

Seeing Through and Breaking Through: The Role of Perspective Taking in the Relationship Between Creativity and Moral Reasoning

Pamsy P. Hui

Department of Management and Marketing
The Hong Kong Polytechnic University
Hong Kong

pamsy.hui@polyu.edu.hk

+852 2766 7394

Warren C. K. Chiu

College of Professional and Continuing Education
School of Professional Education and Executive Development
The Hong Kong Polytechnic University
Hong Kong

ckchiu@speed-polyu.edu.hk

Elvy Pang

Department of Management and Marketing
The Hong Kong Polytechnic University
Hong Kong

elvy.pang@polyu.edu.hk

John Coombes

Hang Seng University of Hong Kong
Hong Kong

johncoombes@hsmc.edu.hk

Doreen Y. P. Tse

College of Professional and Continuing Education
Hong Kong Community College
The Hong Kong Polytechnic University
Hong Kong

doreen.tse@cpce-polyu.edu.hk

Acknowledgements: This research is supported by a grant from the Research Grants Council of the Hong Kong Special Administration Region, China. (Project No.: UGC/FDS24/H06/17).

**Seeing Through and Breaking Through: The Role of Perspective Taking in the
Relationship Between Creativity and Moral Reasoning**

Abstract

Creativity and morality are key attributes that stakeholders demand of organizations. Accordingly, higher education institutions and professional training programs also seek to cultivate these attributes in future leaders. However, research has hitherto shown that, under certain conditions, creativity may conflict with morality. This complicates the development of creative individuals who are also moral. We examined the complex relationship between creativity and moral reasoning with data collected from a group of undergraduate students. By considering the cognitive processes behind creativity and moral reasoning, we propose perspective taking as a moderating factor. Specifically, we found that while creative individuals might not necessarily adopt a lower level of moral reasoning, there was a more nuanced moderating relationship among creativity, perspective taking, and moral reasoning. That is, individuals who were weak in perspective taking tended to adopt a lower level of moral reasoning if they were also creative. Perspective taking was also directly and positively associated with moral reasoning. We explore the implications of our findings for future research and curriculum/program design.

Moral thinking and creative thinking are two important attributes that stakeholders demand of organizations (Paine, 1994; 1996). Business schools worldwide have sought to promote morality and creativity as learning outcomes for their students (Bierly et al., 2008). Although research has begun to consider the interlinkages between these two attributes, they are still often integrated into business school curricula and training programs in a relatively discrete and disjointed manner. Different subjects and extracurricular activities are designed and implemented to cultivate the two attributes among students without much coordination and integration across subjects and activities. This approach needs to be revisited given the many examples of creative business leaders who have also shown themselves to be morally questionable. In addition, recent research has highlighted the complicated relationship that exists between creativity and morality (Keem et al., 2018; Vincent & Kouchaki, 2016). Creativity has been associated with a tendency to be unconventional, individualistic, and egoistic, all of which seem to encourage the development of creative individuals who are willing to push the boundaries of morality to serve their own interests (e.g., George & Zhou, 2001; Gough, 1979; Oldham & Cummings, 1996; Shin & Zhou, 2003; Zhou & Oldham, 2001). Gino and Ariely (2012) argued that highly creative individuals are able to justify their moral transgressions in multiple ways. However, creativity has also been associated with the cognitive flexibility and imagination that are necessary for high-level moral reasoning (Moberg & Seabright, 2000; Seabright & Schminke, 2002). Mumford et al. (2010) observed that research students who exhibited high levels of dispositional creativity were less likely to conduct unethical research because they had the in-depth knowledge and skills needed to resolve complex ethical dilemmas without resorting to dishonesty. In fact, Seabright and Schminke (2002) pointed out that both morality and immorality could be “an active, creative, or resourceful act (p. 19).” Building on research that has identified moderators between creativity and morality

(Keem et al., 2018; Vincent & Kouchaki, 2016), we explored factors that we could introduce to the education and training context to develop creative and moral individuals as intended.

In this study, we focused on one such factor – perspective taking. Perspective taking is the tendency or ability to see things from another person’s viewpoint as if one is “in the shoes” of the other person (Batson et al., 1997). It has been linked to both creativity and morality, both rather elaborate cognitive processes. For instance, individuals who were able to observe, notice, and attend to not just their own thoughts and feelings, but also to their surroundings (including other people) were shown to be more creative (Baas et al., 2014). Meanwhile, studies have found that individuals who were less cognizant of others were also more likely to act unethically (Piff et al., 2012). We investigated the role of perspective taking in the relationship between creativity and moral reasoning among 162 undergraduate business school students in Hong Kong. We hypothesized that individuals who exhibited high levels of perspective taking were more creative as well as more willing and able to engage in higher levels of moral reasoning, i.e., a conscious mental activity through which an individual evaluates information about a situation and transforms it in order to reach a moral judgment in determining a course of action (Haidt, 2001; Paxton & Greene, 2010; Myyry et al., 2009). If we consciously include perspective taking as a central component of the development of creativity and morality in a holistic fashion, it is possible to develop creative individuals who are also capable of high level of moral reasoning.

In the next section, we will examine the complicated relationship between creativity and moral reasoning. This will be followed by a discussion of the cognitive processes underpinning the two attributes. We will then highlight the role of perspective taking in both creativity and moral reasoning. This will be followed by a discussion of our study and findings. We conclude by

exploring the implications of our findings for business education specifically and the cultivation of individuals who are both highly creative and moral in our society in general.

Creativity and Moral Reasoning

Creativity has been touted as a key solution to problems in our schools, hospitals, communities, nations, and the world at large. It has been studied through different lenses and at different levels of analysis, taking on a wide variety of definitions (Hennessey & Amabile, 2010). Although complex and difficult to define and measure, there has been some consensus that at its core, creativity is the ability to produce ideas that are both novel and appropriate (Amabile, 1982; Sternberg & Kaufman, 2010; Tierney et al., 1999). Novel ideas tend to be unusual, unique, original, and unexpected; appropriate ideas refer to those that are useful, effective, and functional (i.e., serving a purpose).

Early research tended to consider creativity as a personal attribute (Hennessey & Amabile, 2010). Viewed through this lens, creativity is a relatively enduring and largely stable individual trait. In other words, some individuals are predisposed to produce more novel and appropriate ideas than others. However, most researchers in this tradition have focused more on novelty than the appropriateness of the particular ideas. Torrance (1977) developed tests to measure an individual's creativity in several dimensions – fluency (i.e., the number of relevant ideas generated given a stimulus), flexibility (i.e., the diversity of the ideas generated), originality (i.e., the statistical rarity of the ideas generated), and elaboration (i.e., the level of detail given for the ideas generated). Scholars taking this perspective have suggested that individuals who are more able to contribute novel ideas, new perspectives, and different ways to approach problems also tend to be

unconventional, individualistic, and egoistic (e.g., Crutchfield, 1965; Gough, 1979). In addition, they are likely to be nonconformists when it comes to rules and regulations.

If creativity is often associated with “the crazy ones, the misfits, the rebels, the troublemakers, the round pegs in the square holes” and those “not fond of rules,” as Steve Jobs said in the now iconic “Think Different” Apple commercial, then morality is just as often linked with “rule followers” or even the rule defenders. Morality can be defined as “interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate self-interest and make cooperative society possible (Haidt, 2012, p. 270).” In other words, it is the standard of acceptable and unacceptable behaviors based on the fundamental principles espoused by the society as a whole (Tuan & Shaw, 2016). Based on this conventional definition, it is what separates the “right” from the “wrong;” it is what defines the rules and principles that govern behavior (Haidt, 2012). Indeed, research has shown that ethical individuals tend to behave in accordance with social norms and are always conscious of what is considered right or wrong conduct by their communities (Tuan & Shaw, 2016).

