Reports

Transference occurs across group boundaries

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A B S T R A C T

Transference occurs when a perceiver's representation of a significant other is activated and applied to a new target person (Andersen & Chen, 2002). Extending past research, it was hypothesized that transference occurs even when a target person possesses a core feature—namely, group membership status—that is inapplicable to the relevant significant-other representation. Supporting this, transference led perceivers to make representation-consistent memory and evaluation judgments about a target—regardless of whether the target's political (experiment 1) or ethnic (experiment 2) group membership was the same or different from that of the relevant significant other. Moreover, in experiment 2, perceivers undergoing transference involving a positively evaluated significant other behaved more positively toward the target even when the target was from an ethnic out-group. The results represent initial evidence of transference processes occurring across group boundaries. Implications for transference and the reduction of out-group bias are discussed.

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Significant others (e.g., parents, friends, romantic partners) shape how we interact with new others through transference, the phenomenon whereby a perceiver's significant-other representation, stored in memory, is activated and applied to a new person (Andersen & Chen, 2002; Andersen & Glassman, 1996; Brumbaugh & Fraley, 2007; Kruglanski & Pierro, 2008). As a result, the perceiver comes to think, feel, and act toward the person as if he or she were the significant other. Research has shown that transference occurs when a target person bears some resemblance to a perceiver's significant other (e.g., Andersen & Cole, 1990). However, in everyday interactions it is not uncommon to meet someone who resembles a significant other, but who also possesses a feature, such as group membership status (e.g., ethnicity), that conflicts with a core feature of the significant other. Does transference occur in such cases? That is, does transference occur across group boundaries?

Applicability-based activation of significant-other representations

Most transference research has relied on applicability sources of accessibility (Higgins, 1996) to activate a significant-other representation—that is, activation arising from overlap between features of the significant other and features of the to-be-interpreted target person (Chen & Andersen, 1999; Chen, Andersen, & Hinkley, 1999). For example, a perceiver responds to a new person as if the person were his mother because both the person and his mother are outgoing and

play the piano. But sometimes a target's features conflict with core features of a perceiver's significant other. Would transference still occur in the presence of such core *in*applicability?

On the one hand, research on social category applicability suggests that the answer may be no. Specifically, research has shown that the activation of a trait construct, such as "dependent," influenced judgments of female but not male targets because the trait "dependent" was applicable to the social category of women but not men (Banaji, Hardin, & Rothman, 1993). In another example, trait construct activation colored evaluations of a target when the trait was applicable (e.g., reckless) but not inapplicable (e.g., clumsy) to the target (e.g., the target was characterized as daring) (Higgins, Rholes, & Jones, 1977).

Such findings suggest that social constructs will not be used in the presence of inapplicability. This evidence, however, was based on trait and stereotype constructs, not significant-other representations. We propose that, given the inferential power and emotional significance of significant-other representations, transference may occur even in the presence of core featural inapplicability.

The inferential power and emotional significance of significant-other representations

Research suggests that significant-other representations have greater inferential power relative to other social constructs (e.g., traits, stereotypes). Specifically, significant-other representations are especially high in associative richness; participants list more characteristics to describe these representations relative to other social constructs (Andersen & Cole, 1990). Also, core features of traits and stereotypes are rated as less characteristic of significant-other representations than trait and stereotype features are of significant others. Finally, participants are quicker to list significant-other characteristics than characteristics

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associated with trait and stereotype labels, suggesting the high accessibility of significant-other representations. Indeed, research indicates that significant-other representations are chronically accessible. For example, even when a target shared no featural resemblance to participants' significant other, participants made inferences about the target consistent with the relevant significant-other representation (Andersen, Glassman, Chen, & Cole, 1995). The high frequency of activation and use of significant-other representations makes sense given the emotional and motivational import of significant others; that is, people think about significant others frequently because their emotional and motivational outcomes hinge largely on these individuals (Andersen, Reznik, & Chen, 1997; see also Higgins & King, 1981; Kelly, 1955).

Overall, research suggests that significant-other representations provide considerable "raw cognitive material" (Andersen & Cole, 1990, p. 393) for making inferences about others. We propose this is true even when to-be-interpreted targets possess a core, inapplicable feature—namely, group membership status— that conflicts with that of the significant other.

