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Incivility’s and Civility’s Effects on
Goal Commitment, Rumination, and Performance
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Abstract

Witnessing uncivil behavior from someone in a leadership capacity can negatively affect employees' experiences at work, whereas civil behavior can create a pleasant work environment. This study examines whether being exposed to civil and uncivil behavior influences employees' immediate cognitive responses, specifically their rumination over their treatment, commitment to their assigned tasks, and subsequent performance. Under the guise of an online organizational research project, Amazon Mechanical Turk workers were exposed to civil and/or uncivil behavior during an audio recording and completed measures of rumination, goal commitment, and task performance. Though none of the hypotheses were confirmed, significant differences were found between Indian and American participants, with Indian participants reporting higher rumination, lower goal commitment, and worse task performance. The results extend incivility and civility research by demonstrating the cross-cultural differences in perceptions and the effects of these behaviors.

Keywords: civility, incivility, goal commitment, rumination, task performance
Chapter I

Review of the Literature

Being skilled in self-regulatory behaviors is an important precursor to many desirable workplace behaviors (Baumeister & Vohs, 2007). The intent of any employee’s work at an organization is to work towards both individual and organizational goals, and self-regulatory actions are wholly concerned with goals. There are a number of influences that may negatively affect self-regulatory goals, an example of which is incivility. Antisocial workplace behavior can be overt, ranging from aggression, violence, bullying, and harassment, or ambiguous, such as workplace deviance and incivility. Incivility, or discourteous behaviors, in the workplace is certainly a worthwhile area of interest for Industrial-Organizational (I-O) psychologists, as research has found incivility to yield negative effects for both the target and the organization (Caza & Cortina, 2007; Cortina, Magley, Williams, & Langhout, 2001; Crowe, Mack, Dulaney, & Mullins, 2012; Lim, Cortina, & Magley, 2008). Being exposed to courteous, civil acts, though, may lead to an employee working harder towards individual and organizational goals. Little is known, however, about whether being subjected to civility and incivility affects one’s self-regulatory behaviors, specifically goal commitment, rumination, and actual task performance, which is the topic of the present study.

Specifically, this study examines whether being subjected to acts of incivility and civility from a project team manager in an organizational context influences participants’ goal commitment, feelings of rumination, and task performance. The project team
manager assigned a goal to participants and performed uncivil and civil behaviors in the
discussion of the project. These research objectives significantly extend research on incivility,
civility, and specific self-regulation processes in the field of I-O, in which the literature is
lacking.

**Incivility: The Construct, Its Inception, and Instigated Incivility**

There has been an increased interest in incivility in I-O psychology. Andersson and
Pearson (1999) define incivility as “low-intensity deviant behavior with ambiguous intent to
harm the target, in violation of workplace norms for mutual respect. Uncivil behaviors are
characteristically rude and discourteous, displaying a lack of regard for others” (p. 457). In other
words, incivility, which has been suggested as “straddling the domains of deviance and
aggression,” (Pearson, Andersson, & Wegner, 2001, p. 19), can be understood as rude actions
toward another person or object (e.g., a flippant remark, eye-roll directed towards a target).
Although no research has been done on incivility’s effects on self-regulatory processes, it is still
beneficial to have an overview of the extant literature on incivility to obtain a better grasp of its
incidence rates, targets, instigators, and the notion of instigated incivility.

Incivility poses an issue to organizations because of the behaviors being low-intensity
and ambiguous. Andersson and Pearson (1999) posited that the low-intensity nature of incivility
indicates that the behaviors are less charged and conspicuously negative. However, because of
the low-intensity nature of incivility, it is difficult to determine what distinguishes a low-
intensity behavior from a mid-intensity behavior. Additionally, as Cortina and Magley (2009)
suggested, it is difficult to operationalize low-intensity behaviors, as they may be subjective. The
second aspect of the definition that makes approaching incivility challenging is the ambiguity
attached to such behaviors. It is tough for the target, instigator, and bystanders to determine with
any certainty whether the uncivil behaviors are thoughtless or purposeful in their intent. As a result, organizations may be hesitant to set any disciplinary action for the instigator and may be wary of addressing incivility at all. Further, targets may be resistant to report the behaviors because of uncertainty of its intent. Speculatively, this ambiguity in the uncivil acts may lead to targets feeling confused and experience feelings of doubt, which is expected to lead to decreased goal commitment, rumination, and task performance.

Unfortunately, incivility is not a rarity in organizations and may be one of the most pervasive forms of antisocial workplace behaviors. Cortina et al. (2001) found that 71% of their sample reported experiencing acts of incivility within the past five years, and a similar size of 75% was reported by Cortina and Magley (2009). Baron and Neuman (1996) found that verbal aggression is more frequently experienced and witnessed than physical aggression and passive aggression more frequently than active aggression. Baron and Neuman also found several organizational changes that were predictors of workplace aggression: an increase in and use of part-time employees, management modifications, increased workplace diversity, and pay cuts or freezes.

**Instigated incivility.** Tobin (2000) reported that 16% of violent crimes in the United States take place at work. Because of this often publicized violence, researchers are taking a greater interest in incivility. Andersson and Pearson (1999) suggested in their theory of _instigated incivility_ that these violent acts may stem from incivility. Depending upon the way in which the target of incivility interprets and attributes the initial acts of incivility, it may progress into a spiral of coercive maltreatment behaviors, which could potentially escalate into violence. Andersson and Pearson suggested that being the target of incivility could lead to a cycle of increasingly aggressive behaviors. This suggested incivility spiral is considered *deviation*
amplifying, meaning that one negative behavior precedes a subsequent, negative behavior. The authors proposed that the initial negative behavior is typically verbal and thoughtless, which prompts the following, increasingly aggressive behaviors. The researchers purported that the spiral is more likely to begin when the target feels unfairly treated, experiences negative emotions (i.e., ruminates), and wants to retaliate. The behaviors of each party then escalate when the instigator perceives the target to be behaving in a disrespectful manner. The authors suggested that the spiral escalates when the instigator feels his or her reputation has been tarnished, is angry, and wants to retaliate. It is worth noting that the spiral does not necessarily always have to escalate into aggressive behaviors, as either party can depart from the cycle at any time.

Andersson and Pearson (1999) also suggested other factors, namely a lenient workplace environment and possessing a “hot” temperament, that may influence the likelihood to engage in this spiral of coercive behaviors. Because organizations are now attempting to promote creativity and open communication (Mumford, 2011), there is an informal environment being fostered. This informality can be evident in an organization’s dress code and décor and also in the interpersonal interactions of the employees. Although the intent behind fostering these open and creative environment is positive, it may create ambiguity and introduce the possibility of employees feeling they have no boundaries, and thus, behaving in a rude manner.

Blau and Andersson (2005) were the first and only researchers to investigate Andersson and Pearson’s (1999) suggested incivility spiral. The researchers’ measure of instigated incivility was found to be distinct from experienced incivility, indicating support for it as a construct, and was also found to have a negative affect on distributive justice. Additionally, Cortina and Magley (2009) found that targets were unlikely to formally report the uncivil behaviors to management.
This may explain why incivility has such negative effects; employees may be taking action into their own hands, responding with incivility to restore a sense of justice.

**Instigators and targets.** Cortina (2008) developed the theory of *selective incivility*, describing it as a “veiled manifestation of sexism and racism” (p. 55). She posited that incivility shares ties with sexual and racial harassment in that all three involve engaging in inappropriate, deviant behaviors that insult the targets and overstep interpersonal boundaries. The motives behind the instigators of these three maltreatments may, too, be similar. She suggested that potential sources of motivation may be a need to exert dominance, a lack of care for authority and expectations, a desire to obtain resources, intent to present one’s self positively, and, simply, a disagreement with the target, indicating some expectations for who typically perpetrates the incivility.

It is difficult to say with any certainty, based off of research, who are the most frequent targets of incivility, as there may be inequalities in gender, race, organizational levels, and other factors in the samples (Cortina, 2008). However, theory can dictate who should be most susceptible to incivility and who is most likely to instigate incivility. Cortina et al. (2001) integrated social power theory in addressing targets of incivility. Social power theory maintains that acts of incivility are performed as a means of demonstrating dominance. Cortina et al. suggested, then, that the targets are individuals who are most at risk to having power wielded upon them, and these individuals tend to be those lower in the organizational hierarchy. Additional at-risk characteristics are being in an ethnic minority group, unmarried, young, and being the less prevalent gender in the workplace. Incorporating the selective incivility literature with social power theory suggests that targets are more likely to be female than male, as selective incivility is, partly, a covert form of sexism. Cortina, Kabat-Farr, Leskinen, Huerta, and Magley
(2011) offered the first examination of Cortina’s (2008) theory of selective incivility and found that women and people of color reported being victimized by incivility more often than did men and Whites.

**Attributions.** Although there is a growing body of research demonstrating the negative effects of incivility, there has been less research done investigating the attributions of blame that targets make. Cortina and Magley (2009) and Hershcovis and Barling (2011) remain the only researchers to have investigated workplace maltreatment targets’ attributions and reactions. There must be more research done in this area to shed more light on whether situations involving incivility prompt the target to respond with incivility or violence.

Cortina and Magley (2009) investigated target responses through the lens of appraisals, suggesting that targets assess, or appraise, the situation emotionally and cognitively to determine the severity of the offense (e.g., if this behavior is purposeful or if it is threatening). The researchers found that the most frequent perceptions of incivility are “annoying,” “frustrating,” and “offensive,” and the least frequent perception is “threatening” (p. 280). This latter finding should not, though, affect the likelihood to retaliate with uncivil behaviors. They also found that the most frequent responses to incivility were to physically avoid it or cognitively minimize its severity. These findings hint at the possibility of incivility targets disengaging from the situation in which they are mistreated, and it seems reasonable to expect that this disengagement may spill over into their work tasks as well. Further, Hershcovis and Barling (2011) investigated how workplace aggression and sexual harassment targets make attributions, hypothesizing that aggression targets would make more internal and personal attributions and sexual harassment targets would make more external and gender attributions, both of which were supported.
Impact. Incivility has been documented as having negative effects on the targeted employees and the organization. Targeted employees may experience increases in their psychological distress (Cortina et al., 2001); organizational commitment (Cortina et al., 2001); physical and mental health (Lim et al., 2008); job, supervisor, and coworker satisfaction (Lim et al., 2008); and perceived supervisor support (PSS; Crowe et al., 2012). Because being the target of incivility can yield negative effects on job, supervisor, and coworker satisfaction, which can promote detachment from the organization, incivility may thus also produce negative effects for the organization (Caza & Cortina, 2007). Caza and Cortina (2007) found incivility to be positively correlated to perceived injustice and social ostracism, which was strongly related to decreased job satisfaction. Social ostracism, in turn, was positively related to psychological discomfort as well. Additionally, psychological discomfort and low job satisfaction were predictive of detachment from an organization.

Further, job and supervisor satisfaction have been found to be negatively related to turnover (Lim et al., 2008). This suggests that employees targeted with incivility who experience decreases in job or supervisor satisfaction may also turnover as well. There are also negative effects for bystanders of incivility, as they have been found to experience decreases in both job satisfaction and organizational commitment and increases in turnover and turnover intentions (Lim et al., 2008; Miner-Rubino & Cortina, 2007). This results in, as Cortina (2008) astutely noted, “financial implications for employers, who must absorb the costs of employee distraction and discontentment, job accidents, substance abuse, sick leave, work team conflict, productivity decline, and turnover” (p. 57), and these financial costs have been reported by others researchers as well (Porath & Pearson, 2010). Incivility has also been found to yield negative effects on performance (Caza & Cortina, 2007; Sliter, Sliter, & Jex, 2012). Relatedly, Aube and Rousseau
(2011) found that interpersonal aggression negatively affects team performance and team viability, which is a team’s ability to adapt and work through the challenges and factors that impact their collaboration. Incivility has been shown to lead to feelings of anger, which in turn leads to rumination for the witnesses of the uncivil encounter (Porath, Maccinis, & Folkes, 2010). Incivility’s effects on goal commitment have yet to be researched. Additionally, the effects of incivility on targets’ feelings of rumination remain to be researched as well as the immediate performance impacts.

Civility: The Construct and Its Inception

In contrast to the harm brought about by incivility, Saari and Judge (2004) suggested that organizations benefit from having happy employees. Therefore, organizations want employees to be satisfied with their work environments. Being civil towards employees may be a way to ensure employees remain satisfied. As Andersson and Pearson (1999) noted, civility is more than just courteous and polite behaviors; civility entails treating others with respect and dignity and being considerate of others. The authors defined workplace civility as “a behavior involving politeness and regard for others in the workplace, within workplace norms for respect” (Andersson & Pearson, 1999, p. 454). Civility is distinct from prosocial organizational behaviors and organizational citizenship behaviors in that the intention behind civility is not necessarily the betterment of the organization. Acting civilly may be for the organization’s benefit or it may be due to the employee’s disposition. Pearson, Andersson, and Porath (2005) suggested that civility be conceptualized not at an individual level, but at an organizational level, meaning that civility is an interactive exchange between parties in given situations. Investigating whether experiencing these civil behaviors enhances an employee’s goal commitment and performance would be valuable, as it would provide further encouragement to organizations to promote these
behaviors. Similarly, it would also be worthwhile to research a potential linkage between civility and task performance.

