

CREATIVE IN SOMEONE ELSE'S SHOES?:
THE EFFECT OF PERSPECTIVE-TAKING ON CREATIVITY

A Dissertation

Presented to the Faculty of the Graduate School

of Cornell University

in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

by

Verena Krause

May 2015

© 2015 Verena Krause

CREATIVE IN SOMEONE ELSE'S SHOES?:
THE EFFECT OF PERSPECTIVE-TAKING ON CREATIVITY

Verena Krause, Ph.D.

Cornell University 2015

Employees in organizations often have to generate novel products, services, and even entire business ideas that will appeal to others. One seemingly prudent way to gauge what others will like is by attempting to take their perspective, and thus look at the world from their point of view. However, in this paper, I argue that taking another person's perspective seems to have detrimental rather than beneficial effects on novel idea generation. I demonstrate in two studies that taking the perspective of someone of the other gender decreases the novelty of the ideas generated for that gender (Study 1), and that this effect holds, even under counter-stereotypical conditions, which are generally conducive to novel idea generation (Study 2). Additionally, even when taking a creative person's perspective (same or other gender), novel idea generation is stifled (Study 3). Last, it seems that this effect is due to the cooperative mindset that is activated by perspective-taking because a competitive mindset was able to mitigate the stifling effects of perspective-taking on novelty (Study 4). Since perspective-taking tends to occur more often in cooperative, rather than competitive, situations in naturalistic settings, I conclude that taking another person's perspective might most often be detrimental to novel idea generation.

BIOGRAPHICAL SKETCH

Verena Krause studied Psychology with a minor in Biology at Boston University, in Boston, MA. She graduated cum laude and with distinction with a Bachelor of Arts in 2005. Verena then started working at the Psychology Research Laboratory at McLean Hospital, in Belmont, MA, as a research assistant. The laboratory studies cognitive and physiological traits that may identify carriers for schizophrenia genes. Soon Verena became more interested in her coworkers' and superiors' behavior than in that of the schizophrenic patients, and thus, four years later, in the fall of 2009, Verena started the M.S./Ph.D. program in Organizational Behavior at the School of Industrial and Labor Relations at Cornell University in Ithaca, NY. Her interest in creativity led her to work with Professor Jack Goncalo, who became the Chair of her dissertation committee. After graduating with a PhD in May 2015, Verena will start working as an Assistant Professor at the department of Management Science and Innovation at University College London, in London, UK.

DEDICATION

I dedicate my dissertation first and foremost to my family. I want to especially thank my wonderful parents for always believing in me and for giving me the opportunity to study in the USA. Paps, your creativity in entrepreneurship inspires me. Mama, I admire your love for, and engagement in, artistic creativity. Having creative parents certainly played a role in my choice to research creativity. Beni and Leo, thanks for all your visits and for being wonderful brothers. I love all of you dearly.

I also dedicate my dissertation to my amazing friends who have listened to me, supported me, and have given me advice throughout my time at Cornell. In order of appearance in my life: Ross, thanks for being such a loyal friend. Your support and advice has been indispensable to me. Also thanks for proof-reading my M.S. thesis and dissertation. I'm going to miss you!

Hannes, I wouldn't have survived my first year in Ithaca without you. When I found out that you and Lieselot were returning for my last two years here, I couldn't have been happier! Thanks, for all the hikes, dinners and advice. I look forward to our many adventures in Europe.

ACKNOWLEDGMENTS

No student could wish for a better adviser and chair than Professor Jack Goncalo. Jack's office door is always open and he encourages me, and his other students, to stop by, be it for a signature, advice on a research project, or simply to chat about office politics, the latest rumors going around the grad office, or a personal matter. This open-door policy, which I believe is rare, creates a very welcoming and friendly atmosphere which has been very conducive to our research collaborations and to our personal relationship. Every time I get the feeling that it is all too much, a meeting with Jack makes me realize that it is all doable and that I am on the right track. When I am frustrated with my research, Jack has another idea on how to salvage the day. His advice is indispensable, and his patience sets me at ease.

Furthermore, Jack is the most loyal mentor I have ever encountered. In other words, Jack has my back! He defends me when other professors speak negatively about my work. He has provided me with all the funds I needed – either from his own or ExPO's research and travel funds – so that I could go to conferences and conduct studies in which I had to pay participants. He has listened to my job talk repeatedly and helped me perfect it. All this paid off: I was offered and recently accepted the assistant professor position at UCL, which was my top choice. I could not have done it without Jack.

One reason why I was able to secure my most desired academic position is that Jack's verbal and written critique of my ideas, research designs and proposals, M.S. thesis, and dissertation work is always straight-forward, honest, and constructive. While Jack lauds great ideas and work, I immensely appreciate that he does not shy away from saying things as they are when my work is not great because it shows that he truly cares about my career and well-being. Many advisers phrase critique in such a positive way that they give off the impression that the

work is either good enough, or the student ends up confused as to what needs to be improved and how to do so. Jack, on the other hand, openly tells me when I make no sense or when an idea for a project will only have a marginal impact and not be particularly interesting to the wider research community. Jack's frankness is refreshing, and because I know he only has my best interest at heart, I am able to accept his critique and use it to write better articles. A thousand times thank you, Jack!

I have been attending Melissa Ferguson's lab meetings each week for several years now, which has been a wonderful experience. The research conducted in her lab is always fascinating and the discussions are lively and educational. Melissa makes everyone feel welcome and gives great advice. In my meetings with Melissa, she helps me improve my experimental designs, and we have generated interesting new ideas for my M.S. thesis and dissertation. Melissa, thank you for being a great committee member!

In her class on Theory and Research in Group Decision Making, Poppy McLeod introduced me to a plethora of the seminal works in the social psychology literature, such as articles by Kurt Lewin and Leon Festinger. As my committee member, Poppy is a wonderful resource; she knows articles that relate to any topic and is always willing to give me advice on where to look for relevant literature. Poppy, thank you for being a great committee member.

I also want to thank Emily Zitek for all her help with my dissertation, for listening to my job talk repeatedly, for teaching me and helping me with statistics, and for doing research with me.

TABLE OF CONTENTS

| | |
|---|------|
| BIOGRAPHICAL SKETCH..... | i |
| DEDICATION | ii |
| ACKNOWLEDGMENTS..... | iii |
| LIST OF FIGURES..... | vi |
| LIST OF ILLUSTRATIONS..... | vii |
| LIST OF TABLES..... | viii |
| Chapter 1: How Perspective-taking Affects Creativity..... | 1 |
| Chapter 2: Study 1 - Perspective-taking Hinders Novel Idea Generation..... | 15 |
| Chapter 3: Study 2 - Perspective-taking and Novel Idea Generation: The Moderating Role of Counter-Stereotyping..... | 25 |
| Chapter 4: Study 3 - Perspective-taking and Novel Idea Generation: The Moderating Role of Differentiation..... | 35 |
| Chapter 5: Study 4 - Perspective-taking and Novel Idea Generation: The Moderating Role of Competition | 40 |
| Chapter 6: General Discussion | 48 |
| References | 60 |

LIST OF FIGURES

Figure 1: Effect of Perspective-taking on Novelty
(Error Bars indicate one standard error from the mean)

Figure 2: The Effect of Perspective-taking and Stereotypicality on Novelty
(Error Bars indicate one standard error from the mean)

Figure 3: The Effect of Perspective-taking and Creativity Prime on Novelty
(Error Bars indicate one standard error from the mean)

Figure 4: The Effect of Perspective-taking and Social Motive on Novelty
(Error Bars indicate one standard error from the mean)

LIST OF ILLUSTRATIONS

Illustration 1: Perspective-taking Target – Young woman

Illustration 2: Perspective-taking Target – Young man

Illustration 3: Perspective-taking Target – Feminine Jen

Illustration 4: Perspective-taking Target – Neutral Jen

Illustration 5: Perspective-taking Target – Masculine Jen

LIST OF TABLES

Table 1: Demographic Data of Participants in Study 1

Table 2: Demographic Data of Participants in Study 2

Table 3: Demographic Data of Participants in Study 3

Table 4: Demographic Data of Participants in Study 4

Chapter 1: How Perspective-taking Affects Creativity

Organizational success, longevity, revenue, and competitive advantage depend heavily on employee and leader creativity (Amabile, 1988; Woodman, Sawyer & Griffin, 1993; George, 2007). Novelty, the distinguishing feature of creativity (Simonton, 1999; Amabile, Barsade, Mueller, & Staw, 2005), however, is difficult to obtain because people are often constrained by their own, self-centered view of the world (Duncker, 1945; Ward, 1993, 1994). Thus, whereas creativity is desirable, people's structured, constrained way of thinking often prevents them from being creative. One long-standing solution to this problem is a shift in perspectives, for example via additive counterfactual thinking (Markman, Lindberg, Kray, & Galinsky, 2007) or living abroad (Maddux & Galinsky, 2009), which will allow people to think more broadly and thereby to think more creatively (Duncker, 1945; Amabile, 1988). Indeed, it seems intuitive that seeing the world from another perspective should help individuals move beyond the constraints imposed by their existing knowledge (Ward, 1994) and thus stimulate creative problem solving.

More recently, it has been suggested that taking another *person's* perspective or to assume the psychological perspective of another person by seeing the world through their eyes (e.g.: Davis, 1983; Galinsky, Ku, & Wang, 2005) is another way to shift perspectives and thus to help overcome these constraints (Grant & Berry, 2011). For example, Grant and Berry (2011) proposed and found evidence that "perspective-taking, as generated by prosocial motivation, strengthens the association between intrinsic motivation and creativity" (p. 91). The authors stress that perspective-taking, especially, enhances the *usefulness* of the ideas generated, and thus increases the creativity of the ideas overall because creativity is defined as an idea that is both novel and useful (Amabile, 1996). However, in this dissertation I question the long-held

assumption that any shift in perspective aids creative problem solving. I argue that perspective-taking may have a significant downside, particularly considering the *novelty* of the ideas generated, that has not yet been considered in existing research.

Decades of research overwhelmingly demonstrate that creativity, and especially novelty, thrives when people want to express their uniqueness (Goncalo & Staw, 2006), when they disagree with and compete against one another (Cummings & Oldham, 1997; Shalley & Oldham, 1997; Munkes & Diehl, 2003; Beersma & De Dreu, 2005), go against social norms (Nemeth, 1986; Nemeth & Staw, 1989), and create task-related conflict (Nemeth, Personnaz, Personnaz, & Goncalo, 2004). In contrast, substantial evidence suggests that perspective-taking leads people to see themselves as similar to others (Galinsky et al., 2005 for a review), to be motivated by cooperation rather than by competition (Johnson, Johnson, Johnson, & Anderson, 1976; Tjosvold, Johnson, & Johnson, 1984), and to avoid conflict (Rupp, McCance, Spencer, & Sonntag, 2008; Galinsky, Maddux, Gilin, & White, 2008). In this dissertation I develop a theoretical perspective in which perspective-taking can actually reduce the kind of independence of thought that is necessary for novel ideas to germinate (Goncalo & Krause, 2010). In short, I develop a theoretical argument in which perspective-taking actually stifles novel idea generation, and I test this prediction in four experiments.

The Consequences of Perspective-taking for Social Interaction

Perspective-taking is critical for people to function effectively in social life (Piaget, 1932; Mead, 1934). As suggested by Davis (1983), perspective-taking helps people to understand how another person perceives the world so that they can adjust their own behavior towards that person accordingly. By taking the perspective of another person, people show that they value that

person's opinion and viewpoint (Laurent & Myers, 2011). This is partially made evident by the finding that interactions with perspective-takers are viewed as more positive by the person whose perspective is being taken (Todd, Bodenhausen, Richeson, & Galinsky, 2011). Hence, perspective-taking helps with understanding another person's point of view and shows that the other person's well-being matters (Batson, Sager, Garst, Kang, Rubchinsky, & Dawson, 1997).

Furthermore, a large body of literature has demonstrated how perspective-taking facilitates social interaction. Davis (1983), for example, demonstrated that dispositionally high perspective-takers are generally more socially competent than dispositionally low perspective-takers. Additionally, taking the perspective of others induces helping behaviors (Batson et al., 1997), reduces conflict (Rupp, McCance, Spencer, & Sonntag, 2008; Galinsky, Maddux, Gilin, & White, 2008), facilitates forgiveness (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008), and makes communication more effective (Patient & Skarlicki, 2010).

Thus, there is substantial evidence that perspective-taking can provide a foundation for meaningful and healthy relationships at work and in life in general. The effects of perspective-taking are clearly wide ranging, and relevant for theorizing about creativity because they revolve around a common psychological mechanism, the merging of the self with the other (Davis, Conklin, Smith, & Luce, 1996; Galinsky & Moskovitz, 2000; Galinsky, et al., 2005, for a review; Goldstein & Cialdini, 2007; Galinsky, Wang, & Ku, 2008; Laurent & Myers, 2011). This merging, or increased self-other overlap, has three important consequences that are relevant for creative problem solving, which I will discuss in detail in the next section: 1) an increase in stereotyping; 2) an increase in perceived similarity between the self and the other; and 3) an increased willingness to cooperate.

Creativity and Perspective-taking

In this section, I connect the disparate literatures on perspective-taking and creativity to argue that the very psychological process underlying perspective-taking that is typically viewed as beneficial for a wide range of interpersonal outcomes may actually stifle rather than stimulate creative thought. The reason is that perspective-taking may trigger a psychological orientation that runs counter to that which is necessary for creative problem solving. In order to directly relate the creativity literature to the consequences of perspective-taking, I stress: (1) counter-stereotyping rather than stereotyping (Gocłowska, Crisp, & Labushagne, 2013); (2) a differentiation rather than similarity mindset (Goncalo & Krause, 2010; Kim, Vincent, & Goncalo, 2013); and (3) competition rather than cooperation (Cummings & Oldham, 1997; Shalley & Oldham, 1997, Munkes & Diehl, 2003; Beersma & De Dreu, 2005) are key to enhancing novel idea generation. I elaborate on each of these connections below. Because the consequences of perspective-taking are in direct opposition to the antecedents necessary for novel idea generation, my overarching hypothesis is as follows:

Hypothesis 1: Taking another person's perspective stifles novel idea generation (in comparison to thinking about, but not taking the perspective of another person).