Transference, group status, and reducing intergroup bias

Theoretically, any feature in a target person that contradicts a significant other's attributes could render the corresponding significant-other representation inapplicable to the target. We chose to examine group membership status as the inapplicable feature in transference contexts for several reasons. First, examining group membership status inapplicability has ecological validity, in that it is not uncommon for people to encounter others who bear some resemblance to a significant other, yet belong to a different group. Research showing that transference occurs in such contexts would broaden the scope of interactions potentially impacted by significant-other representations. Second, testing transference across group boundaries represents a relatively stringent test of our hypothesis. More specifically, group membership status often forms the basis for how people perceive and respond to new others (e.g., Banaji & Greenwald, 1995; Devine, 1989; Kawakami & Dovidio, 2001; Kunda & Spencer, 2003; Macrae & Bodenhausen, 2001; Tajfel & Turner, 1979; Wittenbrink, Judd, & Park, 2001). Moreover, inapplicability based on a target's group membership status is difficult to resolve or explain away given the "either/or" nature of group membership.

Finally, extensive evidence indicates that people tend to discriminate against out-group members (e.g., Paladino & Castelli, 2008; Pettigrew & Tropp, 2006; Tajfel & Turner, 1979) and do so automatically (e.g., Fein & Spencer, 1997; Hogg & Abrams, 1990). Focusing on group membership status as the source of inapplicability allowed us to determine if transference extends across group boundaries and, as such, may serve as a tool for reducing out-group bias. More specifically, given their emotional and motivational importance, significant-other representations are laden with affect, and this affect comes into play in transference. For example, participants evaluate targets who resemble a positively relative to negatively evaluated significant other more favorably, report greater motivation to get closer to such targets, and display more positive facial affect (Andersen & Baum, 1994; Andersen, Reznik, & Manzella, 1996). In response to these positive evaluations from perceivers, transference leads targets who resemble a positively evaluated significant other to behave more positively in reciprocation (Berk & Andersen, 2000). Given that transference elicits such representation-consistent affect, evaluation, and behavior, we propose that the activation of a representation of a positively evaluated significant other should lead perceivers to reduce the typical negative bias they show against out-group members.

Adult attachment research provides initial support for this hypothesis. Participants primed with words related to positive significant-other relationships (e.g., love), or who visualized loving and supportive people, evaluated out-group members more positively relative to control participants, presumably because the former group felt safe enough to be welcoming toward out-group members (Mikulincer & Shaver, 2001). Our work extends these findings by showing, as others have noted (Saribay & Andersen, 2007a), that another mechanism for reducing out-group bias is schema-triggered inferences and evaluations associated with positive significant-other representations.

In fact, one set of studies has begun to investigate the role of transference in reducing out-group bias (Saribay & Andersen, 2007b). A central hypothesis of this research, supported by two studies, was that perceivers transfer the ethnicity of a significant other, when the representation of this significant other is activated, onto newly encountered others. Given this hypothesis, the ethnicity of the target person was deliberately left unspecified in Saribay and Andersen's studies. A second hypothesis of this prior work was that the ethnic identity of perceivers is activated in transference, when this ethnicity matches that of the relevant significant other, leading perceivers to exhibit intergroup bias. Their results showed that transference leads perceivers to be less biased against out-group members but only under specific conditions—namely, when the relevant significant other has an ethnically diverse (vs. narrow) social network.

Our research extends this initial work on transference and intergroup bias by testing the unexamined hypothesis that transference can occur even when a target person comes from a different group than that of the activated significant other. Given our hypothesis, we deliberately specified the group membership of the resembling target person in our studies, rather than leaving it ambiguous as in Saribay and Andersen's studies. In addition, unlike in the prior research, we hypothesized that transference may occur across group boundaries regardless of the diversity of the relevant significant other's social network, a variable that we therefore did not focus on in our studies. Finally, as described below, we focused on circumstances where the perceiver's group membership matched that of the relevant significant other and thus did not examine differences as a function of whether or not the group identity of the perceiver was activated in transference.

In short, our work shares Saribay and Andersen (2007a,b) focus on the question of the role of significant-other representations in reducing intergroup bias, but extends this initial work by testing a distinct hypothesis, and thus measuring different variables and implementing different procedures. Finally, while Saribay and Andersen tested out-group bias using only self-report measures and focused only on ethnic group membership, in our experiments we included a behavioral measure of out-group bias and examined ethnicity as well as political group membership.