**Civility, respect, and engagement in the workplace.** The Civility, Respect, and Engagement in the Workforce (CREW) initiative developed by the Veterans Health Administration (VHA) is one of the first documented civility interventions (Osatuke et al., 2009). The CREW initiative is a stepwise process in which the expectations are that (a) offering organizational support for civility within the workplace will result in (b) employees feeling more respected by their organization, and thus, acting more respectfully and civilly, and (c) employees increasing their performance at the organizational level due to increased engagement. Findings regarding CREW have been promising. Osatuke et al. (2009) found that the CREW intervention generated more civil interactions within the workgroups, and participants reported improvements in their work performance. Using a different sample, Leiter, Spence Laschinger, Day, and Gilin Oore (2011) found significant improvements in coworker civility, respect, job satisfaction, and trust in the management as well as decreases in cynicism, supervisor incivility, and absenteeism using the CREW initiative.

**The usage of “Thank you”.** Forms of civility can range from assisting a coworker with his or her workload to simply thanking someone for their input or contributions, which has received attention from several researchers. Frank (2010) investigated the effects of “thank you” on perceived organizational support (POS), PSS, feelings of reciprocity, and felt obligation towards the organization and supervisor. Thanking an employee, a form of civility, for a job well done may increase an employee’s loyalty toward an organization, motivation, and job satisfaction. Frank hypothesized that participants who received a verbal “thank you” would
report higher scores of POS, PSS, felt obligation, and likelihood to reciprocate than those who did not receive a thank you.

Of the undergraduate students that participated in Frank’s (2010) focus group, half of the participants received a verbal “thank you” and half did not. The participants in the “thank you” condition received three manipulations of the “thank you:” upon their arrival to the study, after their contributions in the focus group discussion, and at the conclusion of the focus group discussion. They were also thanked after completion of the scales. Participants in the “no thank you” condition did not receive any “thank you” until after completion of the scales. After the conclusion of the focus group discussion, participants completed measures of POS, PSS, reciprocity, and felt obligation. The findings partially supported Frank’s (2010) hypotheses, as participants in the “thank you” condition reported higher levels of POS and PSS than those in the “no thank you” condition. However, there was no significant effect found for willingness to reciprocate.

Crowe et al. (2012) replicated Frank’s (2010) work and added an additional independent variable of incivility. They also conducted focus group sessions with undergraduate students following Frank’s methodology. Incivility was manipulated in the focus group setting at multiple times in the discussion, with the researchers texting on their cell phones amidst discussion, speaking in condescending tones, and interrupting participants when they were speaking. Crowe et al. found a significant effect of “thank you” on PSS, but not POS. Interestingly, the researchers also found that the manipulation check regarding being thanked for participation throughout the focus group indicated that participants primarily reported receiving a “thank you” regardless of whether they were in the “no thank you” (83.8%) or “thank you” (93.8%) group. That is, nearly 84% of participants reported being thanked for their participation when they were not. This is a
rather fascinating finding considering participants who were not thanked for their contributions still reported lower levels of PSS, despite reporting being thanked for their participation. This finding suggests that employees may interpret their interpersonal interactions with others at an unconscious level that affects their overt, affective responses. Frank’s and Crowe et al.’s research indicates the significance an act as simple as saying “thank you” can have on people. For organizations, educating supervisors to recognize employees’ contributions with a “thank you” is a costless way to increase employees’ loyalty toward the organization.

Recognition. Similar to the research on being thanked in the workplace, Luthans (2000) examined the value employees put on receiving recognition from their superiors, specifically looking at how non-financial recognition and attention can be utilized as a successful device for leadership. When discussing a reward system within an organization, the initial thought is that the rewards must be monetary to have an impact. However, as Frank (2010) and Crowe et al. (2012) found, simple recognition and attention can also be used as effective forms of rewards and are both easy and free to execute. These forms of recognition and attention can be as simple as a thank you, a personal congratulation, a note, or public acknowledgement. Luthans quoted a president of an organization saying, “We all like to be recognized and appreciated. Just by giving an award or recognition certificate, formally recognizing someone in front of a group or even buying a cup of coffee, we’re telling the employee that their work is appreciated” (p 33).

Employees reported a need for an increased recognition system that is established on observable, merit-based behaviors. Employees also reported the recognition being genuine as important. Luthans suggested that in order for recognition to be effective and well-received by employees, immediate, genuine, and different forms of recognition must be given. As organizations strive to
increase productivity, increase employee motivation, and decrease turnover, it is important to note that simple and free tools for recognition may have momentous effects.

As Luthans (2000) found that employees reported genuineness as being important when receiving recognition, Eisenberger, Cummings, Armeli, and Lynch (1997) also investigated how the perceived genuineness, or motivation, behind an organization’s treatment of its employees relates to POS and job satisfaction. The researchers hypothesized that the treatment of employees over which the employees perceive the organization as having large control is more closely related to POS and job satisfaction than treatment over which the organization has little control. However, the researchers also hypothesized that this relationship would be stronger for POS than for job satisfaction. Though none of the hypotheses were supported in regards to job satisfaction, it was found that consistent positive treatment towards employees leads to higher levels of POS and trust.

Incivility can pose a threat to organizations because of its incidence, effects, and the spiral of aggressive behaviors it can bring to fruition. If incivility is as prevalent as suggested by Cortina et al. (2001) and Cortina and Magley (2009), organizations should be concerned about the effects incivility can have on turnover, organizational commitment, and satisfaction. What requires further attention is the immediate impact incivility perpetrated by one of the most common instigators, a person of power such as a manager, can have on goal commitment and task performance. Additionally, although rumination has been found to occur for witnesses of incivility, nothing is known about the extent to which targets of incivility ruminate over their treatment. Similarly, exposure to civility has been found to be related to positive aspects of organizational functioning such as more positive workgroup interactions, respect, supervisor trust, perceived supervisory support, and decreased absenteeism. Because of the ease with which
civility can be performed (e.g., verbally thanking and recognizing others) and the results it may bring, interventions like CREW and civility policies should be enacted at organizations. However, past research has found that policies regarding civility and professionalism in the workplace are either nonexistent or unclear, despite overwhelming belief that civility would improve productivity (Forni et al., 2003). Further research is needed to identify whether direct relationships between civility and goal commitment and civility and task performance exist, as they may encourage organizations to focus on civility’s importance. Demonstrating incivility’s and civility’s potential influence on rumination, goal commitment, and task performance should provide further impetus to address them within the workplace because, as will be discussed, these constructs can have financial implications.

**Goal Commitment**

Goal commitment is defined as “one’s attachment to or determination to reach a goal, regardless of the goal’s origin” (Locke, Latham, & Erez, 1988, p. 23). As such, goal commitment can occur in any situation pertaining to goals regardless of who sets the goal (e.g., the individual, his or her team, or his or her organization). The measurement of goal commitment can be done directly, indirectly, or by inferring commitment from performance (Locke et al., 1988). A direct measure of goal commitment explicitly inquires into the respondent’s commitment to the goal. An indirect measure of goal commitment is the discrepancy between a goal assigned to the individual and the goal the individual is actually working towards (Locke et al., 1988). An indirect measure of goal commitment is especially applicable when the goal is set for or assigned to the respondent. These measures gauge commitment by identifying if there is a discrepancy between the assigned goal and the self-set goal the respondent is working toward. Lastly, goal
commitment can be gauged by assessing performance in relation to the goal. That is, goal commitment can be assumed as high if the desired performance was reached or exceeded.

**Determinants of goal commitment.** In their review on goal commitment, Locke et al. (1988) suggest several determinants for goal commitment, which are divided into three categories: external influences, interactive influences, and internal factors. Under the category of external influences are the concepts of authority, influence of peers, and rewards. Authority can affect goal commitment, as Locke et al. assert that employees tend to obey their assignments because they find the assigned goals appropriate to the position. The influence of authority on goal commitment is leveraged by the extent to which the employee finds the purveyor of the authority to be rightful and legitimate. Additionally, if the authoritative party is considered supportive and trustworthy, research suggests he or she will also garner stronger goal commitment (Locke et al., 1988). Another external influence that affects goal commitment is peer pressure. Locke et al. suggest that working in a team can help cement goal commitment because it can foster social pressures to follow through on goals. The last external influence described is rewards. Research has found that monetary rewards help to promote goal commitment and thereby impact performance (Locke et al., 1988).

Interactive influences on goal commitment include participation and competition. The effects of participation, specifically being involved participatively in the goal setting process, on goal commitment are mixed. Some research has found that the manner in which goals are assigned does not matter; the only thing that matters is that it is actually accepted (Latham, Erez, & Locke, 1988). Locke et al. (1988) describe the non-published research from Erez, Latham, and Locke that found, however, that goals participatively-set garner more commitment than goals to which the employee is assigned. Another interactive influence is that of competition. Research
has found that being in a competitive environment can lead to higher performance if it also leads to tougher goals being set and commitment to said goals (Locke et al., 1988).

Lastly, internal factors include expectancy and internal rewards. Research has shown that when people reward themselves for a job well done on set goals, their commitment to the goal tends to strengthen (Locke et al., 1988). These rewards can be internal feedback. Providing self-feedback in conjunction with goal setting can lead to stronger organizational commitment, increased performance than feedback provided by supervisors in conjunction with goal setting (Locke et al., 1988). Locke et al. (1988) also found that goal commitment decreases as employees' beliefs that the likelihood of attaining the goal decline, and they are likely to be less committed and disengage from the goal when it is perceived as too difficult and their self-efficacy is low. The effects of decreased goal commitment on goal disengagement are discussed next.

**Goal disengagement.** Goal disengagement, as defined by Wrosch, Scheier, Miller, Schulz, and Carver (2003), is a "person's capacity to withdraw effort and commitment from an unobtainable goal" (p. 1495). As is evident from the definition of goal disengagement, this construct is related to goal commitment, such that decreased goal commitment as a result of the three determinants (i.e., external, interactive, and internal influences) may lead to goal disengagement (Wrosch et al., 2003). Examples of why employees may disengage from their goals may be hostile work environment due to coworkers, supervisors, and/or customers, lack of direction on tasks, or general distractions from either their lives outside of work or their work environment itself. People may undergo goal disengagement as a way of deflecting any sense of failure and to separate from a task that does not result in satisfaction (Wrosch et al., 2003). Shah
(2005) suggested that individuals may also undergo goal disengagement to reallocate their time and resources from an unattainable goal to more realistic, desirable ventures.

In their seminal work on self-regulation, Carver and Scheier (1998) suggested a model through which individuals perform when faced with an unobtainable goal and experiencing feelings of self-doubt. In this model, individuals undergo a series of potential responses to an unobtainable goal, the first of which is experiencing the consequences of being tasked with a goal for which they hold negative expectancies. At this stage, the individual feels compelled to disengage from the goal and either abandon the goal physically or disengage mentally. Realistically, though, individuals are usually compelled to readdress the goal, which they may meet with renewed optimism and effort. However, if the goal still appears unattainable, the individual should be compelled to disengage entirely and abandon the goal.

Researching whether there are differences among individuals who undergo goal disengagement, Wrosch et al. (2003) found that individual differences in goal commitment are significant predictors of psychological well-being. Specifically, the authors found that individuals who had an easier time disengaging from goals reported lower levels of stress and intrusive thoughts (i.e., rumination) and higher levels of self-mastery. This finding supports the notion that goal disengagement safeguards the psychological well-being of individuals.

**Rumination.** Operationally, rumination pertains to "conscious, repetitive thoughts that revolve around a common theme, and usually implies cognitions that are intrusive and aversive" (Peled & Moretti, 2010; p. 108). Rumination is characterized by negative thoughts related to the source and meaning of the distress without attempting to remedy the issue (Nolen-Hoeksema, 1998). Carver and Scheier (1998) suggested that when individuals are faced with what is perceived to be an unattainable goal, they experience feelings of self-doubt and worry, which
impede their ability to self-regulate effectively and may lead to goal disengagement and abandonment. In the process of disengaging from the goal, goal commitment begins to deteriorate, ultimately leading to goal abandonment. These feelings of doubt are suggested to be intrusive and relatively consistent and can be considered a form of rumination.

Peled and Moretti (2010) investigated both sadness rumination, which is frequent deliberation over feelings of hurt, and anger rumination, which is consistent contemplation over feelings of frustration. Anger rumination, then, has potential ties to incivility, as both are concerned with antisocial behavior, a point that is important to the current project. The researchers found that anger and anger rumination were significant, positive predictors of overt aggression. If goal disengagement is as common as previously suggested and employees ruminate over their frustration with their seemingly impossible job tasks, this rumination could lead to antisocial behavior. Further, if targets of incivility ruminate over their treatment, they may be more likely to engage in antisocial behavior, a notion which is aligned with what is suggested by the instigated incivility theory. Additionally, it seems reasonable to expect, though it has never been researched, that employees who ruminate over their treatment will experience a decline in task performance and productivity, as their focus is disjointed.

Porath, Macinnis, and Folkes (2010) are the only researchers to investigate the effects of an uncivil encounter on feelings of anger and rumination. The researchers suggest that when witnesses observe an uncivil encounter, they are likely to focus their attention on this encounter, ruminate, and develop feelings of anger. These witnesses are suggested to simultaneously be forming negative impressions because they are focused solely on the negative encounter, retarding their information processing capabilities. Incivility’s disruptive role in cognitive processing has been confirmed in past research as well (Porath & Erez, 2007). Porath and Erez
(2007) found that witnesses of incivility become angry over the incident, which leads to negative rumination. The researchers also found that witnesses of the uncivil encounters were likely to make negative generalizations about the instigator of incivility, the organization, and future encounters with the organization. Relatedly, Anestis, Anestis, Selby, and Joiner (2009) found that anger rumination was predictive of verbal and physical aggression and hostility. Although not explicitly investigating incivility, these findings indicate that rumination can lead to forms of antisocial behaviors, of which incivility is one.