Stereotyping vs. Counter-stereotyping

One consequence of taking another, unknown person's perspective is stereotyping (Galinsky, Wang, & Ku, 2008) because stereotypes are often the only information immediately available about an unknown other. Interestingly, via the self-other merger, both positive and negative stereotypes of others can be included in the self when engaging in perspective-taking.

Evidence for this stems from several studies. In one of these, participants were asked to take the perspective of a university professor or of a cheerleader and subsequently performed better and worse, respectively, on an analytic task (Galinsky, Wang, & Ku, 2008). Presumably, taking the perspective of a professor, who is generally stereotyped to be intelligent, allows people to solve more problems correctly on an analytic task. Likewise, taking the perspective of a cheerleader, who is generally stereotyped to be of less intelligence, leads people to solve fewer problems correctly on an analytic task. Clearly then, it is also possible to include others' negative characteristics into the self during perspective-taking, which consequently leads to less desirable outcomes (Galinsky, Wang, & Ku, 2008). In a series of studies, Galinsky and colleagues (2008) provided further evidence for these negative effects by having participants take the perspective of the elderly. People who took the perspective of an elderly person felt weaker and more dependent on others, both stereotypical of the elderly, in the U.S. (Galinsky et al., 2008) and in Singapore (Ku, et al., 2010). Another set of studies demonstrated that taking the perspective of a selfish person led to increased selfishness in the perspective-taker (Gino & Galinsky, 2012). Thus, the self-other overlap encourages negative and positive stereotypical traits to be incorporated from others into the self.

What is necessary for creative thinking, however, is an acknowledgment of differences in out-group members rather than viewing everyone as possessing the same, stereotypical traits because stereotyping leads to thinking within a confined mental set, which may lead to close-mindedness and a fixation on the attributes that belong to the particular stereotype. A few recent articles speak directly to this claim. Gocłowska, Crisp & Labuschagne (2012) argued that counter-stereotyping, for example, thinking of a female mechanic, enhances cognitive flexibility because it reduces the immediate accessibility of category relevant thoughts (Blair, Ma, & Lenton, 2001;

Dasgupta & Asgari, 2004; Hall & Crisp, 2005), and thus leads to more creative problem solving on subsequent tasks. Gocłowska and colleagues (2012) tested this in two experiments in which they varied the manipulation of stereotyping by either asking participants to list adjectives describing a specific (counter)stereotype (gender: female or male mechanic) or list five combinations of social categories that do (stereotyping condition) or do not (counter-stereotyping condition, e.g.: woman-rugby player, hippie-lawyer) go together. In the first experiment, participants' cognitive flexibility was measured by counting the pasta names that they had to invent that did not end in the letter "i," which was the common structural component of all five examples of new pasta names that were provided in the instructions. As hypothesized, the participants who were primed with counter-stereotypes were significantly more cognitively flexible; they generated more pasta names that did not end in "i." In the second experiment, participants were asked to generate novel ideas for a themed event at a university night club and then create a poster for this event. Both, the ideas and the poster were rated as more creative by independent raters in the counter-stereotypical than in the stereotypical condition. Thus, counter-stereotyping – thinking of differences – rather than stereotyping – thinking of similarities – is key to creative problem solving.

A second paper looks at a related topic, racial essentialism, which refers to a person's conviction that every racial group has a predetermined essence, and thus members of such a group are all the same, and its effect on creativity (Tadmor, Chao, Hong, & Polzer, 2012). In a series of five experiments, Tadmor and colleagues (2012) repeatedly found the predicted negative relationship between racial essentialism and creativity. They used both majority as well as minority group members in their studies to establish the generality of the effect across groups.

Thus, perspective-taking activates stereotypes and stereotyping, and similar concepts such as racial essentialism, in turn, hinder creative idea generation. Interestingly, the opposite

has been demonstrated as well: Priming people with a creative mindset can reduce stereotype activation (Sassenberg & Moskowitz, 2005). Stereotyping might, hence, be the mechanism through which perspective-taking hinders novel idea generation. If this is the case, taking the perspective of a counter-stereotypical other should nullify this effect, which leads me to the following hypothesis:

Hypothesis 2: An interaction between perspective-taking and the stereotypicality of the perspective-taking target will occur, such that when taking the perspective of a stereotypical or neutral target, the novelty of ideas generated will be stifled, whereas taking the perspective of a counter-stereotypical target will aid the novelty of ideas generated.

Similarity vs. Differentiation

By definition, creative ideas diverge from what is known; they are unique, and thus different from all other ideas (Amabile, 1996). In order to come up with such divergent ideas, people need to think differently or "outside the box" (Leung, Kim, Polman, Ong, Qiu, Goncalo, & Sanchez-Burks, 2012), and they need to think flexibly (Nijstad, De Dreu, Rietzschel, & Baas, 2010). Evidence that a differentiation mindset, in particular, enhances creative thought stems from Kim, Vincent, & Goncalo (2013). They demonstrated that social rejection experienced by individuals with an independent self-concept led to an increase in creativity because these individuals felt different from others when they were rejected, and this differentiation mindset increased participants' performance on two distinct creativity tasks (Kim et al., 2013).

In contrast, perspective-taking facilitates the perception of similarity. Both possible forms of perspective-taking, imagine-self (imagining how one would feel if one was in the other's position) and imagine-target (imagining what the other person is thinking and feeling) bring the other closer to the self, so that the other is more "self-like" and the self closer to the other, so that the self becomes more "other-like" (Galinsky et al., 2005). In other words, perspective-taking increases the perceived similarity between the self and the other. For example, in one study, participants projected their own, positive traits onto another during perspective-taking, which led to a greater degree of overlap between the cognitive representations of self and other, and to a greater liking of, and desire to befriend, the other person (Davis et al., 1996). Projecting one's own characteristics onto another during perspective-taking seems to be even more likely to occur when one already perceives the other to be similar to, rather than different from, the self (Ames, 2004). Furthermore, perspective-taking leads to the inclusion of others' characteristics in the self and thus impacts self-descriptions, which increases perceived similarity even further, as described above in the stereotyping section (Galinsky, Wang, & Ku, 2008; Ku, Wang, & Galinsky, 2010).

Thus, while perspective-taking enhances perceived similarity between the self and the target, creativity benefits from perceived differences. This consequence of perspective-taking thus runs directly counter to the necessary antecedent for creative idea generation. One way to counter the similarity mindset might be by taking the perspective of a creative individual, which would activate a differentiation mindset instead. This leads me to my third hypothesis:

Hypothesis 3: An interaction between perspective-taking and differentiation will emerge such that, when taking the perspective of a creative individual, the novelty of ideas

generated will increase in comparison to being primed with, but not taking the perspective of a creative individual.

Cooperation vs. Competition

Furthermore, competition has been highlighted as a critical antecedent to creative expression because it can motivate people to stand out from others to generate more novel solutions (Goncalo & Kim, 2010). A competitive mindset has been shown to enhance creativity (Cummings & Oldham, 1997; Shalley & Oldham, 1997; Munkes & Diehl, 2003; Beersma & De Dreu, 2005) because competition encourages people to emphasize their uniqueness (Goncalo & Krause, 2010), and it makes them want to outperform others (Rijsman, 1974), which is why people strive to not only find more solutions than their competitors, but solutions that go into different directions and are qualitatively better. Evidence for this stems from research by Munkes & Diehl (2003), who showed that interpersonal competition leads to increased fluency (number of ideas) and flexibility (number of categories from which the ideas stem) of ideas generated in a brainstorming task. Furthermore, in competitive group settings, people are comfortable and willing to disagree with one another, debate, and cause task-related conflict, which are all behaviors that are conducive to creative idea generation (Nemeth et al., 2004).

Conversely, many find that a cooperative mindset stifles creativity (Beersma & De Dreu, 2005; Goncalo & Staw, 2006; Ashton-James & Chartrand, 2009; Goncalo & Kim, 2010). Cooperation generally means avoiding conflict (Chizhik, Shelly, & Troyer, 2009), but task-related conflict is beneficial in creative problem solving (Nemeth et al., 2004; Troyer & Youngreen, 2009). Cooperation encourages people to agree with one another and incrementally build on each other's ideas rather than go into completely different directions (Kohn & Smith,

2011). Furthermore, because there is no desire to outperform others once an acceptable solution to a problem is found, it is often chosen as the final solution (Schwartz, Ward, Monterosso, Lyubomirsky, White, & Lehman, 2002). Hence, a satisfactory rather than the best solution is agreed upon.

Further evidence for the negative effects of cooperation and the positive effects of competition on creativity stems from a direct comparison of these two social motives. Beersma and De Dreu (2005) showed that if group members had a prosocial tendency, meaning that they cooperated during a negotiation task, these group members performed better on a subsequent planning task than on a creativity task; however, if group members had a proself tendency, meaning that they competed during a negotiation task, the results were reversed – the proself group members performed better on a subsequent creativity task than a planning task. Similarly, Goncalo and Staw (2006) conducted a study comparing the effects of two different cultural values on creative idea generation. The researchers primed participants either with individualism, defined as a person's tendency to be independent, unique, and competitive, or with collectivism, defined as a person's tendency to be interdependent, cooperative, and to want harmony with others. On the subsequent idea generation task, individualistic groups generated more ideas that were more creative than those generated in collectivistic groups. Goncalo and Staw (2006) argue that individualism promotes creativity because uniqueness and the willingness to stand out from the group are admired and encouraged characteristics, whereas collectivism stifles creativity because it does the opposite: it creates cohesion and conformity within the group. Whereas these latter, comparative examples stem from group studies, simply having a cooperative or competitive mindset has a similar effect on individuals' creative performance. When people's mindset was to be alone, independent, different from others, and competitive, they exhibited

greater creativity than when people's mindset was to be with others, to conform, to be accepted, and to cooperate (Wiekens & Stapel, 2008).

In contrast, the self-other overlap encourages perspective-takers to cooperate with others by, as mentioned previously, reducing conflict (Rupp, et al., 2008; Galinsky, Maddux, et al., 2008), increasing helping behavior (Batson et al., 1997), and making communication more effective (Patient & Skarlicki, 2010). Specifically, perspective-taking reduces inner as well as interpersonal conflict, which, in turn, enhances cooperation. For example, customer service employees who feel treated unfairly by their customers benefit from perspective-taking via a reduction in surface acting, which is defined as the display of emotions that one is not actually feeling (Rupp et al., 2008). Perspective-taking enabled the employees in this study to actually feel the emotions they were supposed to convey to their customers (Rupp et al., 2008). Similarly, in romantic relationships, high perspective-taking and empathy, especially during disputes, positively predicted a satisfying relationship (Davis & Oathout, 1987; Long & Andrews, 1990).

Similarly, the empathy literature shows evidence that emotional perspective-taking increases willingness to cooperate. For example, induced empathy increased willingness to help another person irrespective of in-group or out-group membership (Batson, et al., 1997), and it significantly increased cooperation in a prisoner's dilemma game (Batson & Moran, 1999). Furthermore, induced empathy increases informational and interpersonal justice in communication between managers and their employees, as well as participants in the laboratory who communicated bad news to a confederate (Patient & Skarlicki, 2010). In sum, cognitive as well as emotional perspective-taking increase cooperative behaviors.

Likewise, people are more likely to engage in perspective-taking when they are motivated to cooperate with, rather than compete against, others (Johnson et al., 1976; Tjosvold,

et al., 1984). Evidence for this claim stems from a study showing that negotiators were much more accurate at understanding each other's perspectives when the negotiation was framed as cooperative rather than competitive (Tjosvold et al., 1984). Another study compared fifth-graders who were either put in a cooperative or an individualistic classroom structure (Johnson et al., 1976). The cooperative structure facilitated perspective-taking, whereas the individualistic structure did not. Clearly then, a cooperative mindset seems to facilitate perspective-taking, whereas an individualistic, competitive mindset hinders it.

Although it is less often observed in naturalistic settings, it is possible to take the perspective of a competitor. The studies of particular interest here demonstrate that, during a competitive negotiation, perspective-takers were less willing to compromise than during a cooperative negotiation (Epley, Caruso, & Bazerman, 2006). Epley et al. (2006) have two consistent findings across their studies: people intend to be fair, but act selfishly. In particular, whereas perspective-takers agreed that a fixed number of resources should be split up fairly between them and the other party, thus asking for less of the resource than the participants who did not take the other party's perspective, their actual actions did not match their intentions. Instead, perspective-takers consistently engaged in what the authors term "reactive egoism." When the opportunity to actually take resources arose, perspective-takers took significantly more than previously indicated as fair because they assumed that the other party would do so as well. Thus, the authors argue that, in a competitive setting, perspective-taking leads to the assumption that others are selfish, which in turn leads the perspective-taker to react selfishly. In a cooperative negotiation, however, the perspective-taker is less likely to believe that the other party is selfish and thus is more compromising and less selfish (Epley et al., 2006). From this negotiation example, it becomes clear that perspective-taking has different outcomes depending

on whether one cooperates with or competes against the person whose perspective one takes.

This line of research leads me to my next hypothesis:

Hypothesis 4: An interaction between perspective-taking and social motive will emerge such that in the cooperative condition perspective-takers will generate significantly less novel ideas than egocentric participants, but in the competitive condition, perspective-takers will generate at least equally novel ideas as egocentric participants.

