Implicit Dehumanization of Competitors: A Gender Comparison

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Implicit Dehumanization of Competitors:

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Abstract

Dehumanization of outgroup members, especially in situations of intergroup competition, has been widely reported (Haslam, 2006), but the effects of individual competition on dehumanization have not yet been extensively explored. A previous study in our lab examined such an effect, and found an unexpected gender difference, with women showing greater implicit dehumanization than men. The present study aimed to replicate and explore a possible mechanism for that gender difference: gendered expectations of maintaining positive interpersonal relations may lead women to feel discomfort in competitive situations, motivating the implicit dehumanization of competitors. Participants interacted briefly with a confederate and were then given instructions for a competitive or non-competitive game. Participants then completed two Single-Category Implicit Association Tests measuring dehumanization of their game partner along the Experience and Agency dimensions of mind perception, respectively. Participants also completed the Mind Perception Questionnaire, which is a measure of explicit dehumanization of participants' game partners. We predicted that in the Competition condition, female participants would dehumanize their game partners more than men would, especially along the Experience dimension.

Results indicated that female participants attributed significantly more explicit mental capacity to their game partners than men, regardless of competition condition. This may support claims that women are more motivated than men to consciously consider others' mental states. However, no main effects for gender or for competition condition on implicit dehumanization were found, nor was a significant interaction between gender, competition condition, and Experience/Agency found. Lastly, a trending interaction between gender, competition condition, and Experience/Agency on explicit dehumanization was found.

Further research is needed to determine whether there is indeed a significant interaction on implicit dehumanization, and to explore what factors, including empathy, perspective-taking, or gender expectations, may be driving a gender difference in dehumanization.

Introduction

Competition is generally understood to be a universal part of the human experience; whether for food, money, or mating partners, competitiveness has been observed in nearly all human cultures throughout history. However, it is possible that not all humans experience competition in the same way, and research has indicated that gender in particular may play a role in the way an individual approaches competitive situations.

Competitiveness and Gender Differences

In a 2016 review of sex differences in sports participation and motivation, researchers Deaner, Balish, and Lombard found that in nearly all cultures, both contemporary and historical, men participate in sports at a significantly higher rate than women, and also consistently express competitiveness as a motivation for playing sports much more frequently than women do. The researchers note that many studies on competitive situations in areas besides sports have found sex differences in motivation as well, including competitiveness and risk-taking (Deaner, Balish, & Lombard, 2016). Therefore, the particular example of sports participation is just one of many possible manifestations of a gender-based difference in competitiveness and the experience of competitive situations. In a study on perspective-taking and prosocial behaviors in children, for example, researchers assert that by middle childhood, the way that boys and girls typically socialize is different; boys tend to form larger friend groups that are more competitive, while girls tend to form “dyadic”, one-on-one friendships that are more harmonious (Kuhnert, Begeer, Fink, & de Rosnay, 2017). In another study researching workplace behaviors and relationships, Lee, Kesebir, and Pillutla (2016)

indicate that from early childhood onward, "female peer culture" emphasizes harmony and strives to appear fair and equal, whereas male culture places greater value on competition and individual achievement. This gendered contrast in desirable values and behaviors may shape, through socialization, the way that men and women compete with each other and with their same-gender peers.

From sports to children's social behaviors to coworker interactions, competition is an aspect of nearly every part of our lives. A gender-based difference in how individuals approach competition, such as that identified in past research and that which I intend to examine myself, has notable implications for individuals, especially women, who participate in competitive situations both in their careers and in their day-to-day lives.

Discomfort and Backlash

Competitiveness is often regarded in Western cultures as a "masculine" trait, along with closely related traits such as assertiveness and confidence; these are likewise seen as "unfeminine" or even undesirable qualities for a woman to express. Indeed, Lee, Kesebir, and Pillutla assert that competitiveness is considered to be more "typical, desirable, and healthy" for men than for women, and that according to traditional gender roles, women's behavior is expected to be less assertive and more "communal". Some researchers, including Lee, Kesebir, and Pillutla, have indicated that these gender roles and expectations likely affect how men and women experience competition - notably, that those experiences are different.