The present research

Two experiments tested the hypothesis that significant-other representations can be activated and used to make sense of targets who resemble a significant other, even if the targets possess an inapplicable core feature: group membership status. In short, we hypothesized that transference can occur across group boundaries.

Method

In an initial session, participants generated descriptors about a positively evaluated significant other who shares their political (experiment 1) or ethnic group (experiment 2) and then, in a second session, anticipated an interaction with a person who did (Own-SO) or did not (Yoked-SO) resemble their significant other, and who either belonged to the same (In-Group) or different (Out-Group) political/ ethnic group as themselves and their significant other. Thus, both experiments used a 2 (Own-SO/Yoked-SO) × 2 (group status) between-subjects design.

Participants

Participants were 52 undergraduates (38 women) at a large public university in experiment 1 and 72 (50 women) in experiment 2. Participants were given course credit for their participation in the initial, descriptive session, and either course credit or monetary compensation ($10) for the second session. They were run in groups of six or fewer in the first session and individually in the second. Participants were recruited if they identified as liberal ($n = 40$) or conservative ($n = 12$) in experiment 1 and as Asian American ($n = 51$) or European American ($n = 21$) in experiment 2.

Procedure

The procedures were based largely on those used in past research on transference (e.g., Andersen & Baum, 1994; Hinkley & Andersen, 1996).

Descriptive session

Participants were told that the study consisted of completing two questionnaires. In the first, they were asked to name a significant other whom "you have known for a long time, you like, is important to you, has had a significant impact on your life, and with whom you tend to behave differently toward compared to other people." These criteria were designed to steer participants toward identifying a positively evaluated and distinct significant other. Finally, participants were instructed to name a significant other who shares their political orientation (experiment 1)/ethnicity (experiment 2). Having participants nominate a significant other who shares their group membership status enabled us to assess whether transference reduces bias against targets who are out-group members in relation to participants and their significant others. Specific to experiment 1, participants provided information about their political affiliation and their significant other's affiliation using 9-point Likert scales ($1 = very$ *conservative*, $9 = very$ *liberal*). In experiment 2, participants provided information about their ethnicity and their significant other's ethnicity from among several choices. Only participants who fell on the same side of the political affiliation scale (experiment 1) or who shared the same ethnicity (experiment 2) as their significant other were eligible to participate in the second session of the experiment.

Next, participants indicated the first name of their significant other, as well as the length and type of relationship they shared with the person. They then rated their closeness to the person and how much they interact with the person ($1 = not at all$, $9 = very much$). Afterward, participants generated 7 positive and 7 negative descriptors to characterize their significant other. They were told to begin each descriptor with their significant other's first name, to limit each to 6 words, and to not refer to themselves or a third person (e.g., "Steve is full of energy"). In addition, they were directed not to include information about the political/ethnic group membership of their significant other (so as not to interfere with our group status manipulation, described below). Participants then rank-ordered the seven descriptors in each set in terms of their importance to describing the significant other. These rank orders allowed us to control for the importance of the descriptors used in the learning phase of the experimental session (see below). Participants were then given a list of 42 attributes and told to classify 10 as descriptive, 10 as counterdescriptive, and 12 as irrelevant (neither descriptive nor counterdescriptive) with respect to their significant other. This task provided a pool of attributes for use as filler items in the learning phase and recognition–memory test of the experimental session (see below).

Finally, participants were partially debriefed, and asked if they would participate in an unrelated study conducted by a honors thesis student. Most indicated being willing to be contacted by this student.

Experimental session: Learning phase

Participants returned individually for the experimental session several weeks after the descriptive session ($M = 3.21$ weeks). Upon participants' arrival, a different experimenter explained that the purpose of the study was to help the Psychology Department establish a mentoring program as part of an orientation for the psychology major. The experimenter instructed participants that they would be having a getting-acquainted interaction with another participant down the hall. Participants were informed that they would be given some information about their partner, prior to the interaction, so as to assess the "effects of one person having information about his or her partner prior to actually meeting him or her." Participants were told that their partner had been interviewed before the study and that the interviewer had written 11 descriptors about the partner on index cards. They were told to read each descriptor once. Finally, the experimenter noted that the interviewer was instructed to provide both positive and negative descriptors, so participants would see some of both.

