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The Effect of Facial Resemblance on Product Purchase: the Moderating Role of Mental Construal

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This research investigates how collective facial appearance of a team influences consumers' product purchase likelihood. Such effect is moderated by consumers' mental construal. These findings extend prior literature on consumers' face-based judgments of individuals to their perceptions of teams.

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EXTENDED ABSTRACT

The significance of human facial resemblance has emerged as an important driver of both psychology theories (Zebrowitz, Kikuchi, and Fellous 2010) and consumer research (e.g. Tanner and Maeng 2012), which include mate choice, kin selection, and social interaction (DeBruine 2004; Hinsz 1989; Kraus and Chen 2010; Platek et al. 2003, 2004). Although it is well established that people draw inferences about others based on the way they look (e.g. facial morphology), the current literature has mostly focused on perception of, and behavior towards, individual faces that resemble oneself or one's familiar others. There is a dearth of research that explores the inferences derived from the faces of groups (of individuals) presented together. In this paper, groups formed by pairs of individual faces were shown to resemble each other. In particular, we aim to address three research questions: does collective facial appearance of a group matter? Will facial resemblance among team members bias consumers' group-level perception and subsequent decision-making? Which type of consumers may be susceptible to face-based biases in judging groups?

Theoretical Development

Adding to the literature on face-based perception, this paper examines the impact of participants' drawing inference about group facial resemblance on participants' evaluation of the presented groups along with the product presented by the groups. This relationship depends on the perceivers' construal level and springs from inferences made based on a group's faces. As construal level theory illustrates, when perceiving several objects within a big picture, perceivers can either have a focus more intently on higher-order goals or on contextualized, lower-order details (Liberman, Trope, and Wakslak 2007; Trope and Liberman 2003). Similarly, based upon Schwarz and Bless's (1992, 2007) model of exclusion/inclusion as well as Förster and his coauthors (2008) global local model of social judgment (GLOMO), high-level construals in a global processing are more inclusive than in a local processing; such perceivers tend to group the stimulus objects in the same category. Hence, when a high-level construal is induced, participants process faces globally and have a tendency to make inferences about group traits based on faces of the presented group (Liberman, Trope, and Wakslak 2007; Trope and Liberman 2003). Accordingly, facial resemblance enhances consumers' perception of how group members work well with each other. Increasing group facial resemblance leads to greater mental inferences about perceived group entitativity (i.e. groupness, homogeneity, cohesiveness). Specifically, facial resemblance at a group level signals a higher level of intragroup similarity or entitativity, which is often associated with increased cooperative intent (Wang, He, and Liu 2016) or higher likelihood to work toward a common goal (Ip, Chiu, and Wan 2006). While there is adequate evidence showing that entitative groups benefit from positive team traits that lead to better team performance (e.g. Hollingshead 1998; Mulvey and Klein 1998), consumers then consistently transfer perceptual group entitativity, inferred from the evaluation of represented groups of faces, to the associated presented products (Beckwith and Lehmann 1975; Wirtz and Bateson 1995). On the contrary, when a low-level construal is activated, perceivers tend to conduct local processing and

focus on each individual face rather than a group of faces (Trope and Liberman 2003). In summary, we predict that (a) construal level moderates the effect of facial resemblance on product purchase likelihood, such that facial resemblance enhances purchase likelihood only among consumers with high-level construals; and (b) the interactive effect of facial resemblance and construal level is mediated by perceived group entitativity.

Methodology

The hypotheses were tested in a series of three experiments. To prepare for the experimental stimuli, we followed digital morphing to manipulate facial resemblance, also adopted by recent face research (e.g. Verosky and Todorov 2010). This technique digitally combines the facial photographs of two (or more) different individuals to produce a composite face that represents a weighted average of the features of all the input faces. By controlling how much each input face contributes to the morph output (anywhere from 0% to 100% of the total contribution) we are able to precisely (and objectively) vary the degree of facial resemblance among team members in this study's stimuli samples. In such case, two pairs of faces were created as experimental stimuli as either the low resemblance group (10% morphing) or the high resemblance group (30% morphing).

