FlashReport

When gift-giving produces dissonance: Effects of subliminal affiliation priming on choices for one's self versus close others

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ABSTRACT

Past research on cognitive dissonance indicated that people from independent (e.g. European-American) and interdependent (e.g. East-Asian) cultural backgrounds show different patterns of choice justification: whereas choice made for oneself affirms the independent view of the self, choice made for close others affirms the interdependent view of the self. We hypothesized that interpersonal choice considerations may be temporally accessible even among habitually independent European-Americans. The present research provides the first experimental evidence that choice justification varies as a function of both subliminal affiliation priming and the target of choice (self vs. close others). Results from three studies indicate that subliminal priming of affiliation increases justification of a choice European-Americans made for a close other, while decreasing justification of a choice made for the self. Implications for theories related to cognitive dissonance, subliminal processing and cultural meaning systems are discussed.

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Behavioral scientists have studied the psychological processes involved in decision-making and choice justification for over 50 years (Brehm, 2007). In his classic experiment, Brehm (1956) asked participants to choose between two similarly attractive items and found that participants increased their liking for the chosen item while decreasing their liking for the rejected item. Subsequent studies have suggested that such choices can threaten one's image of the self as competent and thus, evoke "cognitive dissonance". To reduce this dissonance, participants justify their choice by liking the chosen item more and the rejected item less (Aronson, 1968; Festinger, 1957; Steele & Liu, 1983; Steele, Spencer, & Lynch, 1993).

Despite cognitive dissonance being a staple in social psychology, it has recently been found to vary greatly across cultures (Heine & Lehman, 1997; Hoshino-Browne et al., 2005; Imada & Kitayama, 2010; Kitayama, Snibbe, Markus, & Suzuki, 2004). These variations have been explained by different degrees of an orientation towards interdependence and social harmony (Kitayama & Uchida, 2005) among people from East-Asian and Western cultural backgrounds (e.g. Heine & Norenzayan, 2006; Markus & Kitayama, 1991; Oishi & Diener, 2001; Triandis, 1989). In East-Asian cultures, there is a greater emphasis on maintaining harmonious social interactions and fitting-in (Morling & Evered, 2006).

As a consequence, worry about making a potentially inconsiderate choice may result in choice justification when making a decision for close-others. In contrast, in Western cultures, there is a greater emphasis on self-expression, autonomy and being unique. Thus, worry about making a choice that expresses one's own unique preferences may result in choice justification when making a decision for one's self (Kitayama et al., 2004). Consistent with this reasoning, Hoshino-Browne et al. (2005) found that European-Canadians justify choices they make for themselves, but not ones they make for their friends. In contrast, Asian-Canadians justify choices they make for their friends, but not ones they make for themselves. However, there is an important gap in this literature: it is possible that socioecological factors unrelated to social orientation (e.g. language, geography) have contributed to different choice justification patterns across cultures (Oishi & Graham, 2010). Indeed, experimental evidence linking different patterns of choice justification with psychological tendencies representing social orientation (e.g. affiliation; Markus & Kitayama, 1991) has been missing.

In order to address this limitation, we drew from social cognition research on conceptual and motivational priming (Bargh & Chartrand, 2000; Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel, 2001; Higgins, 1996; Srull & Wyer, 1979). By taking people from the same socio-ecological background and presenting them with subtle cues associated with an interdependent mind-set (e.g. Brewer & Gardner, 1996; Trafimow, Triandis, & Goto, 1991), one can examine its effects on choice justification experimentally. Indeed, evidence is growing that even though European-Americans are habitually more independent (or less interdependent), priming them with interdependent concepts explicitly, temporally promotes interdependent behaviors (for review, see Oyserman & Lee, 2008).

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Building on this work, we examined how choice justification is moderated by both an interdependent social orientation and the target of choice (self vs. close others). To activate an interdependent social orientation, we used a subliminal procedure for priming affiliation. Bargh and colleagues have demonstrated that when European-Americans are subliminally exposed to words linked to affiliation and interdependence (vs. neutral words), they subsequently mimicked interaction partners more (Lakin & Chartrand, 2003) and were more cooperative (Bargh et al., 2001; see Chartrand, Maddux, & Lakin, 2005, for review). This procedure is not only powerful but it also reduces possible demand effects (Bargh & Chartrand, 2000).