Overview of Studies

In summary, perspective-taking, which induces stereotyping, perceived similarity, and cooperation with others via the self-other merger, may stifle novelty because novelty requires counter-stereotyping, a differentiation and a competitive mindset. In other words, the consequences of perspective-taking run directly counter to the necessary antecedents of creative thought. Any one of these three, stereotyping, similarity, and cooperation might thus be the mediating mechanism through which perspective-taking affects novelty.

In my first study, I am going to explore the direct effect of perspective-taking on the novelty of ideas generated by having participants either take the perspective of a photographed individual or not, and then generate ideas for the group to which this person belongs. I will also measure stereotype activation by having participants engage in a lexical decision task. In the second study, I am going to manipulate the stereotypicality of the photographed individual in addition to having participants take the perspective of this individual or not. Subsequently, participant will, again, generate ideas for the group to which this person belongs. In my third

study, I'm going to manipulate whether participants are taking the perspective of a creative or practical individual before generating ideas on a brainstorming task. In my fourth and final study, I am going to manipulate whether participants are in a cooperative or competitive mindset in addition to manipulating whether they take the perspective of another person or not. A similar brainstorming task as before will be employed to elicit ideas from participants. In Studies 2-4, I chose to manipulate the mediator directly rather than measuring it, which according to Spencer, Zanna, & Fong (2005), is a viable option when trying to establish a mechanism.

Chapter 2: Study 1 - Perspective-taking Hinders Novel Idea Generation

In this first study, I am testing my first hypothesis, which states that perspective-taking hinders novel idea generation. Additionally, I'm going to test whether this relationship is mediated by stereotyping. I am testing this by having men take the perspective of a woman and then generate ideas for women and women take the perspective of a man and then generate ideas for men. I particularly focus on gender for two reasons: First, the workforce is becoming more gender diverse. In January 2010, for the first time in U.S. labor history, more women were payroll employees than men (Mulligan, 2010). Especially in the upper echelons, which are historically male dominated, efforts are increasing to include women (Ely, Ibarra, & Kolb, 2011). Thus, men and women have to increasingly work with each other. Second, many of today's organizations have research and development teams that are tasked with developing products, processes, or services for a particular consumer group. For instance, taking the desires and preferences of men and women into account is becoming increasingly important as the following examples demonstrate. BIC, the pen company, designed pens "for her." These pens come in pastel colors, are described as elegant, and the "thin barrel [is designed] to fit a woman's hand" (Amazon). Another example is Dr. Pepper 10, which, according to Anderson, writing for *USA Today*, "was developed after the company's research found that men shy away from diet drinks that aren't perceived as 'manly' enough." Dr. Pepper 10 has 10 'manly' calories, and is advertised as "not for women" (Anderson, 2011). These examples make it clear that organizations often have consumer groups in mind when they design their products, in these cases women and men, respectively. Additionally, these examples show that the product ideas that are generated are not always

particularly creative; the above two are neither novel nor appropriate. In fact, Amazon reviews and blogs about these products demonstrate that many consider them to be offensive (Amazon).

Thus, men and women have to work with each other, and often work on projects that require them to generate ideas for consumers of the other gender. One prominent and seemingly prudent way to gauge what the other gender is likely to purchase is by taking their perspective. However, as discussed in detail above, whereas the most proximate prediction might be that taking another person's perspective should increase novel idea generation because it might free people from their structured, constrained, self-centered view of the world, this relationship may in fact be more complicated than initially assumed because perspective-taking may actually reduce independent thought necessary for novel idea generation. In this first study, my goal is to demonstrate that taking the perspective of a member of the other gender hinders participants in the later generation of creative ideas for members of that gender.

Methods

Participants

One hundred and forty seven undergraduates from a university in the northeastern United States received extra credit for their participation in this study. See Table 1 for demographics.

Table 1: Demographic Data of Participants in Study 1

| Average Age | Gender | Ethnicity | | | | |
|----------------------------|------------------------|------------------|-----------------|------------------|---------------|----------------|
| | | Caucasian | Asian | African-American | Hispanic | Other |
| 20.21 years Stdev: 1.95 | 78 females 69 males | N=100 (68%) | N=27 (18.4%) | N=4 (2.7%) | N=6 (4.1%) | N=10 (6.8%) |

Procedure

The first part of this study was intended to manipulate the independent variable, perspective-taking. The manipulation was adopted from Galinsky & Moskowitz (2000). Half of the participants were randomly assigned to the perspective-taking condition, whereas the other half were control participants.

Male participants were shown a photograph of a young woman, and female participants were shown a photograph of a young man (see Illustrations 1 and 2 below) and then told that "We are interested in investigating people's abilities to construct life-event details from visual information. Please write a paragraph about a day in the life of this photographed person." These were the only instructions the control participants received. In the perspective-taking condition, participants were further told to "take the perspective of the individual in the photograph and imagine a day in the life of this individual as if you were that person, looking at the world through her (his) eyes and walking through the world in her (his) shoes." Participants were given seven minutes to write these paragraphs.

Illustration 1: Perspective-taking Target – Young Woman

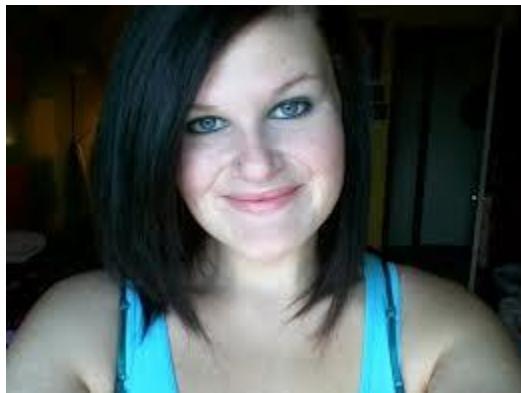


Illustration 2: Perspective-taking Target – Young Man



The second part of this study was intended to measure one of the potential mediators: stereotyping. In order to disguise the purpose of the study, participants were told at this point that: “Another researcher in the OB department is interested in whether quantitative thinking and linguistic thinking compose one mental system or two separate mental systems. This relationship can be explored experimentally by having half of the participants, like yourself, do a math task before doing a language task, and the other half of the participants do only a language task.” Participants then engaged in a simple math task before engaging in a lexical decision task, which measures how quickly participants can identify words and non-words (Meyer & Schvaneveldt, 1971). This latter task was used to measure implicit stereotype activation. In particular, if perspective-taking did, in fact, activate stereotypes, then participants should be particularly quick to recognize stereotype relevant words. Three of each of the stereotype relevant and irrelevant words were positive and three were negative. Each word was presented for 180ms. A short practice run consisting of five stereotype-irrelevant and five non-words was provided and then the real experiment started. The stereotype-related feminine words used here were as follows: caring, nurture, forgive, yield, fragile, and follow (taken from Rudman, 2011). The stereotype-related masculine words used here were as follows: dominant, strong, confident, selfish, harsh, and cold

(taken from Rudman, 2011). The stereotype irrelevant words used were: healthy, open, humorous, stupid, greedy, and ignorant. The non-words used were: spoled, thinds, yoined, knates, chelse, twooze, frasks, sleast, cooved, plends, scrull, glelte, koothe, gwifts, briced, and clufts, which were matched for length with the actual words. The participants were instructed as follows: "You will now engage in a language task called the lexical decision task. Several strings of letters are going to flash briefly on the computer screen and it is your job to determine, as quickly as possible, whether those letters compose a word in the English language. Please place your index fingers on the keys labeled "word" and "non-word"" The procedure for the lexical decision task was adapted from Galinsky & Moskowitz (2000).

Once finished with the lexical decision task, the participants were given a brainstorming task next, which was adapted from Goncalo & Staw (2006). Its purpose was to allow the measurement of the dependent variable, novelty of the ideas generated. Participants were told the following: "For this task, I would like you to brainstorm new ideas. Specifically, consider the following scenario: After years of mismanagement, a store at the mall has finally gone bankrupt and is being shut down. The mall owner is trying to decide what new business should go into that space. It has been determined that this mall is lacking businesses tailored towards women (men), so the owner is particularly interested in businesses that attract women (men). You will now have 7 minutes to generate as many ideas as possible on what new business should go into that space." Male participants generated ideas for businesses that attract women and female participants generated ideas for businesses that attract men.

Last, participants filled out the questionnaire, which entailed general demographic data such as age, gender, ethnicity, and year in college. At this point, participants were thanked and dismissed.

Measures

Novelty was measured in a well-established way (e.g. Nijstad et al., 2010). A participant's average novelty (unusualness/divergence) was measured by combining the ideas of all participants and organizing the ideas into categories such as restaurants, clothing stores, go-cart track, or napping station. The ideas were then scored by how many other ideas were within that category. Last, the scores of all ideas each person came up with were averaged. Because a larger number indicated that the idea was more usual and frequent, more original participants received a lower overall score, indicating higher novelty. These were then reverse scored in order to ease understanding. Two independent raters completed this task.

Additional Measures

Since creativity is generally defined as an idea that is both novel and useful, I also had one rater code for the usefulness of the ideas on a scale from 1 (not at all useful) to 5 (very useful) in order to test Grant & Berry's (2011) hypothesis that perspective-taking aids creative idea generation by increasing the usefulness of the ideas.

Stereotyping was measured in two ways. The first was to have a research assistant rate the essays that participants wrote about a day in the life of the photographed individual on a scale from 1 (not at all stereotypical of a woman/man) to 7 (very stereotypical of a woman/man). Second, the reaction times on the lexical decision task were used as a measure of stereotype accessibility. All data where a participant labeled a word as a “non-word,” or vice versa, were eliminated from data analysis. All reaction times that were more than 3 standard deviations from the mean were also eliminated from data analysis.

Results

Perspective-taking Manipulation Check

In order to verify that perspective-takers were in fact looking at the world from the point of view of the photographed individual, one rater coded whether the essays were written using the first or third person. Writing in the first person is an indication of perspective-taking (Galinsky & Ku, 2004). 64% of perspective-takers used "I," and only 17% of control participants did $\chi^2 = 33.4, p < .001$.

Inter-rater reliability

The Intraclass Correlation Coefficient for the average measure of novelty for the two raters was .74, which indicates acceptable reliability. The rater's novelty scores were thus averaged to create one final novelty score.

Gender

Generally, the perspective-taking and empathy literature has shown gender differences in the degree to which men and women take others' perspectives and empathize with others (Hoffman, 1977; Toussaint & Webb, 2005; Fagley, Coleman, & Simon, 2010). Thus, gender was used as a covariate in all analyses.

Novelty

An analysis of covariance (ANCOVA), comparing the perspective-taking and control conditions and including gender as a covariate, revealed a significant effect of perspective-taking

on the novelty measure, $F(1, 144) = 5.25, p = .023, \eta^2 = .04$. As can be seen in Figure 1, perspective-takers generated significantly less novel ideas ($M = 106.55; SD = 24.31$) than participants in the control condition ($M = 114.52; SD = 19.12$).

Additional Analyses

Usefulness

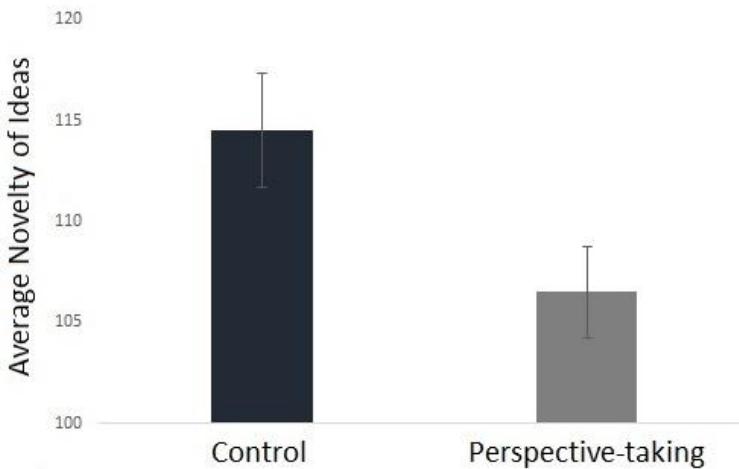
An ANCOVA, comparing the perspective-taking and control conditions and including gender as a covariate, revealed no significant effect of perspective-taking on the usefulness measure, $F(1, 144) = 1.52, p = .22, \eta^2 = .005$.

Stereotyping as the mediator

An ANCOVA, comparing the perspective-taking and control conditions and including gender as a covariate, revealed no significant effect of perspective-taking on the stereotypicality of the essays that participants wrote about a day in the life of the photographed individual, $F(1, 144) = 1.16, p = 0.28, \eta^2 = 0.01$.

Similarly, a mixed-model ANCOVA with repeated measures on the second factor and gender as the covariate revealed a significant main effect of perspective-taking on the reaction time measures (stereotype relevant and irrelevant words) in the lexical decision task, $F(1, 142) = 4.81, p=0.03, \eta^2 = 0.03$, but no interaction between perspective-taking and the two reaction time measures, $F(1, 142) = 0.03, p = 0.87, \eta^2 < 0.001$.

Figure 1: Effect of Perspective-taking on Novelty
 (Error bars indicate one standard error from the mean)



Discussion

The results of this first study suggest that perspective-taking hinders novel idea generation. In particular, a person taking the perspective of someone of the other gender and subsequently generating ideas for the other gender came up with significantly less novel ideas than participants who did not take another person's perspective prior to idea generation. This first study shows initial evidence that perspective-taking leads to less, rather than more, novel output. Furthermore, I did not find evidence that would corroborate Grant & Berry's (2011) findings. Instead, I find that perspective-taking does not seem to have an effect on the usefulness of the ideas generated. Additionally, perspective-taking did not seem to have an effect on implicit stereotyping, measured via the lexical decision task, or on the stereotypicality of the essay that participants wrote about the photographed individual.