Prior to the second session, participants were paired, with one participant in each pair randomly assigned to the Own-SO condition, and the other to the Yoked-SO condition. For Own-SO participants, some of the descriptors they generated in the initial session about their significant other were used to describe their upcoming partner; thus, the partner bore some resemblance to their own significant other. The yoked partners of Own-SO participants saw these exact same descriptors, which of course were not descriptive of their significant others. Such yoking controlled for the content of the descriptors presented in the Own-SO and Yoked-SO conditions, thereby enabling us to rule out the possibility that anyone's significant-other descriptors could elicit transference.

Of the 14 significant-other descriptors listed by Own-SO participants in the initial, descriptive session, 3 moderately descriptive positive and negative descriptors (ranked 4th, 5th, and 6th in descriptive importance) appeared on the index cards. Names of significant others were substituted with gender-matched pronouns (i.e., "He is full of energy" instead of "Steve is full of energy"). Use of both positive and negative descriptors allowed us to assess evaluation derived from the overall significant-other representation rather than from individual descriptors (see below). To help disguise the 6 significant-other-derived descriptors, three-word filler descriptors (e.g., "She is studious") were created using 4 attributes randomly selected from the 12 irrelevant attributes that Own-SO participants had nominated in the descriptive session. Finally, as our group status manipulation, one descriptor (presented 3rd in experiment 1 and 6th in experiment 2) provided information about the partner's political orientation/ethnicity (i.e., "S/He is liberal" or "S/He is Asian American"). Participants in the In-Group condition read a descriptor stating that their partner shared their and their significant other's political orientation/ethnicity. Participants in the Out-Group condition read a descriptor stating their partner was from the political/ethnic out-group. The 11 descriptors about the partner were presented in a fixed random order. After reading them, participants were asked to spend a few minutes imagining what it will be like to interact with their partner, while the experimenter left the room ostensibly to check on the partner.

Experimental session: Test phase

Upon returning, the experimenter told participants that they would now fill out several measures tapping their current impressions of their partner. Participants were assured that their partners would not see any of their responses. The first set of items assessed representation-consistent evaluation of the partner, one of two standard measures of transference (e.g., Andersen & Baum, 1994). Because the significant others examined in this study were all positively evaluated, evidence for transference on this evaluation measure would take the form of more positive evaluations of the upcoming partner among Own-SO relative to Yoked-SO participants,

regardless of the group status of the partner. The seven items tapped participants' overall evaluation of the partner (e.g., How much do you think you will like this person? In general, how positive is your impression of this person?). Participants responded to these items using 7-point Likert scales (1 = *not at all*, 7 = *very much*). Responses to these items were averaged (experiment 1, $\alpha = .78$; experiment 2, $\alpha = .84$) to create an overall evaluation score.

Afterward, participants worked on a 1-minute distracter task and then completed the other standard measure of transference, a 15-item recognition-memory test designed to assess the extent that participants "go beyond the information given" (Bruner, 1957), using their significant-other representation to make inferences about their upcoming partner. Participants were asked to indicate how confident they were that each item had been presented earlier in the learning phase about their partner (1 = *confident, was not presented*; 6 = *confident, was presented*). Of the 15 test items, 8 were the descriptors that Own-SO participants had generated in the descriptive session about their significant other, but that did not appear in the learning phase about the partner. Three items were randomly selected from the set of four irrelevant descriptors that appeared in the learning phase. The final four items were created from four randomly selected irrelevant attributes from the remaining pool of irrelevant attributes. Our focus was on participants' recognition-memory confidence ratings for the eight items that described Own-SO participants' significant other, but that did not appear in the learning phase. Higher confidence ratings for these items reflect making inferences about the partner based on an activated significant-other representation, which we expected to be more likely among Own-SO relative to Yoked-SO participants, regardless of the group status of the partner.

In experiment 2, participants completed a behavioral measure of affiliation following the recognition-memory measure. Specifically, participants were brought into a separate room where their partner was allegedly going to meet them. Participants were instructed to take a chair waiting outside the room and place it directly across from the chair of the partner and then take a seat. The distance between the chairs was used to assess behavioral affiliation (Burgoon, Buller, Hale, & DeTurck, 1984; Burgoon et al., 2002).