In experiments 1, evidence was provided indicating that subtle changes in facial resemblance among team members influence product purchase likelihood, depending on construal level. One hundred and seventy-three undergraduate participants were randomly assigned to either the low-resemblance condition or the high-resemblance condition. Participants were asked to report their intent in purchasing the product and complete the Behavior Identification Form measuring their chronic construal level (Vallacher and Wegner 1989). Among participants with high-level construals, the spotlight analysis revealed a significant and positive effect on purchase likelihood ($b_{abstract} = .68, t = 2.53, p = .01$). However, for participants with low-level construals, there is no significant effect of facial resemblance on purchase likelihood ($b_{concrete} = -.06, t = -.24, ns$).

The purpose of experiment 2 is to confirm the results using a different operationalization of construal level. In the high-level construal conditions the headline emphasized the end outcomes of participation. By contrast, in the low-level construal conditions, the headline pinpointed the means to achieve the end results. The study has a 2 (facial resemblance: high versus low) \times 2 (construal level: high versus low) between-subjects design. One hundred thirty-three participants from mTurk crowdsourcing services were recruited and asked to report product purchase likelihood. A two-way ANOVA conducted on purchase likelihood indicated a significant interaction effect ($F(1, 130) = 4.26, p < .05$). Planned contrasts analyses revealed that consumers at high-level construals tended to buy the product presented by the high-resemblance versus low-resemblance artists ($M_{low} = 2.30, M_{high} = 3.08; F(1, 130) = 4.97, p < .05$). Among consumers at low-level construals, there was no significant difference in purchase likelihood between the facial resemblance conditions ($F < 1$).

In experiment 3, we operationalized construal level as the desirability (high-construal) or feasibility (low-construal) of the product and replicated the findings. In addition, we tested the underlying mechanism of perceived group entitativity. Similarly, One hundred

and seventy participants were randomly assigned to one of the four experimental conditions. They then reported product purchase intent and perceived group entitativity. Consistently, a 2×2 ANOVA analysis on purchase likelihood was performed to show a significant interaction effect ($F(1, 166) = 4.17, p < .05$). Moreover, the mediated moderation model revealed a significant indirect effect through perceived group entitativity (95% confidence interval: .001, .380), which fully mediated the interactive effects of facial resemblance and construal level on purchase likelihood.

Discussion

This study contributes to the literature on facial resemblance and by and large to face-based inference research. While it is well established that how individuals appear to be (e.g., facial morphology) can affect how they are judged by others, little research concerns perception of groups (of individuals) purely based on facial cues. This research extends the scope of this line of research from individual-level perception to group-level perception in the context of facial resemblance. We demonstrate in three experiments that increasing facial resemblance only enhances product purchase likelihood for consumers at high-level construals. These findings are robust across different operationalizations on construal level (self-measured vs. message-framed vs. desirability/feasibility featured), contexts (fundraising event vs. shopping for furniture), and sample characteristics (undergraduate students vs. non-student sample from mTurk). In practice, marketers can improve purchase behavior by morphing facial features of a group of salespeople and altering the advertising message at an abstract high-level framing. Given the widespread usage of team photos or multi-face imageries in visual media, our findings provide managerial implications for a wide range of audiences, including firm advertising, employee team promotion, collaborative consumption, political campaign and academic collaboration.