**Performance.** Hollenbeck and Klein (1987) created a model that suggests goal commitment moderates the relationship between goal-setting and performance. Hollenbeck, Klein, O'Leary, and Wright (1989a) created the most frequently used measure of goal commitment, which has been found to be consistently related to performance. Klein and Kim (1998) investigated the effects of leader-member exchange and goal commitment on performance. These researchers found that employees with high quality relationships with their supervisors held more goal commitment, which in turn led to higher performance, than individuals with low quality relationships with their supervisors. These results illustrate the importance of contextual factors to goal commitment, specifically relationship quality with supervisors. Erez and Zidon (1984) found that decreased levels of goal commitment are accompanied by decreased performance. Similarly, Wofford, Goodwin, and Premack (1992) found that goal commitment was significantly related to goal achievement, with individuals more committed to goals being more likely to achieve said goals. Klein, Wesson, Hollenbeck, and Alge (1999) also conducted a meta-analysis, finding that there was a positive relationship between goal commitment and performance, and that the relationship was moderated by goal difficulty.
Goal setting has been called one of the most important constructs in all of industrial-organizational psychology (Locke et al., 1988). Goal commitment is crucial to the goal setting process because it determines the extent to which the employee will work through obstacles and be determined to achieve the goal regardless of whether it was self-set or assigned. Should goal commitment not be present, goal setting will fail. Aube and Rousseau (2011) were the first to demonstrate a relationship between interpersonal aggression, which is conceptually related to incivility, and goal commitment as well as a relationship between interpersonal aggression and performance. The researchers found that exposure to interpersonal aggression accounted for nearly a quarter of goal commitment variance, but further research is needed looking specifically at incivility. Incivility may be viewed as an obstacle to achieving a goal that leads to feelings of doubt and rumination that in turn affects goal commitment. Likewise, civility may have a positive influence on goal commitment and performance.

In sum, this work extends past research on incivility and civility by investigating whether these characteristically courteous and discourteous acts affect organizations and employees beyond their self-reported affective states. Specifically, this work investigates whether being targeted by acts of civility and incivility from a project manager in an organizational setting affects the target’s commitment to the goal, rumination over the treatment, and ultimately, task performance. This study extends past research by focusing on the immediate effects of incivility and civility, rather than self-reported perceived effects, on performance. It also specifically researched the effects of incivility, rather than another form of aggression, on rumination. It is the first study to investigate incivility’s and civility’s effects on goal commitment.
Chapter II
Rationale and Hypotheses

Employees' abilities to work towards organizational and individual level goals may be influenced by the contextual factors of their work environment, namely by being treated either civilly or uncivilly by a member in a position of authority. Frank (2010) and Crowe et al. (2012) found that participants' levels of POS and PSS were affected by being treated either civilly or uncivilly, with participants who are exposed to civility reporting higher levels of POS and PSS and those exposed to incivility reporting lower levels of PSS. What remains to be researched is whether being treated civilly and uncivilly impacts employees' self-regulatory processes, namely feelings of rumination and goal commitment. Additionally, research is lacking on a direct link between civility and an objective measure of task performance or incivility and an objective measure of task performance, rather than self-reported perceptions of performance. In addition to the hypotheses, the pattern of interaction will also be explored for each independent and dependent variables.

Cortina and Magley (2009) and Andersson and Pearson (1999) suggested that the ambiguity associated with being targeted with incivility might lead to targets internalizing and ruminating over their experience and potentially engaging in a spiral of tit-for-tat aggressive behaviors, which Andersson and Pearson described as instigated incivility. This study is designed not to investigate the notion that targets will engage in instigated incivility, but rather to test the belief that targets of incivility are likely to ruminate over their experiences. Therefore, the following hypotheses are presented:
H1a: Individuals exposed to incivility will self-report significantly higher frequencies of rumination than individuals who are not exposed to incivility.

H1b: Individuals who receive a verbal “thank you” will self-report significantly lower frequencies of rumination than individuals who do not receive a verbal “thank you”.

Aube and Rousseau (2011) are the only researchers to investigate interpersonal aggression’s effects on goal commitment and performance. The researchers found that exposure to interpersonal aggression accounted for almost a quarter of goal commitment variance. However, their research assessed goal commitment at a team level, rather than from an individual level, and did not investigate incivility specifically. Therefore, the following hypotheses are presented:

H2a: Individuals exposed to incivility will self-report significantly lower levels of goal commitment than individuals who are not exposed to incivility.

H2b: Individuals who receive a verbal “thank you” will self-report significantly higher levels of goal commitment than individuals who do not receive a verbal “thank you”.

Osatuke et al. (2009) found that individuals exposed to their civility initiative reported increased task performance. However, no research has assessed the immediate effects of civility on an objective measure of task performance, rather than employees’ self-reported perceptions of performance. Additionally, research has found that incivility or interpersonal aggression is negatively related to performance (Aube & Rousseau, 2011; Caza & Cortina, 2007; Sliter et al., 2012). Similarly, these are all ratings of performance rather than objective measures of performance. Direct evidence of these relationships is needed as well as further confirmation that these relationships exist. Therefore, the following hypotheses are presented:
H3a: Individuals exposed to incivility will perform significantly worse on a spatial ability task.

H3b: Individuals who receive a verbal “thank you” will perform significantly better on a spatial ability task.
Chapter III

Method

Participants & Mechanical Turk

Participants were recruited through postings on Amazon’s Mechanical Turk (MTurk) in exchange for the possibility of receiving a small monetary amount. MTurk is an online marketplace in which MTurk workers complete human intelligence tasks (HITs) in exchange for monetary amounts. These HITs are provided and paid for by researchers that upload the HIT to MTurk. Although researchers suggest paying 75 cents per participant for completion of a 30-minute survey (Barger, Behrend, Sharek, & Sinar, 2011), these workers were offered one dollar for completion of a 60-minute project. This divergence from suggested research was done to help ensure that participants were not too motivated by money to participate and meaningful data were obtained. MTurk allows for the opportunity to sample a population diverse in age, demographics, and work experience. Users of MTurk tend to be from the United States or India, 65% are female, 60% are older than the age of 30, and 78% have at least a bachelor’s level education (Barger et al., 2011). Researchers have thus recommended MTurk as a viable option for conducting workplace-oriented research, suggesting it yields more generalizable results than would a student population (Barger et al., 2011).

For the purposes of this study, participants had to have a HIT approval rate of at least 95% and be at least 18 years old. Participants were informed prior to beginning the project that they needed to correctly answer two questions based off of material presented in an audio recording during the HIT in order to be compensated. This was emphasized again
in the audio recording. The MTurk interface, as it appeared to participants, is presented in Appendix A. Because MTurk was used in an effort to collect information from a sample with diverse educational and work experience backgrounds as well as a range of ages, races, and countries of residence, issues of diversity in terms of demographic differences were not expected. However, the demographic questionnaire allowed for an assessment of whether demographic information influences generalizability.

The participants were randomly assigned to a 2 (thank you, no thank you) x 2 (rude, not rude) design. Based on Cohen’s (1992) power tables, 180 subjects were needed to have .80 power to detect a medium effect with an alpha of .05 with four groups. This resulted in four different groups with 45 participants required for each group: 1) thank you-rude, 2) thank you-no rude, 3) no thank you-rude, and 4) no thank you-no rude. Due to a minor SurveyGizmo error in which 20 participants were assigned to two already full groups (51 in Group 1 and 60 in Group 4), 45 participants were randomly selected from each group to comprise the final datasets for said groups. The extra data cases were deleted to maintain consistency with the proposal guidelines, specifically because Cohen’s power tables dictated 45 participants for each group and one of the groups collected 33% more participants than were required. It is important to note that the nature of random assignment changed over time because groups were closed after obtaining 45 participants, which then routed participants into the remaining groups.

Measures

Goal commitment. The Goal Commitment Scale assessed the degree to which participants felt committed to the goal of completing the spatial ability task (Hollenbeck et al., 1989a; Appendix B). This 9-item scale has demonstrated acceptable unidimensionality, with one factor accounting for 49.7% of the variance. It has an acceptable coefficient alpha reliability
level of .88 (Hollenbeck, Williams, & Klein, 1989b). The scale has also demonstrated construct and discriminant validity (Hollenbeck et al., 1989a). For the purposes of this study, the items were altered such that "task" replaced "goal." This was done to keep the language throughout the study consistent so as to not confuse participants. The participants reported their level of agreement on a 5-point scale ranging from 1 = *Strongly Disagree* to 5 = *Strongly Agree*. The Goal Commitment score was formed by totaling the responses to the scale items, after reverse scoring items 1, 2, 3, 4, 6, and 9. A higher score indicated higher goal commitment. The scale demonstrated good reliability, with a coefficient alpha of .82. An additional item, "Please answer four to this question," was included as a quality check to ensure participants were paying attention to the items of the survey. If this item was not answered correctly, participants were not compensated. The specific scale items and all other copyrighted measures are included in a separate document for the thesis committee to review.

**Task performance.** Participants completed an 8-item spatial ability task that was scored by the researcher (Psychometric Success, 2013; Appendix C). A spatial ability task was chosen because performance was expected to vary, and it should have posed less of an issue to participants who did not speak English as a first language. Because the researcher was not interested in the psychometrics of the spatial ability measure, it was compiled with the assistance of her co-author using free spatial items found online. Items of different degrees of difficulty were chosen to ensure performance would vary. The task performance score was computed by totaling the number of correct responses for the task, with a higher number indicating better performance. Again, the specific scale items are included in a separate document for the thesis committee to review.

**Rumination about an interpersonal offense scale.** The Rumination About an
Interpersonal Offense Scale assessed the degree to which participants ruminated over their treatment during the duration of the project from the project manager (RIO; Wade, Vogel, Yu-Hsin Liao, & Goldman, 2008; Appendix D). It is important to note that this scale measures rumination as a state, rather than a dispositional emotion. The developers of the RIO scale have utilized the scale in three different samples. The scale was found to yield high reliability across the three samples, yielding alphas of .92, .91, and .92, respectively (Wade et al., 2008). The 6-item scale was altered to measure feelings of rumination experienced throughout the duration of the project. The scale was also altered to assess feelings of rumination about an offense exhibited by the project manager specifically. That is, in the original form, the perpetrator of the offense in the scale was not specified and simply said “this person.” The scale was adjusted by changing the “this person” in each scale item to “project manager.” Because these alterations were very minor, psychometrics were not expected to be affected. The participants reported their level of agreement on a 5-point scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The Rumination score was formed by totaling the responses to the scale items. A higher score indicated more frequent rumination. The scale demonstrated excellent reliability, with a coefficient alpha of .92. The specific scale items are included in a separate document for the thesis committee to review.

Demographics. The demographics information collected included questions on age, gender, race, employment, and work experience. Information on employment and work experience were included to examine whether there were differences among experienced, employed and less-experienced participants in regards to their self-regulatory behaviors and interpretation of civil and uncivil behaviors. Two final questions, “Did the project manager thank you for your completion of the task?” and “Did the project manager exhibit any rude
behaviors?,” were included as manipulation checks to determine if participants noticed the rude and civil behaviors during the audio recording. An additional question, “Please answer dog to this question,” was included as a quality check to ensure participants were paying attention to the items of the survey. If this item was not answered correctly, participants were not compensated. Compensation was only contingent upon correctly answering the quality check items; that is, participants were still paid if they incorrectly responded to the manipulation check items while responding correctly to the quality check items. The manipulation check items were only included to assess whether participants noticed the manipulations. The scale items are presented in Appendix E. Demographics are summarized in Table 1.

Procedure

This study obtained IRB approval from Xavier University’s Institutional Review Board, utilizing an expedited review process. An expedited review process was the most appropriate, as the present study involved manipulation of potentially sensitive variables, namely the manipulation of rude behaviors. The IRB approval letter is located in Appendix F.

The study was conducted as a project, and the researcher presented herself as a representative of the organizations and as the project manager. The researcher behaved and spoke professionally throughout the audio recording in an attempt to create an appropriate, corporate atmosphere. In the MTurk description of the project, it was stated that audio capabilities were needed in order to listen to an audio recording. When MTurk users elected to participate, they were redirected to the survey, which was hosted by SurveyGizmo, and were first asked to read an informed consent form (see Appendix G) and were told that their responses would be confidential. They were also reminded that they needed to listen to an audio recording and that they would not be able to continue nor would they be compensated if questions based
<table>
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<tr>
<td>33-39</td>
<td>6</td>
</tr>
<tr>
<td>40+</td>
<td>5</td>
</tr>
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</table>
off the recording were answered incorrectly. By clicking "next" on the screen, participants were then shown an agenda detailing the items to be completed (i.e., listening to an audio recording from the project manager, reading an article about spatial ability, completing the task, and completing follow-up scales) during the project. This agenda was shown to reinforce the professional, virtual atmosphere that was being fostered. The agenda is presented in Appendix H. Following presentation of the agenda, participants listened to an audio recording of the project manager.

Participants were randomly assigned to one of four conditions: presence of thank you with no rude behavior, presence of thank you with rude behavior, absence of thank you with no rude behavior, and absence of thank you with rude behavior. Participants in the "thank you" group received four manipulations of the presence of thank you in the audio recording to which they listened. The participants were verbally thanked at the beginning of the audio recording, verbally thanked again in the middle of the recording after discussing the contribution it would make to both organizations, verbally thanked before reading the article, and thanked once again, in a written form, following completion of the spatial ability task before the surveys were displayed. The "no thank you" group did not receive any thank you in their audio recording nor did they receive the written thank you after completion of the task. Participants in the "rude" group experienced rude behaviors from the manager in the audio recording, specifically holding a brief background conversation with another person, addressing a phone call, speaking in a condescending manner, and chewing food loudly in the midst of speaking. The rude behaviors were interspersed systematically throughout the audio recording. There were four scripts, with each script being used for a certain condition. These scripts and the breakdown of the
manipulations are presented in Appendix I. The “not rude” group was not exposed to the aforementioned rude behaviors.