In my next study, I wanted to test more directly whether stereotyping is the reason why perspective-takers generated less novel ideas than control participants. As mentioned above, counter-stereotyping has been demonstrated to increase creativity, whereas stereotyping

decreases it (Gocłowska et al., 2012; Gocłowska & Crisp, 2013; Tadmore et al., 2012). Taking the perspective of a counter-stereotypical individual might then allow perspective-takers to generate novel ideas. Importantly, the effect of perspective-taking on stereotyping seems to depend on the apparent stereotypicality of the target; when the stereotype is non-salient or ambiguous, perspective-takers judge others to be less stereotypical (Galinsky & Moskowitz, 2000), but when the stereotype is salient, it is used as a basis for perspective-taking, and thus perspective-takers stereotype more (Skorinko & Sinclair, 2013). In order to test whether counter-stereotyping could mitigate the effect of perspective-taking on novelty, I manipulated the stereotypicality of the target directly in this next study.

Chapter 3: Study 2 - Perspective-taking and Novel Idea Generation: The Moderating Role of Counter-stereotyping

In this second study, I test my second hypothesis, which predicts an interaction between perspective-taking and the stereotypicality of the perspective-taking target, such that when taking the perspective of a stereotypical or neutral target, the novelty of ideas generated will be stifled, whereas taking the perspective of a counter-stereotypical target will aid the novelty of ideas generated. Here, I directly manipulated the stereotypicality of the person whose perspective the participants took. Men took the perspective of a stereotypical woman, a counter-stereotypical woman, or a woman who was rated as neutral. In order to manipulate the perceived stereotypicality of the person whose perspective participants had to take, I used a facial transformation website (<http://www.faceresearch.org/demos/transform>) to create masculinized and feminized versions of a woman's face whom I named Jen (see Illustrations 3, 4, and 5 below). The original, neutral photograph of Jen was provided by this website. Before conducting this study, I wanted to ensure that the photographs and my description of Jen were in fact perceived as masculine, neutral, and feminine.

Illustration 3: Perspective-taking Target – Feminine Jen

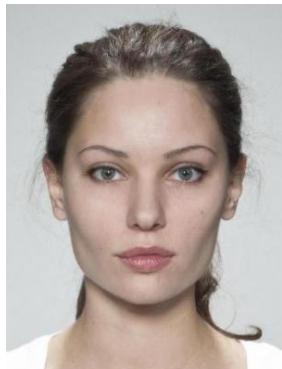


Illustration 4: Perspective-taking Target – Neutral Jen

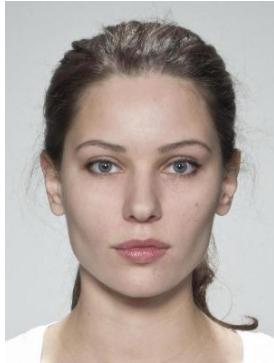
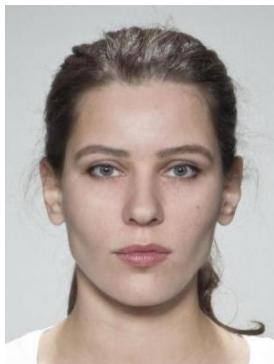


Illustration 5: Perspective-taking Target – Masculine Jen



Pre-testing the photographs and descriptions

In order to ensure that the photographs and text used in this study are in fact perceived as feminine, neutral, or masculine, I pre-tested them on Amazon Mechanical Turk (mturk) participants.

Participants

169 mturk workers (all male) participated in this short study for \$0.10.

Procedure

Mturk workers were randomly assigned to one of six conditions. They saw one of the three photographs (see appendix) or one of the three photographs and a corresponding text:

Neutral condition: This is Jen. She is a history major. Among many other things she likes to hang out with her boyfriend on the weekends and work as a dog walker.

Feminine condition: This is Jen. She is an education major. Among many other things she likes to cook for her boyfriend on the weekends and volunteer at the local kindergarten as a big sister.

Masculine condition: This is Jen. She is an engineering major. Among many other things she likes to go rock climbing with her boyfriend on weekends and work as an ice hockey ref.

Mturk workers were then asked to rate Jen on a sliding scale from 1 to 100 on how attractive, how feminine, and how masculine they found her.

Results

Attractiveness

A 2 (description: photo with or without description) x 3 (femininity: neutral, feminine, masculine) ANOVA on attractiveness revealed a significant main effect of femininity, $F(2, 163) = 6.85$, $p = .001$, $\eta^2 = .08$, no main effect of description, $F(1, 163) = .6$, $p = \text{ns}$, $\eta^2 = .004$, and no interaction, $F(2, 163) = .86$, $p = \text{ns}$, $\eta^2 = .002$. Men found the masculine Jen ($M=71.84$, $SD=2.01$) significantly less attractive than the feminine Jen ($M=82.33$, $SD=2.01$), $p < .001$, and the neutral Jen ($M=78.12$, $SD=1.94$), $p = .03$, but neither feminine nor neutral Jen were rated to be significantly more or less attractive than the other.

Femininity

A 2 (description: photo with or without description) x 3 (stereotypicality: neutral, feminine, masculine) ANOVA on the femininity rating revealed a significant main effect of stereotypicality in the expected direction, $F(2, 163) = 14.03$, $p < .001$, $\eta^2 = .15$, a significant main effect of

description, $F(1, 163) = 6.10, p = 0.02, \eta^2 = .04$, and a marginally significant interaction, $F(2, 163) = 2.65, p = 0.074, \eta^2 = .03$. Here, participants perceived a larger and significant difference on the stereotypicality rating (feminine, neutral, masculine) when the description was present in addition to the photo, $F(2, 163) = 15.15, p < .001, \eta^2 = .16$, but not when the description was absent $F(2, 163) = 2.23, p = \text{ns}, \eta^2 = .03$.

Masculinity

A 2 (description: photo with or without description) x 3 (stereotypicality: neutral, feminine, masculine) ANOVA on the masculinity rating revealed a significant main effect of stereotypicality in the expected direction, $F(2, 163) = 9.30, p < .001, \eta^2 = .104$, no significant main effect of description, $F(1, 163) = 1.87, p = \text{ns}, \eta^2 = .01$, and no interaction, $F(2, 163) = .79, p = \text{ns}, \eta^2 = .01$. Nevertheless, a pairwise comparison between the masculinity rating of the participants who saw the photo only ($M=30.12, SD=4.09$) and those who saw the photo and read the description ($M=39.53, SD=3.73$) revealed a marginal significant difference, $F(1, 163) = 2.9, p=.09, \eta^2 = .02$, such that reading the description in addition to seeing the photo led participants to view Jen as more masculine in the appropriate condition.

These results indicated that using the description in addition to the photo strengthened men's perception of Jen as stereotypically feminine or masculine. I thus used both in Study 2.

Study 2

Methods

Participants

110 undergraduates (all male) from a large university in the Northeastern United States received \$10 for their participation in this study. See Table 2 for demographics. The participants were randomly assigned to one of the six conditions.

Table 2: Demographic Data of Participants in Study 2

| Average Age | Gender | Ethnicity | | | | |
|----------------------------|------------------------|------------------|-----------------|------------------|---------------|----------------|
| | | Caucasian | Asian | African-American | Hispanic | Other |
| 20.98 years Stdev: 2.41 | 0 females 110 males | N=63 (57.3%) | N=23 (20.9%) | N=10 (9.1%) | N=4 (3.6%) | N=10 (9.1%) |

Procedure

The study used a 2 (perspective-taking/control) x 3 (stereotypicality: neutral, feminine, masculine) between participants design. The first part of this study was intended to manipulate perspective-taking as well as the stereotypicality of the woman whose picture was presented to participants. The perspective-taking manipulation was adopted from Galinsky & Moskowitz (2000). Half of the participants were randomly assigned to the perspective-taking condition, and the other half were control participants. Participants were randomly shown one of the three photographs of Jen along with the appropriate description.

Participants were then told that "We are interested in investigating people's abilities to construct life-event details from visual information. Please write a paragraph about a day in the life of this photographed person." In the three control conditions, this was all that participants were told.

In the three perspective-taking conditions, the instructions continued: Take the perspective of the individual in the photograph and imagine a day in the life of this individual as if you were that person, looking at the world through her eyes and walking through the world in her shoes."

Participants had exactly 7 minutes to complete this task. Then, the participants were given an almost identical brainstorming task as in Study 1. In particular, participants were told the following: "For this task, we would like you to brainstorm new ideas. Specifically, consider the following scenario: A new mall is being built and the mall owner is trying to decide what businesses should go into the mall. Most businesses that have signed contracts with the mall owner to this date attract men only (e.g. The Art of Shaving). The mall owner wants to broaden the appeal of the mall to include women. Please generate as many business ideas as possible to help accomplish that objective. You have 7 minutes for this task. Once the 7 minutes are up, the computer will advance automatically."

Last, participants filled out the questionnaire, which entailed the following manipulation check question "How stereotypically feminine is Jen?" and general demographic data such as age, gender, ethnicity, and year in college. At this point, participants were thanked and dismissed.

Measures

Novelty was measured in the same way as described in Study 1. I also had one rater code for the usefulness of the ideas on a scale from 1 (not at all useful) to 5 (very useful). A different rater coded the stereotypicality of the essays that participants wrote about the day in a life of the photographed woman on a scale from 1 (not at all stereotypical of a woman) to 7 (very stereotypical of a woman).

Results

Perspective-taking Manipulation Check

In order to verify that perspective-takers were in fact looking at the world from the point of view of the photographed individual, one rater coded whether the essays were written using the first or third person. 59% of perspective-takers wrote the essay in the first person singular, and 0% of control participants did $\chi^2 = 46.8, p < .001$. Thus, a majority of perspective-takers reacted appropriately to the prompt.

Stereotypicality Manipulation Check

A 2 (perspective-taking/control) x 3 (stereotypicality: neutral, feminine, masculine) ANOVA revealed a significant main effect of stereotypicality on the stereotypically feminine manipulation check measure, $F(1, 104) = 13.28, p < .001, \eta^2 = .20$, but no significant main effect of perspective-taking, $F(1, 104) = 2.61, p = 0.11, \eta^2 = .02$, and no significant interaction between perspective-taking and stereotypicality, $F(1, 104) = .53, p = 0.59, \eta^2 = .01$.

Inter-rater reliability

The Intraclass Correlation Coefficient for the average measure of novelty for the two independent raters was .90, which denotes excellent reliability. The rater's novelty scores were thus averaged to create one final novelty score.

Novelty

A 2 (perspective-taking/control) x 3 (stereotypicality: neutral, feminine, masculine) ANOVA revealed a significant main effect of perspective-taking on the novelty measure, $F(1,$

$F(1, 104) = 4.66, p = .03, \eta^2 = .04$, but no significant main effect of stereotypicality, $F(1, 104) = 1.16, p = ns, \eta^2 = .02$, and no significant interaction between perspective-taking and stereotypicality, $F(1, 104) = .15, p = ns, \eta^2 = .003$. Hypothesis 2 is thus not confirmed. As can be seen in Figure 2, perspective-takers ($M = 128.39, SD = 39.39$) generated significantly less novel ideas than control participants ($M = 141.97, SD = 25.45$), $t(108) = 2.16, p = 0.03, \eta^2 = 0.04$, confirming hypothesis 1.

Additional Analyses

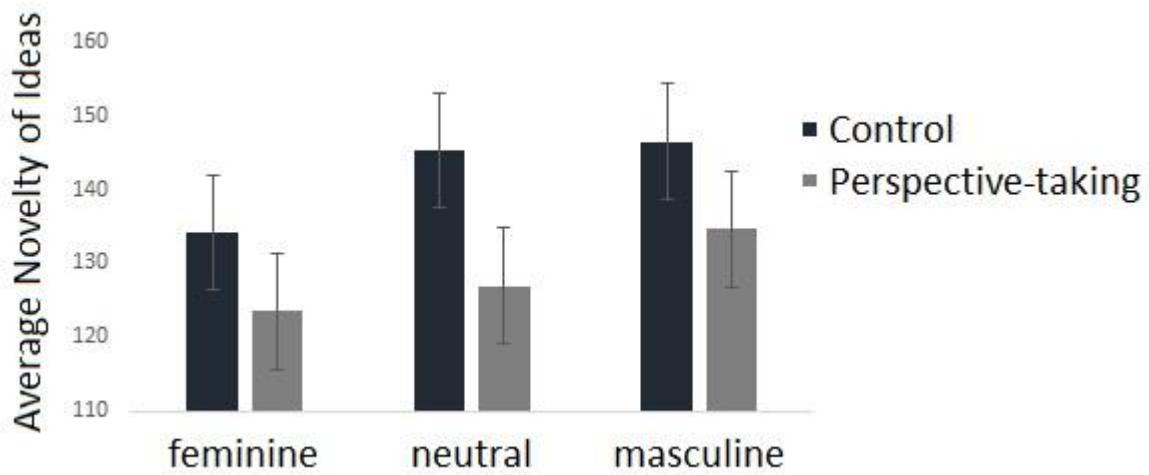
Usefulness

A 2 (perspective-taking/control) x 3 (stereotypicality: neutral, feminine, masculine) ANOVA revealed no significant main effect of perspective-taking on the usefulness measure, $F(1, 104) = .75, p = .39, \eta^2 = .007$, no significant main effect of stereotypicality, $F(1, 104) = .09, p = 0.91, \eta^2 = .002$, and no significant interaction between perspective-taking and stereotypicality, $F(1, 104) = .10, p = 0.91, \eta^2 = .002$.

Stereotypicality of essay

A 2 (perspective-taking/control) x 3 (stereotypicality: neutral, feminine, masculine) ANOVA revealed no significant main effect of perspective-taking on the stereotypicality measure, $F(1, 104) = .38, p = .54, \eta^2 = .004$, but a significant main effect of stereotypicality, $F(1, 104) = 9.55, p < 0.001, \eta^2 = .16$, and no significant interaction between perspective-taking and stereotypicality, $F(1, 104) = .12, p = 0.89, \eta^2 = .002$.

