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Contents lists available at ScienceDirect

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jespSocial connection enables dehumanization[☆]Adam Waytz^{a,*}, Nicholas Epley^b^a Northwestern University, USA^b University of Chicago, USA

ARTICLE INFO

Article history:

Received 22 April 2011

Revised 21 July 2011

Available online 6 August 2011

Keywords:

Social connection

Dehumanization

Morality

ABSTRACT

Being socially connected has considerable benefits for oneself, but may have negative consequences for evaluations of others. In particular, being socially connected to close others satisfies the need for social connection, and creates disconnection from more distant others. We therefore predicted that feeling socially connected would increase the tendency to dehumanize more socially distant others. Four experiments support this prediction. Those led to feel socially connected were less likely to attribute humanlike mental states to members of various social groups (Experiments 1 and 2), particularly distant others compared to close others (Experiment 3), and were also more likely to recommend harsh treatment for dehumanized others (i.e., terrorist detainees, Experiment 4). Discussion addresses the mechanisms by which social connection enables dehumanization, and the varied behavioral implications that result.

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Among the most horrifying images of human indecency is a photograph of two Nazi doctors calmly monitoring the vital signs of a Jewish prisoner soaking up to his neck in near-freezing water. Such horrific instances may be taken as illustrations of dehumanization, of failing to represent others as human beings worthy of moral concern and treating them instead as animals or objects. The relationship that automatically captures attention in this and other instances of dehumanization is the one between aggressor and victim—between the doctor and dehumanized “patient.” We suggest, however, that a full understanding of the psychological process of dehumanization requires considering the other relationship often present in such images as well—the social connection between the two doctors, or between an aggressor and other socially supportive affiliates. In particular, we suggest that feeling socially connected to others may enable people to represent more distant others as subhuman, both in extreme cases such as the Holocaust as in more mundane situations. Dehumanizing distant others may therefore be enabled, at least in part, by a sense of social connection to close others.

Unfortunately for scientific understanding, dehumanization in public discourse is commonly equated only with its behavioral consequences such as aggression (Greitemeyer & McLatchie, 2011), rather than with its defining psychological attributes. Psychologically, dehumanization represents a failure to attribute basic human qualities

to others. One conceptualization suggests that dehumanization involves the denial of qualities or traits that people perceive to be uniquely human (e.g., idealistic, analytic) or central to human nature (e.g., curious, imaginative; Haslam, 2006). A second conceptualization known as *infrahumanization* suggests that people dehumanize others by denying people secondary emotions (e.g., nostalgia, humiliation; Leyens et al., 2003)—that are precisely the emotions that require higher order mental capacities such as self-reflection, retrospection, and prospection. Yet another research program has operationalized dehumanization as diminished activation in the medial prefrontal cortex (Harris & Fiske, 2006), a brain region distinctively involved in attributing mental states to others (Amodio & Frith, 2006; Mitchell, 2009). Broader characterizations describe dehumanization as a process that “divests people of human qualities or attributes bestial qualities to them [whereby] they are no longer viewed as persons with feelings, hopes, and concerns but as subhuman objects” (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996, p. 366). Although these different conceptualizations of dehumanization vary in their details, the central feature of all existing psychological accounts is a failure to attribute a mind to other humans, treating others as if they lacked the capacity for higher order reasoning or conscious awareness and experience (Gray, Gray, & Wegner, 2007). Dehumanized others lack the capacity to think—like animals—or to feel—like objects (Haslam, 2006).

Predicting that social connection would enable such a potentially negative outcome appears inconsistent with the well-known benefits of social connection. Being socially connected to another individual or group increases self-esteem (Leary & Baumeister, 2000), happiness (Diener & Seligman, 2002), meaning (Heine, Proulx, & Vohs, 2006), and physical health (Cacioppo & Patrick, 2008). Being socially disconnected, in contrast, diminishes self-control, reduces intelligent thought, and presents a health risk equivalent to smoking, obesity,

[☆] We thank Ashley Angulo, Adrianna Guerrero, Mina Kang, Jasmine Kwong, Entzu Lin, Alex Michev, Paul Thomas, Kelsey Tupper, Rebecca White for their technical assistance, and the Templeton Foundation and Booth School of Business for financial support.