The abovementioned discussion on creativity and morality seems to suggest that, if left to their own devices, creative individuals tend to be immoral and moral individuals tend to be uncreative. Some research seems to support this conjecture. For instance, a study of 899 undergraduates found that creativity was positively associated with moral relativism, i.e., the making of moral judgments based on idiosyncratic factors and situations instead of universal moral principles (Bierly et al., 2009). Vincent and Kouchaki (2016), however, presented a more nuanced picture. They showed that when individuals self-identify strongly as being creative, and they perceive this identity as rare and unique, they exhibited greater psychological entitlement, which led them to engage in more unethical behaviors. A tendency to take risks, which was often

associated with creativity, was also linked to a tendency to engage in unethical behaviors. Meanwhile, individuals who were more inclined to uphold regulations and obligations were less likely to act dishonestly (Gino & Margolis, 2011). In perhaps the most direct test of the connection between morality and creativity, Gino and Ariely (2012) found that individuals with a creative personality or mindset were more likely to behave dishonestly. Following up on this investigation of the link between unethical behaviors and creativity, Gino and Wiltermuth (2014) found in a series of studies that cheaters, who had a heightened feeling of being unconstrained by rules, were more creative as well. In an organizational setting, increasing creativity is seen as a challenge to maintaining rules, preserving authority, reducing conflicts, and containing risk-taking behaviors (Baucus et al., 2008). Even though it is possible that creative individuals have a higher capacity for moral imagination if the conditions are right (Keem et al., 2018), we contend that such cognitive exercise requires effort and a little “nudge” for it to take place during a stressful situation such as an ethical dilemma. Without any “nudge,” however, creative individuals are more inclined to be less constrained by the rules, authority, and principles that come with moral reasoning.

Hypothesis 1: Creativity and moral reasoning are negatively associated such that more creative individuals tend to exhibit lower levels of moral reasoning.

Creativity and Moral Reasoning as Cognitive Processes

If the relationship between creativity and morality is as simple as argued above, then the development of creativity in individuals would need to come at the expense of morality. This trade-off flies in the face of the goal to train individuals to be *both* creative and moral – a goal that has been a priority for many higher education institutions and professional training programs (Bierly et al, 2008; Desplaces et al., 2007; Paine, 1994; 1996). In fact, the Association to Advance

Collegiate Schools of Business (AACSB) explicitly considers both creativity and morality as essential pillars of any business program that can transform business education into a force for social good and global prosperity (AACSB International, 2018). But is this trade-off necessary? Beirly et al. (2009) argued that this may not be so. They argued that if creative people have the desire to avoid harming others, they may actually make use of their creativity in moral or even prosocial ways. Su (2014) argued that in an organizational context, a responsible corporate environment may encourage knowledge sharing and creativity among employees. This suggests that creativity and morality can complement, rather than just compete, with each other. In order to explore the possibility of developing moral creatives, it is crucial to look for situations where creativity and morality are complementary. To do so, it is helpful to consider whether there is any commonality between the two attributes.

One such commonality is that while both concepts tended to be understood as individual differences in early research, they can also be considered from another angle – both creative performance and moral reasoning are outcomes of elaborate cognitive processes. In a review of the literature on creativity, Hennessey and Amabile (2010) identified ample research that considers creativity as a cognitive process that involves the generation and integration of ideas. Through this lens, researchers have explored the conditions that can facilitate thinking processes that lead to creative performance in teams, organizations, and other social environments – regardless of individual differences in terms of creative potential. For instance, following the motivated information processing theory, Grant and Berry (2011) argued that individuals notice, process, and retain information that is consistent with their desires. They found that if individuals were motivated to focus on others, they were more likely to generate ideas that were appropriate – a critical dimension of creativity. Research has also stressed that when individuals are open to others

during the creative process, they encounter differences that can simulate creative performance (Muhr, 2010). Using neuroimaging techniques, Ritter et al. (2014) showed that when individuals encountered schema-violating incidents, and when they identified closely with the actors involved in the incidents, the brain region responsible for expectations became activated, and the individuals became more cognitively flexible in creative tasks. Cognitive flexibility is thus related to the novelty dimension of creativity.

Similar to creativity, morality can be conceptualized as a cognitive process. The rationalist approach to moral reasoning contends that moral behaviors are the outcome of moral judgment competence, which includes a process of moral reasoning and moral decision-making based on the reasoning (Desplaces et al., 2007). Rationalists focus on how individuals derive rules or principles from some ethical theory, and how individuals develop into virtuous characters (Buchholz & Rosenthal, 2005). This tradition, represented by Kohlberg's model of moral development, has come to dominate the discussion on morality in business schools (Marnburg, 2001). Specifically, Kohlberg (1976) posited that humans follow a cognitive process of interpreting their situations, identifying actions and the corresponding implications, judging the moral rightness of these actions, prioritizing options, and following through with corresponding behaviors. Some individuals take a hedonistic approach to moral reasoning where they focus on rewards and punishments; some internalize norms and make decisions in order to live up to their social roles and expectations; others go beyond prescribed expectations, rules, and laws and instead focus on values and abstract ethical principles. According to this model, moral maturity evolves from the hedonistic approach (i.e., pre-convention stage) to a focus on roles and expectations (i.e., convention stage) before finally arriving at the highest level of value-based judgments (i.e., post-convention stage).

Recent research, however, has questioned this assumption of human rationality. This questioning stems from the realization that research on moral reasoning has tended not to predict moral behaviors (Marnburg, 2001). Hence, Haidt (2001) proposed a social intuitionist approach to moral judgments. Instead of a rational process of consciously searching, weighing evidence, or inferring a conclusion, the social intuitionist approach takes the position that the moral reasoning process begins with a moral intuition, i.e., the sudden appearance in one's consciousness of a moral judgment, which is an evaluation of an action or the character of a person based on a set of virtues that are considered obligatory by a culture or subculture. Conscious mental activities then take place to support the moral judgment and the corresponding behaviors. This retrospective and experimental rationalizing process is often grounded in a human experience infused with conflicting and interconnected judgments and reasoning by different stakeholders in a given situation (Buchholz & Rosenthal, 2005). Through such a retrospectively motivated moral reasoning process, individuals attempt to make their moral judgments appear less ad hoc and more rational (Kunda, 1990; Uhlmann et al., 2009). It is especially through this perspective that moral reasoning ceases to be a simple separation of right and wrong – it becomes a process of gaining moral insights into different moral rights as a result of different human experiences (Zhang et al., 2018).

There is plenty of evidence supporting the social intuitionist perspective. Humans were found to vary in their moral maturity depending on the situations encountered (Krebs et al., 1991). In a natural experiment during a hurricane, Monin and Norton (2003) found that depending on their behaviors, Princeton students exhibited different judgment biases to justify those behaviors accordingly. This is consistent with findings that people selectively used moral principles to rationalize their preferred conclusions to various moral dilemmas (Uhlmann et al., 2009). Indeed,

Sunstein (2005) noted that motivated moral reasoning is quite common in political and legal matters, potentially leading to systematic errors and what he called “absurd judgments.” Although the moral reasoning process does not seem to be entirely rational, Kohlberg’s classification remains a good one to categorize different levels of moral maturity, whether they take place in a rational or socially intuitive manner (Krebs et al., 1991).

When we consider the cognitive processes underpinning creativity and morality, two parallels emerge. First, both the highest levels of creativity and moral maturity emphasize the ability to be cognitively flexible. Cognitive flexibility allows one to generate diverse sets of unique ideas, all of which contribute to creativity. It also enables one to break away from one’s social roles and expectations to consider conflicting values and principles that may come from different perspectives and interests, leading to intuitions or decisions that tend to leave more positive social impacts. Second, the role of other people looms large when it comes to the highest levels of both creativity and moral reasoning. Creativity performance and moral maturity both depend on how the interests of others are served. These two parallels suggest that creativity and morality need not be in conflict. In fact, we contend that the ability to understand the perspectives of others allows people to reach their highest potential in terms of cognitive flexibility, leading to higher levels of both creativity and moral reasoning.