Next, participants were informed that they were in a control condition, which meant that they would not meet their partners after all. They then completed a manipulation check asking them to recall the political/ethnic group membership of their partner from among several choices. Afterward, experiment 2 participants completed measures related to their ethnic group membership, including Luhtanen and Crocker's (1992) Collective Self-Esteem (CSE) scale. Finally, participants responded to two open-ended suspicion probes ("Did you find anything strange or unusual in any of the tasks you completed?" and "What ideas or hypotheses do you think the researchers are trying to study?"). They were then debriefed, thanked, and excused.

Experiment 1: Results and discussion

In experiment 1, six participants were excluded because they or their partner expressed suspicion. Excluding partners of suspicious participants allowed us to maintain perfect yoking (e.g., Andersen & Baum, 1994). The results below were based on the remaining 46 participants. In addition, 100% of participants correctly identified the political group of their partner, confirming that our group membership status manipulation was successful.

Measures of transference

Our main hypothesis was that transference occurs across group boundaries. Thus, we expected to find greater representation-consistent evaluation and inferences in the Own-SO relative to Yoked-SO condition —both regardless of the group membership status of the partner.

Representation-consistent inferences

We analyzed recognition-memory confidence ratings for the 8 critical test items in a 2 (Own-SO/Yoked-SO) × 2 (group status) ANOVA. As expected, an Own-SO/Yoked-SO main effect emerged, with Own-SO participants ($M = 2.04$) making more representation-consistent inferences than Yoked-SO participants ($M = 1.58$), $F(1,42) = 5.81$, $p < .05$, $\eta^2 = .12$. No other effects were significant.

Representation-consistent evaluation

We assessed representation-consistent evaluation by subjecting the 7-item evaluation measure to the same 2 (Own-SO/Yoked-SO) × 2 (group status) ANOVA. The predicted Own-SO/Yoked-SO main effect emerged for the evaluation measure with Own-SO participants ($M = 4.67$) evaluating their partner more positively than Yoked-SO participants ($M = 4.18$), $F(1,42) = 5.26$, $p < .05$, $\eta^2 = .09$. A group status main effect also emerged, with participants evaluating in-group members ($M = 4.73$) more favorably than out-group members ($M = 4.12$), $F(1, 43) = 8.20$, $p < .01$, $\eta^2 = .15$. This effect fits a large literature showing that people discriminate in favor of in-groups over out-groups. Importantly, the interaction between Own-SO/Yoked-SO and group status was not significant ($F < 1$), indicating that the evaluation effect of transference emerged regardless of the partner's political affiliation.

In sum, the results of experiment 1 clearly show that, regardless of the in-group or out-group status of the political group membership of their anticipated interaction partner, participants with an activated significant-other representation evaluated this partner more positively and made inferences about the partner, in line with their activated significant-other representation. The results of this study provide initial evidence that transference can occur despite inapplicability of a core feature related to political group membership status.

Experiment 2: Results and discussion

Six participants were excluded from experiment 2 because they or their partner expressed suspicion. The results below were based on the remaining 66 participants. Parallel to experiment 1, 100% of participants correctly identified the ethnic group of their partner, confirming that our group membership status manipulation was successful.

Measures of transference

As in experiment 1, we expected to find greater representation-consistent inferences and evaluation in the Own-SO relative to Yoked-SO condition—both regardless of the group membership status of the partner.

Representation-consistent inferences

We analyzed recognition-memory confidence ratings for the eight critical test items in a 2 (Own-SO/Yoked-SO) × 2 (group status) ANOVA. In this analysis, an Own-SO/Yoked-SO main effect emerged, with Own-SO participants ($M = 2.19$) making more representation-consistent inferences than Yoked-SO participants ($M = 1.70$), $F(1,62) = 6.52$, $p < .05$, $\eta^2 = .09$ (see Fig. 1). A group status main effect also emerged such that participants perceiving out-group members ($M = 2.15$) made more representation-consistent inferences than participants perceiving in-group members ($M = 1.73$), $F(1,62) = 4.66$, $p < .05$, $\eta^2 = .06$. No other effects were significant.