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and high blood pressure (House, Landis, & Umberson, 1988; see Baumeister, Brewer, Tice, & Twenge, 2007 for review).

What is good for oneself, however, may not be uniformly good for others. Feeling socially connected to one person or group may diminish the motivation to connect with a more distant person or group. The need for social connection is similar to a fundamental drive state like hunger or thirst (Baumeister & Leary, 1995). People who feel hungry look for food. People who feel socially disconnected likewise seek to satisfy this drive by attempting to connect with others (Maner, DeWall, Baumeister, & Schaller, 2007), even attributing humanlike traits to nonhuman agents that render them suitable agents of social connection (Epley, Akalis, Waytz, & Cacioppo, 2008). People who are full, however, are less likely to look for food. Similarly, people who feel socially connected are less motivated to affiliate with others (Brewer, 1991; DeWall, Baumeister, & Vohs, 2008). Considering others' interests, attitudes, feelings, and preferences are critical for connecting with them. Diminishing the motivation to connect with others may diminish the motivation to recognize, think about, or consider others' mental states as well.

Being socially connected not only diminishes the motivation to connect with others, but may also diminish the perceived similarity with more distant others because social connections delineate those within one's social circle and those outside of it. Being part of a football team, a political party, a church, or a married couple identifies who is *in* one's social circle as well as who is *out* of one's circle, namely people within other teams, parties, churches, or marriages. Connecting with others brings individuals closer to each other, but moves them further from people from whom they are disconnected. People consider themselves to be exemplars of humanity, and as others become less similar to the self, they are evaluated as less humanlike as well (Harris & Fiske, 2006; Haslam, Bain, Douge, Lee, & Bastian, 2005). Social connection both diminishes the motivation to connect with other humans and increases the difference between close and distant others, and both of these processes suggest, therefore, that social connection may increase the tendency to dehumanize more distant others.

Some existing evidence supports these hypotheses. First, the clearest examples of dehumanization arise in intergroup settings in which ingroup members dehumanize outgroup members (Demoulin et al., 2009; Esses, Veenvliet, Hodson, & Mihic, 2008; Goff, Eberhardt, Williams, & Jackson, 2008; Harris & Fiske, 2006; Leyens et al., 2000). No existing work, however, has identified the role of social connection in this process, *per se*. Second, closeness with one's ingroup often co-occurs with negative behavior toward one's outgroup. For example, in preindustrial societies, ingroup loyalty correlated with support for violence toward outgroups (Cohen, Montoya, & Insko, 2006). This is consistent with research demonstrating that in-group altruism and out-group hostility evolved jointly (Choi & Bowles, 2007). Recent studies have shown that administering the neuropeptide oxytocin – a hormone involved in social bonding – increases trust with one's ingroup members and defensive aggression toward outgroup members (De Dreu et al., 2010). Third, existing research demonstrates that groups may behave more unethically and aggressively toward others than individuals (see Wildschut, Pinter, Vevea, Insko, & Schopler, 2003). In particular, the presence of others can increase feeling deindividuated that increases aggression toward others (Zimbardo, 1969), or can diffuse responsibility for action that inhibits people's concern for another person's suffering (Bandura, Underwood, & Fromson, 1975; Darley & Latané, 1968). These experiments suggest that some of the behaviors commonly associated with dehumanization may be more likely when people are in groups than when they are alone, but again do not identify the role of social connection or dehumanization in these actions. A combination of factors including deindividuation, diffusion of responsibility, and social connection likely accounts for why antisocial behaviors occur more often when people are in groups than when they are alone.