Figure 2: The Effect of Perspective-taking and Stereotypicality on Novelty
 (Error bars indicate one standard error from the mean)



Discussion

The results of this study replicated the findings of Study 1. Perspective-takers generated significantly less novel ideas than participants in the control condition. Most strikingly, perspective-takers generate less novel ideas not only in the stereotypically feminine and neutral conditions, but also in the counter-stereotypical, masculine condition. These results suggest that perspective-taking works in a way that overcomes the counter-stereotypical mindset, and hinders participants from generating novel ideas even when the conditions are ripe for it. In other words, even when the target clearly deviates from the norm, as is the case in the counter-stereotypical condition, perspective-taking still hinders participants from coming up with novel ideas. Furthermore, perspective-taking does not seem to have an effect on the stereotypicality of the content of the essays participants wrote about Jen. It thus seems that stereotyping is not the mechanism through which perspective-taking hinders novel idea generation. Last, just as in Study 1, the results of this second study also fail to

corroborate Grant & Berry's (2011) finding that perspective-taking aids in the usefulness of the ideas generated.

Thus far I have established that taking the perspective of the other gender does indeed hinder rather than aid creative idea generation, and I have shown that this effect holds even when the perspective of a counter-stereotypical other is taken. A couple of key questions remain: First, I want to demonstrate that the effect of perspective-taking on idea generation is not limited to taking the perspective of someone of the other gender. In other words, I argue that taking another person's perspective, no matter the gender of the target, stifles novel idea generation. Second, I aim to show that perspective-taking activates a general mindset that carries over into other, unrelated tasks. So far, the perspective-taking and the brainstorming tasks that participants engaged in were framed as being directly related. Participants took the perspective of someone of the other gender and then generated ideas for that gender. Thus, I framed the next study as consisting of two short studies that are unrelated, one consisting of the perspective-taking task and one consisting of the brainstorming task.

Chapter 4: Study 3 - Perspective-taking and Novel Idea Generation: The Moderating Role of Differentiation

My main aim of this third study was to test hypothesis 3, which predicted an interaction between perspective-taking and differentiation, such that when taking the perspective of a creative individual the novelty of ideas generated will increase. If perspective-takers, in fact, incorporate the characteristics of another person into themselves and thus become more similar to that person, then taking the perspective of a creative individual should allow participants to be more creative and thus actually activate a differentiation mindset. Priming a creative mindset in comparison to a practical or thoughtful mindset has been shown to increase creativity (Shalley, 1991) and behaviors associated with creativity (Vincent & Goncalo, 2014; Goncalo, Vincent, & Krause, 2015, Sassenberg & Moskowitz, 2005; Gino & Ariely, 2012). Participants in the control condition who are primed with creativity should thus generate significantly more creative ideas than those who are primed with practicality. In comparison to the control condition, taking the perspective of a creative individual might allow the participant to generate even more creative ideas because the perspective-takers should incorporate creativity into their own characteristics via the self-other merger.

Methods

Participants

Participants were 179 undergraduate students at a large university in the Northeastern United States who participated in the experiment for extra credit or \$5. The demographics can be found in Table 3. The participants were randomly assigned to one of the four conditions.

Table 3: Demographic Data of Participants in Study 3

| Average Age | Gender | Ethnicity | | | | |
|-----------------------------|-------------------------|------------------|---------------|------------------|-----------------|---------------|
| | | Caucasian | Asian | African-American | Hispanic | Other |
| 19.74 years Stddev: 2.74 | 72 females 108 males | N=99 (55%) | N=36 (20%) | N=14 (7.8%) | N=24 (13.3%) | N=6 (3.3%) |

Procedure

The experiment used a 2 (perspective-taking/control) x 2 (creative/practical) between participants design. Up to six students simultaneously participated in the experiment. When participants arrived at the laboratory, they were told that they would participate in two short studies that are back to back on a computer, and that they would be seated in individual cubicles. In the first study, participants were told: "We are interested in investigating people's abilities to construct life-event details from just one piece of information. Please imagine a very creative (practical) person and write a paragraph about a typical day in this person's life." In the perspective-taking condition, participants were additionally instructed to "take the perspective of this creative (practical) person and imagine a day in this person's life as if you were that person, looking at the world through that person's eyes and walking through the world in that person's shoes." Participants then had seven minutes to complete this task, and they were not able to advance to the next study until the seven minutes were up. At that point, the computer advanced automatically.

Participants were then told that Study 2 contained a brainstorming task. They had exactly ten minutes to generate ideas. In particular, they were told that "a restaurant in Collegetown has recently gone bankrupt, and there is now an empty space where the restaurant used to be. Please

generate as many ideas for new businesses that could go into that space as you can in 10 minutes." Novelty was coded in the same way as in the previous studies.

Last, participants filled out the questionnaire, which entailed general demographic data such as age, gender, ethnicity, and year in college. At this point, participants were thanked and dismissed.

Results

Perspective-taking Manipulation Check

In order to verify that perspective-takers were in fact looking at the world from the point of view of the creative or practical individual, one rater coded whether the essays were written using the first or third person. Writing in the first person is an indication of perspective-taking (Galinsky & Ku, 2004). 57.8% of perspective-takers used "I," and only 5.5% of control participants did $\chi^2 = 57.33, p < .001$.

Inter-rater reliability

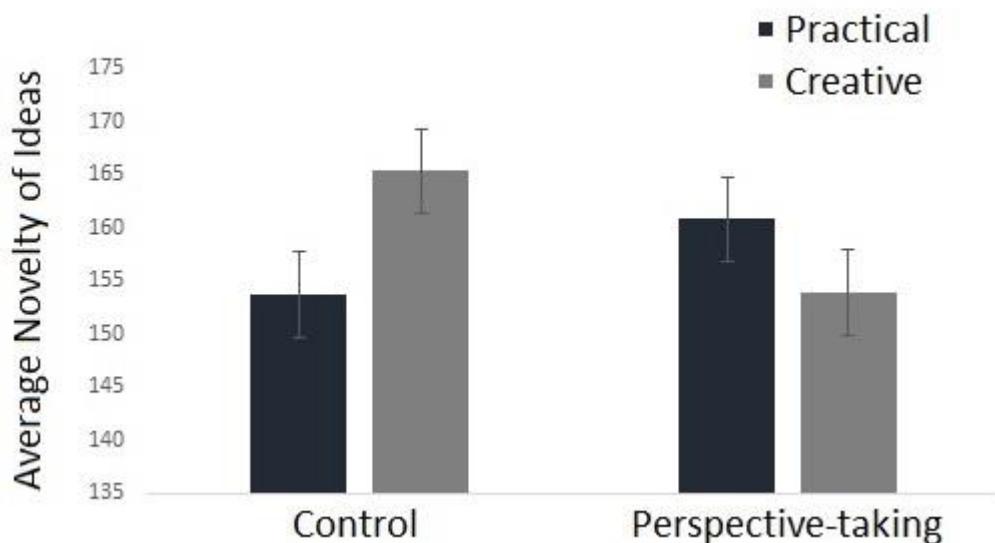
The Intraclass Correlation Coefficient for the average measure of novelty for the two raters was .87, which denotes excellent reliability. The rater's novelty scores were thus averaged to create one final novelty score.

Novelty

A 2 (perspective-taking/control) x 2 (creativity: creative/practical) ANCOVA revealed no significant main effect of perspective-taking on the novelty measure, $F(1, 174) = .30, p = .59, \eta^2 = .002$, and no significant main effect of creativity, $F(1, 174) = .32, p = .57, \eta^2 = .002$, but a significant interaction between perspective-taking and creativity, $F(1, 174) = 5.41, p = .02, \eta^2 = .02$.

.03. I am replicating previous findings (Shalley, 1991) in the control condition by demonstrating that being primed with a creative ($M = 165.34$, $SD = 24.69$) rather than practical ($M=153.66$, $SD = 24.21$) mindset leads to a significant increase in novel idea generation, $F(1, 174) = 4.21$, $p = .04$, $\eta^2 = .02$. Furthermore, as can be seen in Figure 3, in the creative condition participants generated significantly less, rather than more, novel ideas when taking the perspective of another participant ($M = 153.86$, $SD = 35.87$) than in the control condition ($M = 165.34$, $SD = 24.69$), $F(1, 174) = 4.14$, $p = .04$, $\eta^2 = .02$. These results further support hypothesis 1, but not hypothesis 3.

Figure 3: The Effect of Perspective-taking and Creativity Prime on Novelty
(Error bars indicate one standard error from the mean)



Discussion

In this third study, I demonstrate that even when participants are primed with a creative mindset, perspective-takers generate significantly less novel ideas than control participants. These

results add to the first two studies by demonstrating for a third time that perspective-taking hinders rather than aids novel idea generation. The results of this study are especially striking because they occurred under conditions in which novelty usually thrives as evidenced by the results in the control condition, which confirmed that being primed with a creative mindset led to higher novel output than being primed with a practical mindset.

The results of this study also demonstrate that taking the perspective of someone of the other gender is not the only condition under which perspective-taking stifles novel idea generation. Here, participants were not told the gender of the creative individual whose perspective they had to take and could thus imagine it one way or the other. Even though gender was not an issue, perspective-takers generated less novel ideas in the creative condition. Furthermore, the results of this study corroborate that the mindset activated by perspective-taking seems to carry over into other, seemingly unrelated tasks. The perspective-taking and the brainstorming tasks were conceptually unrelated, and they were framed as belonging to two separate studies. Nevertheless, the perspective-taking task clearly influenced the results of the brainstorming task in the same manner as in the previous two studies.

One potential limitation of the previous three studies is that the control condition seems unrealistic. In real life, people tend to be anchored in their own heads or adjust from there to attempt to be in someone else's by taking that person's perspective (Epley, Keysar, Van Boven, & Gilovich, 2004). A more realistic control condition would thus be one in which participants maintain their own, egocentric perspective. I employ this control condition in my final study.

Chapter 5: Study 4 - Perspective-taking and Novel Idea Generation: The Moderating Role of Competition

In my fourth and final study, I hypothesized an interaction between perspective-taking and social motive such that in the cooperative condition perspective-takers will generate significantly less novel ideas than control participants, but in the competitive condition, perspective-takers will generate at least equally novel ideas as control participants. In other words, I test whether the activation of a cooperative mindset can explain why perspective-takers generate less novel ideas, and if so, whether a competitive mindset nullifies or even reverses this effect. As explained in detail above, perspective-taking tends to naturally occur in cooperative settings (Johnson et al., 1976; Tjosvold, et al., 1984), and also leads to a plethora of cooperative behaviors such as providing help (Batson et al., 1997) and more effective communication (Patient & Skarlicki, 2010). Cooperation, however, is not conducive to novel idea generation (e.g. Beersma & De Dreu, 2005). On the other hand, even though taking the perspective of a competitor does not occur as naturally, it is certainly possible, and has been shown to result in reactive egoism (Epley et al., 2004). Most importantly, a competitive mindset is conducive to creativity (e.g. Beersma & De Dreu, 2005). Taking a competitor's perspective might then mitigate the general effect of perspective-taking on novel idea generation.

Methods

Participants:

Participants were 118¹ undergraduate students at a large university in the Northeastern United States who participated in the experiment for extra credit. The demographics can be found in Table 4. The participants were randomly assigned to one of the four conditions.

Table 4: Demographic Data of Participants in Study 4

| Average Age | Gender | Ethnicity | | | | |
|----------------------------|------------------------|------------------|-----------------|------------------|---------------|-------------|
| | | Caucasian | Asian | African-American | Hispanic | Other |
| 19.41 years Stdev: 3.24 | 50 females 50 males | N=70 (59.3%) | N=21 (17.8%) | N=16 (13.6%) | N=5 (4.2%) | N=6 (5%) |

Procedure

The experiment conducted used a 2 (perspective-taking: perspective-taking/egocentric) x 2 (social motive: cooperation/competition) between participants design. Four students simultaneously participated in the experiment. Participants saw each other in the waiting area, but were then led into four adjacent cubicles, so that they were aware of each other's presence, but could not see each other during the experiment. This procedure was

¹ Originally, data from 126 participants was collected. However, the data from eight participants had to be removed from the dataset because they misunderstood the idea generation task. Instead of listing suggestions for what new business could go into the space of the former restaurant, they explained in detail how they would improve the management and quality of food at the existing restaurant so it would not need to be closed or could be re-opened. Four of these eight participants were female, and their average age did not differ from the participants whose data was included. No condition was over-represented among these participants (2 egocentric/cooperation, 3 perspective-taking/cooperation, and 3 perspective-taking/competition).

supposed to give the impression that, once the participants were done with the individual part of the experiment, they would be paired up with another participant to complete another problem-solving task, but they did not know with whom of the three. This setup helped with the following manipulations:

In order to manipulate social motive, participants were first individually informed that they will later compete against (or cooperate with) another participant on a problem-solving task. They were then told that, in order to prepare for this later interaction, they needed to write a paragraph about what they are thinking and how they are feeling (or to imagine what the other participant might be thinking and how the other participant might be feeling) about this later competitive (or cooperative) interaction. An example of the exact phrasing is as follows: "Imagine what the other participant is likely thinking and feeling about competing against you on a problem-solving task. Really try to take the other participant's perspective, put yourself into this person's shoes and look at the situation through this person's eyes," which corresponds to a typical perspective-taking manipulation (see Galinsky et al., 2008). Writing this paragraph served two functions: First, it allowed the manipulation of perspective-taking by having participants either write from their own, egocentric perspective or from another's perspective. Second, it strengthened the social motive manipulation because participants were required to contemplate how they (or the other participant) think(s) and feel(s) about the upcoming competition or cooperation, thus keeping the social motive manipulation on their minds. This strengthening seemed necessary because norms such as cooperation and competition only have an effect on behavior when they are being made salient (Kallgren et al., 2000).