The researcher (i.e., project manager) followed a detailed script for each audio recording, which described spatial ability, the project itself, the organizations involved in the project, an article to be read regarding the importance of spatial ability, and the spatial ability task. Participants were unable to progress to the next stage of the study until the end of the audio recording. Following this audio recording, participants were asked two questions regarding what was discussed in the audio recording. These items are presented in Appendix J. If they were answered incorrectly, they were unable to progress to the next stage of the project nor were they compensated. This was done to ensure that participants listened to the audio recording and were subjected to the manipulations. Because many participants had difficulty in correctly answering these questions, an IRB modification was obtained (see Appendix K) to classify an additional answer as correct, as this answer was also discussed in the audio recording. After correctly answering the knowledge-check questions, all participants read an article (see Appendix L) regarding the importance of spatial ability. Participants read this article to ensure that there was adequate time to reflect and process the manipulations in the audio recording before completing the task. That is, the article was included to allow participants time to potentially ruminate over their treatment. This particular article was chosen because it aligned with the premise of the project. Participants were unable to progress to the next section of the study until after 8 minutes had elapsed, which was again to ensure that they did not quickly progress through the stages of the project. After reading the article, participants completed the goal commitment measure, followed by the spatial ability task. After the spatial ability task, they completed a measure of rumination and a demographics form (see Appendix E). Lastly, they received a partial
debriefing, which is located in Appendix M. All participants were thanked upon completion of the surveys. Though none of the participants requested the full debrief, it is included in Appendix N. A walkthrough of the steps of the study is presented in Appendix O.
Chapter IV

Results

Participants that failed the knowledge check and quality check items were automatically disqualified and unable to complete the study, and they were thus not included in data analysis. Participants who failed the manipulation check items were included in data analysis.

A 2 (thank you, no thank you) x 2 (rude, not rude) between-subjects factorial analysis of variance was conducted for each of the dependent variables: rumination, goal commitment, and task performance. Means and standard deviations for the rude and thank you manipulations are presented in Tables 2 and 3, respectively. The first hypothesis was not confirmed. Participants exposed to incivility did not report significantly higher frequencies of rumination than participants not exposed to incivility, $F(1, 176) = 0.92, p = .34$. Participants who were thanked did not report significantly lower frequencies of rumination than participants who were not thanked, $F(1, 176) = 1.61, p = .21$. There was no interaction between being exposed to incivility and being thanked on rumination, $F(1, 176) = 2.67, p = .10$.

The second hypothesis was not confirmed. Participants exposed to incivility did not report significantly lower levels of goal commitment than participants not exposed to incivility, $F(1, 176) = 1.43, p = .23$. Participants who were thanked did not report significantly higher levels of goal commitment than participants who were not thanked, $F(1, 176) = 0.01, p = .91$. There was no interaction between being exposed to incivility and being thanked on goal commitment.
Table 2
Descriptive Statistics for the Rude Manipulation

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<th>M</th>
<th>SD</th>
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<td>Rumination</td>
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Table 3
Descriptive Statistics for the Thank You Manipulation

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<td>Rumination</td>
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</table>
The third hypothesis was not confirmed. Participants exposed to incivility did not perform significantly worse on the spatial ability task than participants not exposed to incivility, $F(1, 176) = 0.02, p = .90$. Participants who were thanked did not perform significantly better on the spatial ability task than participants who were not thanked, $F(1, 176) = 0.05, p = .82$. There was no interaction between being exposed to incivility and being thanked on the spatial ability task, $F(1, 176) = 0.02, p = .90$. Means and standard deviations for the four manipulation groups on the rumination, goal commitment, and task performance measures are presented in Table 4.

There was one notable, significant difference among participants from India and the United States. Participants from other countries were excluded from analyses because their group size was too small for meaningful analyses. It is important to note that cell sizes are not equal ($n = 57$ for India and $n = 112$ for United States), so the following results should be interpreted with caution.

A one-way (India, United States) between-subjects analysis of variance was conducted on each of the dependent variables: rumination, goal commitment, and task performance. There was a significant effect of country on rumination, $F(1, 167) = 95.30, p < .001$; goal commitment, $F(1, 167) = 16.46, p < .001$; and task performance, $F(1, 167) = 5.74, p = .02$. Participants from India reported significantly higher rumination, $M = 16.98$ and $SD = 4.85$, than participants from the United States, $M = 9.56$ and $SD = 4.58$. Participants from India reported significantly lower goal commitment, $M = 32.98$ and $SD = 6.15$, than participants from the United States, $M = 36.62$ and $SD = 5.15$. Participants from India also performed significantly worse on the measure of task performance ($M = 26.40$, $SD = 7.75$) than participants from the United States ($M = 28.44$, $SD = 3.27$). Statistical analyses were not conducted on the four groups from India and the United
Table 4

<table>
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<tr>
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<td>5.35</td>
</tr>
<tr>
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<td>6.04</td>
</tr>
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<td>6.17</td>
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<tr>
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<tr>
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<td>6.33</td>
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<tr>
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</tr>
<tr>
<td>No TY – No Rude</td>
<td>45</td>
<td>27.56</td>
<td>4.83</td>
</tr>
</tbody>
</table>

*Note. TY = Thank You.*
States, as the cell sizes become quite low, but the expected trends exist. Means and standard deviations for these groups are presented in Tables 5 and 6, respectively.

This finding prompted further analyses to determine if there were cultural differences between the United States and India according to manipulation. Separate independent t-tests were conducted to compare each country's (India, United States) means on the dependent variables (rumination, goal commitment, and task performance) according to their manipulation. There was a significant effect of country on rumination for participants exposed to incivility, $t(83) = 5.72, p < .001$, with participants in India reporting significantly higher rumination ($M = 17.33, SD = 3.92$) than participants in the United States ($M = 10.69, SD = 5.12$). There was a significant effect of country on goal commitment for participants exposed to incivility, $t(83) = -2.12, p = .04$, with participants in India reporting significantly lower goal commitment ($M = 32.83, SD = 6.00$) than participants in the United States ($M = 35.75, SD = 5.59$). There was no significant effect of country on spatial ability for participants exposed to incivility, $t(83) = -1.14, p = .26$. Highlighting the earlier finding that participants from India reported harsher responses regardless of condition, significant differences were found for all measures for participants not exposed to incivility. There was a significant effect of country on rumination, $t(82) = 8.78, p < .001$, with participants from India reporting higher rumination ($M = 16.73, SD = 5.48$) than participants in the United States ($M = 8.22, SD = 3.41$). There was a significant effect of country on goal commitment, $t(82) = -3.89, p < .001$, with participants in India reporting lower goal commitment ($M = 33.09, SD = 6.35$) than participants in the United States ($M = 37.65, SD = 4.40$). Lastly, there was a significant effect of country on task performance, $t(82) = -2.07, p = .04$, with participants in India scoring lower on the spatial ability measure ($M = 25.97, SD = 7.82$) than participants in the United States ($M = 28.57, SD = 3.53$).
Table 5
Descriptive Statistics for Four Groups from India

<table>
<thead>
<tr>
<th></th>
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<th>M</th>
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<td>Ruminations</td>
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<tr>
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<td>14</td>
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<td>5.92</td>
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<tr>
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<td>18</td>
<td>33.17</td>
<td>7.42</td>
</tr>
<tr>
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<td>10</td>
<td>32.80</td>
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</tr>
<tr>
<td>No TY – No Rude</td>
<td>15</td>
<td>33.00</td>
<td>5.01</td>
</tr>
</tbody>
</table>

Note. TY = Thank You.

Table 6
Descriptive Statistics for Four Groups from United States

<table>
<thead>
<tr>
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<th>M</th>
<th>SD</th>
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<td></td>
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<td>4.96</td>
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<td>4.14</td>
</tr>
<tr>
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<td>2.42</td>
</tr>
</tbody>
</table>

Note. TY = Thank You.
Means and standard deviations for the rude conditions in India and the United States are presented in Tables 7 and 8, respectively.

Again underlining the earlier finding that participants from India reported more negative responses regardless of condition, significant differences were found for all measures for participants who were thanked. There was a significant effect of country on rumination for participants who were thanked, $t(85) = 7.49, p < .001$, with participants in India reporting significantly higher rumination ($M = 16.06, SD = 4.96$) than participants in the United States ($M = 8.91, SD = 3.82$). There was a significant effect of country on goal commitment for participants who were thanked, $t(84) = -3.09, p = .003$, with participants in India reporting significantly lower goal commitment ($M = 33.03, SD = 6.70$) than participants in the United States ($M = 36.83, SD = 4.69$). There was no significant effect of country on spatial ability for participants who were thanked, $t(84) = -1.84, p = .07$. There were also significant differences among participants who were not thanked. There was a significant effect of country on rumination among participants who were not thanked, $t(81) = 6.72, p < .001$, with participants from India reporting higher rumination ($M = 18.16, SD = 4.53$) than participants in the United States ($M = 10.17, SD = 5.14$). There was a significant effect of country on goal commitment among participants who were not thanked, $t(81) = -2.63, p = .01$, with participants in India reporting lower goal commitment ($M = 32.92, SD = 5.50$) than participants in the United States ($M = 36.41, SD = 5.57$). There was no significant effect of country on task performance among participants who were not thanked, $t(81) = -1.51, p = .13$. Means and standard deviations for the thank you conditions in India and the United States are presented in Tables 9 and 10, respectively.
Table 7
Descriptive Statistics for the Rude Manipulation from India

<table>
<thead>
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<td>6.00</td>
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<td>Task Performance</td>
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Table 8
Descriptive Statistics for the Rude Manipulation from United States

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</tr>
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<td>61</td>
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<tr>
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Table 9
Descriptive Statistics for the Thank You Manipulation from India

<table>
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<td>16.06</td>
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<tr>
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</tr>
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Table 10
Descriptive Statistics for the Thank You Manipulation from United States

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Chapter V

Discussion

The purpose of this study was to determine whether civility and incivility affected rumination, goal commitment, and task performance. None of the hypotheses were confirmed, as participants did not significantly differ by manipulation on measures of rumination, goal commitment, and task performance. The lack of significant findings suggest that the experiment may have been too short and impersonal to register any effects on participants' rumination, goal commitment, and task performance. In spite of this, an interesting trend emerged in which participants from India reported harsher scores than participants from the United States on the three measures. That is, participants from India reported significantly higher rumination and lower goal commitment, and scored significantly lower on the measure of task performance than participants from the United States, regardless of condition. Participants from India who were exposed to uncivil behavior reported significantly higher rumination and lower goal commitment. Participants from India who were thanked also reported significantly higher rumination and lower goal commitment than participants from the United States who were thanked.

The differences between participants from India and the United States highlight the potential cultural differences underlying the interpretation of uncivil and civil behaviors. Though both groups reported experiencing little to no rude behaviors ($M = 2.12$, $SD = 1.33$ for United States and $M = 2.19$, $SD = 1.14$ for India), participants from India responded noticeably and significantly harsher. To this researcher's knowledge, this is only the second study to compare
incivility's effects on participants from the United States and another culture. In a master's thesis, Brassell (2009) found that Turkish participants targeted by incivility were more likely to experience negative psychological and physiological effects than American targets of incivility. In a cross-cultural study on personality and incivility, Liu, Chi, Friedman, and Tsai (2011) found that participants with a predominantly high collectivism cultural orientation (i.e., Taiwan participants) were less likely to behave uncivilly than those with a predominantly low collectivism orientation (i.e., American participants).

Liu et al. (2011) further suggested that predominantly high collectivism cultures are less tolerant of uncivil behaviors, which may explain why participants from India, a predominantly high collectivism culture (Kapoor, Hughes, Baldwin, & Blue, 2003), were seemingly more affected by the uncivil treatment in the current study. Additionally, a recent poll ( Civility in America, 2013 ) reveals that 95% of respondents believe America has a civility problem, 70% believe civility in America has reached "crisis" proportions, and respondents on average experience 2.4 acts of incivility per day. Uncivil acts may be so commonplace that they are now considered normal, which could explain why participants from the United States seemed unaffected by their treatment. More research is clearly needed to elucidate why such significant differences exist between participants from the United States and India.

The present study adds further support to research suggesting that MTurk may be inappropriate for labor-intensive academic research. Goodman, Cryder, and Cheema (2012) found that when a study of 16 minutes included attention (i.e., knowledge check items) that required careful reading of materials, MTurk workers' performance significantly declined. The present study averaged over 40 minutes and included knowledge check items based on an audio recording, so it seems likely that participants' attention dwindled as the study progressed.
Goodman et al. suggest that, compared to traditional samples (e.g., community and student samples), MTurk workers tend to pay less attention to the experimental materials. This could explain why, in the present study, there were not significant differences among the experimental conditions, even though participants were informed prior to accepting the project that its duration was approximately an hour.