This unexpected group status main effect may have been driven by a tendency for participants in the Out-Group condition to misremember their partner as possessing more negative qualities, in line with the widely documented negative bias against out-group members. This possibility was supported in analyses examining recognition-memory confidence ratings for the four positive and four negative critical memory test items separately. For the positive items, only the predicted Own-SO/Yoked-SO main effect emerged, $F(1,62) = 4.66$,
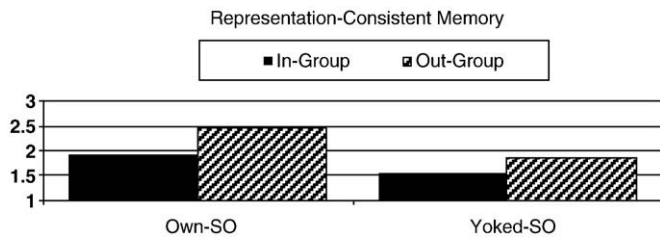
Fig. 1. Participant representation-consistent memory errors as a function of Own-SO/ Yoked-SO and group status (experiment 2).

$p<.05$, $\eta^2=.07$. However, for the negative items, in addition to the predicted Own-SO/Yoked-SO main effect, $F(1,62)=4.45$, $p<.05$, $\eta^2=.06$, a group status main effect emerged, with participants perceiving out-group members ($M=1.94$) making more negative inferences than those perceiving in-group members ($M=1.47$), $F(1,62)=4.92$, $p<.05$, $\eta^2=.07$. Despite this unexpected finding, the results indicate that, as predicted, Own-SO participants were more likely than their Yoked-SO counterparts to use their activated significant-other representation to make inferences about their partner—regardless of the partner's ethnic group status.

Representation-consistent evaluation

We assessed representation-consistent evaluation by subjecting the 7-item evaluation measure to the same 2 (Own-SO/Yoked-SO) $\times$ 2 (group status) ANOVA. In this analysis, the evaluation measure yielded no effects (p values$>.20$). We speculate that the absence of both Own-SO/Yoked-SO and group status main effects reflects recent declines in the expression of explicit forms of, specifically, ethnicity-based out-group bias due to social desirability concerns and political correctness (e.g., Dovidio & Gaertner, 1998; Saribay & Andersen, 2007b). Given the fairly explicit nature of our evaluation items, our participants may have been concerned about appearing biased in favor of their own and their significant other's ethnic group, leading to similarly high evaluation ratings across conditions. Consistent with this, the evaluation means were above the scale midpoint across conditions.

We attempted to get around the above issue by probing for condition differences in evaluation ratings as a function of participants' ethnicity-based collective self-esteem (CSE), given research suggesting that people who stake their self-esteem on positive evaluations of their ethnic in-group are more apt to exhibit overt out-group bias, relative to those lower in collective self-esteem (Luhtanen & Crocker, 1992). Participants rated the 16 CSE scale items (e.g., "Overall, my ethnic group is considered good by others") using 9-point Likert scales (1 = strongly disagree, 9 = strongly agree); their ratings were averaged across items ($\alpha=83$).

We then regressed our evaluation measure on our two factors (Own-SO/Yoked-SO and group status), on mean standardized CSE scores, and on all interaction terms. The analysis yielded a marginal CSE effect, $\beta=.23$, $t=1.89$, $p=.06$, and a group status $\times$ CSE interaction, $\beta=.30$, $t=2.58$, $p<.05$, both of which were qualified by a 3-way interaction, $\beta=.27$, $t=2.32$, $p<.05$, $\Delta R^2=.07$ (see Fig. 2). To decompose this interaction, we examined the group status $\times$ CSE interaction for Own-SO and Yoked-SO participants separately.

Among Yoked-SO participants, evaluations of ethnic in-group and out-group partners were consistent with previous research on collective self-esteem (i.e., those high in collective self-esteem made more negative evaluations of out-group members). Higher collective self-esteem predicted more positive evaluations of in-group partners, $\beta=.57$, $t=3.04$, $p<.05$, whereas the reverse relationship was found for out-group partners, $\beta=-.39$, $t=-2.06$, $p<.05$. These findings are conceptually similar to the group status main effect found for experiment 1's evaluation measure, such that when accounting for
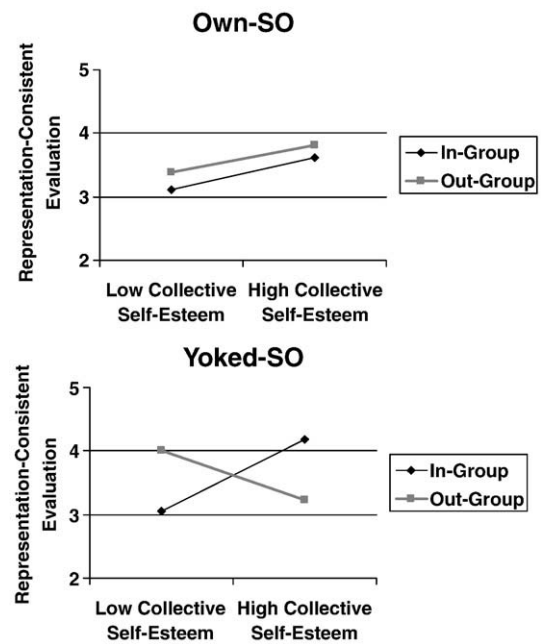