Our work differs from existing research on dehumanization in three critical ways. First, social connection does not rely on the presence of a

group (or an ingroup) but can be activated by merely thinking of one closely-connected other. Although Demoulin et al. (2009, p. 4) “propose that, in order to infra-humanize, people need to be categorized in meaningful groups,” the present studies demonstrate that mere social connection absent of any meaningful group categorization can enable dehumanization. Second, social connection operates on perceptions of the *other* whereas previously identified factors primarily operate on perceptions of the self (as morally invulnerable, or blameless). Third, social connection does not necessarily promote aggression, general immoral behavior, or active antipathy but instead promotes dehumanization in particular.

This paper examines whether social connection diminishes the attribution of mental capacities toward members of other groups (Experiment 1), whether the influence of social connection is specific to dehumanization or influences negative evaluations more generally (Experiment 2), whether the influence on dehumanization is greater for targets outside of one's immediate social circle (Experiment 3), and whether social connection increases the willingness to harm dehumanized others (e.g., terrorist detainees; Experiment 4).

Experiment 1

Experiment 1 examined whether social connection increases dehumanization of groups differing on the fundamental dimensions of social perception: warmth and competence (Fiske, Cuddy, Glick, & Xu, 2002). This included four distinct groups in the extreme corners of the social perception dimensions: disabled people (low competence, high warmth), middle-class Americans (high competence, high warmth), drug addicts (low competence, low warmth), and rich people (high competence, low warmth). We predicted that people led to feel socially connected would attribute diminished mental capacities to members of these groups compared to those in a control condition. Including groups that varied on warmth and competence allowed us to test whether the effect of social connection on dehumanization extends to all groups or only to typically dehumanized groups (e.g. drug addicts; Harris & Fiske, 2006). Because undifferentiated members of all of these groups are likely to appear relatively distant from participants' own ingroups, we did not expect to see differences in evaluations between these groups.

Method

Participants were thirty-eight individuals (15 female; $M_{age} = 22.32$, $SD = 3.35$) from the University of Chicago population. Participants entered the laboratory and sat down in individual cubicles to complete the study on a packet of paper. As an experimental manipulation, we used a task similar to studies that have asked participants to relive and write about an experience of social connection (e.g., Knowles & Gardner, 2008; Maner et al., 2007). Those assigned to the social connection condition were first asked to “write about someone close to you that you interact with often” such as a “close friend, a significant other, or a family member,” to explain how they met, know, and are supported by this person, and to describe when they might contact this person for social support in the future. Nine people wrote about a friend, six about a family member (e.g., parent, sibling), and four about a significant other (e.g., boyfriend or girlfriend). Those in the control condition were asked to “write about someone who you see in your daily life, but whom you do not interact with” such as “a person you often pass on the street, someone who you see around work or school, or a total stranger.” These instructions served as a control condition in the sense that participants wrote about another person, but not a person to whom they had any particular connection. These participants were asked to write about when they first saw the person, how long they have seen the person around, a time when they saw the person, how the person behaves, and a time when they might see the person again. Control condition participants wrote about a range of people, including strangers, co-workers, and neighbors.

All participants then evaluated “the average” member of the four groups on four items assessing attribution of intention, cognition, and emotion (Kozak, Marsh, & Wegner, 2006). Participants indicated whether each target is capable of: “doing things on purpose,” “engaging in a great deal of thought,” “experiencing pain,” and “experiencing pleasure” (1 = *Strongly Disagree* to 7 = *Strongly Agree*). We averaged these items to create a composite measure of mind attribution (all α 's > .74). After each set of mind attribution items, participants indicated how much they liked the average member of the given group (1 = *Not at all* to 7 = *Very much*). We included this measure to provide a dissociation between dehumanization and negative evaluation more generally, predicting that social connection would systematically affect dehumanization, but not liking.

Results

A 2(condition: connected or control) \times 4(target group: disabled people, middle class Americans, drug addicts, rich people) repeated measures ANOVA on mind attribution revealed a significant effect for target group. Participants across both conditions rated the average drug addict ($M = 5.73$) as less mindful than any other group (disabled: $M = 6.49$, middle class: $M = 6.32$, rich: $M = 6.38$), $F(3, 34) = 7.08, p < .01$. More central to our hypotheses, a main effect for condition also emerged, $F(1, 36) = 3.91, p = .056$, such that participants in the connection condition dehumanized all groups to a greater degree than participants in the control condition (see Table 1). This result provides some initial support for our hypothesis, albeit with a marginally significant result. No significant interaction emerged ($p > .54$).