REFERENCES

- Beckwith, Neil E., and Donald R. Lehmann (1975), "The Importance of Halo Effects in Multi-Attribute Attitude Models," *Journal of Marketing Research*, 12 (3), 265-75.
- DeBruine, Lisa M. (2004) "Resemblance to Self Increases the Appeal of Child Faces to Both Men and Women," *Evolution and Human Behavior*, 25 (3), 142-54.
- Förster, Jens, Nira Liberman, and Stefanie Kuschel (2008), "The Effect of Global versus Local Processing Styles on Assimilation versus Contrast in Social Judgment," *Journal of Personality and Social Psychology*, 94 (4), 579-99.
- Hollingshead, Andrea B. (1998), "Retrieval Processes in Transactive Memory Systems," *Journal of Personality and Social Psychology*, 74 (3), 659-71.
- Ip, Wai-man, Chi-yue Chiu, and Ching Wan (2006). Birds of a feather and birds flocking together: Physical versus behavioral cues may lead to trait versus goal-based group perception. *Journal of Personality and Social Psychology*, 90, 368-81.
- Kraus, Michael W., and Serena Chen (2010), "Facial-Feature Resemblance Elicits the Transference Effect," *Psychological Science*, 21 (4), 518-22.
- Liberman, Nira, Yaacov Trope, and Cheryl Wakslak (2007), "Construal Level Theory and Consumer Behavior," *Journal of Consumer Psychology*, 17 (2), 113-17.
- Mulvey, Paul W., and Howard J. Klein (1998), "The Impact of Perceived Loafing and Collective Efficacy on Group Goal Processes and Group Performance," *Organizational Behavior and Human Decision Processes*, 74 (1), 62-87.
- Platek, Steven M., Danielle M. Raines, Gordon G. Gallup Jr, Feroze B. Mohamed, Jaime W. Thomson, Thomas E. Myers, Ivan S. Panyavin, Sarah L. Levin, Jennifer A. Davis, Ludivine C. M. Fonteyn, and Danielle R. Arigo (2004), "Reactions to Children's Faces: Males are More Affected by Resemblance than Females are, and So are Their Brains," *Evolution and Human Behavior*, 25 (6), 394-405.
- Platek, Steven M., Samuel R. Critton, Rebecca L. Burch, David A. Frederick, Thomas E. Myers, and Gordon G. Gallup Jr. (2003), "How Much Paternal Resemblance is Enough? Sex Differences in Hypothetical Investment Decisions but Not in the Detection of Resemblance," *Evolution and Human Behavior*, 24 (2), 81-7.
- Schwarz, Norbert, and Herbert Bless (1992), "Scandals and the Public's Trust in Politicians: Assimilation and Contrast Effects," *Personality and Social Psychology Bulletin*, 18 (5), 574-79.
- Schwarz, Norbert, and Herbert Bless (2007), "Mental Construal Processes: The Inclusion/Exclusion Model," in *Assimilation and Contrast in Social Psychology*, ed. D. A. Stapel and J. Suls, Philadelphia, PA: Psychology Press, 119-41.
- Tanner, Robin J., and Ahreum Maeng (2012), "A Tiger and a President: Imperceptible Celebrity Facial Cues Influence Trust and Preference," *Journal of Consumer Research*, 39 (4), 769-83.
- Trope, Yaacov, and Nira Liberman (2003), "Temporal Construal," *Psychological Review*, 110 (3), 403-21.
- Vallacher, Robin R., and Daniel M. Wegner (1989), "Levels of Personal Agency: Individual Variation in Action Identification," *Journal of Personality and Social Psychology*, 57 (4), 660-71.
- Verosky, Sara C., and Alexander Todorov (2010), "Generalization of Affective Learning about Faces to Perceptually Similar Faces," *Psychological Science*, 21 (6), 779-85.
- Wang, Ze, Xin He, and Fan Liu (2016), "From Similitude to Success: The Effects of Facial Resemblance on Perceptions of Team Effectiveness," *Journal of Experimental Psychology: Applied*, 22 (1), 48-58.
- Wirtz, Jochen, and John EG Bateson (1995), "An Experimental Investigation of Halo Effects in Satisfaction Measures of Service Attributes," *International Journal of Service Industry Management*, 6 (3), 84-102.
- Zebrowitz, Leslie A., Masako Kikuchi, and Jean-Marc Fellous (2010), "Facial Resemblance to Emotions: Group Differences, Impression Effects, and Race Stereotypes," *Journal of Personality and Social Psychology*, 98 (2), 175-89.