Paolacci, Chandler, and Ipeirotis (2010) discuss the importance of maintaining positive, professional relationships with MTurk workers, as the workers have venues (e.g., http://tukeopticon.differenceengine.com) to publish bad experiences with requesters’ HITs. The assumption in this is that MTurk workers only frequent forums like TurkOpticon to dissuade other workers from certain studies. However, a perusal of the TurkOpticon forum provides a different story of what is discussed, as many posters tend to post information about HITs and judge HITs based on the time needed to complete the study and pay, with HITs that maximize compensation for minimal time spent being discussed and rated most favorably. This raises concerns about the quality of the present study’s data, as any participant disclosures of what happened in the project could have significantly affected the results. That is, participants disclosing their treatment could have affected other participants’ responses and willingness to participate. The online presence of MTurk workers on forums like TurkOpticon may pose an issue to experimental research conducted through MTurk. Future experimental studies using MTurk would benefit from a formal content analysis being conducted to determine the extent to which these forums affect MTurk workers.

**Contributions**

Although the hypotheses were not supported, these findings still progress incivility and civility research. Specifically, this project represents one of the first attempts at investigating
incivility and civility using online platforms, specifically MTurk, which continues to grow in popularity with researchers. Manipulating civil and uncivil behaviors remains a challenge to these lines of research (Herschovis, 2011), as they often cannot account for the ongoing relationship between the instigator and target. While a brief, in-person experiment cannot capture the realistic, ongoing relationship between the two parties, it at least offers a personal contact who is present for the duration of the study. These findings suggest online platforms like MTurk may not be ideal for incivility and civility research, as the lack of personal contact may actually decontextualize the behaviors, minimizing some of their effects.

This study progresses research in MTurk and crowdsourcing, demonstrating the pitfalls that come from the social media sites used by many MTurk workers. Specifically, the frequency with which this study was discussed on MTurk worker forums suggests that conducting experimental research on MTurk may be a risky endeavor. MTurk workers form relationships on these forums and share and discuss what they perceive to be favorable and unfavorable HITs. Discussions on this study included complaints about the knowledge check questions, pay, and the duration of the study. Participants' complaints about the pay and duration of the study are aligned with past research (Goodman et al., 2012), suggesting that MTurk and other crowdsourcing services may not be suitable for rigorous experimental research. Complaints regarding the knowledge check questions included concerns over the veracity and fairness of the questions, though many participants were able to successfully answer the questions and complete the project. Although no public discussion of the manipulations appeared to take place, it is impossible to be certain that information about the manipulations did not occur privately (e.g., private messaging). A formal content analysis of these forums would be highly beneficial, as it
could elucidate the degree to which these forums influence participants’ responses, the manipulation, and data quality.

The findings also suggest that there may be cultural differences in perceptions of incivility and civility, with participants from India reporting significantly less favorable scores on the goal commitment, rumination, and spatial ability measures. These findings have clear implications on civility and incivility policies and practices, as it appears civility may be locally-defined. That is, civility and incivility standards may differ by culture and thus international organizations need to ensure their policies and practices are tailored to the cultures in which they are located. Organizations also need to require that expatriates receive formal training on the civility norms of the cultures in which they are entering if the norms differ from those of the host country. This study also has scientific contributions. Considering the differing cultural perceptions, civility and incivility may need to be conceptualized by culture. That is, the United States’ operationalization of civility may differ from that of India’s. Civility and incivility research in different cultures (e.g., a collectivist culture) may need to first look at how both constructs are defined. This study also represents one of the first studies to demonstrate cross-cultural differences in perceptions of civility and incivility, and future research is needed to confirm, extend, and explain these findings.

Finally, this study adds to research (Civility in America, 2013) suggesting America is facing a civility crisis. Participants from the United States were seemingly unaffected by their uncivil treatment and many reported experiencing little to no rude behaviors \((M = 2.12, SD = 1.33)\). Civility standards in the United States appear to be declining. Incivility can lead to negative effects on areas such as psychological distress (Cortina et al., 2001), physical and mental health (Lim et al., 2008), and job satisfaction (Lim et al., 2008), making the civility crisis
a major concern. This study contributes the growing body of research calling for improvements in civility in the workplace and in society.

Limitations and Directions for Future Research

The use of an audio recording in this study is a potential limitation. Participants may have found it difficult to believe that the project manager would continue recording after being interrupted twice because it would be relatively easy to stop and rerecord the information. That is, this manipulation may have harmed the believability of the study, as the audio recording included rude behaviors that could have been easily avoided. There was no way to wholly remedy this concern, but it is hoped that it did not pose much of an issue to the study because the rude behaviors occurred briefly in the recording. Future research should investigate additional strategies for demonstrating civil and uncivil behavior. Video recordings may be an interesting option for manipulating these behaviors, as videos could humanize the behaviors more than an audio recording by showing the instigator as they perform the behavior. In-person manipulations of the behavior would also be a worthwhile option, as they would force the instigator to remain present throughout the duration of the experiment.

A potential limitation to this study is that participants may have been too motivated by the compensation. There was no way to account for this, although participants were only paid a nominal fee of one dollar to help mitigate this concern. The benefits of a providing a small fee to participants to garner a work-experienced sample far outweighed the cons. An additional limitation was that participants may not have read all of the materials in their entirety or paid attention to the audio recording that described the task and includes the manipulation. This limitation was addressed through the inclusion of knowledge check questions after the audio recording, which would not allow participants to progress unless answered correctly. An
additional way this limitation was addressed was by including a timed element to the survey, which necessitated that participants spend a certain amount of time on a page before progressing, in an attempt to ensure they read and processed the materials. A similar concern is that participants may have found the length and labor-intensive nature of the study demotivating, as research on MTurk suggests that workers prefer shorter, less laborious tasks (Goodman et al., 2012). There is no way to account for this, as the study’s design necessitated a longer length to allow for the manipulations and opportunity to ruminate over the treatment. Future research should vary the compensation offered and length of the investigations to determine if they indeed affect participation and results.

Another possible limitation is that the manipulation of the uncivil behaviors were not strong enough. The rude behaviors were incorporated systematically and on an infrequent basis, with rude behaviors occurring only four times during the audio recording, thereby being difficult to detect unless paying adequate attention to the discussion. The low intensity nature of the incivility manipulation was done for two reasons. Firstly, past research (Crowe et al., 2012) has shown that although participants may not report being exposed to rude behaviors of this nature, they are adversely affected by them. Secondly, the low-intensity nature of the manipulation is necessary due to the low-intensity nature of incivility. A related concern is that incivility is open to interpretation; that is, the uncivil behaviors may not have been considered uncivil by participants. This concern is addressed in the inclusion of the manipulation check item, which asked participants to report the extent to which they experienced rude behaviors. The responses show that participants generally did not consider their treatment uncivil, with 67% of participants reporting that they experienced little to no rude behavior. This is not uncommon in experiments, as past research (Crowe et al., 2012) has found that participants were still adversely affected by
uncivil treatment even when they reported not being exposed to uncivil behaviors. The medium (i.e., audio recordings) through which the manipulations occurred may have also affected the interpretation of the manipulation. That is, participants may have viewed the treatment as a display of incompetence rather than rudeness. Future research should investigate different uncivil manipulations to determine if this trend continues across different samples and if different behaviors are considered more uncivil than others.

Another limitation to the study is that the measure of performance was based on a specific measure of ability rather than a specific task. The decision to include a measure of spatial ability as a task was done to ensure participants who do not speak English as a first language were not adversely affected. However, it is possible that participants’ spatial ability was not affected by their treatment, as it seems plausible that participants’ ability would not be affected by the manipulations. Future research should look at the effects of incivility and civility on a measure of performance that is not solely ability-based (e.g., accuracy measures for classification tasks).

Another limitation is the unequal sample sizes across the United States ($n = 112$) and India ($n = 57$), which renders the results be interpreted with caution. Though the cross-cultural differences were not initially hypothesized, the results are interesting as they present questions about the cultural differences in incivility and civility perceptions. Future research is needed to determine whether these results hold up in larger sample sizes. It is also important to note that the current sample tended to be younger, with nearly 62% of participants being between the ages of 18 and 31. Other researchers (Crowe et al., 2012) have found that younger samples do not always perceive uncivil behaviors as being uncivil, which may help explain why the current
sample seemed unaffected by the presence of incivility. Future research is needed to elucidate the relationship between age and incivility perceptions and effects.

Finally, as with any study that uses self-report data, it is also possible that participants may not have taken the study seriously and exerted minimal effort to receive their fee. Unfortunately, there was no way to ensure that participants did not engage in this behavior, but it was hoped that the task would lead to engagement among participants and make them more interested in the study. Participants also had to answer two quality check items interspersed throughout the survey, as researchers have suggested quality check questions help to identify any participants who are not paying attention to the survey content (Meade & Craig, 2012). Meade and Craig (2012) suggested that including quality check items is beneficial because it helps to identify respondents engaging in insufficient effort responding (IER). These items should have assisted in identifying any participants who are attempting to quickly go through the survey and be compensated. Participants who incorrectly answered these questions were disqualified to not compromise the quality of the data.
Chapter VI

Summary

Self-regulatory behavior is an important area of interest to employers, as this behavior can affect an employee’s ability to work towards organizational goals. Little research exists that examine whether interpersonal treatment at work affects an employee’s self-regulatory behaviors and their subsequent performance. This study investigates whether being exposed to civil and/or uncivil behaviors affects participants’ ruminative thoughts, goal commitment, and performance.

Interpersonal Treatment: Two Constructs and Their Effects

In civility. Andersson and Pearson (1999) define incivility as “low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect. Uncivil behaviors are characteristically rude and discourteous, displaying a lack of regard for others” (p. 457). Incivility is believed to be quite commonplace, as over 70% of participants in seminal incivility studies reported being targeted by this behavior (Cortina, Magley, Williams, & Langhout, 2001). Targeted employees may experience negative effects on their psychological distress and organizational commitment (Cortina et al., 2001); physical and mental health and job, supervisor, and coworker satisfaction (Lim, Corina, & Magley, 2008); and self-reported performance (Caza & Cortina, 2007).

Civility. In contrast to the harm brought about by incivility, Saari and Judge (2004) suggested that organizations benefit from having happy employees. Being civil towards employees, even by simply thanking them for contributions, may be a way to ensure employees remain satisfied. Andersson and Pearson (1999) defined workplace civility as “a behavior
involving politeness and regard for others in the workplace, within workplace norms for respect” (p. 454). Civility is distinct from prosocial organizational behaviors and organizational citizenship behaviors in that the intention behind civility is not necessarily the betterment of the organization. Acting civilly, which is typically unrecognized by organizational policies, may be for the organization’s benefit or it may be due to the employee’s disposition. Research (Crowe, Mack, Dulaney, & Mullins; Frank, 2010) has found that just being thanked for contributions can lead to increases in perceived organizational support and perceived supervisor support.

Self-Regulatory Outcome Measures

Goal Commitment. Goal commitment is defined as “one’s attachment to or determination to reach a goal, regardless of the goal’s origin” (p. 23; Locke, Latham, & Erez, 1988). Research has found that an employee’s commitment to a goal decreases as his belief that the likelihood of attaining that goal declines, and that employees are likely to be less committed and disengage from the goal when it is perceived as too difficult and self-efficacy is low (Locke et al., 1988). Examples of why employees may disengage from their goals may be hostile work environment due to coworkers, supervisors, and/or customers, lack of direction on tasks, or general distractions from either their lives outside of work or their work environment itself. People may undergo goal disengagement as a way of deflecting any sense of failure and to separate from a task that does not result in satisfaction (Wrosch, Scheier, Miller, Schulz, & Carver, 2003).

Rumination. Operationally, rumination pertains to “conscious, repetitive thoughts that revolve around a common theme, and usually implies cognitions that are intrusive and aversive” (Peled & Moretti, 2010; p. 108). Carver and Scheier (1998) suggested that when individuals are faced with what is perceived to be an unattainable goal, they experience feelings of self-doubt.
and worry, which impedes their ability to self-regulate effectively and leads to goal
disengagement and abandonment. In the process of disengaging from the goal, goal commitment
begins to deteriorate, ultimately leading to goal abandonment. These feelings of doubt are
suggested to be intrusive and relatively consistent and can be considered a form of rumination.
Porath, Macinnis, and Folkes (2007) found that witnesses of incivility became angry over the
incident, which led to negative rumination. Additionally, witnesses of the uncivil encounters
were more likely to make negative generalizations about the instigator of incivility, the
organization, and future encounters with the organization.

Performance. Hollenbeck and Klein (1987) created a model that has since been
supported by research that suggests goal commitment is a moderator for the relationship between
goal-setting and performance. Klein and Kim (1998) found that employees with high quality
relationships with their supervisors held more goal commitment, which in turn led higher
performance, than individuals with low quality relationships with their supervisors. These results
illustrate the importance of contextual factors to goal commitment, specifically interpersonal
relationships with supervisors. Erez and Zidon (1984) found that decreased levels of goal
commitment are accompanied by decreased performance. Similarly, Wofford, Goodwin, and
Premack (1992) found that goal commitment was significantly related to goal achievement, with
individuals more committed to goals being more likely to achieve said goals.

Goal setting has been called one of the most important constructs in all of industrial-
organizational psychology because it determines the extent to which the employee will work
through obstacles and achieve the goal (Locke et al., 1988). A potential obstacle may be their
interpersonal treatment, which is the topic of this investigation. Specifically, this work
investigates whether being targeted by acts of civility and incivility from a project manager in an
organizational setting affects the target’s commitment to the goal, rumination over the treatment, and, ultimately, task performance. We hypothesized that participants exposed to uncivil behavior would report lower scores on the measures of goal commitment (Hypothesis 1) and task performance (Hypothesis 3) and higher scores on rumination (Hypothesis 2) than those who were not, and participants who were not thanked would respond in the aforementioned pattern on the same outcome measures than those who were.