To determine whether social connection similarly influenced liking for the targets, we conducted the same 2(condition) \times 4(target group) repeated measures ANOVA on liking. A significant main effect of target group emerged, $F(3, 34) = 12.56, p < .01$, with disabled people liked the most ($M = 4.74$) and rich people the least ($M = 3.63$). However, no significant main effect for condition or interaction emerged ($ps > .26$), suggesting that social connection increased dehumanization specifically, rather than disliking or animosity more generally.

Table 1

Mean dehumanization and liking evaluations by participants in the connected and control conditions of Experiments 1, 2, and 4.

	Condition		<i>t, p</i>
	Connection	Control	
Experiment 1:			
Mind attribution	6.02	6.44	1.98, .06
Liking	4.13	4.18	0.20, .84
Experiment 2:			
Dehumanization	1.78	1.32	2.17, .04
Moral justification	2.98	2.82	0.56, .58
Euphemistic language	2.15	2.33	0.90, .38
Advantageous comparison	1.66	1.82	0.71, .48
Displacement of responsibility	2.07	2.17	0.45, .66
Diffusion of responsibility	1.94	1.96	0.09, .93
Distorting consequences	1.97	1.83	0.68, .50
Attribution of blame	2.38	2.08	1.36, .18
Experiment 4:			
Dehumanization	2.52	1.96	2.08, .04
Harm	.22	-.23	2.11, .04

Note. In Experiment 1, responses to mind attribution and liking measures could range from 1 to 7 with higher numbers indicating increased mind attribution or liking. In Experiment 2, responses to all items on the Moral Disengagement scale could range from 1 to 5, with higher numbers indicating more moral disengagement as measured by each distinct subscale. In Experiment 4, responses on the dehumanization subscale again ranged from 1 to 5, with higher numbers indicating more dehumanization. Responses to the harm measure are presented as an average of z-scores for each item.

Experiment 2

Experiment 2 served as a conceptual replication of Experiment 1 using a different measure of dehumanization that enables a distinction between dehumanization and other forms of moral disengagement (Bandura et al., 1996), and using a slightly different manipulation of social connection.

Method

Participants were thirty-five individuals from the University of Chicago population. Demographics were not recorded, but participants were drawn from the same population as Experiment 1. Participants in this study similarly completed the study in individual cubicles, in the laboratory. Those assigned to the connected condition received a paper packet with instructions asking them to “think about going back home to attend a big family Thanksgiving dinner,” to “think of the person or people at that dinner that you feel closest to,” and to discuss their relationship with each person and the topics they would discuss at the dinner. We conducted this experiment close to the Thanksgiving holiday.

Participants in the control condition received instructions to write about a non-social event, instructing them to “think about walking around Hyde Park to do some shopping,” and “think about businesses you go to routinely.” Participants were then asked to write about how long they have been going to each business listed, and to describe a typical visit to each one.

All participants then completed Bandura et al.'s (1996) moral disengagement scale. This construct-validated measure contains eight subscales related to moral disengagement, including dehumanization (Table 1). The other subscales are moral justification, euphemistic language, advantageous comparison, displacement of responsibility, distorting consequences, and attribution of blame. We included all of these subscales to distinguish dehumanization in particular to moral disengagement more generally. Each subscale includes four items. Items for the dehumanization subscale were: “Some people deserve to be treated like animals,” “It is okay to treat badly somebody who behaved like a ‘worm’,” “Someone who is obnoxious does not deserve to be treated like a human being,” and “Some people have to be treated roughly because they lack feelings that can be hurt” (1 = *Strongly Disagree*, 5 = *Strongly Agree*; $\alpha = .76$).