One proposed difference in the experience of competition by men and women is the level of comfort in competitive situations, or more specifically, the *dis*comfort experienced by women while competing. This discomfort has been documented by many researchers in studies conducted in a variety of competitive situations. For example, Benenson and colleagues studied competition among children and observed the resulting signs of

discomfort the children showed, and found that girls showed significantly more discomfort while in competitive situations than boys, in both early and middle childhood (Benenson et al., 2002). In the workplace competition study by Lee, Kesebir, and Pillutla, women, when either imagining competing with a coworker or participating in an actual competition, tended to express more discomfort than men in the same competitive situations. The researchers claim that "same-gender competition may be seen as a violation of relational norms to women (but not to men) because its outcomes (e.g., the formation of ranking hierarchies) and elements (e.g., open status seeking) are incongruent with normative expectations for women's peer relationships, whereas they are rather typical in men's peer relationships" (Lee, Kesebir, & Pillutla, 2016). This "incongruence" with women's expected roles, they suggest, leads to normative control in the form of social sanctions from peers, which in turn socialize women to feel uncomfortable competing and often avoid competition altogether.

Benenson and colleagues claim that women, but not men, experience social pressure to be less competitive and that those women who do take part in direct competition are "penalized" with the same social sanctions that Lee, Kesebir, and Pillutla describe (Benenson et al., 2002). This penalization from peers has since been referred to by other researchers as *backlash*, and it describes the negative consequences that women may face for behaving competitively, including being "seen as socially deficient, liked less, and be[ing] discriminated against in hiring" (Lee, Kesebir, & Pillutla, 2016). A study on negotiation in the workplace conducted by Amanatullah and Tinsley (2013) explores the concept of backlash in-depth, specifically focusing on how participants perceive a woman or a man negotiating salary in a certain way (assertive/non-assertive) and for a certain party (self-advocacy/other-advocacy). The perception of the negotiator by the participant represented the amount of backlash the negotiator would receive, and was described with specific feminine or masculine characteristics with positive and negative valences of each. Female negotiators

(and, presumably, competitors), as the researchers explain, are in a double-bind of social norms - they risk looking either arrogant but competent or nice but incompetent. The very same skills they need to succeed or earn a higher salary are those that make them appear "unfeminine" and "unlikeable" since competition and assertiveness do not align with their expected social behaviors. Men are in no such double-bind; they are rewarded for the same assertive behaviors for which women receive backlash. Amanatullah and Tinsley explain that due to fears of being judged as unlikeable, women are less likely to negotiate assertively. Fear of sanctions and discomfort while competing, not only negotiating, has real effects on women's behavior.

Coping Through Dehumanization

Besides simply avoiding competitive situations, what are some ways that women may respond to the backlash and discomfort they feel while competing? In a study of a series of professional sports matches, researchers found that men, through "peaceful" physical gestures and touches, tended to express much more post-game affiliation with their same-gender opponents than women did, indicating that they were more ready to "repair" their social relationships with their opponents than the female athletes were (Benenson & Wrangham, 2016). One of the possible causes of the decreased post-game affiliation between female athletes could be a decreased amount of empathy directed toward the opponent. Decreased empathy, in this case, would be a coping mechanism for the woman to overcome her discomfort from competing with an opponent. Otten, Heberlein, Wegner and Banaji explored a similar concept in a 2011 study that measured the effects of competition on the amount of "mind", or perceived mental capacity, attributed to one's opponent. The researchers hypothesized that participants would "de-mind" - subtly dehumanize - the opponent with which they expected to compete in a coin-flipping game. The amount of dehumanization was

measured with an Implicit Association Test (IAT), in which participants associated the target (their opponent) with "human" mental capacities, and the speed of association indicated strength of association. The researchers found that participants in the Competition condition implicitly perceived less "mind" in their opponent than did the participants in the Baseline, non-competitive condition. Though Otten and colleagues did not find an effect for gender in that particular study, a later, similar study by Garinther (2013) found possible gender differences in the de-minding of opponents; in one condition, female participants tended to de-mind their opponents significantly more than did male participants. Subtle dehumanization and lacking empathy for an opponent are both possible consequences of competition, and due to gender differences in competition, women may tend to do both much more than men.