Here, we report three studies. In Study 1, we subliminally primed European-Americans with affiliation (vs. neutral) words to examine whether this would decrease choice justification after making a choice for oneself. In Study 2, we sought to replicate the results from Study 1 using different choice-items while examining whether European-Americans primed with affiliation would display more choice justification when spontaneously making a choice for themselves (vs. a close-other). Finally, in Study 3 we examined priming effects for participants who were explicitly instructed to make a choice for a close-other and not for themselves.

Study 1

In Study 1, we examined our prediction that subliminally priming European-Americans with affiliation (vs. neutral) cues would result in less choice justification when making a choice for themselves.

Method

Participants

46 European-Americans (14 males, 32 females; $M_{age} = 19.68$, $SD_{age} = 1.35$) at the University of Michigan, Ann Arbor were recruited to participate in a "music survey" in exchange for $8.

Procedure and stimuli

Upon arrival for the alleged "music survey," participants were unexpectedly asked to participate in another unrelated study on "visual acuity" for an additional $2. All participants agreed to do so. Following the procedure used by Lakin and Chartrand (2003), participants were instructed to quickly and accurately respond to brief flashes on different sides of a 15 min screen using keys labeled "left"/"right". After six practice trials, participants were randomly assigned to the: a) Affiliation-prime or b) Neutral-prime condition. In the affiliation condition, participants were cued with the words *affiliate, friend, partner, together*. In total, 80 trials were presented, with the four words each appearing 20 times in a random order. In the neutral condition, participants were cued with the words *neutral* and *background* 40 times in a random order over 80 trials. The words were presented for 62 ms, followed by "XQFBZRMQWGBX" for another 62 ms.

Next, participants completed the standard free-choice dissonance paradigm (Brehm, 1956; Steele et al., 1993) which was disguised as a music marketing survey sponsored by a CD company. Our procedure was closely modeled after previous studies by Kitayama et al. (2004). First, participants viewed a binder of 30 popular CDs that had been pre-tested to reflect college students' preferences and selected 10 that they would like to have but did not already own. They then ranked them by preference. Next, during an alleged music survey, the experimenter interrupted participants to say that the company was offering them free CD but that there were only two left in stock, from which they could pick one to keep. In each case, the two CDs were the ones that participants had rank-ordered as their fifth and sixth favorites. After additional filler tasks, participants were told that the company was interested in music preferences when customers leave a store and thus, when CDs are no longer visually present. Participants ranked the 10 CDs again according to their preferences at that very moment.

Finally, they completed demographics and were probed for general suspicion as well as awareness of the primes using the recommended funnel interview procedure (Bargh & Chartrand, 2000). Using this method, participants only mentioned random letters or non-English words and not the actual primes. According to Bargh and colleagues, this suggests that the primes were indeed subliminal (Bargh & Chartrand, 2000; Chartrand & Bargh, 1996).

Results

In line with previous work (Hoshino-Browne et al., 2005; Steele et al., 1993), we defined degree of choice justification or the "spread of alternatives" (SA) for each participant in terms of the increase in liking of chosen CD plus the decrease in liking of rejected CD. Consistent with other researchers, ranking was used as the measure of liking (e.g. Kitayama et al., 2004; Lee & Schwarz, 2010).

Consistent with our predictions and with previous research, participants in the *neutral* condition showed a choice justification effect significantly greater than zero ($M = 1.78$, $SD = 2.10$, $t(26) = 4.40$, $p < .001$). Importantly, this was not the case in the *affiliation* condition ($M = .42$, $SD = 1.98$, $t(18) < 1$, *ns*). The results of an ANOVA indicated a significant difference between the two conditions, $F(1,44) = 4.87$, $p = .03$, $\eta_p^2 = .1$. We found no gender effects ($Fs < 1$, *ns*).

Study 2

The aim of Study 2 was to conceptually replicate the findings in Study 1 using different choice-items. Further, we examined the effects of affiliation priming when participants spontaneously made a choice for themselves versus for close-others. This quasi-experimental method was used in order to observe naturally occurring choice behaviors. We predicted less choice justification in the affiliation (vs. neutral) condition for those who made a choice for the self and more choice justification in the affiliation (vs. neutral) condition for those who made a choice for a close-other.