Perspective Taking as a Nudge

If high levels of creativity and moral reasoning require both a healthy focus on the other people in a given context, it would then be logical that individuals who exhibit high levels of perspective taking are better positioned to be creative and morally mature – whether this perspective taking is due to individual differences or environmental factors. As mentioned above,

perspective taking is the perceiving of a situation or information from another person's perspective (Batson et al., 1997). It involves intuiting and theorizing, as accurately as possible, the other person's thoughts, feelings, attitudes, interests, and concerns given a specific situation (Epley et al., 2006; Grant & Berry, 2011; Zhou et al., 2017). Whether someone can take another person's perspective hinges on whether they recognize that the other person has different knowledge and beliefs about the situation from them.

Perspective taking is an effortful cognitive exercise – it requires time, motivation, and attentional resources (Eyal et al., 2018). Theoretically, adults are likely to recognize that their assessments and judgments of a situation can be egoistically biased because people may have divergent motivations, beliefs, and backgrounds (Bartunek et al., 1983; Epley et al., 2004; 2006). Nevertheless, they often struggle to set aside their own perspectives, and have a hard time distinguishing what they know and what they assume others know (Nickerson, 1999). As a result, most of the time individuals use their own perspectives as an anchor, and adjust with effort toward other people's perspectives continuously (Epley et al., 2004; Nickerson, 1999). Perspective taking can be induced by a simple reminder or by getting people to interact with each other (Eyal et al., 2018; Parker & Axtell, 2001). However, if an individual is not given enough time, motivation, and attentional resources, they may revert to relatively automatic heuristics and biases in judging and assessing another person's perspective if they consider the other person's perspective at all (Epley et al., 2004; Eyal et al., 2018). In addition, if a person is in a position of power, they are less likely to take into account others who are not as privileged, and are thus less likely to take the perspectives of others (Galinsky et al., 2006).

The outcome of cognitive perspective taking can be empathy, which may lead to altruistic behaviors (Batson et al., 1997; Parker & Axtell, 2001). However, judgments as a result of

perspective taking need not be coupled with corresponding behaviors (Epley et al., 2006; Zhou et al., 2017). Moreover, even if perspective taking leads to behavioral changes, the accuracy of judgments and assessments of another's perspective is not guaranteed (Eyal et al., 2018). In general, perspective taking does lead to socially positive outcomes, such as less contentious discussions, more problem solving, more helping behaviors, and better negotiation outcomes that benefit both sides (Axtell et al., 2007; De Dreu et al., 2000; Galinsky et al., 2008). Research has also found that, when reminded explicitly, people tend to infer others' perspectives and engage in deliberate thinking, leading to outcomes such as mimicry of the other, empathy with the other, a sense of similarity with the other, and increased cooperation (Goldstein & Cialdini, 2007). Perspective taking has also been found to reduce biases toward an in-group and against an out-group, resulting in less prejudice and fewer selfish behaviors (Berndsen & McGarty, 2012). All these findings are possible because individuals who take others' perspectives can conjure up cognitive representations of others that overlap substantially with their own self-representations (Davis et al., 1996). In other words, perspective taking blurs the perceived boundary between the self and others, leading to a heightened sense of shared identity and similarity between the self and others.

Despite the above, active perspective taking may not always lead to prosocial behaviors. Epley et al. (2006) found that if perspective taking brings to the fore the self-interests of others, it can also trigger reactive egoism, meaning that people might expect selfish behaviors from others, and act selfishly and strategically to protect their own interests. They found that whether perspective taking led to prosocial or egoistic behaviors depended on whether one saw the "other" as a collaborator or a competitor. Elsewhere, Gino and Galinsky (2012) found that when individuals felt psychologically closer to someone engaged in unethical behaviors, which would be a likely outcome with active perspective taking, they were also more likely to be morally

disengaged and consider the unethical behaviors more acceptable. Clearly, perspective taking is no panacea.

The above findings notwithstanding, if framed with respect to a general other rather than a specific other (e.g., a competitor), perspective taking is largely associated with prosocial behaviors, rather than immoral imagination as discussed by Seabright and Schminke (2002), as self-interest is less likely to be in the forefront when a general other is imagined. Individuals considering the perspective of a general other are more likely to consider the implications of a behavior or decision on a general collective rather than their impacts on specific persons, as in the case of Epley et al. (2006), and Gino and Galinsky (2012). This general prosocial slant is consistent with the highest levels in Kohlberg's (1976) moral development stages (Haidt, 2001). As individuals become more attuned to the perspectives of others, they progress from pre-convention to convention and post-convention stages. In moral dilemmas, where conflicting interests and needs from various stakeholders are pitted against each other, those more attuned to the perspectives of others are more able to seek resolutions that enable the flourishing of as many stakeholders as possible (Buchholz & Rosenthal, 2005). Through the blurring of self and other identities, these other-focused people are less likely to be confined by rules, regulations, social roles, and expectations. Instead, they tend to consider the complex richness of the situation and the interconnectedness of divergent perspectives, resisting the temptation to conclude moral dilemmas with simple and unequivocal solutions that may favor themselves. In fact, research has found that individuals who were more self-focused were less likely to think or act prosocially, and were more likely to engage in unethical behaviors such as traffic code violations, the taking of valuable public goods, and cheating (Piff et al., 2012). In contrast, the propensity to take other people's perspective was linked to empathetic feelings towards potential victims of unethical behaviors, leading to guilt, and

ultimately a reduction in unethical behaviors (Martinez et al., 2014). Similar results were found in negotiations and decision making in work settings (Cohen, 2010; Mencil & May, 2009). In addition, there is ample evidence that the ability to entertain others' perspectives is related positively to sympathy and compassion, leading to the development of mature moral reasoning and altruism (Davis et al., 1996). Ultimately, the search for the richest existence for all stakeholders involved is the highest goal of moral reasoning. Hence, we hypothesized a positive relationship between perspective taking and moral reasoning.

Hypothesis 2: Perspective taking and moral reasoning are positively associated such that individuals who are more capable of taking other people's perspective exhibit higher levels of moral reasoning.

Compared to the linkage between perspective taking and moral reasoning, the relationship between perspective taking and creativity is more established and unequivocal (Falk & Johnson, 1977; Grant & Berry, 2011; Joo, 2008; Hoever et al., 2012). This is because one of the key dimensions of creativity, appropriateness, requires attentiveness to others. In addition, perspective taking aids the creative process by bringing into focus divergent ideas and interests, providing the platform for novel idea generation. In other words, individuals who are exposed to divergent information and knowledge are better able to take advantage of this setting if they have a high propensity to take others' perspectives. Research has consistently found that individuals who are open to a diversity of ideas and interests are more likely to produce concepts that are not only more novel but also more appropriate to others (Falk & Johnson, 1977; Hoever et al., 2012).

Despite a growing literature on factors that may interact with the abovementioned relationship between perspective taking and moral reasoning (e.g., Epley et al., 2006; Lucas et al., 2016), as well as evidence that ties perspective taking and creativity together, there is scant

research that directly examines the moderating role of perspective taking in the relationship between creativity and moral reasoning. More specifically, could perspective taking be the nudge that steers creative individuals away from thinking selfishly and toward being more prosocial? We have seen that there are two common requirements to achieve very high levels of creativity and moral maturity – cognitive flexibility and sensitivity to others. If someone is cognitively flexible but self-focused, they are likely to be creative but without much interest in high levels of moral reasoning. A creative individual who is moral needs to be both cognitively flexible and other-focused, i.e., have a high propensity to take others' perspectives. To such an individual, the twin goals of creativity – novelty and appropriateness – are actually congruent with the spirit of moral maturity at its highest levels. At such levels of moral maturity, people break away from the highly restrictive and rule-based definition of morality to consider the conflicting viewpoints of others in the situation (Kjonstad & Willmott, 1995). Instead of conventions that suppress actions (e.g., thou shall not kill), the morally mature consider values and principles that explore *novel* possibilities that are both empowering and *appropriate for stakeholders* (e.g., what should be done for stakeholders). Creative individuals with high moral maturity, through perspective taking, use creativity to find solutions for others.