In the present study, we predicted that when participants' implicit dehumanization of a game opponent was measured, women in a competitive condition would show greater dehumanization than women in a non-competitive condition, and would also show greater dehumanization than men in both competitive and non-competitive conditions. We expected to find this effect along the "Experience" dimension of mind perception as described by Waytz, Gray, Epley, & Wegner (2010), but had no prediction along the "Agency" dimension. According to Waytz et al., the Experience dimension encompasses one's perceived ability to *feel* and *experience* things, while the Agency dimension encompasses one's perceived ability to *act* and *do* things. This finding would replicate the findings of previous studies in our lab (Otten, et al., 2011; Garinther, 2013) that found a possible gender difference in implicit dehumanization of competitors. Lastly, we predicted that there would be no group differences in explicit dehumanization across gender and competition condition.

Methods

Participants

A total of 50 cisgender, English-speaking Boston College students participated in the study. Of these 50, 3 participants were excluded from the study because of experimenter error and 1 was excluded because their comprehension of English seemed too limited to understand the instructions properly. The remaining 46 participants had an average age of 19.79 years (range 18 - 23 years); 29 were women. All participants were recruited from the Boston College SONA study pool and were compensated with either course credit or cash. All participants were paired with a confederate of the same gender.

Materials

Mind Perception Single-Category IATs. For the SC-IAT, presented using Inquisit 5, participants were instructed to categorize words and pictures as fast as they could. Pictures were 5 photos of the confederate (taken ahead of time) and 5 photos of an unfamiliar person of the same gender as the confederate. The SC-IAT differs from a traditional IAT in that rather than comparing the association between two object categories and two evaluative categories, it compares the association between each of two object categories (in this case, the confederate and an unfamiliar other person) and one evaluative category (mind-related words). One SC-IAT measured the Experience component of mind perception, and the other measured the Agency component of mind perception (Waytz et al., 2010). The SC-IATs each consisted of two blocks, and each block consisted of 24 practice trials followed by 72 test trials. For both blocks, the stimulus in each trial was an image of the confederate's face, an image of an unrelated stranger's face, or a word associated with mind perception. Mind perception words were terms like *feelings* or *sensation* (Experience SC-IAT) and *goal-driven* or *willpower* (Agency SC-IAT). The "single category" was "Human Mind" (encompassing

words related to either Experience or Agency, respectively) and changed sides from Block 1 to Block 2. For example, if in the first block the confederate category ("Kevin") was categorized using the same key as Human Mind, then in the *second* block, the unfamiliar other category ("Alex") was categorized with Human Mind. The order of blocks was counterbalanced across participants, as was the order in which the two SC-IATs were administered (Experience or Agency) (see Appendix A).

The strength of association between the confederate/unfamiliar other and Human Mind was measured by comparing the response latency of the two object categories. The difference in response latency was represented by the d-score, which was calculated using the standardized mean difference score of the two types of pairings (confederate & Human Mind; unfamiliar other & Human Mind). For the present study, a higher d-score indicates a stronger association between the confederate and Human Mind categories.

Mind Perception Questionnaire (MPQ). This questionnaire is based on the Mind Survey (Gray, Gray, & Wegner, 2007), and asks participants to rate a single target's capacity for 18 mental activities, such as memory, self-control, and feeling pain. Eleven of the questions targeted the Experience dimension of mind perception and seven targeted the Agency dimension. To evaluate each participant's explicit perception of mind in the confederate, we asked each participant to rate the confederate on these mental activities, and then averaged the responses for each of the two dimensions (see Appendix B).

Procedure

Participants were randomly assigned to one of two conditions, Competition or Non-Competition. The "other participant" with whom each participant was paired was a confederate of the same gender, a research assistant in the lab. After giving informed consent, both the participant and the confederate were photographed for the subsequent IAT computer

task (described as a "first impression task"). Though the photos of the confederate actually used in the task were taken at an earlier time, the participant was led to believe that both they and the confederate would complete the first impression task using the photographs taken that day. Confederates arrived with the same clothing, hairstyle, and facial appearance (makeup, facial hair, etc.) as in the original photographs to ensure consistency and believability.

Participants were then asked to engage in a brief get-to-know-you conversation with the "other participant" about a series of preselected neutral topics, the purpose of which was to make the confederate's role as another participant more believable.

Participants were told that, after completing the first-impression task based on their conversation with the "other participant", they would play a game for a small amount of monetary compensation (in addition to the course credit or cash payment each received for participation). Instructions for the game were given before participants went into separate rooms to complete the computerized tasks.