Method

Participants & Mechanical Turk

One hundred and eighty participants were recruited through postings on Amazon’s Mechanical Turk (MTurk) in exchange for the possibility of receiving one dollar. MTurk is an online marketplace in which MTurk workers complete human intelligence tasks (HITs) posted and paid for by researchers. For the purposes of this study, participants had to have a HIT approval rate of at least 95% and be at least 18 years old. The participants were randomly assigned to a 2 (thank you, no thank you) x 2 (rude, not rude) design.

Measures

Goal commitment. The 9-item Goal Commitment Scale assessed the degree to which participants felt committed to the goal of completing the spatial ability task (Hollenbeck, Klein, O’Leary, & Wright, 1989). For the purposes of this study, the items were altered such that “task” replaced “goal.” The participants reported their level of agreement on a 5-point scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The Goal Commitment score was formed by totaling the responses to the scale items, with a higher score indicating higher goal commitment. An additional item, “Please answer four to this question,” was included as a quality check.
Task performance. Participants completed an 8-item spatial ability task (Psychometric Success, 2013) that was scored by the researcher. A spatial ability task was chosen because performance was expected to vary, and it should have posed less of an issue to participants that did not speak English as a first language. Because the researcher was not interested in the psychometrics of the spatial ability measure, it was compiled with the assistance of her coauthor using free spatial items found online. The task performance score was computed by totaling the number of correct responses for the task, with a higher number indicating better performance.

Rumination about an interpersonal offense scale. The 6-item Rumination About an Interpersonal Offense Scale assessed the degree to which participants ruminated over their treatment during the duration of the project from the project manager (RIO; Wade, Vogel, Yu-Hsin Liao, & Goldman, 2008). For the purposes of this study, the scale items were altered such that “project manager” replaced “this person.” The participants reported their level of agreement on a 5-point scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The Rumination score was formed by totaling the responses to the scale items, with a higher score indicating more frequent rumination.

Demographics. The demographics information collected contained items on age, gender, race, employment, and work experience. Two final questions, “Did the project manager thank you for your completion of the task?” and “Did the project manager exhibit any rude behaviors?” were included as manipulation checks. An additional question, “Please answer dog to this question,” was included as a quality check. Compensation was only contingent upon correctly answering the quality check items; that is, participants were still paid if they incorrectly responded to the manipulation check items while responding correctly to the quality check items.
Procedure

The study was conducted as a corporate project, and the researcher presented herself as a representative of the organizations and as the project manager. When MTurk users elected to participate, they were redirected to the survey, which was hosted by SurveyGizmo. They read an informed consent form, which reminded them that their responses would remain confidential, they needed to listen to an audio recording, and they would not be compensated if they didn’t correctly answer knowledge check questions. Participants were then shown an agenda detailing the items to be completed during the project. Following presentation of the agenda, participants listened to an audio recording of the project manager.

Participants were randomly assigned to one of four conditions: presence of thank you with no rude behavior, presence of thank you with rude behavior, absence of thank you with no rude behavior, and absence of thank you with rude behavior. Participants in the “thank you” group received four manipulations of the presence of thank you. The participants were verbally thanked at the beginning of the recording, verbally thanked in the middle of the recording, verbally thanked before reading the article, and thanked in a written form following completion of the spatial ability task. The “no thank you” group was not thanked. Participants in the “rude” group experienced rude behaviors interspersed systematically by the manager in the recording such as holding a brief background conversation, answering a phone call, speaking in a condescending manner, and chewing food loudly while speaking. The “not rude” group was not exposed to the aforementioned rude behaviors.

The researcher (i.e., project manager) followed a detailed script for each audio recording, which described spatial ability, the project itself, the organizations involved, an article to be read, and the spatial ability task. Participants were unable to progress until the end of the recording.
Following this recording, participants were asked two questions regarding what was discussed in the recording. If answered incorrectly, they were unable to progress nor were they compensated. After correctly answering the knowledge-check questions, all participants read an article regarding the importance of spatial ability to ensure there was adequate time to potentially ruminate over their treatment. Participants were unable to progress until eight minutes had elapsed, which was to ensure that they did not quickly progress through the project. After reading the article, participants completed a goal commitment measure, a spatial ability task, a measure of rumination, and a demographics form. Lastly, they were debriefed, and all participants were thanked. The scripts utilized, and all other experimental materials, are available on request from the first author.

Results

A 2 (thank you, no thank you) x 2 (rude, not rude) analysis of variance was conducted on rumination, goal commitment, and task performance. None of the hypotheses were confirmed, but some interesting trends emerged in which participants from India significantly differed from participants from United States. It is important to note that cell sizes are not equal ($n = 112$ for United States and $n = 57$ for India), so the following results should be interpreted with caution.

Regardless of condition, participants from India reported significantly less favorable scores than those from the United States. There was a significant effect of country on rumination, $F(1, 167) = 95.30, p < .001$; goal commitment, $F(1, 167) = 16.46, p < .001$; and task performance, $F(1, 167) = 5.74, p < .05$. Participants from India reported significantly higher rumination ($M = 16.98$), lower goal commitment ($M = 32.98$), and performed worse on the measure of task performance ($M = 26.40$) than participants from the United States ($M = 9.56$; 36.62; and 28.44, respectively).
There was a significant effect of country on rumination for participants exposed to incivility, \( r(83) = 5.72, p < .001 \), with participants in India reporting significantly higher rumination (\( M = 17.33 \)) than participants in the United States (\( M = 10.69 \)). There was a significant effect of country on goal commitment for participants exposed to incivility, \( r(83) = -2.12, p < .05 \), with participants in India reporting significantly lower goal commitment (\( M = 32.83 \)) than participants in the United States (\( M = 35.75 \)). There was no significant effect of country on spatial ability for participants exposed to incivility, \( r(83) = -1.14, p = .26 \).

Highlighting the earlier finding that participants from India reported harsher responses regardless of condition, significant differences were found for all measures for participants not exposed to incivility. There was a significant effect of country on rumination, \( r(82) = 8.78, p < .001 \), with participants from India reporting higher rumination (\( M = 16.73 \)) than participants in the United States (\( M = 8.22 \)). There was a significant effect of country on goal commitment, \( r(82) = -3.89, p < .001 \), with participants in India reporting lower goal commitment (\( M = 33.09 \)) than participants in the United States (\( M = 37.65 \)). Lastly, there was a significant effect of country on task performance, \( r(82) = -2.07, p < .04 \), with participants in India scoring lower on the spatial ability measure (\( M = 25.97 \)) than participants in the United States (\( M = 28.57 \)).

Again highlighting the earlier finding that participants from India reported harsher responses regardless of condition, significant differences were found for all measures for participants who were thanked. There was a significant effect of country on rumination for participants who were thanked, \( r(85) = 7.49, p < .001 \), with participants in India reporting significantly higher rumination (\( M = 16.06 \)) than participants in the United States (\( M = 8.91 \)). There was a significant effect of country on goal commitment for participants who were thanked, \( r(84) = -3.09, p < .01 \), with participants in India reporting significantly lower goal commitment.
than participants in the United States ($M = 36.83$). There was no significant effect of 
country on spatial ability for participants who were thanked, $r(84) = -1.84, p = .07$. There were 
also significant differences among participants who were not thanked. There was a significant 
effect of country on rumination among participants who were not thanked, $t(81) = 6.72, p < .001$, 
with participants from India reporting higher rumination ($M = 18.16$) than participants in the 
United States ($M = 10.17$). There was a significant effect of country on goal commitment among 
participants who were not thanked, $t(81) = -2.63, p < .01$, with participants in India reporting 
lower goal commitment ($M = 32.92$) than participants in the United States ($M = 36.41$). There 
was no significant effect of country on task performance among participants who were not 
thanked, $t(81) = -1.51, p = .13$.

**Discussion**

None of the hypotheses were confirmed. In spite of this, an interesting trend emerged in 
which participants from India reported significantly higher frequencies of rumination and less 
goal commitment and scored significantly lower on the measure of task performance than 
participants from the United States regardless of condition. Additionally, participants from India 
who were exposed to uncivil behavior reported higher rumination and lower goal commitment. 
Participants from India who were thanked also reported higher rumination and lower goal 
commitment.

The differences between participants from India and the United States highlight the 
potential cultural differences that are behind the interpretation of uncivil and civil behaviors. 
This is only the second study to compare incivility’s effects on participants from the United 
States and another culture. The other being Brassell (2009), who found Turkish participants 
targeted by incivility were more likely to experience negative psychological and physiological
effects than American targets. Additionally, Liu, Chi, Friedman, and Tsai (2011) suggest that predominantly high collectivism cultures (e.g., India) are less tolerant of uncivil behaviors than predominantly low collectivism cultures (e.g., United States), which may explain why participants from India were more affected by the uncivil treatment in the current study.

Additionally, a recent poll (Civility in America 2013) reveals that respondents on average experience 2.4 acts of incivility per day. Uncivil acts may be so commonplace that they are now considered normal, which could explain why participants from the United States seemed unaffected by their treatment.

The present study adds further support to research suggesting that MTurk may be inappropriate for labor-intensive academic research. Goodman, Cryder, and Cheema (2012) found that when a study of sixteen minutes included knowledge check items that required careful reading of materials, MTurk workers' performances declined. The present study averaged over 40 minutes and included knowledge check items, so it seems likely that participants' attention dwindled as the study progressed. Goodman et al. suggest that, compared to traditional samples, MTurk workers tend to pay less attention to the experimental materials. This could explain why, in the present study, there were not significant differences among the experimental conditions. A perusal of the TurkOpticon forum, which is frequented by MTurk workers, suggests that many posters divulge information about HITs and judge HITs based on the time and pay, with HITs that maximize compensation for minimal time spent being rated most favorably. This raises concerns about the quality of the data yielded here. The online presence of MTurk workers on forums like TurkOpticon may pose an issue to experimental research conducted through MTurk and should be a concern to future researchers.
Contributions

Manipulating civil and uncivil behaviors remains a challenge to these lines of research (Herschovis, 2011), as they often cannot account for the ongoing relationship between the instigator and target. These findings suggest MTurk may not be an ideal platform for incivility and civility research, as the lack of personal contact may actually decontextualize the behaviors, minimizing some of their effects. This also represents one of the first studies to demonstrate cross-cultural differences in perceptions of civility and incivility, and future research is needed to confirm, extend, and explain these findings.

Limitations and Directions for Future Research

The use of an audio recording in this study is a potential limitation, as the audio recording included rude behaviors that could have been easily avoided. It was hoped this did not pose a big issue because the rude behaviors occurred briefly in the recording. Future research should investigate additional strategies (e.g., video recordings, in-person manipulations) for demonstrating civil and uncivil behavior.

A potential limitation to this study is that participants may have been too motivated by the compensation. To account for this, participants were only paid one dollar. An additional limitation was that participants may not have read all of the materials in their entirety or paid minimal attention to the audio recording. This limitation was addressed through the inclusion of knowledge check questions after the audio recording and a timer that dictated when participants could progress. A similar concern is that participants may have found the length and labor-intensive nature of the study demotivating, as research on MTurk suggests that workers prefer shorter, less laborious tasks (Goodman et al., 2012). Future research should vary the
compensation offered and length of the investigations to determine if they indeed affect participation and results.

Another possible limitation is that the manipulation of the uncivil behaviors were not strong enough. A related concern is that the uncivil behaviors may not have been considered uncivil by participants, which was addressed in the inclusion of the manipulation check item. The responses elucidate that participants generally did not consider their treatment uncivil, with 67% of participants reporting that they experienced little to no rude behavior. This is not uncommon, as past research (Crowe et al., 2012) has found that participants are still adversely affected by incivility even when they report not being exposed to any uncivil behaviors. Future research should investigate different uncivil manipulations to determine if this trend continues across different samples and if different behaviors are considered more uncivil than others.

Another limitation to the study is that the measure of performance was based on a specific measure of ability rather than a specific task. The decision to include a measure of spatial ability as a task was done to ensure participants who do not speak English as a first language were not adversely affected, but it is plausible participants' ability would not be affected by the manipulations. Future research should look at the effects of incivility and civility on a measure of performance that is not solely ability-based. Finally, as with any study that uses self-report data, it is also possible that participants may not have taken the study seriously and exerted minimal effort to receive their fee. To account for this, participants had to answer two quality check items to help identify and disqualify any participants who were not paying attention to the survey content.
References


Appendix A

MTurk Interface

Note: This HIT is periodically re-posted. If you’ve completed this HIT before, please do not complete it again. You will not be compensated a second time.

Please note that you will have to enter your unique ID TWICE, once HERE and once at the END of the study in order to be compensated, if eligible.

1. Please enter your unique identifier located on the MTurk Dashboard. You must enter your MTurk ID HERE: [text box]

Also, please SAVE your unique identifier because you will be required to enter it once again AT THE END OF THE PROJECT.

2. Please click the following link in order to access the survey. After you complete the survey, click the “Submit” button below.