Fig. 2. Participant representation-consistent evaluation as a function of collective self-esteem, Own-SO/Yoked-SO, and group status (experiment 2).

collective self-esteem, in-group partners were evaluated more favorably than out-group partners.

Turning to Own-SO participants, both the slopes for ethnic in-group partners, $\beta=.25$, $t=1.27$, $p>.20$, and ethnic out-group partners, $\beta=.22$, $t=1.27$, $p>.20$, were not significant. The results of the omnibus three-way interaction confirm that the tendency for participants with high collective self-esteem to evaluate ethnic in-group partners more favorably and to disparage ethnic out-group partners was reduced when the representation of a positively evaluated significant other was activated. Overall, taking CSE into account revealed that the elicitation of transference among Own-SO participants reduced the typical in-group favoritism and negative out-group bias associated with higher collective self-esteem.

Behavioral affiliation

Up to this point, we have shown that transference occurs, in terms of both inferences and evaluations, across group boundaries. Next, we assessed the impact of transference on participants' behavior in the anticipated interaction with their partner. In part because of the explicit nature of our evaluation measure, we included a more implicit, as well as behavioral, evaluation measure in experiment 2. We expected that transference involving a positively evaluated significant other would lead to positive behaviors directed toward the partner—regardless of the partner's ethnic group status. To test this prediction, we subjected the distance participants placed their chair from the partner to the same Own-SO/Yoked-SO $\times$ group status ANOVA. As predicted, regardless of the partner's ethnic group status, Own-SO participants ($M=37.22$ inches) sat closer to their partner than Yoked-SO participants ($M=44.41$ inches), $F(1,60)=4.16$, $p<.05$, $\eta^2=.06$. No other effects were significant (see Fig. 3). Thus, activation of a representation of a positively evaluated significant other led participants to behave more positively toward their partner—even when the partner possessed an inapplicable, core feature—ethnic group membership status.

In sum, just as in experiment 1, experiment 2 confirmed that transference indeed occurs across group membership status boundaries. Participants with an activated significant-other representation made inferences about their interaction partner in line with the
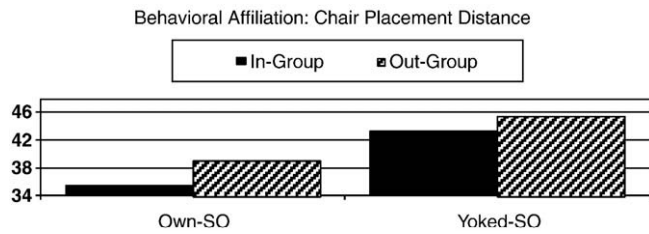
Fig. 3. Participant behavioral affiliation toward the interaction partner based on chair placement distance in inches as a function of Own-SO/Yoked-SO and group status (experiment 2).

activated significant-other representation, regardless of the interaction partner's ethnicity. Moreover, the tendency for participants with high collective self-esteem to show negative evaluations against ethnic out-group members was attenuated for participants with an activated positive significant-other representation. Finally, participants with an activated positive significant-other representation sat closer to their anticipated interaction partner, regardless of the partner's ethnicity, suggesting greater affiliation toward their partner.

General discussion

Across two experiments, we hypothesized that the inferential power and emotional significance of significant-other representations should allow these representations to be applied to resembling targets, despite core featural inapplicability. That is, regardless of the in-group or out-group status of a target's group membership status, when the representation of a positively evaluated significant other is activated, perceivers should make inferences about, evaluate, and behave toward the target as if he or she were the significant other.