Instructions for the game varied with condition. In the Non-Competition condition, participants were shown a stack of 10 quarters, and were instructed that they would both flip a coin 10 times, such that they could each win up to $2.50 total. Instructions stressed that, since the coin tosses were individual, each participant's gain or loss would be independent of the monetary gain or loss of the other participant.

In the competition condition, participants were shown a stack of 10 quarters, and again, could win up to $2.50 by flipping a coin. However, the game would be zero-sum: one participant would be assigned heads, the other tails, and they would take turns tossing a coin, for 10 coin flips in total. This meant that each time one participant won a quarter, the other participant would automatically lose the possibility of pocketing that quarter.

Participants were asked to repeat the instructions back to the experimenter to make sure that they understood the rules of the game. The confederate was then led to a nearby

room (where, the participant was led to believe, they would be completing the same computer task under the supervision of another experimenter).

The participant then completed two SC-IATs measuring the association between the confederate (i.e. the other player in the game) and concepts related to the human mind. When participants had finished the SC-IATs, they filled out the Mind Perception Questionnaire, with some additional questions about how competitive they felt towards the other participant. Participants were subsequently told that they were not actually going to play the coin-toss game, but instead would receive $1.25 each (the average expected value of the game in both the Competition and the Non-Competition condition). They were debriefed and paid.

Results

As a manipulation check, a two-way factorial analysis of variance (ANOVA) was conducted to determine the effect of competition condition on participants' ratings of explicit feeling of competition with the confederate. Participants in the Competition condition reported a higher average feeling of competition (M = 2.833, SEM = .289) than participants in the Non-Competition condition (M = 2.214, SEM = .328), though this difference was not significant for the current sample, $F(1, 42) = 2.001$, $p = .165$.

The present experiment was organized in a 2 (Male/Female) x 2 (Competition/Non-Competition) design. A repeated measures analysis of variance was conducted to determine the effect of both gender and competition condition on participants' levels of implicit dehumanization along two dimensions of mind perception: Experience and Agency. An additional repeated measures ANOVA was conducted to determine the effect of gender and competition condition on explicit dehumanization, also along both the Experience and Agency dimensions of mind perception. Implicit dehumanization was calculated using d-scores resulting from both the Experience and Agency SC-IATs, and explicit dehumanization

was calculated using participants' average scores from both the Experience and Agency sections of the MPQ.

Implicit Dehumanization

No main effects for gender or competition condition were found for implicit mind perception, $F(1,42) = 1.584$, $p = .215$; $F(1, 42) = 1.304$, $p = .26$. As represented in Figures 1 and 2, no interaction between gender and competition condition was found for implicit mind perception on either the Experience or Agency dimensions, $F(1, 42) = .393$, $p = .534$.

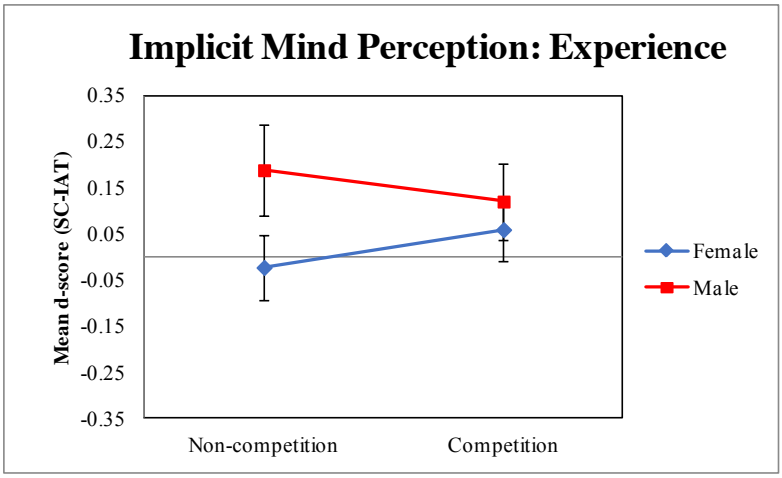


Figure 1. There was no interaction of gender and competition condition on implicit mind perception (Experience dimension).