Results and discussion

As shown in Table 1, participants in the connection condition scored higher on dehumanization than did participants in the control condition, $F(1, 33) = 4.71, p < .05$. No other subscale differed between conditions (all $ps \geq .18$). These results suggest that social connection increases dehumanization specifically, rather than moral disengagement more generally. Although all eight facets of moral disengagement are highly interrelated ($\alpha = .87$ for all items), the manipulation of social connection significantly increased only dehumanization.

Experiment 3

Experiment 3 examined a potentially important moderator, namely whether the effect of social connection on dehumanization was larger for socially distant targets versus socially close targets. If social connection diminishes the need to connect with others, then its effects should be larger for others who are more disconnected and distant from the self already than from others who are more closely connected to the self. Unlike in Experiment 1 where all groups were relatively distant from our participants, Experiment 3 provides a direct manipulation of close versus distant status.

Method

Eighty-four people from the University of Chicago population (59 female; $M_{\text{age}} = 20.54$, $SD = 3.21$) participated online in exchange for entry into a prize lottery. A link to the study was sent to participants through various university e-mail listservs. Participants were randomly assigned to one of three conditions, one intended to increase perceived social connection (connected condition) and two that were not (unconnected and control). In the connected condition, participants were asked (as in Experiment 1) to “write about someone close to you that you interact with often” and the ways that they feel close to that person. Thirteen participants wrote about a friend, twelve about a family member, and four about a significant other.

In the control condition, participants received no instructions to write any essay and simply proceeded to the next section. In the unconnected condition (similar to Experiment 1), participants were asked to write about “someone with whom you feel a total lack of affiliation” and to describe who the person is, why they would not contact that person for support, and why they do not feel any affiliation toward that person. Participants wrote about a wide range of targets. It is important to note that this condition differs from experimental manipulations of active social exclusion and rejection because participants simply wrote about a distant other, rather than an experience of exclusion or rejection. Manipulations of social exclusion and rejection have varied effects on dehumanization, in some cases increasing dehumanization of both oneself and the perpetrator of exclusion out of frustration and spite (Bastian & Haslam, 2010) and in other cases increasing humanization of nonhumans (Epley et al., 2008). We did not, however, manipulate rejection or exclusion directly in this experiment, nor did we measure evaluations of targets responsible for social acceptance or exclusion. Therefore, we had no explicit prediction about the effects of the unconnected condition on dehumanization, except that it would not increase dehumanization to the same degree as the connected condition.

The next section of the experiment asked participants to evaluate two targets, one relatively close and connected to the participants (the “average University of Chicago student”) and one more distant and disconnected (the “average person in downtown Chicago”), on the complete 10-item mind attribution scale (Kozak et al., 2006; $\alpha = .84$ and $.90$, respectively). These targets were included to test the effect of social connection on socially close and socially distant targets (versus the abstract targets included in Experiments 1 and 2). We computed a mind attribution composite score for both targets as a measure of dehumanization. Participants then provided demographic information and indicated how much they liked each target (1 = *Not at All*, 7 = *Very Much*). Again, we included this measure of liking to dissociate dehumanization in particular from negative evaluation more generally, predicting that social connection would have distinct effects on dehumanization and liking.

Results and discussion

A 3(condition: connected, unconnected, or control) \times 2(target group: UChicago student or average Chicagoan) repeated measures ANOVA on mind attribution revealed a significant effect for target group. Participants dehumanized the average Chicagoan ($M = 5.65$) more than the average UChicago student ($M = 6.10$), $F(1, 81) = 64.07$, $p < .01$. This was qualified by the predicted interaction, $F(2, 81) = 4.03$, $p < .05$. The difference in mind attribution between target groups was larger in the connected condition than in either the unconnected or control conditions, $F_s(1, 81) = 5.35$ and 6.55 , respectively, $ps < .05$. No significant difference emerged across conditions in ratings of the average UChicago student (the close target), but significant differences instead emerged across ratings of the average Chicagoan (the distant target). Planned contrasts revealed that those in the connected

condition attributed significantly less mind to the average Chicagoan than did participants in the control and unconnected conditions, $F_s(1, 81) = 22.55$ and 5.07 , respectively, $ps < .05$.