Then, individual participants completed an idea generation task that served as the measure of novelty. They were given seven minutes to generate as many ideas as possible on

what new business could go into the space of a previous university restaurant that was recently closed due to poor quality food and mismanagement (taken from Goncalo & Staw, 2006). A participant's average novelty (unusualness/infrequency/divergence) was measured in the same way as described in Study 1.

In the post-experimental questionnaire, participants were asked to recall if they were told that they had to compete against (and in a separate question cooperate with) another participant on a later problem solving task. Both questions were answered on a 5 point Likert-type scale (1 = strongly agree, 5 = strongly disagree). In the same questionnaire, participants were also asked to recall if they had to take the perspective (put themselves into the shoes) of another participant. The same 5 point Likert-type scale was used. In the same questionnaire participants were asked about their personal norms regarding cooperation and competition. Participants answered on the same 5 point Likert-type scale how much they agreed with four statements about their personal stance towards cooperation. An example of such a statement is: "I feel cooperating with others is important in both work and games." Likewise, participants answered on the same scale how much they agreed with seven statements about their personal stance towards competition. An example of such a statement is: "It is important that I do better than others." The competitive statements were later reverse scored in order to obtain an average personal norm score made up of all eleven items. Thus, a high personal norm score refers to a general tendency to be cooperative, whereas a low person norm score refers to a general tendency to be competitive. Additionally, general demographic data such as age, gender, ethnicity, and year in college were reported. At this point, participants were thanked and dismissed.

Results

Manipulation Checks

The 2 (perspective-taking/egocentric) x 2 (cooperation vs. competition) analysis of covariance (ANCOVA) on the perspective-taking manipulation check (with gender as a covariate) showed a significant main effect of perspective-taking, $F(1, 113) = 196.49, p < .001$, $\eta^2 = .64$, but no main effect of social motive, $F(1, 113) = 1.04, p = 0.31, \eta^2 = .01$, and no significant interaction, $F(1, 113) = 0.18, p = 0.67, \eta^2 = .002$. Perspective takers correctly recalled that they had to take the perspective (put themselves into the shoes) of another participant ($M = 1.25, SD = 0.82$), whereas egocentric participants correctly recalled that they did not have to take the perspective of another participant ($M = 3.98, SD = 1.21$), $t(116) = 14.33, p < .001$.

The two social motive manipulation checks showed significant main effects of social motive. The 2 (perspective-taking/egocentric) x 2 (cooperation vs. competition) ANCOVA on the competition manipulation check (with gender as a covariate) showed a significant main effect of social motive, $F(1, 113) = 110.16, p < .001, \eta^2 = .49$, but no main effect of perspective-taking, $F(1, 113) = 0.82, p = 0.37, \eta^2 = .01$, and no significant interaction, $F(1, 113) = 1.33, p = 0.25, \eta^2 = .01$. The participants in the competitive conditions correctly recalled that they were told that they had to compete against another participant ($M = 1.10, SD = 0.30$), whereas participants in the cooperative conditions correctly recalled that they were not told that they had to compete against another participant ($M = 3.36, SD = 1.67$), $t(116) = -10.31, p < .001$).

The 2 (perspective-taking/egocentric) x 2 (cooperation vs. competition) ANCOVA on the cooperation manipulation check (with gender as a covariate) showed a significant main effect of social motive, $F(1, 113) = 41.47, p < 0.001, \eta^2 = .27$, but no main effect of perspective-taking, $F(1, 113) = 0.64, p = 0.43, \eta^2 = .01$, and no significant interaction, $F(1, 113) = 0.15, p = 0.70, \eta^2$

$= .001$. The participants in the cooperative conditions correctly recalled that they were told that they had to cooperate with another participant ($M = 1.30$, $SD = 1.41$), whereas participants in the competitive conditions correctly recalled that they were not told that they had to cooperate with another participant ($M = 3.17$, $SD = 1.67$), $t(116) = 6.57$, $p < .001$.

Inter-rater reliability

The Intraclass Correlation Coefficient for the average measure of novelty for the two raters was $.95$, which denotes excellent reliability. The rater's novelty scores were thus averaged to create one final novelty score.

Novelty

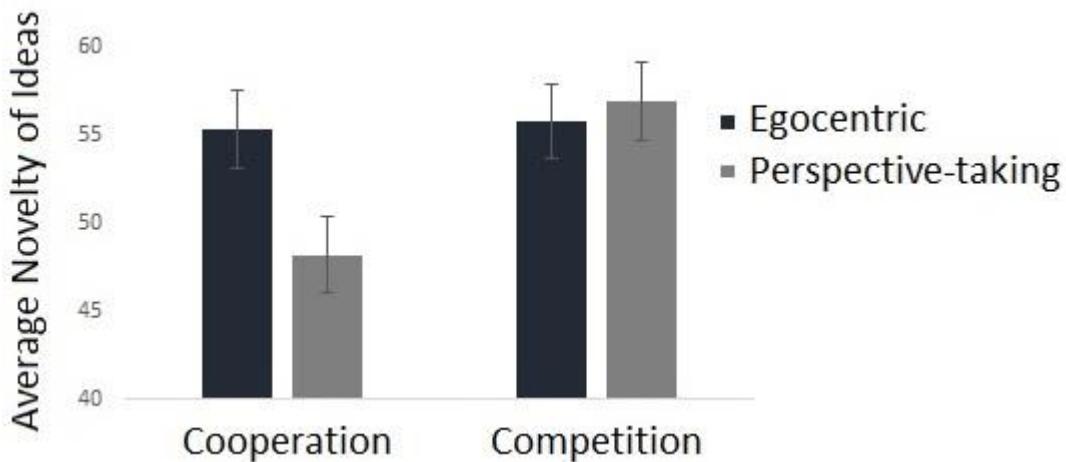
A 2 (perspective-taking/egocentric) \times 2 (cooperation vs. competition) ANCOVA revealed a significant main effect of social motive on the novelty measure, $F(1, 113) = 5.49$, $p = .02$, $\eta^2 = .05$, but no significant main effect of perspective-taking, $F(1, 113) = 1.08$, $p = .30$, $\eta^2 = .01$. As predicted in my hypothesis, the ANCOVA revealed a significant interaction between perspective-taking and social motive, $F(1, 113) = 5.89$, $p = .02$, $\eta^2 = .05$. As expected and as can be seen in Figure 4, participants generated significantly less novel ideas in the cooperative condition when taking the perspective of another participant ($M = 48.17$, $SD = 18.27$) than when focusing on their own, egocentric perspective ($M = 55.33$, $SD = 7.6$), $F(1, 113) = 6.07$, $p = .015$, $\eta^2 = .05$. In comparison, participants in the competitive condition generated equally novel ideas whether in the perspective-taking ($M = 56.94$, $SD = 5.93$) or egocentric condition ($M = 55.78$, $SD = 12.06$), $F(1, 113) = .98$, $p = .32$, $\eta^2 = .01$.

Additional Analysis

Personal Norm

There was a marginally significant negative relationship between personal norms and novelty, $r(118)=-.18$, $p=.052$, indicating that as the personal norms score increased, which corresponded to a more cooperative personal norm, the novelty of the ideas decreased.

Figure 4: The Effect of Perspective-taking and Social Motive on Novelty
(Error bars indicate one standard error from the mean)



Discussion

The results of this fourth study suggest that perspective-taking hinders creative idea generation because it activates a cooperative mindset. As my fourth hypothesis predicted, an interaction between the social motives and the perspective-taking conditions emerged. In particular, in the cooperative condition, perspective-takers generated significantly less novel ideas than egocentric participants. However, a competitive mindset mitigated the effect of perspective-taking on novelty. In other words, in the competitive condition, perspective-takers

performed just as well as participants in the egocentric, control condition. Additionally, the negative correlation between the personal norm measure (cooperation) and the novelty score supports these findings. Furthermore, these results are corroborated by previous findings that demonstrate that in competitive negotiations, perspective-takers discovered compromises when, at first evaluation, a deal seemed impossible (Galinsky, Maddux, et al., 2008). Whereas creativity was not directly measured in that study, one might argue that a compromise is a creative solution to the problem because the negotiators had to think of novel ways to come to an agreement. Furthermore, this last study uses a more realistic control condition, in which participants were asked to maintain their own point of view.

Chapter 6: General Discussion

In this dissertation, I argue and demonstrate that the long-held assumption that gaining new perspectives aids creative idea generation (Duncker, 1945; Amabile, 1988; Markman et al., 2007; Maddux & Galinsky, 2009) is not always true. I demonstrate in four studies that when trying to gain a new perspective by taking another *person's* perspective, the novelty of the ideas generated is stifled. In my first study, I found that when participants were presented with a picture of a person of the other gender and asked to write a paragraph about a day in the life of this individual, those participants who were additionally asked to really put themselves into the shoes of this individual and look at the world from this person's point of view subsequently generated significantly less novel ideas on an idea generation task that was tailored to be about the other gender than participants who were not asked to perspective-take. The usefulness of the ideas was not affected by condition. I also measured stereotyping by having a coder rate the stereotypicality of the content of the paragraph, and I looked at the reaction times to stereotypical and non-stereotypical words in a lexical decision task. Neither one of these measures showed differences between the perspective-taking and control conditions, which was surprising because ample research demonstrates that perspective-taking affects stereotyping (Galinsky & Moskowitz, 2000; Galinsky, Wangm & Ku, 2008; Ku, Wang, & Galinsky, 2010). I go into detail about a possible theoretical explanations for these null results in the theoretical contributions section below.

My second study was similar to the first in many ways. The differences were that only men participated in this study and that they were presented with one of three pictures of a woman. These three photographs differed in how stereotypical the woman's face looked. The picture was either of her actual self, or a more feminized or a more masculinized version of her face. The descriptions of what she studied in college and did in her free time were equally stereotyped and matched with the

respective picture. I thus manipulated stereotypicality directly. I hypothesized that taking the perspective of the counter-stereotypical, masculine version of this woman would allow participants to generate novel ideas. Nevertheless, whereas perspective-takers once again generated significantly less novel ideas than participants in the control condition, this did not vary by stereotypicality. These results were certainly surprising because counter-stereotyping gender has been shown to enhance creative output (Gocłowska et al., 2012; Gocłowska & Crisp, 2013). The fact that perspective-taking stifled participants' novelty even in these counter-stereotypical condition adds to the robustness of my findings. The results of the usefulness measure did not differ by condition here either. I go into more detail concerning this finding in the theoretical contributions section below.

In my third study, test whether my findings to date were restricted to gender. I wanted to test whether a differentiation mindset would allow perspective-takers to generate more novel ideas. I thus manipulated whether participants were writing about a day in the life of a creative or a practical individual. Whereas perspective-taking in general activates a feeling of similarity, taking the perspective of a creative individual should activate a differentiation mindset, which might allow perspective-takers to generate novel ideas. Priming individuals with creativity has been demonstrated to increase creative output in comparison to priming individuals with thoughtfulness (Shalley, 1991). My control condition corroborates these results. However, participants generated significantly less novel ideas when they took the perspective of a creative individual than participants in the control condition. These results are surprising. However, they add to the growing robustness of the stifling effect of perspective-taking on novelty.

In my fourth and final study, I found that when participants were expecting to cooperate with or compete against another participant on a later problem solving task, perspective-takers in the cooperative condition again generated significantly less novel ideas on an unrelated brainstorming

task than control participants, but perspective-takers in the competitive condition generated equally novel ideas as those in the control condition and significantly more novel ideas than perspective-takers in the cooperative condition. These results suggest that competition mitigates the stifling effects of perspective-taking on novel idea generation.

The results of these four studies are very robust in showing that perspective-taking stifles novel idea generation. Even under counter-stereotypical and creative primes, which generally enhance creative output, perspective-takers generated significantly less novel ideas. Furthermore, whether the perspective-taking task and the brainstorming task were related (Studies 1 & 2) or not (Studies 3 & 4) was irrelevant for the effect to occur, which suggests that perspective-taking activates a mindset that carries over onto other, seemingly unrelated tasks. The fourth study suggests that this mindset is a cooperative one because a competitive mindset was able to mitigate the stifling effects of perspective-taking on novelty.

Contribution to the Creativity Literature

Decades of research have determined that while it is difficult for many people to break free from their constrained way of thinking in order to be creative, a shift in perspectives by, for example, living abroad, helps (Duncker, 1945; Ward, 1993, 1994; Maddux & Galinsky, 2009). Perspective-taking has been suggested to be such a shift in perspectives (Grant & Berry, 2011). However, I demonstrate in four studies in this dissertation that taking another person's perspective does not have the beneficial effects on creativity that other shifts in perspective have. I thus show for the first time that not all shifts in perspective have the same effect on creativity. In fact, perspective-taking stifles rather than aids creativity.

Furthermore, research on creativity has shown that counter-stereotyping leads people to be more creative because it allows them to be more cognitively flexible (Gocłowska et al., 2012),

whereas stereotyping and a related concept, racial essentialism, stifles creativity (Tadmore et al., 2012; Gocłowska et al., 2012; Gocłowska & Crisp, 2013). Furthermore, the relationship also works the other way around. Being primed with creativity leads people to stereotype less (Sassenberg & Moskowitz, 2005). It is thus especially surprising that creativity, as demonstrated in Study 2, is not affected by the counter-stereotypical condition, which suggests that perspective-taking activates a mindset that overcomes the effects of counter-stereotyping on creativity.