This line of argument is indeed consistent with what Whitaker and Godwin (2013) call moral imagination. Moral imagination is the ability to conduct a moral reasoning process that takes into account different stakeholder perspectives, actualizes possible solutions that go beyond rules or rule-governed concerns, and evaluates these possibilities with an emphasis on universal principles of morality and positive impacts on stakeholders (Werhane, 2002). It is about being able to move beyond one's social roles and expectations to take the perspectives of others, and to consider alternative solutions and interpretations of the moral situation beyond the conventional

(Caldwell & Moberg, 2007). This is akin to reaching the post-convention stage of moral reasoning, where someone is able to disengage from a situation when considering different solutions (Whitaker & Godwin, 2013). Both cognitive flexibility and perspective taking are core to this process.

Whitaker and Godwin (2013) argued that individuals who are highly creative, while less likely to be bound by fixed rules and regulations, can be guided by general principles of harm avoidance. If they can take the perspectives of others, they can then imagine how others would experience alternative solutions to a problem. As a result, they can consider the ramifications of these solutions on the interests of others, which in turn results in more creative solutions that address the concerns of more stakeholders. Whitaker and Godwin (2013) in fact found a positive relationship between creativity and moral imagination among undergraduates. Similarly, Buchholz and Rosenthal (2005) argued that the spirit of entrepreneurship, which emphasizes imagination, creativity, and sensitivity, is also critical for moral decision-making. This is in agreement with Teal and Carroll's (1999) findings about the moral maturity of entrepreneurs. As relatively independent thinkers, entrepreneurs were less bound by expectations imposed by society when making moral judgments. Finally, in an investigation of 258 doctoral students in the health, biological, and social science fields, Mumford et al. (2010) also found evidence that linked moral decision-making and late-cycle creative processes, which required a large amount of perspective taking. All these studies suggest that while egoistic individuals may find a contradiction between being creative and being morally mature, those who can take the perspective of others can free themselves from focusing on their self-interests and rules, and can thus achieve both creativity and a high level of moral reasoning simultaneously. This allows them to break free from their pre-

defined social roles and expectations and blurs their self-other distinction at the same time, encouraging them to use their creative thinking for moral imagination.

Hypothesis 3: The negative relationship between creativity and moral reasoning is moderated by perspective taking such that the inverse relationship between creativity and moral reasoning is weakest among individuals who exhibit high levels of perspective taking.

Method

Sample

We collected our data from a semester-long leadership course in the business school of a large public university in Hong Kong. The course was a requirement for business majors in their first year – although some elected to take the class in their second or third year. Students specialized in one of seven majors, including Accountancy, Global Supply Chains Management, and Management. Altogether, 217 students who enrolled in the course were invited to participate in the study. At the beginning of the course, students were randomly assigned into 40 teams of four to six individuals each through the drawing of lots. During the course, the students had to interact with business practitioners and produce a presentation on leadership issues. Participation in the study was voluntary; no extra credit was given for participation.

Creativity, perspective taking, and morality were covered at different points during the semester. Corresponding surveys were administered according to the class schedule to capture the data used in this study. The survey on moral reasoning was administered online to give the participants added privacy. To ensure the anonymity and confidentiality of the process while allowing the matching of data throughout the semester, each participant was requested to create

their own 4-digit respondent code for matching. Three participants failed to provide their matching codes and were therefore excluded from the study. The total number of participants in this study was 162.

Measures

Creativity. During the course, creativity was covered in the middle of the semester. By then, team members had worked with each other for several weeks to produce a final presentation, of which creativity was a key criterion. We adapted a scale from Farmer et al.'s (2003) employee creativity four-item scale ($\alpha = .92$). The items were measured using a six-point response format (1 = "Never", 6 = "Always"). This well-validated scale typically measures the extent of employee creativity in the eyes of their supervisors. In our study, team members were asked to rate each other on their level of creativity. We adopted the original items without adding or dropping any items, but we modified the wording of the items from "this employee" to "this member" accordingly. The items, assessed on a six-point response scale, included statements such as "This member tries new ideas or methods first" and "This member is a good role model for creativity." The items are presented in Appendix 1. The reliability of this scale was high ($\alpha = .93$).

Moral Reasoning. To gauge moral reasoning, we developed a short scenario depicting a moral dilemma. The use of a short moral dilemma to elicit participants' construction of their moral reasoning is a common method to measure morality (Trevino, 1992). The scenario development process consisted of three phases, namely development, validation, and implementation.

During the development phase, we tailored the moral dilemma to fit a context familiar to our participants. Specifically, the scenario described a situation in which a student accidentally discovered that a friend intended to cheat in an examination. This created a dilemma: maintaining the fairness of the examination for all classmates, or remaining loyal to a friend. The scenario

provided both concrete details and contextual information (see Appendix 2 for the scenario). During the validation phase, a draft version of the scenario was passed to members of the research team and a student assistant for comments on aspects including how realistic the context was, how challenging the dilemma was, and how emotionally engaging to the participants it was. Based on these comments, a final version of the scenario was prepared. During the implementation phase, participants were invited to answer two open-ended questions about the dilemma – what they would do and why. Most participants claimed that they would take certain actions to prevent the cheating. However, our focus was not about their professed behaviors but more on the reasoning underlying these claims. Two research team members independently coded participants' responses based on Kohlberg's three progressing levels of moral reasoning, namely, preconventional, conventional, and postconventional. Moral reasoning was measured using a three-point response format (1 = "preconventional", 2 = "conventional", 3 = "post-conventional").

Preconventional reasoning. Moral reasoning was coded as preconventional if participants justified the appropriateness of an action based on its consequences. That is, an action is bad if it leads to punishment but good if it leads to a reward. Two typical examples abstracted from participants' responses included:

If I were in that situation, I wouldn't inform the lecturer, primarily because it's none of my business whether he cheats on the exam or not. If the exam will be graded on a curve, I might inform the lecturer because it will affect my grade as well.

I wouldn't tell anyone and wouldn't confront Michael. There are too many students in university cheating, free riding, or behaving against the rules. Informing the lecturer or confronting Michael would only put me at risk myself. I might be bullied or isolated, which would make my remaining study years VERY hard.

Conventional reasoning. We considered moral reasoning as conventional if an action was justified based on internalized social norms or systems that emphasize the importance of maintaining good interpersonal relationship and social orders. Two typical examples abstracted from participants' responses included:

I would send an email to the tutor to warn that someone is planning to cheat in the exam, and describe their intended methods. I would suggest some ideas to prevent this cheating and hope that the tutor can announce some instructions before the examination so that Michael cannot cheat in the exam.

I'd try to persuade Michael because we're good friends. I don't think he's a bad person. If I give him correct guidance, he won't cheat.

Post-conventional reasoning. Responses were coded as postconventional if the students' judgement showed understanding of some universal ethical principles. To these participants, issues are not always clear-cut. There were times when what was good for society might work against the interests of individuals involved. Therefore, moral judgement would be based on self-chosen principles such as individual rights and justice. Two typical examples abstracted from participants' responses included:

I would definitely talk to him. Cheating is unethical and it's unfair to others including myself. Being honest is much more important than a grade in an exam.

I would persuade my friend to be honest in examinations because it's meaningless to cheat in examinations. We just examine ourselves. As a friend, it's my duty to prevent my friend from doing something wrong.

The intraclass correlation coefficient (Cohen, 1960) was used as a measure of agreement between the two raters who coded the responses. The interrater reliability was high and the magnitude of agreement was beyond chance (ICC = .85, $p < .01$).

Perspective Taking. We adopted the nine-item five-point scale (1 = “Strongly Disagree”, 5 = “Strongly Agree”) from Williams (2012) to understand the participants’ perspective taking tendencies. Williams argued that perspective taking is a three-dimensional construct that consists of appraisal-related, affective, and cognitive perspective taking. The perspective taking scale demonstrated a good level of reliability for all three dimensions, i.e., appraisal-related ($\alpha = .77$), affective ($\alpha = .88$), and cognitive ($\alpha = .81$) perspective taking. The items (shown in Appendix 3) included “When dealing with others, I try to imagine how my actions will affect things that are important to them” and “I try to understand how other people are feeling.” The reliability of this scale was .73.