A comparable 3(condition) \times 2(target group) repeated measures ANOVA on liking revealed very different results: a significant main effect of target group, $F(1, 81) = 9.47$, $p < .01$, qualified by an unpredicted condition \times target group interaction, $F(2, 81) = 3.51$, $p < .05$. Unlike the mind attribution results, liking of the UChicago student differed by condition, such that participants in the connected condition ($M = 4.72$) and in the baseline condition ($M = 4.70$) liked the average UChicago student more than did participants in the unconnected condition ($M = 3.96$), both p 's $< .01$. Liking of the average Chicagoan was marginally lower for participants in the baseline condition ($M = 3.79$) than for participants in the connected condition ($M = 4.23$), $F(1, 81) = 3.16$, $p = .08$. Participants in the connected condition also liked the average UChicago student significantly more than the average Chicagoan, $F(1, 81) = 13.92$, $p < .01$, and participants in the baseline condition liked the average UChicago student marginally more than the average Chicagoan, $F(1, 81) = 3.62$, $p = .06$ (see Table 2). No other simple effects were significant (all p 's $> .30$). Because we did not predict this pattern, we will not speculate on its cause. The important point for this research is that the effect of social connection on measures related to dehumanization once again appears distinct from a more general dislike of others.

Experiment 4

Our final experiment used a more immediate manipulation of social connection (whether a friend or a stranger was nearby), and assessed both a psychological measure of dehumanization (the dehumanization subscale of Bandura et al.'s Moral Disengagement scale used in Experiment 2) as well as a consequence of it—namely a willingness to endorse harming a dehumanized other, in this case a willingness to endorse harsh interrogation techniques for the terrorists being detained for plotting the September 11, 2001 attacks on the United States. We predicted that participants in our social connection condition would be more likely to dehumanize these detainees and thus more willing to endorse harsh interrogation.

Method

Fifty-nine people from the Chicago population (37 females, $M_{\text{age}} = 23.12$, $SD = 5.88$) completed the experiment in exchange for \$4. Participants entered a public laboratory in downtown Chicago for a study on attitudes. After signing up for the study, participants were randomly assigned to condition by being instructed to arrive with a friend or were (as usual) expected to arrive alone. Those who arrived with a friend were assigned to the connected condition in which they completed all materials in the room with their friend, whereas those who arrived alone were assigned to the control condition and completed all materials in the room with another stranger also assigned to the control condition. Despite the presence of two individuals in a

Table 2
Mean dehumanization and liking evaluations from Experiment 3.

Measure:	Condition		
	Connected	Baseline	Unconnected
Mind attribution			
Close other	6.09 ^a	6.20 ^a	5.99 ^a
Distant other	5.42 ^a	5.87 ^b	5.64 ^c
Difference	.67 ^a	.33 ^b	.35 ^b
Liking			
Close other	4.72 ^a	4.70 ^a	3.96 ^b
Distant other	3.79 ^a	4.23 ^a	4.00 ^a

Note. Values that share a letter across rows do not differ significantly from each other.

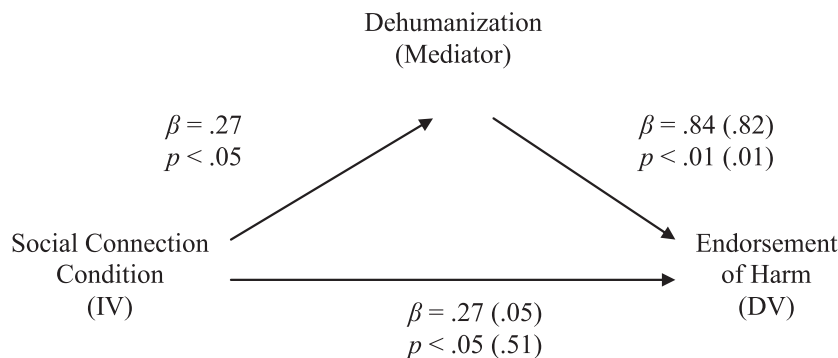


Fig. 1. Mediation analysis of Experiment 4. Note. Standardized betas are reported, along with corresponding p-values. Coefficients in parentheses indicate the relationship between the proposed mediator and the dependent variable (DV) and between the independent variable (IV) and the dependent variable, simultaneously controlling for the mediator and independent variable.

single session, participants could not see or monitor each other, and we therefore analyzed them as independent observations.