[SUBMIT]
Appendix B

Goal Commitment Scale

These items are not presented in order to protect the rights of the original copyright holder. They were obtained for this study from Hollenbeck et al. (1989a).
Appendix C

Spatial Ability Task

These items are not presented in order to protect the rights of the original copyright holder. They were obtained for this study from Psychometric Success (2013).
Appendix D

Rumination About an Interpersonal Offense Scale

These items are not presented in order to protect the rights of the original copyright holder. They were obtained for this study from Wade et al. (2008).
Appendix E

Demographics

1. Age: 

2. Gender

   : Male
   : Female
   : Prefer not to respond

3. In terms of race/ethnicity, how do you describe yourself? *(Please select the option that best describes you)*

   : American Indian or Alaska Native
   : Hawaiian or Other Pacific Islander
   : Asian or Asian American
   : Black or African American
   : Hispanic or Latino
   : White (Non-Hispanic)
   : Multi-racial
   : Other: 

   : Prefer not to respond

4. Please answer dog to this question.

   : Drink
   : Dog
   : Bat

5. In what country do you reside? 

6. Are you currently employed?

   : Yes
   : No

7. How many years of work, or work-related experience, have you had? 

8. What is your current or most recent job title? 
9. Did the project manager thank you for your participation?
   _____: Yes
   _____: No
   _____: I do not remember

10. To what extent did the project manager exhibit rude behaviors?
    Not at all  1  2  3  4  5  A great extent

11. How many times did you listen to the audio recording? _____

12. MTurk Worker ID (MUST ENTER WORKER ID IN ORDER TO BE PAID):
July 8, 2013

Emily Crowe  
35 15th Street  
Newport, KY 41071

Re: Protocol #1298, Incivility’s and Civility’s Effects on Goal Commitment, Rumination, and Performance

Dear Ms. Crowe:

The IRB has reviewed the materials regarding your study, referenced above, and has determined that it meets the criteria for the Exempt from Review category under Federal Regulation 45CFR46. Your protocol is approved as exempt research pending receipt of the audio clips, and therefore requires no further oversight by the IRB. We appreciate your thorough treatment of the issues raised and your timely response.

If you wish to modify your study, including the addition of data collection sites, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

Please contact our office if you have any questions. We wish you success with your project!

Sincerely,

[Signature]

Kathleen J. Hart, Ph.D., ABPP  
Vice Chair, Institutional Review Board  
Xavier University

KJH/ab  
C: Morell Mullins, Advisor
Appendix G

Informed Consent

You are being given the opportunity to volunteer to participate in a project conducted by Emily Crowe through Xavier University, in conjunction with a midsize, locally-owned organization in the Cincinnati, Ohio area.

The project involves your participation in a study concerning job incumbents’ spatial ability. Your insight will prove meaningful and should be reflective of the spatial ability knowledge held by job incumbents. This project will be conducted by a project manager who has recorded an audio presentation for you to review. Following listening to her description of the spatial ability task, you will take follow-up and feedback measurements. This session should take no longer than 60 minutes, and you will be compensated one dollar. Your participation in this project is voluntary. If you agree to this project, you will receive compensation if you complete the project in its entirety and if your data pass all quality checks. There are no known or anticipated negative consequences associated with participation in this project. Refusal to participate in this project will have no effect on any future services you may be entitled to from Xavier University or the organization with which we are partnering. You are free to withdraw from the study at any time without penalty, but you will not be compensated for an incomplete survey.

As a reminder, you will need to listen to an audio recording to participate in this project. Thus, your computer, tablet, or phone must have audio capabilities, and you may need access to headphones, if you require them. After listening to the recording, you will be asked questions to assure that you were listening to the recording before you can continue on with the project. If you do not answer these questions correctly, you will not be able to continue or be compensated. In order to process your payment, at the end of the study you will be asked to enter your unique MTurk worker ID; you will also need to enter this in the study’s MTurk front-end screen, so that the researchers can appropriately distribute payments.

If you have any questions at any time (during or after the study), you may contact the principal investigator, Emily Crowe, at crowe@xavier.edu or her project supervisor, Dr. Morell Mullins, at mullins@xavier.edu. Questions about your rights as a research subject should be directed to Xavier University’s Institutional Review Board at 513-745-2870.

None of your answers from the surveys will be distributed to anyone involved in your career development. The answers are kept anonymous, meaning they are electronically stored without your name on them.

By clicking the “NEXT” button and continuing on with this project, I indicate that I have read and agreed to all of the above, and am voluntarily giving my informed consent.
Appendix G

Informed Consent

You are being given the opportunity to volunteer to participate in a project conducted by Emily Crowe through Xavier University, in conjunction with a midsize, locally-owned organization in the Cincinnati, Ohio area.

The project involves your participation in a study concerning job incumbents' spatial ability. Your insight will prove meaningful and should be reflective of the spatial ability knowledge held by job incumbents. This project will be conducted by a project manager who has recorded an audio presentation for you to review. Following listening to her description of the spatial ability task, you will take follow-up and feedback measurements. This session should take no longer than 60 minutes, and you will be compensated one dollar. Your participation in this project is voluntary. If you agree to this project, you will receive compensation if you complete the project in its entirety and if your data pass all quality checks. There are no known or anticipated negative consequences associated with participation in this project. Refusal to participate in this project will have no effect on any future services you may be entitled to from Xavier University or the organization with which we are partnering. You are free to withdraw from the study at any time without penalty, but you will not be compensated for an incomplete survey.

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If you have any questions at any time (during or after the study), you may contact the principal investigator, Emily Crowe, at crowee@xavier.edu or her project supervisor, Dr. Morell Mullins, at mullins@xavier.edu. Questions about your rights as a research subject should be directed to Xavier University's Institutional Review Board at 513-745-2870.

None of your answers from the surveys will be distributed to anyone involved in your career development. The answers are kept anonymous, meaning they are electronically stored without your name on them.

By clicking the "NEXT" button and continuing on with this project, I indicate that I have read and agreed to all of the above, and am voluntarily giving my informed consent.
Appendix H

Agenda

The agenda will be presented on a separate page after reading the Informed Consent and progressing to the next page by clicking "next." The project manager will emphasize these agenda items again in the audio recording.

---

Today’s Agenda

- Overview by Project Manager
- Article Review
- Spatial Ability Task
- Feedback Surveys
- Follow-up Information
Appendix I
Script and Manipulations

Thank You x Rude Behavior Condition

After reading the informed consent, participants will be presented with an audio recording. That recording will include the following manipulations.

THANK YOU MANIPULATION 1:

- "Thank You" Groups: "Hello, and thank you for your participation in this organizational research study. My name is Emily, and I am the project manager working with Xavier University and a local, midsize organization in the Cincinnati area. If it sounds like I’m reading to you, that’s because I probably am. It’s very important that everyone who participates in this project have as close to the same experience as possible, so that I don’t accidentally influence what you think or your subsequent performance. We are interested in examining the spatial ability knowledge of employees of various professions. For those of you who are not familiar with spatial ability tests, they are concerned with the mental manipulation of shapes."

RUDE BEHAVIOR MANIPULATION 1:

- Rude Behavior Groups: Have a phone ring in the background and call attention to it. After two rings, say, "Oh, let me check who this is." After three additional rings, silence it and say, "Sorry about that, let’s get back to the project. People skilled in spatial ability are able to quickly retrieve, interpret, and manipulate visual images mentally. As such, spatial ability is usually considered valuable in industries such as engineering, physics, math, and computer science, all positions that typically require advanced degrees. However, spatial ability is never included on the standardized tests taken by students, as they typically focus wholly on writing, verbal, and mathematic abilities. On an even more troubling note is the lack of attention paid to spatial ability teaching in formal education systems, as they often formulate their curricula around standardized tests such as SAT, ACT, and GRE. We are interested in investigating the spatial ability of employees across occupations to gauge the common spatial ability skills held, whether they differ across occupations, and if they are at an acceptable level."

RUDE BEHAVIOR MANIPULATION 2:

- Rude Behavior Groups: Begin loudly eating chips when issuing the next part of the script, "We are interested in adding spatial ability teaching into our math and science curricula" Stop chewing chips, "to better educate our students, distinguish them from others in their field, and to better prepare them as professionals. We are interested in
assessing real-world employees' spatial ability knowledge to build a foundation for whether this is necessary and for what elements of spatial ability to focus on."

THANK YOU MANIPULATION 2:

- **"Thank You" Groups:** "We are also working in conjunction with a local Cincinnati organization that wishes to remain anonymous in the event any of their employees are surveyed. They are interested in assessing whether there is adequate spatial ability skill development among the workforce. If we find a need for spatial ability teaching, Xavier University and this organization are going to work together to create and implement a training program at the organization that would be projected to save the organization thousands of dollars and assist in developing more novel product designs. This training program is the end goal of this collaboration between the two organizations. We would like to again thank you for your participation as it will be instrumental in both organizations' development and continued success."

RUDE BEHAVIOR MANIPULATION 3:

- **Rude Behavior Groups:** Have someone say in the background, "Emily, can you help me with the technical report in my office when you are finished?" To which I will respond, "Yes, I am working on something right now, but I will be in shortly after I am finished." I will then refocus on the audio recording and say, "I apologize for the interruption. After the end of my description of the project, you will answer a couple questions regarding the project before continuing on. If you answer them incorrectly, you will not be eligible for compensation or to continue with the project. Following these questions, you will read an article about the need for spatial ability teaching to provide additional information on the issue guiding this project. Following that, you will complete a survey regarding your feelings on spatial ability."

RUDE BEHAVIOR MANIPULATION 4:

- **Rude Behavior Groups:** "Next, you will complete a measure of spatial ability." In a condescending tone, "This test will probably be harder for some of you than it will be for others, so we aren't going to be surprised if some of you do poorly." Deliver the rest of the information in a normal tone. "You will have as much time on the spatial ability items as you need, with a minimum time spent on the items being ten minutes. Following the spatial ability task, you will complete feedback surveys and lastly receive some follow-up information about the project. Please take your time throughout your completion of the surveys and the spatial ability task. The information will be more meaningful for both organizations if you take the surveys and task seriously."
THANK YOU MANIPULATION 3:

- **“Thank You” Groups**: “This marks the end of my description of the project. Thank you for your attention and feel free to email me at the address provided in the follow-up information should you have any questions.”

THANK YOU MANIPULATION 4: This will occur after completion of the spatial ability task and will be expressed in written form.

- **“Thank You” Groups**: “You have completed the task. Thank you for your hard work. Your input and performance will be very helpful. Please review and provide feedback in the following surveys. When you are finished with the surveys, you will be provided with additional information regarding this project before you receive your compensation.”

*All participants will be thanked after they return complete the surveys and before they debriefed.*
Thank You x No Rude Behavior Condition

After reading the informed consent, participants will be presented with an audio recording. That recording will include the following manipulations.

THANK YOU MANIPULATION 1:

- **“Thank You” Groups**: “Hello, and thank you for your participation in this organizational research study. My name is Emily, and I am the project manager working with Xavier University and a local, midsize organization in the Cincinnati area. If it sounds like I’m reading to you, that’s because I probably am. It’s very important that everyone who participates in this project have as close to the same experience as possible, so that I don’t accidentally influence what you think or your subsequent performance. We are interested in examining the spatial ability knowledge of employees of various professions. For those of you who are not familiar with spatial ability tests, they are concerned with the mental manipulation of shapes.”

RUDE BEHAVIOR MANIPULATION 1:

- **No Rude Behavior Groups**: “People skilled in spatial ability are able to quickly retrieve, interpret, and manipulate visual images mentally. As such, spatial ability is usually considered valuable in industries such as engineering, physics, math, and computer science, all positions that typically require advanced degrees. However, spatial ability is never included on the standardized tests taken by students, as they typically focus wholly on writing, verbal, and mathematic abilities. On an even more troubling note is the lack of attention paid to spatial ability teaching in formal education systems, as they often formulate their curricula around standardized tests such as SAT, ACT, and GRE. We are interested in investigating the spatial ability of employees across occupations to gauge the common spatial ability skills held, whether they differ across occupations, and if they are at an acceptable level.”

RUDE BEHAVIOR MANIPULATION 2:

- **No Rude Behavior Groups**: “We are interested in adding spatial ability teaching into our math and science curricula to better educate our students, distinguish them from others in their field, and to better prepare them as professionals. We are interested in assessing real-world employees’ spatial ability knowledge to build a foundation for whether this is necessary and for what elements of spatial ability to focus on.”

THANK YOU MANIPULATION 2:
• “Thank You” Groups: “We are also working in conjunction with a local Cincinnati organization that wishes to remain anonymous in the event any of their employees are surveyed. They are interested in assessing whether there is adequate spatial ability skill development among the workforce. If we find a need for spatial ability teaching, Xavier University and this organization are going to work together to create and implement a training program at the organization that would be projected to save the organization thousands of dollars and assist in developing more novel product designs. This training program is the end goal of this collaboration between the two organizations. We would like to again thank you for your participation as it will be instrumental in both organizations’ development and continued success.”

RUDE BEHAVIOR MANIPULATION 3:

• No Rude Behavior Groups: “After the end of my description of the project, you will answer a couple questions regarding the project before continuing on. If you answer them incorrectly, you will not be eligible for compensation or to continue with the project. Following these questions, you will read an article about the need for spatial ability teaching to provide additional information on the issue guiding this project. Following that, you will complete a survey regarding your feelings on spatial ability.”

RUDE BEHAVIOR MANIPULATION 4:

• No Rude Behavior Groups: “Next, you will complete a measure of spatial ability. You will have as much time on the spatial ability items as you need, with a minimum time spent on the items being ten minutes. Following the spatial ability task, you will complete feedback surveys and lastly receive some follow-up information about the project. Please take your time throughout your completion of the surveys and the spatial ability task. The information will be more meaningful for both organizations if you take the surveys and task seriously.”

THANK YOU MANIPULATION 3:

• “Thank You” Groups: “This marks the end of my description of the project. Thank you for your attention and feel free to email or call me at the number provided in the follow-up information should you have any questions.”