Control Variables. Research suggests that certain demographic backgrounds, such as gender and education level may account for variances in creativity, and possibly the relationship between creativity and morality (e.g., Proudfoot et al., 2015; Trung et al., 2014). Therefore, we included gender and education level (albeit this having a limited range given the nature of our sample) as control variables.

Results

Descriptive Statistics

Table 1 presents the descriptive statistics for our study. Fifty-eight percent of the participants were female, and most were in their first or second year of study. The participants’ demographic characteristics did not appear to be systematically related to the independent and

dependent variables. However, there was one exception: students in their senior years of study seemed less adept at perspective taking.

Insert Table 1 about Here

We conducted hierarchical regression analysis to evaluate how creativity, perspective taking, and their joint effect might impact participants' moral reasoning, after controlling for the effects of gender and education level. Table 2 summarizes the results of our analysis. As shown by the standardized regression coefficients, the effects of gender and education level were not related to the criterion variable. The hypothesized negative association between creativity and morality was also not found. Thus, Hypothesis 1 was not confirmed. Consistent with Hypothesis 2, we found that perspective taking was positively associated with moral reasoning, c ($\beta = .29, p < .01, \eta^2 = .063$). The result suggested that individuals who were more adept at perspective taking were also more likely to break away from simple hedonic considerations or rules and regulations when they encountered moral dilemmas.

Insert Table 2 about Here

Following this lead, we tested the joint effect of creativity and perspective taking on moral reasoning, as per Hypothesis 3. Here we found a significant joint effect ($\beta = .17, p < .05, \eta^2 = .029$). Figure 1 shows the pattern of this interaction. As per convention, the low and high creativity levels of the X-axis indicate the mean-centered creativity minus and plus one standard deviation respectively. Similarly, the lines of low and high perspective taking represent the mean-

centered perspective taking minus or plus one standard deviation respectively. The graph indicates that the relationship between creativity and moral reasoning could be either positive or negative depending on the levels of perspective taking. To investigate this further, we conducted simple slope analysis, which showed that when the level of perspective taking was low, highly creative individuals tended to adopt a lower level of moral reasoning to justify their responses to the moral dilemma ($\beta = -.31, p < .01$). But when the level of perspective taking was high, there was no significant relationship between creativity and moral reasoning ($\beta = .05, n.s.$). These findings implied that while being strong in perspective taking might not significantly enhance creative individuals' ability to determine what was right or wrong, the inability to see beyond one's own point of view could have a deleterious effect among highly creative individuals on their moral reasoning.

Insert Figure 1 about Here

Discussion

Our study set out to explore the complicated relationship between creativity and morality. We introduced perspective taking as a factor that could potentially nudge creative individuals to become more morally mature instead of more hedonic-minded problem solvers. Our findings provided support for most of our hypotheses. We did not find a significant direct relationship between creativity and moral reasoning. Nevertheless, we did uncover a more nuanced relationship between the two via a moderator: perspective taking. Specifically, we found that individuals with high levels of perspective taking might not necessarily be more likely to adopt higher levels of

moral reasoning, regardless of whether they were creative. Nevertheless, among individuals who were low in perspective taking, those who were high in creativity were more likely to adopt lower levels of moral reasoning. In other words, perspective taking is an even more important factor contributing to one's moral maturity if one is also highly creative. These results are in line with other research that has linked creativity with morality, perspective taking with morality, and perspective taking with creativity respectively. Our study attempts to bring all three constructs together, with perspective taking being the pivotal and integral factor. Our findings contribute to both theory development in this area as well as the advancement of best practices in higher education and professional training.

In recent years, there has been a growing body of literature pointing to the dark side of creativity. Creative individuals are depicted as more inclined to take risks, break rules, and challenge authority (Baucus et al., 2008). A creative role identity may also be linked to a tendency to be presumptuous, arrogant, and entitled (Vincent & Kouchaki, 2016). All of this evidence suggests that the factors that help develop creativity may also hinder moral development. We have added to this literature exploring the complicated relationship between creativity and moral development by investigating whether creativity (as perceived by others rather than being self-reported) has the same association with moral reasoning. Although self-reported creativity is a conventional and highly acceptable approach, self-ratings are generally subject to egocentric bias (e.g., Harris & Schaubroeck, 1988). While creative individuals can be egocentric, not all egocentric individuals are creative. It is likely that individuals are less moral not because they are creative but because they are egocentric. Therefore, by using a peer-evaluated assessment of creativity, we were able to separate creativity from egocentricity in our analysis. However, we did not find a direct relationship between someone's creativity as perceived by other team members and their

level of moral reasoning. Hence, our study contributes by further establishing the complexity of the relationship between creativity and morality.

We pushed the proposition further to focus on human potential rather than human deficits (Whitaker & Godwin, 2013). That is, instead of dwelling on the trade-off between creativity and morality, we explored whether it is possible to develop both, and if so, how it could be done. Based on evidence from prior research, we proposed perspective taking as a moderating factor. After all, perspective taking has been shown to be positively associated with both creativity and morality respectively. Our findings suggest that the influence of perspective taking is especially noteworthy when the individuals in question are highly creative. In other words, if we aim to cultivate *both* creativity and moral maturity, then perspective taking is a particularly important ability to develop. Future research can look further into the role of perspective taking by considering more concrete measures of creativity and actual moral behaviors. Conditions under which perspective taking is enhanced or constrained are also worth exploring, as perspective taking is an effortful process that requires time, motivation, and attentional resources. A better understanding of these conditions would provide insights into how individuals and organizations can create conditions that encourage perspective taking.

In terms of implications for higher education and professional training, our research directly questions the wisdom of developing creativity and morality discretely through different courses and activities, an approach that is quite commonly implemented even if not intended. While there has been a great deal of work that points to the value of integrating creativity and morality in the curriculum so that potential conflicts can be detected, evaluated, and mitigated, business schools still have much to do when it comes to meaningfully implementing such integration. Without a coordinated program to consciously and repeatedly link creativity and

morality, it is possible that business schools are not optimizing the human potential of their students.

However, educators and trainers can also take heart from the evidence that creativity and moral reasoning can be enhanced with high levels of perspective taking. Perspective taking is particularly interesting because it can be cultivated and developed in an educational or training setting. While it is often mentioned in business curricula and professional training programs as a factor affecting creativity, communication, conflict resolution, and morality, among other critical skills for a business professional (Galinsky et al., 2008; Lee et al., 2013; Mor et al., 2013; Rozuel, 2016), it tends not to be explicitly considered beyond its typical “supporting cast” billing. In other words, we tend not to consider it as an integrating factor that binds together key programs on creativity, communication, negotiation, and morality, among others. Our findings indicate that it may be time to elevate the positioning of perspective taking explicitly in our education and training programs so that creativity, morality, and other critical attributes can be developed effectively. While moral education often emphasizes stakeholder perspectives, this emphasis is rarely taken beyond hypothetical classroom exercises and into real business settings (Trevino, 1992). If, as Baker and Baker (2012) highlighted, business education should strive to humanize decision making and make students more sensitive to the experiences of others, then educators and trainers may need to reimagine their curricula and programs. Although perspective taking can be brought into the learning process by merely reminding individuals to view situations from another person’s perspective, a more effective approach would be to train individuals to imagine being in other people’s situations (Eyal et al., 2018; Zhou et al., 2017). This can be achieved by regularly encouraging people to consider the reasons behind other people’s decisions and behaviors, reflect on and share with others specific examples of perspective taking, and visualize situations in which

they can benefit from perspective taking (Valk et al., 2017). Moral creativity also demands the kind of imagination that comes with the exposure to and understanding of a wide spectrum of human conditions. It demands a business education that goes beyond economic development and conventional performance metrics; and it demands a balance between technical knowledge and an appreciation of the liberal arts.