In both conditions, participants received a packet showing the faces of 11 individuals. Participants read that these photos were “of terrorists responsible for plotting the September 11 attacks on the World Trade Center that killed thousands of U.S. citizens,” and that they “are currently being held for questioning by the United States in various detention centers.” Participants then completed the four items from the moral disengagement scale (Bandura et al., 1996) where the subject of each item was replaced with “these detainees” ($\alpha = .90$). Participants were then asked five final questions, two filler items and three that served as our measure of willingness to endorse harm: 1) “How important is it to treat these people humanely...? (1 = not at all important, 7 = very important). (2) “Consider that these individuals have been waterboarded...How acceptable do you consider this treatment?” (1 = not at all acceptable, 7 = very acceptable). (3) “One torture technique that the military has employed with detainees is to deliver an electric shock...How much electric shock is it acceptable to deliver to these individuals? Please enter a number between “0 V and 450 V”.^{1,2} After reverse scoring the first item, we then standardized each item and averaged them into a composite ($\alpha = .78$). The other two items included in this final set were irrelevant to harm, asking about the relationship between the military, Congress, and the media.

Results and discussion

As shown in Table 1, participants in the connection condition dehumanized the detainees significantly more than did participants in the control condition, $t(57) = 2.08$, $p < .05$, and were also significantly more willing to endorse harming them, $t(57) = 2.11$, $p < .05$. Neither age, ethnicity, nor gender significantly moderated the effect of condition on dehumanization. As shown in Fig. 1, dehumanization fully mediated the effect of condition on endorsement of harm, Sobel's $z = 2.04$, $p < .05$. Social connection appears capable of increasing dehumanization of distant others, and of influencing at least one consequence of dehumanization as well.

The manipulation of social connection in Study 4 is more diffuse than the more focused social connection manipulations used in Studies 1–3, and the underlying mechanism is therefore more ambiguous. For example, being in a room with a friend may have increased participants' sense of a shared American identity that may then increase willingness to dehumanize and torture ostensible terrorists. Or, the presence of a friend may have provided a sense of

security that participants could discuss and therefore rationalize their more dehumanizing and aggressive responses after the study. Both of these alternatives, however, are subsumed under the broader variable of social connection that we believe is the more general and obvious consequence of being in a room with a friend versus a stranger.

General discussion

Four experiments suggest that social connection enables dehumanization. In Experiments 1–3, thinking about a close other increased the tendency to dehumanize other people, either by failing to attribute humanlike mental states to them or by reporting that it is acceptable to treat others like animals. In Experiment 4, the actual presence of a close other increased dehumanization of suspected terrorists, thereby increasing the willingness to endorse especially harsh interrogation practices toward them. These findings do not suggest that social connection *always* increases negativity toward others (see Mikulincer & Shaver, 2005), but rather that social connection can enable dehumanization in particular. We predicted this effect because considering the minds of others requires motivation and effort, and because one's own mind is considered to be the prototypical human mind. Increasing social connection diminishes the motivation to connect with the minds of *additional* others and increases the social distance between the self and more distant others. Future research can test which of these mechanisms is more likely responsible for the present effects.

Because being socially connected satisfies such a deep human need, it also is one of the most important ingredients for human happiness (Diener & Seligman, 2002). One alternative mechanism for the effects we have documented in this manuscript could therefore be that positive mood alone is sufficient to induce dehumanization. This seems like an implausible explanation of our effects, however, because an increase in positive mood would be especially likely to influence the measures we took that are more closely related to positive affect—namely liking of the target of evaluation. People who are happy also tend to be highly sociable (Fredrickson, 2004), and can misattribute their positive mood to their liking for others under the right circumstances (Clark & Taraban, 1991). We did not, however, find any consistent effect of social connection on liking for the targets being evaluated in these experiments, as would be predicted by a direct effect of positive mood. Although we cannot rule out an effect of positive mood on dehumanization in these experiments, the effects we observed do not seem to support an effect from positive mood, either.