Additionally, research on creativity has shown that being primed with creativity, in comparison to practicality or thoughtfulness, enhances people's creative output (Shalley, 1991). The results of my third study, however, show that taking the perspective of a creative individual does not have these beneficial effects. Instead, perspective-takers generated significantly less novel ideas than control participants when writing about a day in the life of a creative individual. I am thus adding to the creativity literature by demonstrating that some long-held assumptions about shifts in perspectives, counter-stereotyping, and a creative prime have a boundary condition that leads to stifling rather than enhancement of creativity, namely perspective-taking.

The results of this dissertation might seem in direct opposition to the findings in Grant & Berry's (2011) studies which showed that perspective-taking aids creativity under very particular circumstances. However, Grant & Berry (2011) repeatedly stress the effect of perspective-taking on usefulness for others, whereas the results in this paper stress the effect of perspective-taking on novelty rather than usefulness. Furthermore, I measured usefulness in my first two studies and obtained no significant effect of perspective-taking on usefulness. I was thus not able to find a direct effect of perspective-taking on the usefulness of ideas. As mentioned before, while usefulness is an important part of creative output, novelty has been called the distinguishing

feature of creativity (Simonton, 1999; Amabile et al., 2005), and is arguably more important during the idea generation phase. Generating a novel, possibly bizarre idea that is not useful has the potential, after some refinement, to be converted into a useful idea. Furthermore, voicing highly novel ideas might spark oneself or others to think of related, but more useful ideas. Generally, usefulness seems to matter more during idea selection than generation. Research has demonstrated that during idea selection, people naturally emphasize usefulness, appropriateness, and feasibility (Rietzschel, Nijstad, & Stroebe, 2010). Thus, the usefulness aspect of creativity might be better placed in the idea selection stage of the innovation process whereas novelty should be emphasized during the idea generation phase. Thus, whereas Grant & Berry (2011) argued that the usefulness of ideas generated increased with perspective-taking under prosocial conditions, I argue and demonstrated that the direct effect of perspective-taking negativity influences the novelty of ideas generated.

Contribution to the Perspective-taking Literature

Perspective-taking is a behavior that is generally encouraged because it leads to a plethora of outcomes that benefit the perspective-taker as well as the people whose perspective is being taken. Particularly in social situations, perspective-taking facilitates harmonious interaction. Perspective-taking usually leads to desirable outcomes such as helping behaviors (Batson et al., 1997), a reduction in conflict (Rupp, McCance, Spencer, & Sonntag, 2008; Galinsky, Maddux, Gilin, & White, 2008), facilitation of forgiveness (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008), and an increase in communication effectiveness (Patient & Skarlicki, 2010). The research that has demonstrated negative effects of perspective-taking, on the other hand, is scant. The findings in this paper add to this scarce literature on the less desirable effects

of perspective-taking. Particularly interesting is the finding that I demonstrate, for the first time, that perspective-taking can have negative effects under explicitly stated cooperative conditions. The last study in this dissertation shows that the cooperative perspective taker's novelty of ideas is stifled. Furthermore, whereas Epley et al. (2006) demonstrated a less desirable effect of perspective-taking in competitive negotiations, namely reactive egoism, the present study shows that, in comparison to a cooperative mindset, a competitive mindset seems to mitigate the effects of perspective-taking on novelty. In everyday life, however, perspective-taking tends to occur under cooperative conditions (Johnson et al., 1976; Tjosvold et al., 1984) and might thus be a hindrance to creative performance.

Another surprising finding in this dissertation concerns the perspective-taking and stereotyping literature. Ku, Wang, and Galinsky (2010) argue that perspective-taking has "differential effects on judgment and behavior" (title). Perspective-takers behave more stereotypically like the target whose perspective they took (Galinsky, Ku, & Wang, 2008), but they judge others as less stereotypical (Galinsky & Moskowitz, 2000). For example, Galinsky & Moskowitz (2000) show that, when taking the perspective of an elderly person, participants write less stereotypical essays about the elderly than when not taking the perspective of an elderly person. Galinsky, Ku, & Wang (2008), however, show that participants rate themselves as weaker and more dependent, stereotypical traits of the elderly, after having taken the perspective of an elderly person in comparison to merely being primed with the elderly. Ku, Wang, and Galinsky (2010) included both judgments and behaviors into the same study and demonstrate that participants walk more slowly and are more conservative after having taken the perspective of an elderly person, in comparison to merely having been primed with an elderly person, but these same participants judged others as less dependent. Thus, perspective-taking has different

effects on judgment and behavior when it comes to stereotypes about the elderly. These same papers demonstrate the same results with respect to stereotypes about African Americans.

As just made evident, the existing research stream has focused to a large degree on age and race. In many studies, young and predominantly Caucasian participants are asked to take the perspective of an elderly person or of someone who is African-American (Galinsky, Wang, & Ku, 2008). As far as I know, my studies are the first to look at gender, which is somewhat surprising because race, age and gender are considered "the big three" and "prototypic stereotype magnets" (Schneider, 2004; p.437) in stereotype research. Schneider (2004) argues that these three are so important because gender, race, and age are categories that people cannot opt out of; they are genetically predisposed; they are highly visible and memorable; and they are culturally salient. Using gender in my studies, I think, was thus important and overdue. My first and second studies show that whether I measure or manipulate gender stereotypes, perspective-takers do not stereotype the other gender more or less than control participants. I used two ways of measuring gender stereotypes. One was the stereotypicality of the essays that participants wrote. The other was the lexical decision task, which measures stereotyping implicitly. I also directly manipulated the stereotypicality of Jen, the perspective-taking target in Study 2. The fact that none of these measures and manipulation elicited stereotyping is surprising in light of the existing literature and the number of ways I attempted to capture gender stereotyping.

I can only speculate on why perspective-taking affects stereotyping of the elderly and of people of other races, but apparently not of someone of the other gender. One potential explanation might be that even though society has generally deemed it inappropriate to openly stereotype, gender seems to be an exception to this rule. There seems to be some consensus that stereotypic masculine characteristics can be summarized as "agentic," and stereotypic feminine

characteristics as "communal" (Eagly, 1987). However, the specific list of stereotypic traits varies from one researcher to the next even though they fall into the agentic and communal categories (Rudman, Greenwald, & McGhee, 2001; De Lisi and Soundranayagam, 1990). Men and women are not only stereotyped to possess different traits, but also to have different preferences. Boys grow up being encouraged to play sports (Pellett, 1994; Pellett & Ignica, 1994) such as football, baseball, and in many other cultures soccer, play with cars and trucks, and are expected to be good at math and science (Andre, Whigham, Henderickson, & Chambers, 1999; Whitehead, 1996). Girls, on the other hand, are supposed to be more interested in arts and dance, are supposed to play with dolls, and are thought to be better at arts and humanities in school (Andre et al., 1999; Whitehead, 1996). Furthermore, even today, many professions are gender stereotyped. People are still surprised to encounter a female mechanic or a male nurse. The marketing industry uses gender stereotypes to a high degree in advertisements and commercials with the objective to appeal to the masses (Proctor, 1999). This strategy seems to make sense because of the above mentioned traits and preferences of boys and girls, which carry over into adulthood. Thus, car commercials are tailored to men and diet soda commercials to women. Since society seems to encourage gender stereotypes, it is no wonder that both perspective-takers as well as control participants stereotype someone of the other gender in my dissertation studies.

If I had used age or race rather than gender in the first two studies of this dissertation, the results might have looked somewhat different. Based on Galinsky and colleagues' (2000, 2010) results, perspective-takers might have written less stereotypical essays about an elderly person or an African-American person. So, had I used one of these two stereotypes, I might have found an effect, whereas I did not use gender. Nevertheless, I would argue that perspective-takers had

generated less novel ideas because the other studies in this dissertation demonstrate how robust the stifling effect of perspective-taking on novelty is.

Practical Contributions

The fact that society “allows” gender stereotyping might have encouraged industry to take stereotyping to a different level by advertising pens to women, and diet sodas to men as the *BIC for Her* and *Dr. Pepper 10* examples mentioned above demonstrate. At the same time, the number of women in decision-making roles in organizations is growing, and thus men and women have to increasingly work together and attempt to understand what the other is thinking. Since perspective-taking can facilitate social bonds (Galinsky et al., 2008), increases employees’ helping behavior (Batson et al., 1997), reduces conflict (Rupp et al., 2008), and makes communication more effective among employees (Patient & Skarlicki, 2010), I would advise managers to continue to encourage their employees to take each other’s perspective. However, the findings in this paper indicate that managers in organizations might be well advised not to tell their employees during the idea generation stage that the new product they are supposed to create is meant for a particular consumer group. Alternatively, managers could create a competitive atmosphere when asking their employees to generate novel ideas, be they for a particular consumer group or not, because some employees will inevitably attempt to take the perspective of a member of the consumer group or of their managers or coworkers. Taking another person’s perspective, as demonstrated in this dissertation, hinders novel idea generation unless a competitive mindset is activated. This competition need not be between employees within an organization; instead competition with a team working on a similar product at another organization could be fueled.

Another solution for managers might be to create teams of members who have functional diversity and let them come up with novel ideas instead of having employees work alone on idea generation for a new product or process. Hoever, van Knippenberg, van Ginkel, & Berkema (2012) demonstrated that when such team members are instructed to take each other's perspective, they actually generate more creative ideas than control teams because the perspective-taking teams engaged in more information elaboration. It thus seems that perspective-taking allows people to realize how little another person understands about the matter in which they are experts and that they need to go into more detail and use less jargon when communicating with each other. However, the circumstances under which perspective-taking occurred in this study is different in one important way: Here, perspective-takers engaged with one another and were thus able to verify the accuracy of their perspective-taking. The consequences of perspective-taking of known others might be very different than taking the perspective of unknown others.

Another important point to consider in an organization that generally encourages perspective-taking is whether the goal is to generate ideas for products or processes that are novel, useful, or both. If the usefulness of a product is more important than its novelty, Grant & Berry's (2011) research would advise managers to encourage intrinsic motivation as well as prosocial behavior in order to increase employees' ability to take the perspective of others and thus create more useful ideas for them. Increasing the usefulness of ideas while keeping the novelty constant is certainly one way to increase creativity overall. If novelty is the goal, on the other hand, then some of the above solutions could be used, as the results of this dissertation demonstrate. If truly creative ideas that are both novel and useful are desired, putting diverse team members on a creative task might be best (Hoever et al., 2012).

Limitations and Future Work

The findings in this dissertation are limited and thus open up many avenues for future research. One line of inquiry could determine the relationship between taking the perspective of a well-known other and generating novel ideas for this person rather than an unknown other, as was done in this dissertation. For example, of personal interest to many might be the question whether people come up with creative birthday gifts for their spouses if they take their spouses' perspectives. Of interest to management scholars and practitioners might be the question whether an employee will come up with a novel product if she takes the perspective of her supervisor. Similarly, many employees have ambitions for raises and climbing the career ladder, so they want to please their superiors. Determining the effect of taking the perspective of someone with higher power on novel idea generation will be interesting and informative. I suspect that the desire to please one's superior, similar to cooperation, will negatively affect novelty. It might also be valuable to instruct participants to be creative and provide them with a definition of creativity rather than simply asking them to generate as many ideas as possible and let novelty emerge naturally.

Another avenue of research might look at the effects of perspective-taking on team creativity. In particular, determining the direct effect as well as moderators and mediators will be valuable. The only published study I am aware of that looked at this relationship determined that in a diverse team, in which team members have different roles, instructing team members to take each other's perspective led to greater information elaboration and consequently greater team creativity (Hoever et al., 2012). Many other types of teams exist, for example, homogeneous teams or virtual teams. Determining how perspective-taking affects their creative output will be interesting to determine.

Conclusion

Gaining a new perspective is one long-standing method used to increase creative problem solving (Duncker, 1945; Amabile, 1988; Markman et al., 2007; Maddux & Galinsky, 2009).

Gaining a new perspective by taking another *person's* perspective has been suggested to have the same effect (Grant & Berry, 2011). In this paper, however, I questioned that assumption. Even though perspective-taking has a plethora of positive consequences, novel idea generation does not seem to be one of them. Perspective-taking seems to activate a general, cooperative mindset and thus stifles the novelty of ideas generated. Perspective-taking has this effect when considering the perspective of someone of the other gender, of someone who is counter-stereotypical, and even of someone who is creative. Thus, not all shifts in perspective have the same effect; taking another person's perspective hinders rather than aids novel idea generation.

References

- Amabile, T. M. (1988). A model of creativity and innovation in organizations. In B.M. Staw and L.L. Cummings (Eds.), *Research in Organizational Behavior*, 10, Greenwich, CT, JAI Press, 123-167.
- Amabile, T. M. (1996). *Creativity in context*. Boulder, CO: Westview Press.
- Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. (2005). Affect and creativity at work. *Administrative Science Quarterly*, 50, 367-403.
- Amazon (2014, June 20) http://www.amazon.com/BIC-Cristal-1-0mm-Black-MSLP16-Blk/dp/B004F9QBE6/ref=sr_1_1?ie=UTF8&qid=1403288858&sr=8-1&keywords=bic+pen+for+her
- Ames, D. R. (2004). Inside the mind reader's tool kit: Projection and stereotyping in mental state inference. *Journal of Personality and Social Psychology*, 87, 340-353.
- Anderson, M. (2011, October 10). *Dr. Pepper 10 'not for women'*. Retrieved from <http://usatoday30.usatoday.com/money/industries/food/story/2011-10-10/dr-pepper-for-men/50717788/1>
- Andre, T., Whigham, M., Henderickson, A., & Chambers, S. (1999). Competency beliefs, positive affect, and gender stereotypes of elementary students and their parents about science versus other school subjects. *Journal of Research in Science Teaching*, 36, 719-747.
- Ashton-James, C. E. & Chartrand, T. L. (2009). Social cues for creativity: the impact of behavioral mimicry on convergent and divergent thinking. *Journal of Experimental Social Psychology*, 45, 1036-1040.