Supporting this hypothesis, experiment 1 participants undergoing transference evaluated their partner in line with the positive evaluative tone of their activated significant-other representation. Experiment 2 participants with high collective self-esteem showed ethnic in-group favoritism and out-group derogation in their evaluations when the partner did not resemble their significant other, but this effect was eliminated in the transference condition. In addition, across both experiments participants undergoing transference made representation-consistent inferences about the target. Critically, these effects occurred even when the partner possessed a feature contradictory to a core feature of the relevant significant other—in the present cases, political or ethnic group membership.

Finally, experiment 2 extended past evaluation effects in transference to the behavioral realm. Specifically, participants undergoing transference sat, on average, nearly 7 inches closer to their anticipated partner relative to control participants, and this occurred regardless of the inapplicability of the ethnic group status of the partner.

Extensions of the broader literature

The present research extends the literatures on transference and out-group bias. Regarding transference, our finding that significant-other representations can be activated and applied even to targets with core features that conflict with the features of the relevant significant other (i.e., are a source of applicability for the relevant significant-other representation) suggests that transference may occur in a much broader range of interactions than previously thought, so long as some degree of target applicability to the significant-other representation is present.

Regarding out-group bias, our results provide initial evidence suggesting that transference may lead to reductions in out-group bias. Researchers have suggested that out-group bias can be reduced through recategorization processes; that is, out-group members are integrated into superordinate groups (e.g., categorized as "people" instead of "liberals") that include in-group members (e.g., Gaertner et

al., 2000). The current experiments relate to these recategorization processes, as out-group members were perceived as if they were in-group significant others and evaluated more positively, thereby reducing out-group bias. Future studies should further examine ways in which transference can be used to reduce out-group bias. For instance, perhaps explicitly thinking about how much an out-group member resembles, in some fashion, one's positively evaluated significant others can help improve one's relationship with individual out-group members and, over time, change perceptions of the out-group as a whole.

Caveats and future directions

Several caveats, and the future directions they suggest, should be noted. First, the current findings pertain to transference involving positively evaluated significant others. Research has shown, however, that transference also occurs with negatively toned significant-other representations, leading to negative evaluations of targets onto whom such representations are applied (e.g., Andersen & Baum, 1994). This suggests that out-group targets may actually be negatively impacted by resemblance to a negatively evaluated significant other. Future research is needed to address this possibility.

Second, the order in which our participants learned descriptors about their partner might have influenced our results. Drawing on procedures used in past research on inapplicability (Banaji et al., 1993), we presented some significant-other descriptors to participants before exposing them to the inapplicable, group membership status feature. However, the most stringent test of our hypothesis that transference occurs, despite inapplicable features, would involve presenting the inapplicable feature(s) before the presentation of any significant-other information. Another interesting and unanswered question to examine is how many inapplicable features an activated significant-other representation is able to withstand.

Third, we assessed ethnic and political group categories as absolute "either/or" constructs, as this is often the way in which lay people perceive group categories (i.e., a person is either a liberal or a conservative). At times, however, group membership status may be more fluid, a matter of degree, rather than a dichotomous construct. Future research should examine whether the present results would emerge, or how they would differ, among perceivers who view the group membership(s) associated with their significant others in this more fluid manner.

Fourth, in our studies, participants described a significant other who shared their same political orientation or ethnic background. Future research is needed to determine if the observed effects would also occur—as we would expect given the inferential power and emotional significance of significant-other representations—when perceivers and the significant other in question do not share the same group membership. Another interesting consideration for future research concerns the centrality of the group membership to perceivers' view of their significant other. More specifically, perhaps the likelihood of transference occurring across group boundaries is lessened among those individuals who perceive the relevant group membership to be a highly central feature of their relationship with their significant other.

Finally, it is unknown whether transference can minimize negative evaluations of out-groups in general, or if the transference effect only impacts responses to the one resembling target, as shown in the present experiments. That is, perhaps over time, by shaping inferences and evaluations of individual out-group members, transference can lead to changes in evaluations of group categories as a whole.

Overall, research on the role of transference in reducing out-group bias is still in its infancy. However, both prior research (Saribay & Andersen, 2007b) and the present findings suggest that future research examining how and under what circumstances an activated significant-other representation will impact intergroup perceptions is likely to be fruitful.

Acknowledgments

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