Method

Participants

79 European-American undergraduates (33 males, 46 females; $M_{age} = 19.72$, $SD_{age} = 1.61$) at the University of Michigan were recruited to participate in a "toy and game survey" in exchange for $8.

Procedure and materials

We used a conceptually similar procedure to Study 1 with two modifications. First, we adopted toys as choice-items (see Fig. 1 for examples) to increase the likelihood of spontaneous choice for friends since toys are often purchased as gifts. Second, we determined if participants had spontaneously made the choice for themselves or for significant others by having them indicate if they planned to give the toy as a gift to someone else.

Results

One third of the participants chose the toy for themselves ($n = 28$) and the other two-thirds chose it for a close-other ($n = 51$). Thus, our attempt to increase the likelihood of choice for friend by adopting toys as choice options was successful. Preliminary analyses indicated no gender effect ($F < 1$, *ns*) or gender-related interactions ($Fs < 2$, *ns*).

A 2 (affiliation vs. neutral) × 2 (self-choice vs. other-choice) ANOVA with SA as the dependent variable showed a significant interaction between condition and type of choice, $F(1,75) = 5.33$, $p = .02$, $\eta_p^2 = .07$. Consistent with Study 1, participants who reported making a self-choice showed greater choice justification in the *neutral* ($M = 3.75$, $SD = 2.37$) versus *affiliation* condition ($M = 1.93$, $SD = 2.20$, $F(1,26) = 4.33$, $p < .05$, $\eta_p^2 = .14$). However, other-choice participants showed a

Fig. 1. Example toys for Study 2.

reversed trend, with more SA in the *affiliation* condition ($M = 2.45$, $SD = 2.78$) than in the *neutral* condition ($M = 1.35$, $SD = 2.73$; $F(1,49) = 1.82$, *ns*). Further, and consistent with previous research (Hoshino-Browne et al., 2005), in the *neutral* condition self-choice participants showed substantially greater choice justification than other-choice participants ($Ms = 3.75$ vs. 1.35, $F(1,37) = 6.42$, $p = .02$, $\eta_p^2 = .15$). Although the trend was reversed in the *affiliation* condition, the effect was statistically trivial ($Ms = 1.93$ vs. 2.45, $F < 1$).

Because Study 2 was a quasi-experiment in which participants retrospectively reported whom they had made the choice for, there are ambiguities in the interpretation. Although participants might subsequently report that they had made the choice for their friend, they may have actually made the choice for themselves. This may explain, in part, why we failed to obtain strong evidence for the prediction that those making a choice for a close-others would show greater justification in the affiliation (vs. neural) condition. Study 3 was conducted to address this.

Study 3

In Study 3, we explicitly instructed participants to make a choice for a close-other. We predicted that European-Americans who made a choice for someone else would show greater choice justification in the affiliation (vs. neutral) condition.

Method

Participants

77 European-American undergraduates (35 males, 32 females; $M_{age} = 19.36$, $SD_{age} = 1.53$) at the University of Michigan participated in exchange for $8.

Procedure and materials

Participants were asked to make a choice for a close-other. Following previous research (Hoshino-Browne et al., 2005), participants chose a close-person (e.g. cousin, siblings) that they would want to give a toy to and then ranked the toys according to this person's assumed preferences. Participants were then told that the survey sponsor was providing one toy to give as a gift and that the chosen one would be mailed to their close-person.

Results

Consistent with the results from Study 2, participants in the *affiliation* condition ($M = 2.21$, $SD = 2.11$) showed a substantially greater justification effect than those in the *neutral* condition ($M = 1.15$, $SD = 2.27$) when explicitly choosing for a close-friend, $F(1,66) = 20.13$, $p < .05$,

$\eta_p^2 = .06$. We found no gender effects or gender-related interactions ($Fs < 1$, *ns*).