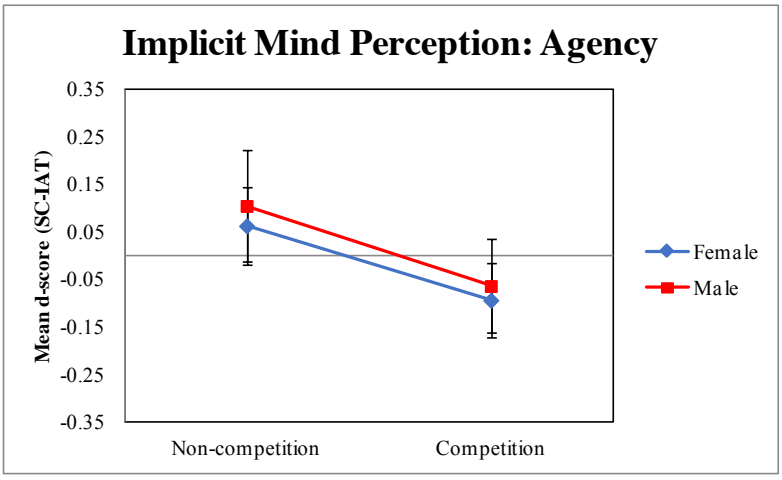


Figure 2. There was no interaction of gender and competition condition on implicit mind perception (Agency dimension).

Explicit Dehumanization

No main effect of competition condition was found for explicit mind perception, $F(1, 42) = 1.26$, $p = .268$. However, there was a significant main effect for gender on both the Experience and Agency dimensions of explicit mind perception; women explicitly attributed greater levels of mental capacity to their game partners than men, regardless of competition condition, $F(1, 42) = 6.601$, $p = .014$. Additionally, participants attributed significantly more explicit mental capacity to their game opponents along the Agency dimension than along the Experience dimension, across both gender and competition condition, $F(1, 42) = 6.917$, $p = .012$. There was a trend towards an interaction between gender, competition condition, and Experience/Agency on explicit mind perception, $F(1, 42) = 2.979$, $p = .092$ (see Figures 3 & 4).

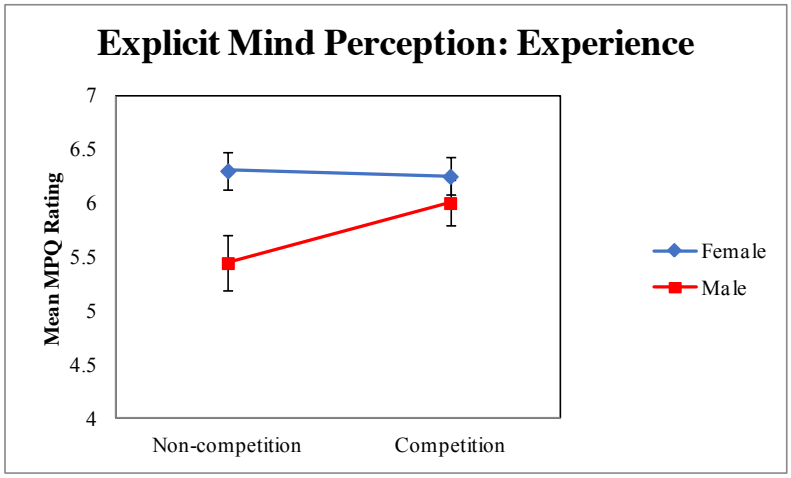


Figure 3. There was a trend towards interaction of gender and competition condition on explicit mind perception (Experience dimension).

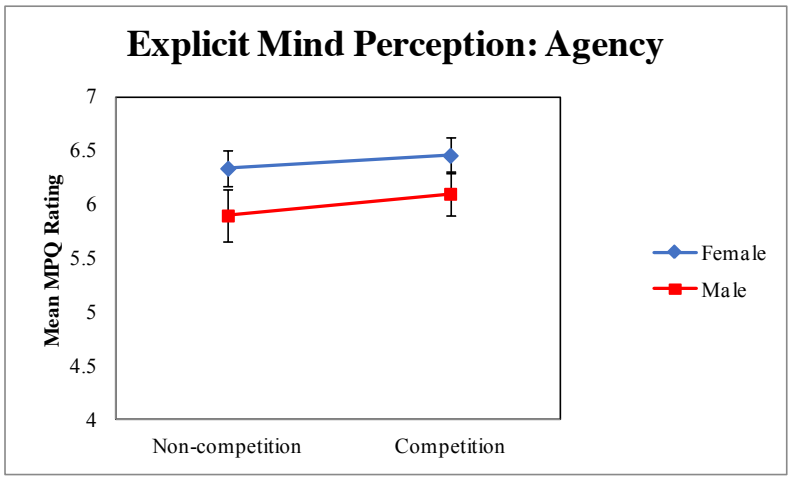


Figure 4. There was a trend towards interaction of gender and competition condition on explicit mind perception (Agency dimension).

