Supporting Online Material for

Experiencing Physical Warmth Promotes Interpersonal Warmth

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Experiencing physical warmth promotes interpersonal warmth

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Materials and Methods

Study 1 Participants and Design

Forty-one undergraduate students (27 female) at Yale University participated in a 2 groups (coffee type: hot versus iced) between-participants design.

Procedure and Materials

Participants were exposed to warm or cold temperatures by incidentally holding a confederate's coffee cup. The confederate was blind to the study's hypotheses. Approximately half of the participants briefly held a cup of hot coffee, and the remaining participants held an cup of iced coffee, while the confederate wrote down the participants' names and time of participation. Participants held the coffee cups while in the elevator en route to the fourth floor laboratory, for duration ranging from 10 to 25 seconds. Before the end of the elevator ride, participants returned the coffee cup to the confederate. After this, participants were escorted to an individual subject chamber in the laboratory.

As a cover story, participants were told that the experimenters were interested in examining the relationship between person perception and consumerism. Participants completed a survey packet containing a filler questionnaire followed by a personality impression questionnaire. On the filler questionnaire, participants were asked to rate the attractiveness and usefulness of two cars. Notably we did not find any differences between experimental groups on ratings of the cars (all t's < 1.4).

On the critical personality impression questionnaire, participants were presented with a brief description of Person A. Specifically, they were told that "Person A is intelligent, skillful, and industrious. Person A is also determined, practical, and

cautious." Participants then rated Person A on ten personality traits using 7-point bipolar scales anchored by a trait and its opposite. Five of these scales were related to the warm-cold distinction: *generous/ungenerous*, *happy/unhappy*, *good-natured/irritable*, *sociable/anti-social*, and *caring/selfish*. The remaining scales were unrelated to the warm-cold distinction: *attractive/unattractive*, *carefree/serious*, *talkative/quiet*, *strong/weak*, and *honest/dishonest*. Both the description of Person A and the list of traits upon which participants rated Person A were derived from Asch's original work on personality impressions (1). Participants' ratings of the five traits related to the warm-cold dimension were averaged into a single index reflecting warmth judgments ($\alpha = .75$). The five irrelevant traits were also averaged into a single index, however as would be expected, this index lacked internal consistency ($\alpha = .38$).

Finally, participants were probed for awareness using the funneled debriefing technique. Specifically, participants were asked a series of questions designed to determine the extent to which they were aware of the expected effect of the coffee manipulation on their subsequent responses. No participant indicated awareness of the study's hypothesis, nor when pressed, spontaneously reported that the coffee manipulation might have been influenced their responses on the judgment questionnaire.

Study 2 Participants and Design

Fifty-three members of the New Haven community (26 female) participated in a 2 (therapeutic pad type: hot versus cold) by 2 (framing condition: Snapple beverage framed

for oneself/gift certificate framed for a friend vs. Snapple beverage framed for a friend/gift certificate framed for oneself) between-participants design.

Procedure and Materials

Participants were recruited in the field. As a cover story, participants were told that the experimenters were interested in examining people's consumer judgments. Participants were given a two-page product evaluation questionnaire, and this was the only contact they had with the experimenter before completing their responses. The first page of the questionnaire instructed participants to pick up from an array either a white or blue product. Thus, the experimenter was blind to the participants' experimental condition at the time of the participant-experimenter interaction. All of the products were Icy-Hot brand therapeutic pads. The white products were heat pads, and the blue products were cold pads. Thus, participants were exposed to warm or cold objects by briefly holding a therapeutic pad. Approximately half of the participants briefly held a hot pad, and the remaining participants held a cold pad. Next, participants evaluated the effectiveness of either the hot or cold pad on a scale ranging from (1) not at all to (7) extremely, indicated if they would recommend the product to their family, friends and/or strangers (in which affirmative responses were summed across the three categories), and estimated the internal temperature of the pad in degrees Fahrenheit. The first two questions were included to bolster the cover story, and the final question was intended as a manipulation check. Participants rated the cold pack ($M = 5.2$) as being significantly more effective than the hot pack ($M = 3.8$), $F(1, 48) = 3.29$, $p < 0.01$, but were not more likely to recommend the cold pack ($M = 1.9$) compared to the hot pack ($M = 1.4$), $F(1, 48) = 1.42$, *ns*. Additionally, participants estimated that the cold pack had a lower

internal temperature (M = 39.5) compared to the hot pack (M = 87.8), $F(1, 44) = 10.1$, $p < 0.001$. The last set of instructions on the product evaluation questionnaire told participants to replace the therapeutic pads, if they had not done so previously.

Next, on the critical choice questionnaire, participants were thanked for their participation and presented with two options for a reward, a Snapple beverage and a $1 gift certificate for a local ice cream parlor. For half of the participants, the Snapple option was framed as a personal reward for the participant: "*Refresh yourself with a Snapple! Made from the best stuff on earth! Quench your thirst with a refreshing drink!*" The gift certificate option was framed as an interpersonally warm reward for a friend: "*Treat a friend to Ashley's! Have a $1 gift certificate on us! Give someone the gift of the best ice cream in Connecticut!*" For the remaining participants, the Snapple option was framed as an interpersonally warm reward for a friend: "*Treat a friend to a Snapple! Made from the best stuff on earth! Give someone the gift of a refreshing drink!*" The gift certificate option was framed as a personal reward for the participant: "*Refresh yourself with Ashley's! Have a $1 gift certificate on us! Satisfy yourself with the best Ice Cream in Connecticut!*" These framing conditions were counterbalanced against the temperature priming conditions. Participants' choice on this measure constituted the dependent variable for this study. One participant failed to indicate a choice on this measure.

Finally, participants were probed for awareness using the funneled debriefing technique. Two participants indicated awareness of the study's hypothesis, reporting that the temperature of the therapeutic pad influenced their behavioral choice. These participants' data were excluded from the final analyses.

Supporting Text

At the conclusion of Study 1, we wanted to rule out the possibility that people simply feel more positively about hot coffee compared to iced coffee. As a manipulation check, we asked a separate group of 20 undergraduates to rate the extent to which they liked hot coffee, and another separate group of 21 undergraduates to rate the extent to which they liked iced coffee on a single item. Specifically, participants were asked between-subjects "how much do you enjoy hot [iced] coffee?" All responses were made on a 7-point scale, ranging from 1 (not at all) to 7 (extremely). If hot coffee is inherently more positive than iced coffee, then we would expect participants' ratings of the two types of coffee to differ. However, we did not observe a significant difference in the extent to which participants reported liking hot coffee (M = 3.62, SD = 2.31) compared to iced coffee (M = 3.60, SD = 2.56), $t(39) = -.025$, *ns*.