Implications

We believe that the present findings have at least three important implications. The first is that dehumanization is often conceived as a

¹ We excluded one participant for failing to complete all items.

² One participant indicated 75–195 for the voltage item, which we averaged to equal 135. A second participant wrote, “anything up to 240–255,” which we as averaged to 247.5.

source of antipathy toward others – a visceral disliking – when it may in fact be better understood as a general indifference or apathy to others' mental states and experience based on an inference about diminished mental capacities. In *Experiments 1–3*, social connection influenced dehumanization without systematically influencing liking or other forms of moral disengagement. This distinction is critical for understanding social behavior. As George Bernard Shaw (1906, p. 82) noted, “The worst sin toward our fellow creatures is not to hate them, but to be indifferent to them. That’s the essence of inhumanity.” People may be willing to harm dehumanized others not simply because of emotional hatred, but also – perhaps primarily – because of a cognitive indifference to them. Overcoming the potentially negative consequences of dehumanization requires a clear understanding of its primary source.

The second implication is that dehumanization is likely to have considerably more varied consequences than those most commonly studied, namely violence, aggression, and discrimination toward others (Bandura et al., 1975; Goff et al., 2008; Struch & Schwartz, 1989; Turner, Layton, & Simons, 1975). Dehumanization may lead people to overlook others' more complex mental attributes, viewing them as an instrumental means to an end via objectification (Frederickson & Roberts, 1997). Dehumanization may also lead people to ignore others, or to treat others as they would children, considering them agents worthy of moral care but denying them autonomy. In this way, dehumanization may actually increase prosocial behavior by making one believe the other person—like a child, or a damsel in distress—is incapable of helping him- or herself.

The final implication is that social connection may have some unexpected effects on interpersonal and intergroup relations. Being socially connected to close others has great benefits for one's own physical and mental health, but it also satiates the motivation to connect with others and can increase the perceived distance between *us* and *them*. Social connection may therefore benefit intragroup relations, but impair intergroup relations. The representation of other humans as animals or objects may not simply be a function of the relationship between a perceiver and a dehumanized target, but may also depend on the strength of social connections with other close affiliates. The consequences of dehumanization may therefore result not only from the animosity felt toward dehumanized outgroup members, but also from the connection to close others. The present research suggests that the most tightly-knit groups – from military units to athletic teams – may also be the most likely to treat their adversaries as subhuman animals.

Historically, scholarly discussion of dehumanization has focused on its most severe instances, such as the enslavement of African Americans, the Holocaust, or in Rwandan warfare between the Hutus and Tutsis. These historical examples of dehumanization often accompany violence and emerge in propaganda that literally depicts people as nonhuman entities such as apes, vermin, or cockroaches. Such extreme examples may suggest that dehumanization is a rare phenomenon, yet the present research joins a growing body of research investigating more subtle psychological processes that lead people to see others as less than human (e.g., Harris & Fiske, 2006; Haslam, 2006). Central to these treatments is a denial of mental capacities to other people, the very capacities that people typically associate with being human. Denial of these mental capacities does not necessarily lead to the kinds of violence and inhumane treatment that may be associated with dehumanization, but we believe it is a critical precursor for it. More common, everyday instances of dehumanization then include indifference to the pain of a homeless man begging for change (Van Kleef et al., 2008), or when a boss treats an employee as a relatively mindless idiot who cares only for a paycheck and cares nothing for basic human motives like autonomy and self-expression (Heath, 1999). Any factor that creates disconnection from others, such as power (Lammers & Stapel, 2011), socioeconomic status (Piff, Kraus, Côté, Cheng, & Keltner, 2010), or

anonymity (Zimbardo, 1969), may therefore enable dehumanization by disengaging people from the minds of others. The present research suggests that social connection is one such factor that can increase disengagement with the minds of more distant others, leading to a failure to see people as they really are.

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