We designed our study such that the data came from multiple sources, minimizing the possibility of common method bias. We also tailored the moral dilemma specifically for our participants, given that the typical scenarios used in extant research were likely to be “lost in translation” in the cultural context of this study. This approach was conducive to ensuring accurate comprehension while also eliciting truthful responses to the moral dilemma. Nevertheless, our study was not without limitations. First, our sample was quite homogeneous, with students of similar backgrounds, age, and academic interests. Therefore, caution must be exercised in generalizing our findings. Second, our design did not allow us to clearly delineate the causal relationships among the key variables. An experimental design or a more elaborate longitudinal study would address this issue. Third, our measure for creativity reflects an individual’s creativity as perceived by teammates. This does not reflect actual creativity. A more objective measure of creativity would allow us to truly examine whether creativity and morality can be encouraged simultaneously. Finally, while we conceptualize creativity, moral reasoning, and perspective taking as cognitive processes, our research design only captured them as snapshots in time. Future research should delve deeper into these processes and examine whether the timing of these processes makes any differences.

We live in a world with diverse interests, shifting demands, and numerous constraints. In order to develop leaders who can help develop solutions that allow for the flourishing of all

humanity, the cultivation of both creativity and morality is crucial. Yet, the development of creative individuals with strong moral fiber is often less effective and more haphazard than business schools and professional programs would like to admit. This, to a large extent, is due to how development programs are implemented. It is tempting to put together programs with a plethora of learning objectives and let different courses address these objectives independently. But if we do not take into account the interconnectedness of these learning objectives, these programs may end up contradicting each other. Our study provides an example of how we can bring our achievements closer to our stated ambitions. Perhaps we, too, can achieve breakthroughs by embracing the interconnectedness of these key learning objectives.

References

- AACSB International. (2018). 2013 Eligibility Procedures and Accreditation Standards for Business Accreditation. Tampa: AACSB International.
- Amabile, T. M. (1982). Social psychology of creativity: A consensual assessment technique. *Journal of Personality and Social Psychology*, 43: 997-1013.
- Axtell, C. M., Parker, S. K., Holman, D., & Totterdell, P. (2007). Enhancing customer service: Perspective taking in a call centre. *European Journal of Work and Organizational Psychology*, 16(2), 141-168.
- Baas, M., Nevicka, B., & Ten Velden, F. S. (2014). Specific mindfulness skills differentially predict creative performance. *Personality & Social Psychology Bulletin*, 40(9), 1092-1106.

- Baker, D.F., & Baker, S.J. (2012). To “catch the sparkling glow”: A canvas for creativity in the management classroom. *Academy of Management Learning & Education*, 11(4), 704-721.
- Bartunek, J. M., Gordon, J. R., & Weathersby, R. P. (1983). Developing "complicated" understanding in administrators. *Academy of Management Review*, 8(2), 273-284.
- Batson, C. D., Early, S. & Salvarani, G. (1997). Perspective taking: Imagining how another feels versus imagining how you would feel. *Personality and Social Psychology Bulletin*, 23(7), 751-758.
- Baucus, M. S., Norton, W. I., Baucus, D. A., & Human, S. E. (2008). Fostering creativity and innovation without encouraging unethical behavior. *Journal of Business Ethics*, 81, 97-115.
- Berndsen, M., & McGarty, C. (2012). Perspective taking and opinions about forms of reparation for victims of historical harm. *Personality and Social Psychology Bulletin*, 38(10), 1316-1328.
- Bierly, P., Gallagher, S., & Spender, J. (2008). Innovation and earning in high-reliability organizations: A case study of United States and Russian nuclear attack submarines, 1970–2000. *IEEE Transactions on Engineering Management*, 55(3), 393-408.
- Bierly, P. E., Kolodinsky, R. W., & Charette, B. J. (2009). Understanding the complex relationship between creativity and ethical ideologies. *Journal of Business Ethics*, 86(1), 101-112.

- Buchholz, R. A., & Rosenthal, S. B. (2005). The spirit of entrepreneurship and the qualities of moral decision making: Toward a unifying framework. *Journal of Business Ethics*, 60, 307-315.
- Caldwell, D. F., & Moberg, D. (2007). An exploratory investigation of the effect of ethical culture in activating moral imagination. *Journal of Business Ethics*, 73, 193-204.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20(1), 37-46.
- Cohen, T. R. (2010). Moral emotions & unethical bargaining: The differential effects of empathy and perspective taking in deterring deceitful negotiation. *Journal of Business Ethics*, 94, 569-579.
- Crutchfield, R. S. (1965). Creative thinking in children: Its teaching and testing. In O. G. Brim, Jr., R. S. Crutchfield, & W. H. Holtzman (Eds.), *Intelligence Perspectives* (pp. 33-64). New York: Harcourt, Brace and World, Inc.
- Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology*, 70(4), 713-726.
- De Dreu, C. K. W., Weingart, L. R., & Kwon, S. (2000). Influence of social motives on integrative negotiation: A meta-analytic review and test of two theories. *Journal of Personality and Social Psychology*, 78(5), 889-905.

- Desplaces, D. E., Melchar, D. E., Beauvais, L. L., & Bosco, S. M. (2007). The impact of business education on moral judgment competence: An empirical study. *Journal of Business Ethics*, 74, 73-87.
- Eagly, A. H. (2009). The his and hers of personal behavior: An examination of the social psychology of gender. *American Psychologist*, 64(8), 644-658.
- Epley, N., Caruso, E. M., & Bazerman, M. H. (2006). When perspective taking increases taking: Reactive egoism in social interaction. *Journal of Personality and Social Psychology*, 91(5), 872-889.
- Epley, N., Keysar, B., Van Boven, L., & Gilovich, T. (2004). Perspective taking as egocentric anchoring and adjustment. *Journal of Personality and Social Psychology*, 87(3), 327-339.
- Eyal, T., Steffel, M., & Epley, N. (2018). Perspective mistaking: Accurately understanding the mind of another requires getting perspective, not taking perspective. *Journal of Personality and Social Psychology*, 114(4), 547-571.
- Falk, D., & Johnson, D. W. (1977). The effects of perspective-taking and egocentrism on problem-solving in heterogeneous and homogeneous groups. *Journal of Social Psychology*, 102(1), 63-72.
- Farmer, S. M., Tierney, P. & Kung-Mcintyre, K. (2003). Employee creativity in Taiwan: An application of role identity theory. *Academy of Management Journal*, 46(5), 618-630.
- Fisher, R. A. (1934). *Statistical methods for research workers*, Oliver & Boyd, Edinburgh and London.

Galinsky, A. D., Maddux, W. W., Gilin, D., & White, J. B. (2008). Why it pays to get inside the head of your opponent. *Psychological Science*, 19(4), 378-384.

Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science*, 17(12), 1068-1074.

George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, 86(3), 513.

Gino, F., & Ariely, D. (2012). The dark side of creativity: Original thinkers can be more dishonest. *Journal of Personality and Social Psychology*, 102(3), 445-459.

Gino, F., & Galinsky, A. D. (2012). Vicarious dishonesty: When psychological closeness creates distance from one's moral compass. *Organizational Behavior and Human Decision Processes*, 119(1), 15-26.

Gino, F., & Margolis, J. D. (2011). Bringing ethics into focus: How regulatory focus and risk preferences influence (un) ethical behavior. *Organizational Behavior and Human Decision Processes*, 115(2), 145-156.

Gino, F., & Wiltermuth, S. S. (2014). Evil genius? How dishonesty can lead to greater creativity. *Psychological Science*, 25(4), 973-981.

Goldstein, N. J., & Cialdini, R. B. (2007). The spyglass self: A model of vicarious self-perception. *Journal of Personality and Social Psychology*, 92(3), 402-417.