Other Analyses

Four two-way factorial ANOVAs were conducted to analyze the effect of gender and competition condition on each of the four measures of mind perception independently (Experience SC-IAT, Agency SC-IAT, Experience MPQ and Agency MPQ). As stated earlier, there was a significant main effect for gender on both the Experience and Agency dimensions of explicit mind perception as measured by the MPQ; there were no other significant main effects or interactions.

Lastly, Pearson correlations were conducted to compare participants' scores on the Experience SC-IAT, Agency SC-IAT, Experience MPQ, and Agency MPQ. There was a positive correlation between participants' scores on the Experience dimension of the MPQ and the Agency dimension of the MPQ, $r = .733$, $p \leq .01$. No other significant correlations were found.

Discussion

Trends and Exploratory Analyses

As there was no significant interaction found between gender, competition condition, and Experience/Agency on implicit dehumanization of competitors, the present findings do not support our hypotheses; however, they did highlight some interesting trends. Firstly, women gave higher explicit ratings of the mental capacities of their game partner than men, regardless of competition condition, which supports claims from past research that women's interactions are influenced by a drive to maintain interpersonal harmony. Women may be more motivated than men to pay attention to or think about the point of view/"mind" of another person, which would likely contribute to the gender difference in ratings of explicit mind perception. Another finding that supports this idea is that women's explicit ratings of how much they empathized with their game partner were higher than men's, also regardless of competition condition, $F(1, 42) = 5.41$, $p = .025$. This finding, though only exploratory in this study, points to empathy as an interesting factor to consider in future analyses of the role of gender in dehumanization of competitors.

An additional surprising exploratory finding was that participants in the Competition condition gave higher explicit ratings of their level of empathy than participants in the Non-Competition condition, regardless of gender, $F(1, 42) = 7.254$, $p = .01$. One potential explanation for this finding may be that the expectation of engaging in competition with another individual motivates increased perspective-taking when compared to the expectation of a non-competitive interaction. Participants expecting a competition may be more likely to consider their competitor's decision-making, or anticipate their future thoughts and actions. Such perspective-taking would likely increase feelings of empathy toward the competitor.

Limitations

The findings of the present study, both significant and non-significant, should be interpreted only tentatively; current analyses represent only preliminary results, based on relatively small group sizes, and data collection will continue until the intended number of participants has been reached.

Additionally, this study employed a sample of convenience; participants were a largely homogenous group of students with "WEIRD" (Western, Educated, Industrialized, Rich, and Democratic) backgrounds (Henrich, Heine, & Norenzayan, 2010). Such a sample may not necessarily be representative of the larger population.

