vis particular scenarios. Indeed, we focus on “everyday crimes” that may be committed by those who would not consider themselves criminals (Karstedt & Farrall, 2006). Further, our sample is comprised of young individuals who regularly use the Internet as a means of generating income. As a result, this sample is ideal for studying the propensity to engage in online offending. Regardless of these strengths, replication with actual and varying types of rule violating behavior is crucial.

Future research should consider assessing whether rule orientation is more of a stable trait or a state. We conceptualize rule orientation as a trait-like variable similar to self-esteem. Self-esteem has both global and specific attributes, the former referring to the individual’s attitudes toward the self as a totality, and the latter referring to the context-dependent multidimensionality of the trait (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Similarly, we conceptualize rule orientation as a trait-like characteristic that although it may be influenced to some degree by the characteristics of the context, affect, or motivations for law violation, it likely has a global attribute that is more stable. Indeed, in our second study, we find that the effect of rule orientation on hypothetical behavior is not moderated by deterrence context. This suggests that rule orientation may be trait-like in that its effect on behavior may be minimally influenced by the particular contextual demands. It would be useful to analyze test-retest reliability to examine the construct and its stability over time. Although not the focus of the present study, future research on this area is clearly necessary.

Implications for Theory and Practice

Despite these limitations, the Rule Orientation scale is essential for understanding compliance with legal rules. This is very much in line with, and indeed inspired by, Tyler’s idea of perceived obligation to obey the law indicating a duty to obey the law (Tyler, 1997; Tyler, 2006). Rule orientation is logically related to such duty. Where Tyler has argued that the perceived obligation to obey the law depends on procedural justice, the functioning of legal institutions, and the overall legitimacy of the legal system, rule orientation may also derive in part from how the individual per-

ceives the offending context. Tyler’s perceived obligation to obey the law focuses more on the institutional reasons for obeying the law, such as the individual’s perceptions of the institution’s legitimacy or the way the institution was designed. This is not part of rule orientation, which instead focuses on how the individual perceives law breaking behavior generally. To better understand this, additional studies examining what explains rule orientation, especially whether it originates from differences in legal institutions or variation in personal attitudes, is necessary. Furthermore, as demonstrated by the moderate divergent and convergent validity with key measures, rule orientation likely affects offending not just through decreasing the general duty to obey the law, but also by enhancing potential justifications, neutralizations, and rationalizations for rule breaking. Further study is necessary to unearth exactly how rule orientation, neutralization, and self-image maintenance interact and shape illegal behavior and what psychological processes are at play.

The findings here have practical value for lawmakers and law enforcement. They show that in regulatory and enforcement work, there is a difference when addressing individuals with high or low rule orientation. For people with high rule orientation, less enforcement may be needed, and there can be more reliance on their own sense of duty to obey the law. In contrast, more enforcement and procompliance social norms messages (Cialdini, 2007; Goldstein & Cialdini, 2007) are needed for individuals with low rule orientation. However, often specific deterrence messages or enforcement campaigns are not made clear to would-be offenders. In these situations, the findings presented here indicate that rule orientation may be essential for decreasing potential offending as it may relate to offending behavior regardless of enforcement. Of course the crucial question is how to predict which people have higher or lower rule orientation, and to find out whether this is something that exists more or less in certain populations. This requires further research to understand variation in rule orientation. Moreover, we could explore through further studies whether there are ways to reduce justifications people with low rule orientation may have for illegal behavior of others and themselves.

Rule Orientation may also have relevance beyond the study of criminal, law-violating behavior. At its core, the construct captures the extent to which one thinks about rules in a rigid, rule-oriented manner or in a manner that recognizes exceptions. In many strands of legal decision making outside of criminal decision-making, identifying such individual variation is crucial. For example, rule oriented judges or jury members may underemphasize understanding the conditions under which a crime took place. As such, judging may not be merely dependent on individual ideology (Segal & Spaeth, 2002), strategic decision making (Epstein & Knight, 1997), or social norms (Gillman, 2001), but also in part on their individual rule orientation.

In summary, this study presents the first empirical validation of Rule Orientation, a new measure that enables us to understand how individual differences affect legal decision-making. Rule Orientation indicates the extent to which one accepts conditions for violating legal rules. Findings indicate that Rule Orientation has strong factor loadings, excellent internal reliability, and convergent validity with hypothesized key moral and legal reasoning constructs. Through contrasting Rule Orientation with key moral and legal decision-making scales, these two studies reveal that Rule Orientation is not only a strong, consistent predictor of

hypothetical offending behavior, but is unique in its predictive utility of low-level offending across deterrence and enforcement contexts.

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Appendix

Vignettes Derived From van Gelder and de Vries (2014)

Illegal Downloading

Instructions. Imagine: You need a particular computer program for a personal project. The official version of the program costs about \$160. You consider buying the program, but you think you will not be using it anymore after finishing the project. Therefore, you hesitate about buying it. A colleague has explained to you where and how you can easily, though illegally, download the program.

Deterrence message. Imagine that there is a new government policy to clamp down on illegal downloading. According to this policy, Internet providers have to track down illegally downloaded software through random sampling and report it to the authorities. This has already led to the prosecution of a significant number of individual users.

Purchasing Stolen Goods

Instructions. Imagine: You need a new tablet, like an iPad. In the store, the tablet you want costs \$400. One of your friends

mentioned that he bought his tablet, which came in the original packaging, through one of his friends for about half price. Your friend told you that his friend has more new tablets for sale. Your friend also mentioned that the tablets probably “fell off a truck” somewhere, so there is no receipt. The tablets come in their original packaging. However, your friend does tell you that if you have any problems with the tablet within 2 years after the purchase, it will be replaced with a new one for free.

Deterrence message. Imagine that there is a new government policy to clamp down on *the sale of illegal tablets*. According to this policy, Internet providers have to track down *illegally purchased tablets* through random sampling *the devices connected to the wireless network* and to report *them* to the authorities. This has already led to the prosecution of a significant number of individuals.

(Appendix continues)

Illegal Streaming

Instructions. Imagine: You are with your friends and you are about to finish a season of your favorite TV show. You use a *legal* website to stream the show, but that site stops working halfway through the episode. Your friend tells you about a different website that streams the show for free, though it is definitely *not* legal.

Deterrence message. Imagine that there is a new government policy to clamp down on illegal streaming. According to this policy, Internet providers have to track down users of the illegal streaming sites through random sampling and report it to the authorities. This has already led to the prosecution of a significant number of individual users.

Petty Theft

Instructions. Imagine: You are at a convenience store after a long day of work. You have not eaten since the morning because

your manager kept you working through lunch. This is your one chance to buy food before you start the night shift at your second job. You are about to purchase a snack when you realize you do not have enough money to buy anything. However, you could slip the snack into your pocket and walk out the door.

Deterrence message. Imagine that there is a new police policy to clamp down on theft. According to this policy, officers randomly monitor the convenience stores in your area. This has already led to the prosecution of a significant number of individuals.

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