Gough, H. G. (1979). A creative personality scale for the adjective check list. *Journal of Personality and Social Psychology*, 37(8), 1398.

Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54(1), 73-96.

Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814-834.

Haidt, J. (2012). *The Righteous Mind*. New York/Toronto: Pantheon Books.

Harris, M. M., & Schaubroeck, J. (1988). A meta-analysis of self-supervisor, self-peer, and peer-supervisor ratings. *Personnel Psychology*, 41, 43-62.

Hennessey, B. A., & Amabile, T. M. (2010). Creativity. *Annual Review of Psychology*, 61, 569-598.

Hoever, I. J., Van Knippenberg, D., Van Ginkel, W. P., & Barkema, H. G. (2012). Fostering team creativity: Perspective taking as key to unlocking diversity's potential. *Journal of Applied Psychology*, 97(5), 982-996.

Joo, J. (2008). Two designer skill sets: Perspective taking and creativity. In A. Y. Lee, & D. Soman (Eds.), *NA - Advances in Consumer Research* (p. 1022). Duluth, MN: Association for Consumer Research.

Keem, S., Shalley, C. E., Kim, E., & Jeong, I. (2018). Are creative individuals bad apples? A dual pathway model of unethical behavior. *Journal of Applied Psychology*, 103(4), 416.

Kjonstad, B., & Willmott, H. (1995). Business ethics: Restrictive or empowering? *Journal of Business Ethics*, 14, 445-464.

- Kohlberg, L. (1976). Moral stages and moralization: The cognitive-developmental. In T. Lickona (Ed.), *Moral Development and Behavior: Theory, Research and Social Issues* (pp. 31-53). New York: Holt, Rinehart and Winston.
- Krebs, D. L., Denton, K. L., Vermeulen, S. C., Carpendale, J. I., & Bush, A. (1991). Structural flexibility of moral judgment. *Journal of Personality and Social Psychology*, 61(6), 1012-1023.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3)480-498.
- Lee, S., Adair, W. L., & Seo, S. J. (2013). Cultural perspective taking in cross-cultural negotiation. *Group Decision and Negotiation*, 22(3), 389-405.
- Lucas, B. J., Galinsky, A. D., & Murnighan, K. J. (2016). An intention-based account of perspective-taking: Why perspective-taking can both decrease and increase moral condemnation. *Personality and Social Psychology Bulletin*, 42(11), 1480-1489.
- Marnburg, E. (2001). The questionable use of moral development theory in studies of business ethics: Discussion and empirical findings. *Journal of Business Ethics*, 32, 275-283.
- Martinez, A. G., Stuewig, J., & Tangney, J. P. (2014). Can perspective-taking reduce crime? Examining a pathway through empathic-concern and guilt-proneness. *Personality and Social Psychology Bulletin*, 40(12), 1659-1667.
- Mencel, J., & May, D. R. (2009). The effects of proximity and empathy on ethical decision-making: An exploratory investigation. *Journal of Business Ethics*, 85(2), 201-226.
- Moberg, D. J., & Seabright, M. A. (2000). The development of moral imagination. *Business ethics quarterly*, 845-884.

- Monin, B., & Norton, M. I. (2003). Perceptions of a fluid consensus: Uniqueness bias, false consensus, false polarization, and pluralistic ignorance in a water conservation crisis. *Personality and Social Psychology Bulletin*, 29(3), 559-567.
- Mor, S., Morris, M. W., & Joh, J. (2013). Identifying and training adaptive cross-cultural management skills: The crucial role of cultural metacognition. *Academy of Management Learning & Education*, 12(3), 453-475.
- Muhr, S. L. (2010). Ethical interruption and the creative process: A reflection on the new. *Culture and Organization*, 16(1), 73-86.
- Mumford, M. D., Waples, E. P., Antes, A. L., Brown, R. P., Connelly, S., Murphy, S. T., & Devenport, L. D. (2010). Creativity and ethics: The relationship of creative and ethical problem-solving. *Creativity Research Journal*, 22(1), 74-89.
- Myyry, L., Siponen, M., Pahnla, S., Vartiainen, T., & Vance, A. (2009). What levels of moral reasoning and values explain adherence to information security rules? An empirical study. *European Journal of Information Systems*, 18(2), 126-139.
- Nickerson, R. S. (1999). How we know – and sometimes misjudge – what others know: Imputing one's own knowledge to others. *Psychological Bulletin*, 125(6), 737-759.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39(3), 607-634.
- Paine, L. S. (1994). Managing for organizational integrity. *Harvard Business Review*, 72(2), 106-117.

Paine, L. S. (1996). Moral thinking in management: An essential capability. *Business Ethics Quarterly*, 6(4), 477-492.

Parker, S. K., & Axtell, C. M. (2001). Seeing another viewpoint: Antecedents and outcomes of employee perspective taking. *Academy of Management Journal*, 44(6), 1085-1100.

Paxton, J. M., & Greene, J. D. (2010). Moral reasoning: Hints and allegations. *Topics in cognitive science*, 2(3), 511-527.

Piff, P. K., Stancato, D. M., Cote, S., Mendoza-Denton, R., & Keltner, D. (2012). Higher social class predicts increased unethical behavior. *Proceedings of the National Academy of Sciences of the United States of America*, 109(11), 4086-4091.

Proudfoot, D., Kay, A. C., & Koval, C. Z. (2015). A gender bias in the attribution of creativity: archival and experimental evidence for the perceived association between masculinity and creative thinking. *Psychological science*, 26(11), 1751-1761.

Ritter, S. M., Kuhn, S., Muller, B. C. N., Van Baaren, R. B., Brass, M., & Dijksterhuis, A. (2014). The creative brain: Corepresenting schema violations enhances TPJ activity and boosts cognitive flexibility. *Creativity Research Journal*, 26(2), 144-150.

Rozuel, C. (2016). Challenging the 'million zeros': The importance of imagination for business ethics education. *Journal of business ethics*, 138(1), 39-51.

Seabright, M. A., & Schminke, M. (2002). Immoral imagination and revenge in organizations. *Journal of Business Ethics*, 38(1-2), 19-31.

Schwartz, S. H., & Rubel, T. (2005). Sex differences in value priorities: Cross-cultural and multimethod studies. *Journal of Personality and Social Psychology*, 89(6), 1010-1028.

Shin, S. J., & Zhou, J. (2003). Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of Management Journal*, 46(6), 703-714.

Sternberg, R. J., & Kaufman, J. C. (2010). Constraints on Creativity: Obvious and Not So Obvious. In J. C. Kaufman, & R. J. Sternberg (Eds.), *The Cambridge Handbook of Creativity* (pp. 467-482). New York: Cambridge University Press.

Su, H. Y. (2014). Business ethics and the development of intellectual capital. *Journal of Business Ethics*, 119(1), 87-98.

Sunstein, C. R. (2005). Moral heuristics. *Behavioral and Brain Sciences*, 28, 531-573.

Teal, E. J., & Carroll, A. B. (1999). Moral reasoning skills: Are entrepreneurs different? *Journal of Business Ethics*, 19, 229-240.

Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, 52, 591-620.

Torrance, E. P. (1977). *Creativity in the Classroom: What Research Says to the Teacher*. Washington DC: NEA.

Trevino, L. K. (1992). Moral reasoning and business ethics: Implications for research, education, and Management. *Journal of Business Ethics*, 11, 445-459.

Trung, N. N., Nghi, P. T., Soldier, L. L., Hoi, T. V., & Kim, W. J. (2014). Leadership, resource and organisational innovation: Findings from state and non-state enterprises. *International Journal of Innovation Management*, 18(05), 1-30.

Tuan, N. T., & Shaw, C. (2016). Consideration of ethics in systemic thinking. *Systemic Practice and SctionResearch*, 29(1), 51-60.