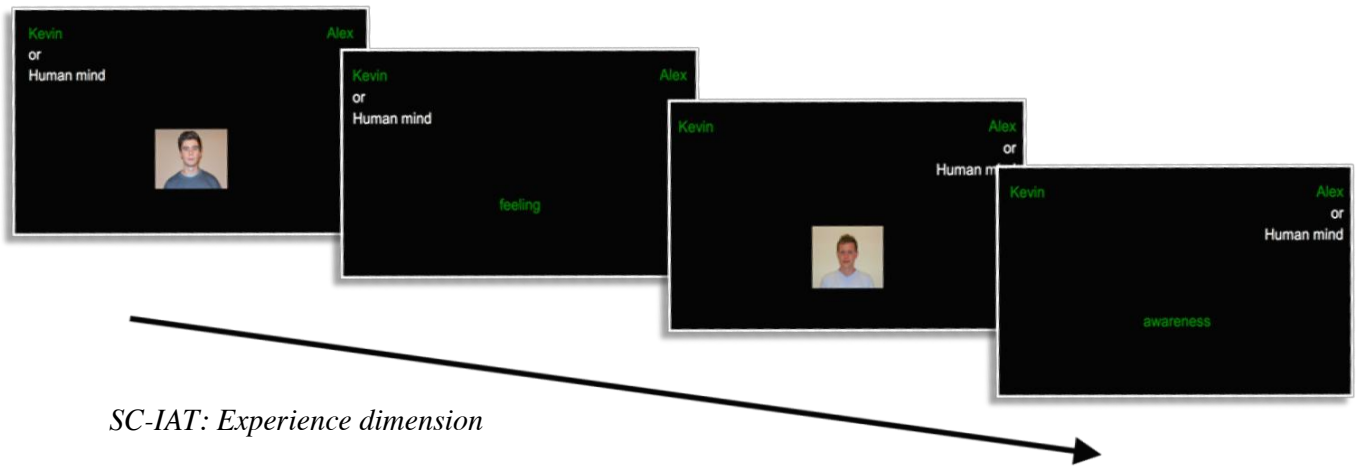
Conclusion

The present study's most notable feature is its use of the SC-IAT as a way of measuring precise differences in attitudes towards individual others. This method takes some of the first steps toward measuring, and perhaps later attenuating, phenomena such as dehumanization on an individual, interpersonal level rather than an intergroup level. Eventual findings resulting from this method as it is used in the present study will be relevant in any situation in which competitive interactions happen, from the office to the tennis court to the classroom, and will help us to more clearly understand the interpersonal factors that may influence such interactions.

Appendices

Appendix A

Single-Category Implicit Association Tests (SC-IATs)



SC-IAT: Experience dimension

SC-IAT: Agency dimension

Appendix B

Mind Perception Questionnaire

** Questions with an asterisk denote questions that targeted the Experience dimension of mind perception; the remaining questions targeted the Agency dimension*.

This survey asks you to make estimates of the abilities of the other person who is participating in this experiment. Please rate that person on each of the following scales. Try to indicate the degree to which you believe the person has each of these capacities by using the numbers from 1 to 7 as a yardstick on which to measure the person. The person you are to rate is the other participant in the experiment in which you are participating.

*1. How much is this person capable of experiencing physical or emotional pleasure?

1 2 3 4 5 6 7

Cannot Feel Pleasure Can Feel Pleasure

*2. How much is this personal capable of feeling hungry?

1 2 3 4 5 6 7

Cannot Feel Hunger Can Feel Hunger

*3. How much is this person capable of feeling afraid or fearful?

1 2 3 4 5 6 7

Cannot Feel Fear Can Feel Fear

*4. How much is this person capable of feeling embarrassment?

1 2 3 4 5 6 7

Cannot Feel Embarrassment Can Feel Embarrassment

5. How much is this person capable of conveying thoughts and feelings to others?

1 2 3 4 5 6 7

Cannot Communicate Can Communicate

*6. How much is this person capable of experiencing physical or emotional pain?

1 2 3 4 5 6 7

Cannot Feel Pain Can Feel Pain

7. How much is this person capable of exercising self-restraint over desires, emotions, or impulses?

1 2 3 4 5 6 7

Has No Self-Control Has Self-Control

8. How much is this person capable of remembering things?

1 2 3 4 5 6 7

Has No Memory Has Memory

*9. How much is this person capable of experiencing violent or uncontrolled anger?

1 2 3 4 5 6 7

Cannot Feel Rage Can Feel Rage

*10. How much is this person capable of having experiences and being aware of things?

1	2	3	4	5	6	7
Not Conscious						Conscious

*11. How much is this person capable of having personality traits that make him/her unique from others?

1	2	3	4	5	6	7
Has No Personality						Has Personality

12. How much is this person capable of understanding how others are feeling?

1	2	3	4	5	6	7
Cannot Recognize Emotions						Can Recognize Emotions

13. How much is this person capable of making plans and working toward goals?

1	2	3	4	5	6	7
Cannot Plan						Can Plan

*14. How much is this person capable of longing and hoping for things?

1	2	3	4	5	6	7
Cannot Feel Desire						Can Feel Desire

*15. How much is this person capable of experiencing pride?

1	2	3	4	5	6	7
Cannot Feel Pride						Can Feel Pride

16. How much is this person capable of telling right from wrong and trying to do the right thing?

1	2	3	4	5	6	7
Cannot Be Moral						Can Be Moral

*17. How much is this person capable of experiencing joy?

1	2	3	4	5	6	7
Cannot Feel Joy						Can Feel Joy

18. How much is this person capable of thinking?

1	2	3	4	5	6	7
Has No Thought						Has Thought

Please answer the following questions on how you feel about the other participant.

I find that I can empathize with him/her.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

I like him/her.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

I feel in competition with him/her.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

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