THANK YOU MANIPULATION 4: This will occur after completion of the spatial ability task and will be expressed in written form.

• “Thank You” Groups: “You have completed the task. Thank you for your hard work. Your input and performance will be very helpful. Please review and provide
feedback in the following surveys. When you are finished with the surveys, you will be provided with additional information regarding this project before you receive your compensation."

*All participants will be thanked after they return complete the surveys and before they debriefed.*
No Thank You x Rude Behavior Condition

After reading the informed consent, participants will be presented with an audio recording. That recording will include the following manipulations.

THANK YOU MANIPULATION 1:

- **No “Thank You” Groups:** “Hello, my name is Emily, and I am the project manager working with Xavier University and a local, midsize organization in the Cincinnati area. If it sounds like I’m reading to you, that's because I probably am. It's very important that everyone who participates in this project have as close to the same experience as possible, so that I don’t accidentally influence what you think or your subsequent performance. We are interested in examining the spatial ability knowledge of employees of various professions. For those of you who are not familiar with spatial ability tests, they are concerned with the mental manipulation of shapes.”

RUDE BEHAVIOR MANIPULATION 1:

- **Rude Behavior Groups:** Have a phone ring in the background and call attention to it. After two rings, say, “Oh, let me check who this is.” After three additional rings, silence it and say, “Sorry about that, let’s get back to the project. People skilled in spatial ability are able to quickly retrieve, interpret, and manipulate visual images mentally. As such, spatial ability is usually considered valuable in industries such as engineering, physics, math, and computer science, all positions that typically require advanced degrees. However, spatial ability is never included on the standardized tests taken by students, as they typically focus wholly on writing, verbal, and mathematic abilities. On an even more troubling note is the lack of attention paid to spatial ability teaching in formal education systems, as they often formulate their curricula around standardized tests such as SAT, ACT, and GRE. We are interested in investigating the spatial ability of employees across occupations to gauge the common spatial ability skills held, whether they differ across occupations, and if they are at an acceptable level.”

RUDE BEHAVIOR MANIPULATION 2:

- **Rude Behavior Groups:** Begin loudly eating chips when issuing the next part of the script, “We are interested in adding spatial ability teaching into our math and science curricula.” Stop chewing chips. “to better educate our students, distinguish them from others in their field, and to better prepare them as professionals. We are interested in assessing real-world employees' spatial ability knowledge to build a foundation for whether this is necessary and for what elements of spatial ability to focus on.”

THANK YOU MANIPULATION 2:
• **No “Thank You” Groups**: “We are also working in conjunction with a local Cincinnati organization that wishes to remain anonymous in the event any of their employees are surveyed. They are interested in assessing whether there is adequate spatial ability skill development among the workforce. If we find a need for spatial ability teaching, Xavier University and this organization are going to work together to create and implement a training program at the organization that would be projected to save the organization thousands of dollars and assist in developing more novel product designs. This training program is the end goal of this collaboration between the two organizations. Your participation will be instrumental in both organizations’ development and continued success.”

**RUDE BEHAVIOR MANIPULATION 3:**

• **Rude Behavior Groups**: *Have someone say in the background, “Emily, can you help me with the technical report in my office when you are finished?” To which I will respond, “Yes, I am working on something right now, but I will be in shortly after I am finished.” I will then refocus on the audio recording and say, “I apologize for the interruption. After the end of my description of the project, you will answer a couple questions regarding the project before continuing on. If you answer them incorrectly, you will not be eligible for compensation or to continue with the project. Following these questions, you will read an article about the need for spatial ability teaching to provide additional information on the issue guiding this project. Following that, you will complete a survey regarding your feelings on spatial ability.”*

**RUDE BEHAVIOR MANIPULATION 4:**

• **Rude Behavior Groups**: “Next, you will complete a measure of spatial ability.” *In a condescending tone, “This test will probably be harder for some of you than it will be for others, so we aren’t going to be surprised if some of you do poorly.” Deliver the rest of the information in a normal tone. “You have as much time on the spatial ability items as you need, with a minimum time spent on the items being ten minutes. Following the spatial ability task, you will complete feedback surveys and lastly receive some follow-up information about the project. Please take your time throughout your completion of the surveys and the spatial ability task. The information will be more meaningful for both organizations if you take the surveys and task seriously.”*

**THANK YOU MANIPULATION 3:**

• **No “Thank You” Groups**: “This marks the end of my description of the project. I appreciate your attention and feel free to email or call me at the number provided in the follow-up information should you have any questions.”
THANK YOU MANIPULATION 4: This will occur after completion of the spatial ability task and will be expressed in written form.

- **No “Thank You” Groups:** “You have completed the task. Your input and performance will be very helpful. Please review and provide feedback in the following surveys. When you are finished with the surveys, you will be provided with additional information regarding this project before you receive your compensation.”

*All participants will be thanked after they return complete the surveys and before they debriefed.*
No Thank You x No Rude Behavior Condition

After reading the informed consent, participants will be presented with an audio recording. That recording will include the following manipulations.

THANK YOU MANIPULATION 1:

- **No “Thank You” Groups:** “Hello, my name is Emily, and I am the project manager working with Xavier University and a local, midsize organization in the Cincinnati area. If it sounds like I’m reading to you, that’s because I probably am. It’s very important that everyone who participates in this project have as close to the same experience as possible, so that I don’t accidentally influence what you think or your subsequent performance. We are interested in examining the spatial ability knowledge of employees of various professions. For those of you who are not familiar with spatial ability tests, they are concerned with the mental manipulation of shapes.”

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THANK YOU MANIPULATION 2:

- **No “Thank You” Groups:** “We are also working in conjunction with a local Cincinnati organization that wishes to remain anonymous in the event any of their employees are
surveyed. They are interested in assessing whether there is adequate spatial ability skill development among the workforce. If we find a need for spatial ability teaching, Xavier University and this organization are going to work together to create and implement a training program at the organization that would be projected to save the organization thousands of dollars and assist in developing more novel product designs. This training program is the end goal of this collaboration between the two organizations. Your participation will be instrumental in both organizations’ development and continued success.”

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RUDE BEHAVIOR MANIPULATION 4:

- **No Rude Behavior Groups**: “Next, you will complete a measure of spatial ability. You will have as much time on the spatial ability items as you need, with a minimum time spent on the items being ten minutes. Following the spatial ability task, you will complete feedback surveys and lastly receive some follow-up information about the project. Please take your time throughout your completion of the surveys and the spatial ability task. The information will be more meaningful for both organizations if you take the surveys and task seriously.”

THANK YOU MANIPULATION 3:

- **No “Thank You” Groups**: “This marks the end of my description of the project. I appreciate your attention and feel free to email or call me at the number provided in the follow-up information should you have any questions.”

THANK YOU MANIPULATION 4: *This will occur after completion of the spatial ability task and will be expressed in written form.*

- **No “Thank You” Groups**: “You have completed the task. Your input and performance will be very helpful. Please review and provide feedback in the following surveys. When you are finished with the surveys, you will be provided with additional information regarding this project before you receive your compensation.”
All participants will be thanked after they return complete the surveys and before they debriefed.
Appendix J

Knowledge Check Questions

The following questions are based off the material presented in the overview by the project manager. Answer the questions to the best of your recollection.

1. What are both organizations, collectively, investigating?
   A. Spatial ability skills across occupations
   B. Effects of age on spatial ability skills
   C. The need for spatial ability testing
   D. Options A & C

2. What specifically is the desired objective of the collaboration between the organizations?
   A. Advocate for the inclusion of spatial ability items in standardized tests**
   B. A training program emphasizing spatial abilities
   C. Publish research regarding spatial ability
   D. All of the above

*Correct answers are bolded

**This answer was also accepted as correct after an IRB modification form was submitted
August 13, 2013

Emily Crowe
35 15th Street
Newport, KY 41071

Re: Protocol #1298, Incivility's and Civility's Effects on Goal Commitment, Emuneration, and Performance

Dear Ms. Crowe:

The IRB has reviewed the request to modify your study, referenced above. We understand that you will add another answer option to the knowledge check question. We are able to continue to approve your study based on the information you provided. Therefore, your above-referenced study, as modified, continues to be approved in the Exempt category under Federal Guidelines 45CFR46.

Please note that if you wish to further modify your study, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

We truly appreciate your efforts and attention to compliance within the spirit of human subject's protection. We wish you great success with your research.

Sincerely,

[Signature]

Kathleen J. Hart, Ph.D., ABPP
Vice Chair, Institutional Review Board
Xavier University

KJH/ab

c: Morrie Mullins, Advisor
Appendix L

Spatial Ability Article

Why Don’t We Value Spatial Intelligence?

December 26, 2011 - by Jonathan Wai

Consider this. Ever since you were a kid, can you remember taking a standardized test that didn’t have a math or verbal section? I can’t. Pretty much all of them have math, science, English, reading, and maybe writing sections. Even when you got to high school, and you took the SAT or ACT, there were verbal, math, and science sections.

So what’s missing?

For many students, everything is great. Our schools are designed for students who are good at reading, writing, and doing math. These students are fluent in the symbol systems of numbers and letters.

But what about that kid who is a mechanical genius; who can take apart and put back together just about anything; who is like Robert Downey Jr.’s character in Iron Man, but who really has little interest in words or numbers? Is there a place for this talented kid in our school system? Do we value the talent of this individual as much as the talents of students who can write compelling essays, who can solve complex equations, and who can read great works of literature?

I don’t think we do.

For students who are not talented with words and numbers but who are talented with mentally rotating figures and shapes in their minds, there is often very little offered to recognize and challenge them in the regular school system.

We tend to value people who can write, read, do math, and talk. But if a student can’t do these things so well, we don’t recognize how brilliant some of them actually are. Consider the SAT and ACT, the critical college entrance exams. Neither of them includes a spatial measure.

Some of my research with my colleagues David Lubinski and Camilla Benbow on the importance of spatial ability for science, technology, engineering, and mathematics (STEM) fields demonstrates that as a society we have neglected spatially-talented students who are not as good with words and numbers. We miss a large number of them when selecting talented students using typical standardized tests because these tests do not include a measure of spatial ability.

Over 90 years ago, Lewis Terman attempted to identify the brightest kids in California. There were two young boys who took Terman’s test but who did not make the cutoff to be included in this study for geniuses. These boys were William Shockley and Luis Alvarez, who both went on
to study physics, earn PhDs, and win the Nobel Prize. Why did they miss the cut? One explanation is that the Stanford-Binet, the test Terman used, simply did not include a spatial test.

Considering the current push for STEM education and our need for more STEM innovators, shouldn’t we be trying to find these talented minds who have a spatial rather than a verbal or mathematical bent?

Inventors, after all, are often individuals who create mechanical devices that change our world. And they certainly don’t design these devices by writing an essay on the topic or even by solving a mathematical equation. Rather, they imagine it in their minds eye, and then they draw it or construct it.

For example, Nikola Tesla was an inventor who provided the basis for alternating current (AC) power systems. Tesla is said (or fabled) to have been able to visualize an entire working engine in his mind and be able to test each part over time to see what would break first. Rather than a great feat of mental math, one could consider this a great feat of mental imagery.

So what can we do to educate students who are more spatially talented but less mathematically or verbally talented? What we really need to do is design educational interventions for them that are tailored to their spatial strengths. Many spatially talented students like working with their hands, and perhaps interventions could include more hands on activities. In addition, now with the rise of educational technology as Tom Vander Ark persuasively shows us in his book Getting Smart, perhaps visual interventions in the format of spatial video games could help engage and reach these types of students and help develop their talents.

I think we often don’t realize that engineers have invented so many things that we take for granted in our everyday lives. Consider this. The device you are reading this article from right now was invented by engineers who utilized their phenomenal spatial talents. There are many kids today who are spatially talented who have the potential to create amazing things that can improve our lives and society. We need to learn to value these beautiful minds.

We need to identify them. We need to provide a tailored education for them. And we need to place the tools in their hands so that they can help invent our future.
Appendix M

Partial Debrief

If you have any questions or would like a copy of the results when data analysis is complete, you can email the principal investigator, Emily Crowe, at crowee@xavier.edu. I will send a more detailed explanation of the study and its hypotheses after the study is complete. Questions about your rights as research subject should directed to Xavier University’s Institutional Review Board at 513-745-2870.

Thank you for your participation.
Appendix N

Full Debrief

This study examined the effects of “thank you” and rude behaviors in an organizational context on rumination, goal commitment, and task performance. I apologize should you have experienced any negative feelings due to these rude behaviors; it was purely for the sake of the study. If you would like full details about the study’s hypotheses, you can email the principal investigator, Emily Crowe, at crowee@xavier.edu, and I will send a more detailed explanation after the study is complete. My interest in investigating employees’ spatial ability is completely fictional, and your performance on the measure will not be shared with any organizations. Additionally, this project was not performed in conjunction with a local Cincinnati organization.

The reason you were not initially told everything about the experiment was because had you been aware of what was being studied, your responses would have likely been different. If you have any questions or would like a copy of the results when data analysis is complete, you may contact the principal investigator, Emily Crowe, via email at crowee@xavier.edu. Questions about your rights as research subject should directed to Xavier University’s Institutional Review Board at 513-745-2870.

Thank you for your participation.
Appendix O

Study Overview

1. Read Informed Consent
2. Read Agenda
3. Listen to audio recording
4. Complete knowledge check questions

*If questions are answered correctly, participants will proceed to the next steps:*
5. Read article about spatial ability
6. Complete Goal Commitment Scale
7. Complete spatial ability task
8. Complete RIO Scale
9. Complete Demographics
10. Read Debrief