- Uhlmann, E. L., Pizarro, D. A., Tannenbaum, D., & Ditto, P. H. (2009). The motivated use of moral principles. *Judgement and Decision Making*, 4(6), 476-491.
- Valk, S. L., Bernhardt, B. C., Trautwein, F. M., Böckler, A., Kanske, P., Guizard, N., Collins, D. L. & Singer, T. (2017). Structural plasticity of the social brain: Differential change after socio-affective and cognitive mental training. *Science Advances*, 3(10), e1700489.
- Vincent, L. C., & Kouchaki, M. (2016). Creative, rare, entitled, and dishonest: How commonality of creativity in one's group decreases an individual's entitlement and dishonesty. *Academy of Management Journal*, 59(4), 1451-1473.
- Werhane, P. H. (2002). Moral imagination and systems thinking. *Journal of Business Ethics*, 38, 33-42.
- Whitaker, B. G., & Godwin, L. N. (2013). The antecedents of moral imagination in the workplace: A social cognitive theory perspective. *Journal of Business Ethics*, 114, 61-73.
- Williams, M. (2012). Perspective taking: Building positive interpersonal connections and trustworthiness one interaction at a time. In K. S. Cameron, & G. M. Spreitzer (Eds.), *The Oxford Handbook of Positive Organizational Scholarship*. New York, NY: Oxford University Press.
- Woolley, A. W., Chabris, C. F., Pentland, A., Hashmi, N., Malone, T. W. (2010). Evidence for a collective intelligence factor in the performance of human groups. *Science*, 330, 686-688.
- Zhang, T., Gino, F., & Margolis, J. D. (2018). Does “could” lead to good? On the road to moral insight. *Academy of Management Journal*, 61(3), 857-895.

Zhou, H., Majka, E. A., & Epley, N. (2017). Inferring perspective versus getting perspective:

Underestimating the value of being in another person's shoes. *Psychological Science*,

28(4), 482-493.

Zhou, J., & Oldham, G. R. (2001). Enhancing creative performance: Effects of expected

developmental assessment strategies and creative personality. *The Journal of Creative*

Behavior, 35(3), 151-167.

Figure 1

Interaction Effect of Creativity and Perspective Taking on Moral Reasoning

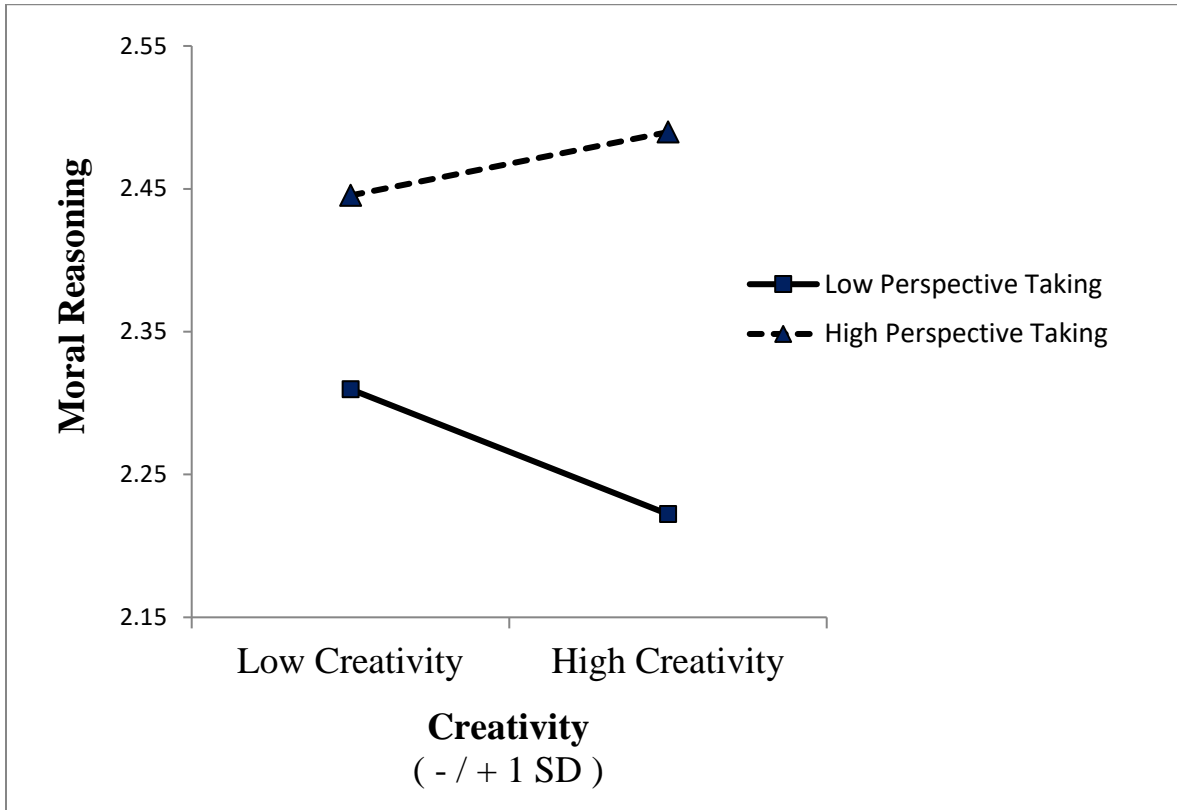


Table 1

Descriptive Statistics and Reliability Coefficients of Variables

Variable	Mean	SD	1	2	3	4	5
1. Gender ^a	.42	.50	1.00				
2. Education Level ^b	2.24	.51	.02	1.00			
3. Creativity ^c	4.70	.56	.01	.07	(.93)		
4. Perspective Taking	3.95	.35	-.12	-.30 **	-.11	(.73)	
5. Moral Reasoning	2.25	.75	-.06	-.13	-.05	.29 **	1.00

Note: $N = 162$

Coefficient alphas indicating internal consistency reliabilities are in parentheses on the diagonal.

^a Gender: Female = 0; Male = 1

^b Year of Study: 1= First year, 2 = Second year, 3 = Third year

^c Peer-rated

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

Table 2

Effects of Creativity and Perspective Taking on Moral Reasoning

Variable	Moral Reasoning		
	Model 1	Model 2	Model 3
Step 1			
Gender ^a	.07	.10	.10
Education Level ^b	-.13	-.05	-.05
Step2			
Creativity ^c		-.02	-.03
Perspective Taking		.29 **	.28 **
Step3			
Creativity x Perspective Taking			.17 *
R ²	.02	.10	.13
Final F	1.43	5.51 **	4.12 *
df	2, 132	2, 130	1, 129

^a Gender: Female = 0; Male = 1

^b Year of Study: 1= First year, 2 = Second year, 3 = Third year

^c Peer-rated

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

Appendix 1

Measurement Items for Creativity

Items for Creativity	
1	This member tries new ideas or methods first.
2	This member seeks new ideas and ways to solve problems.
3	This member generates ground-breaking ideas related to the project.
4	This member is a good role model for creativity.

Appendix 2

Moral Dilemma Scenario

“You and Michael are good friends from secondary school, enrolling in classes together. It is Week 11 now, close to exams. You both: [1] did badly in your mid-terms, [2] are both stressed out about your final exam, [3] you may fail the subject, or do poorly.

When Michael was fetching lunch in the canteen, you secretly read his Whatsapp and discovered he and another friend were planning to cheat in the finals. Clearly the plan is unethical. [A] If you inform the lecturer, you will betray your friend. [B] If you confront Michael, you will have to admit a privacy breach. What do you do now? Why?

Appendix 3

Measurement Items for perspective taking

Items for Perspective Taking	
1	When dealing with others, I try to imagine how my actions will affect things that are important to them.
2	When interacting with others, I try to understand why particular issues hold emotional significance for them.
3	When interacting with others, I try to look at things from their perspective.
4	I try to understand how other people are feeling.
5	When interacting with others, I think about how I would feel if I were in their place.
6	I try to think about what emotions other people may be feeling when I interact with them.
7	I try to look at everybody’s side of a disagreement before I make a decision.
8	I believe that there are two sides to every question, and try to look at them both.
9	When I’m upset at someone, I usually try to “put myself in his shoes” for a while.