- Batson, C. D. & Moran, T. (1999). Empathy-induced altruism in a prisoner's dilemma. *European Journal of Social Psychology*, 29(7), 909-924.
- Batson, C. D., Sager, K., Garst, E., Kang, M., Rubchinsky, K., Dawson, K. (1997). Is empathy-induced helping due to self-other merging? *Journal of Personality and Social Psychology*, 73, 495-509.
- Beersma, B. & De Dreu, C. K. W. (2005). Conflict's consequences: Effects of social motives on Post-negotiation creative and convergent group functioning and performance. *Journal of Personality and Social Psychology*, 89, 358-374.
- Bem, S. L. (1981). *Bem sex-role inventory: Professional manual*. Consulting Psychologists Press.
- Blair, I. V., Ma, J. E., & Lenton, A. P. (2001). Imagining stereotypes away: the moderation of implicit stereotypes through mental imagery. *Journal of Personality and Social Psychology*, 81, 828.
- Camacho, L. M., & Paulus, P. B. (1995). The role of social anxiousness in group brainstorming. *Journal of Personality and Social Psychology*, 68, 1071.
- Chizhik, A. W., Shelly, R. K., & Troyer, L. (2009). Intragroup conflict and cooperation: an introduction. *Journal of Social Issues*, 65, 251-259.
- Cummings, A. & Oldham, G. R. (1997). Enhancing creativity: managing work contexts for the high potential employee. *California Management Review*, 40, 22-38.
- Cummings, L. L., & Mize, G. W. (1968). Risk-taking and organizational creativity. *Personnel Administration*.

- Dasgupta, N., & Asgari, S. (2004). Seeing is believing: Exposure to counterstereotypic women leaders and its effect on the malleability of automatic gender stereotyping. *Journal of Experimental Social Psychology*, 40, 642-658.
- Davis, M. H. (1983). Measuring individual differences in empathy – evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113-126.
- 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, 713-726.
- Davis, M. H. & Oathout, H. A. (1987). Maintenance of satisfaction in romantic relationships: empathy and relational competence. *Journal of Personality and Social Psychology*, 53, 397-410.
- De Lisi, R., & Soundranayagam, L. (1990). The conceptual structure of sex role stereotypes in college students. *Sex Roles*, 23, 593-611.
- Dewett, T. (2006). Exploring the role of risk in employee creativity. *Journal of Creative Behavior*, 40, 27-45.
- Diehl, M., & Stroebe, W. (1987). Productivity loss in brainstorming groups: Toward the solution of a riddle. *Journal of Personality and Social Psychology*, 53, 497-509.
- Duncker, K. (1945). On problem solving. *Psychological Monographs*, 58, 5 (Whole No. 270).
- Eagly, A. H. (1987). Sex differences in social behavior: A social-role interpretation. Hillsdale, NJ: Erlbaum.
- Ely, R. J., Ibarra, H., & Kolb, D. B. (2011). Taking gender into account: theory and design for women's leadership development programs. *Academy of Management Learning and Education*, 10, 474-493.

- Epley, N., Keysar, B., Van Boven, L., & Gilovich, T. (2004). Perspective-taking as egocentric anchoring and adjustment. *Journal of Personality and Social Psychology*, 87, 327-339.
- 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, 872-889.
- Exline, J. J., Baumeister, R. F., Zell, A. L., Kraft, A. J., & Witvliet, C. V. O. (2008). Not so innocent: Does seeing one's own capability for wrongdoing predict forgiveness? *Journal of Personality and Social Psychology*, 94, 495-515.
- Galinsky, A. D., Ku, G., & Wang, C. S. (2005). Perspective-taking and self-other overlap: fostering social bonds and facilitating social coordination. *Group Processes & Intergroup Relations*, 8, 109-124.
- 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, 378-384.
- Galinsky, A. D., Wang, C. S., & Ku, G. (2008). Perspective-takers behave more stereotypically. *Journal of Personality and Social Psychology*, 95, 404-419.
- Galinsky, A. D. & Moskowitz, G. B. (2000). Perspective-taking: Decreasing Stereotype Expression, Stereotype Accessibility, and In-Group Favoritism. *Journal of Personality and Social Psychology*, 78, 708-724.
- Gino, F., & Ariely, D. (2012). The dark side of creativity: original thinkers can be more dishonest. *Journal of Personality and Social Psychology*, 102, 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, 15-26.

- Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology, 70*, 491.
- Glover, J. A., & Sautter, F. (1977). Relation of four components of creativity to risk-taking preferences. *Psychological Reports, 41*, 227-230.
- Gocłowska, M. A., Crisp, R. J., & Labuschagne, K. (2013). Can counter-stereotypes boost flexible thinking?. *Group Processes & Intergroup Relations, 16*, 217-231.
- Goldstein, N. J. & Cialdini, R. B. (2007). The spyglass self: a model of vicarious self-perception. *Journal of Personality and Social Psychology, 92*, 402-417.
- Goncalo, J. A. & Kim, S. H. (2010). Distributive justice beliefs and group idea generation: Does a belief in equity facilitate productivity? *Journal of Experimental Social Psychology, 46*, 836-840.
- Goncalo, J. A. & Krause, V. (2010). Being different or being better?: Disentangling the effects of independence and competition on group creativity. In: S. Thye & E.J. Lawler (Eds) *Advances in Group Processes* (Vol. 27): 129-157.
- Goncalo, J. A. & Staw, B. M. (2006). Individualism-collectivism and group creativity. *Organizational Behavior and Human Decision Processes, 100*, 96-109.
- Goncalo, J. A., Vincent, L. C., & Krause, V. The consequences of creative work: How a creative outlet lifts the physical burden of secrecy. R&R at *Journal of Experimental Social Psychology*
- Greenwald, A. G. (1980). The totalitarian ego: fabrication and revision of personal history. *American Psychologist, 35*, 603-618.
- Hall, N. R., & Crisp, R. J. (2005). Considering multiple criteria for social categorization can reduce intergroup bias. *Personality and Social Psychology Bulletin, 31*, 1435-1444.

- Hoever, I. J., van Knippenber, 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, 982-996.
- Johnson, D. W., Johnson, R. R., Johnson, J. & Anderson, D. (1976). Effects of cooperative versus individualized instruction on student prosocial behavior, attitudes toward learning, and achievement. *Journal of Educational Psychology*, 68, 446-452.
- Kim, S. H., Vincent, L. C., & Goncalo, J. A. (2012). The outsider's advantage: Social rejection can fuel creativity. *Journal of Experimental Psychology*, in press.
- Kohn, N. W. & Smith, S. M. (2011). Collaborative fixation: effects of others' ideas on brainstorming. *Applied Cognitive Psychology*, 25, 359-371.
- Ku, G., Wang, C. S., & Galinsky, A. D. (2010). Perception through a perspective-taking lens: Differential effects on judgment and behavior. *Journal of Experimental Social Psychology*, 46, 792-798.
- Laurent, S. M. & Myers, M. W. (2011). I know you're me, but who am I? Perspective-taking and seeing the other in the self. *Journal of Experimental Social Psychology*, 47, 1316-1319.
- Leung, A. K. Y., Kim, S., Polman, E., Ong, L. S., Qiu, L., Goncalo, J. A., & Sanchez-Burks, J. (2012). Embodied metaphors and creative "acts". *Psychological Science*, 23, 502-509.
- Long, E. C. J. & Andrews, D. W. (1990). Perspective-taking as a predictor of marital adjustment. *Journal of Personality and Social Psychology*, 59, 126-131.
- Maddux, W. W. & Galinsky, A. D. (2009). Cultural borders and mental barriers: The relationship between living abroad and creativity. *Journal of Personality and Social Psychology*, 96, 1047-1061.

- Markman, K. D., Lindberg, M. J., Kray, L. J., & Galinsky, A. D. (2007). Implications of counterfactual structure for creative generation and analytical problem solving. *Personality and Social Psychology Bulletin, 33*, 312-324.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology, 30*, 415-444.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Meyer, D. E., & Schvaneveldt, R. W. (1971). Facilitation in recognizing pairs of words: evidence of a dependence between retrieval operations. *Journal of Experimental Psychology, 90*(2), 227.
- Mulligan, C. B. (2010, February 5). *In a first, women surpass men on U.S. payrolls*. Retrieved from http://economix.blogs.nytimes.com/2010/02/05/in-historical-first-women-outnumber-men-on-us-payrolls/?_php=true&_type=blogs&_r=0
- Munkes, J. & Diehl, M. (2003). Matching or competition? Performance comparison processes in an idea generation task. *Group Processes & Intergroup Relations, 6*, 305-320.
- Nemeth, C. (1986). Differential contributions of majority and minority influence. *Psychological Review, 93*, 23-32.
- Nemeth, C. J., Personnaz, M., Personnaz, B., & Goncalo, J. A. (2004). The liberating role of conflict in group creativity: A study in two countries. *European Journal of Social Psychology, 34*, 365-374.
- Nemeth, C. J. & Staw, B. M. (1989). The tradeoffs of social control and innovation in groups and organizations. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology, 22*, 175-210.

- Nijstad, B. A., De Dreu, C. K. W., Rietzschel, E. F., & Baas, M. (2010). The dual pathway to creativity model: Creative ideation as a function of flexibility and persistence. *European Review of Social Psychology*, 21, 34-77.
- Patient, D. L. & Skarlicki, D. P. (2010). Increasing interpersonal and informational justice when communicating negative news: the role of the manager's empathic concern and moral development. *Journal of Management*, 36, 555-578.
- Pellett, T. L. (1994). Children's stereotypical perceptions of physical activities: A K-12 analysis. *Perceptual and Motor Skills*, 79, 1128-1130.
- Pellett, T. L., & Ignica, A. A. (1994). Relationship between children's and parents' stereotyping of physical activities. *Perceptual and Motor Skills*, 77, 1283-1289.
- Perry-Smith, J. E., & Shalley, C. E. (2003). The social side of creativity: A static and dynamic social network perspective. *Academy of Management Review*, 28, 89-106.
- Piaget, J. (1932). *The moral judgment of the child*. London: Kegan, Paul, Trench, Trubner
- Proctor, T. (1999). The need for research into creativity in marketing. *Creativity and Innovation Management*, 8, 281-285.
- Rijsman, J. B. (1974). Factors in social comparison of performance influencing actual performance. *European Journal of Social Psychology*, 4, 279–311.
- Rudman, L. A. (2011). *Implicit measures for social and personality psychology*. Los Angeles; London: Sage.
- Rudman, L. A., Greenwald, A. G., & McGhee, D. E. (2001). Implicit self-concept and evaluative implicit gender stereotypes: Self and ingroup share desirable traits. *Personality and Social Psychology Bulletin*, 27, 1164-1178.

- Rupp, D. E., McCance, A. S., Spencer, S., & Sonntag, K. (2008). Customer (In)Justice and Emotional Labor: The Role of Perspective-taking, Anger, and Emotional Regulation. *Journal of Management*, 34, 903-924.
- Sassenberg, K., & Moskowitz, G. B. (2005). Don't stereotype, think different! Overcoming automatic stereotype activation by mindset priming. *Journal of Experimental Social Psychology*, 41, 506-514.
- Schneider, D. J. (2004). The psychology of stereotyping. New York: The Guilford Press.
- Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: happiness is a matter of choice. *Journal of Personality and Social Psychology*, 83, 1178.
- Shalley, C. E. (1991). Effects of productivity goals, creativity goals, and personal discretion on individual creativity. *Journal of Applied Psychology*, 76(2), 179.
- Shalley, C. E. & Oldham, G. R. (1997). Competition and creative performance: effects of competitor presence and visibility. *Creativity Research Journal*, 10, 337-345.
- Simmons, A. L. & Ren, R. (2009). The influence of goal orientation and risk on creativity. *Creativity Research Journal*, 21, 400-408.
- Simonton, D. K. (1999). *Origins of genius: Darwinian perspectives on creativity*. Oxford University Press.
- Skorinko, J. L., & Sinclair, S. A. (2013). Perspective-taking can increase stereotyping: The role of apparent stereotype confirmation. *Journal of Experimental Social Psychology*, 49, 10-18.

- Spencer, J., Zanna, M. P., & Fong G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, 89, 845-851.
- Tadmor, C. T., Chao, M. M., Hong, Y. Y., & Polzer, J. T. (2012). Not Just for Stereotyping Anymore Racial Essentialism Reduces Domain-General Creativity. *Psychological Science*, 24, 99-105.
- Tjosvold, D., Johnson, D. W., Johnson, R. (1984). Influence strategy, perspective-taking, and relationships between high- and low-power individuals in cooperative and competitive contexts. *The Journal of Psychology: Interdisciplinary and Applied*, 116, 187-202.
- Todd, A. R., Bodenhausen, G. V., Richeson, J. A., & Galinsky, A. D. (2011). Perspective-taking combats automatic expression of racial bias. *Journal of Personality and Social Psychology*, 100, 1027-1042.
- Troyer, L. & Youngreen, R. (2009). Conflict and creativity in groups. *Journal of Social Issues*, 65, 409-427.
- Vincent, L. C., & Goncalo, J. A. (2014). License to Steal: How the Creative Identity Entitles Dishonesty. *The Ethics of Creativity*, 137.
- Ward, T. B. (1993). The effect of processing approach on category exemplar generation. Paper presented at the meeting of the Psychonomic Society, Washington, DC.
- Ward, T. B. (1994). Structured Imagination: the role of category structure in exemplar generation. *Cognitive Psychology*, 27, 1-40.
- Wiekens, C. J. & Stapel, D. A. (2008). I versus we: the effects of self-construal level on diversity. *Social Cognition*, 26, 368-377.

Whitehead, J. M. (1996). Sex stereotypes, gender identity and subject choice at A-level.
Educational Research, 38, 147-160.