Discussion

In the present studies, we found support for our hypothesis that affiliation orientation influences choice justification. When European-Americans were primed with affiliation, they justified choices made for themselves less (Studies 1–2) than choices made for their friends (Studies 2–3). This pattern is analogous with that typically found among more interdependently-oriented East-Asians. By manipulating social orientation directly, we provide the first experimental evidence for what cultural psychologists have proposed but have not yet tested.

The present research provides a direct demonstration of how subtle social cues can moderate choice justification by showing that dissonance-related behaviors can be either increased or decreased among European-Americans depending on the target of the choice (e.g. self or other). Further, it contributes to a recent debate on the 'reality' of cognitive dissonance in the free-choice paradigm. Some researchers have suggested that dissonance may be based on methodological artifacts such as non-random selection of chosen vs. rejected items and cultural differences in preferences for consistency (Chen & Risen, 2010). However, this argument cannot explain why affiliation versus neutral priming increased close-other related choice rationalization among European-Americans. Instead, our findings suggest that important psychological mechanisms are in fact at play.

We have hypothesized that when making a choice for the self, people justify it in order to reduce concerns about their own competence. Our results suggest that priming an interdependent social orientation reduces the salience of this concern. Indeed, previous research suggests that in individualistic cultures, greater interdependence is negatively related to pursuit of self-centered rewards (Kitayama & Park, 2012) and that reminders of values beyond one's immediate self (e.g. social life) allows one to transcend egocentric concerns (Crocker, Niiya, & Mischkowski, 2008). Future work should examine in further detail why interdependent motivations produce these choice justification effects.

Our findings broaden the priming literature in two important ways. First, we found that subliminal cueing of interdependence via affiliation words leads not only to interdependent behaviors (e.g. mimicry, cooperation; Bargh et al., 2001; Lakin & Chartrand, 2003) but also to changes in such complex processes as those involved in choice justification. Second, we provide initial evidence that social orientation can be activated using a subtle subliminal procedure. Future work should explore whether subliminal priming of independence-related concepts (e.g. competition; Weyers, Mühlberger, Kund, Hess, & Pauli, 2009) would lead to comparable shifts in choice rationalization among East-Asians.

One important limitation of the present work is that, although the participants across our three studies were reasonably comparable, some of our studies involved different choice items while one made use of a quasi-experimental design. Therefore, future work would benefit from concurrent manipulation of both affiliation orientation and the recipient of choice (e.g. self and other). Further, the field is still uncertain about how subliminal affiliation priming works. For instance, it might be due to semantic concept accessibility or, instead, to direct changes in affiliation motivation (Custers, 2010; Higgins, 1996). Future work should address this question.

To conclude, we wish to emphasize that European-Americans are capable of behaviors reflecting interpersonal considerations. Thus, one could argue that the portrait of European-Americans as independent and self-centered is somewhat exaggerated. Nevertheless, it is striking that other-oriented behaviors became evident only when individuals were primed with affiliation. This suggests that, in independent cultural contexts, these behaviors may be seen as discretionary. We believe that this should be considered during social engineering efforts to improve the pro-sociality of public service professionals (e.g. doctors, educators).

Acknowledgments

References

Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds.), *Theories of cognitive consistency: A sourcebook*. Chicago: Rand McNally.

Bargh, J. A., & Chartrand, T. L. (2000). *The mind in the middle: A practical guide to priming and automaticity research.* New York: Cambridge University Press.

Bargh, J. A., Gollwitzer, P. M., Lee-Chai, A., Barndollar, K., & Trotschel, R. (2001). The automated will: Nonconscious activation and pursuit of behavioral goals. *Journal of Personality and Social Psychology*, *81*(6), 1014–1027.

Brehm, J. W. (1956). Post-decision changes in desirability of alternatives. *Journal of Abnormal and Social Psychology*, *52*(3), 384–389.

Brehm, J. W. (2007). A brief history of dissonance theory. *Social and Personality Psychology Compass*, *1*(1), 381–391.

Brewer, M. B., & Gardner, W. (1996). Who is the "we"? Levels of collective identity and self-representations. *Journal of Personality and Social Psychology*, *71*(1), 83–93.

Chartrand, T. L., & Bargh, J. A. (1996). Automatic activation of impression formation and memorization goals: Nonconscious goal priming reproduces effects of explicit task instructions. *Journal of Personality and Social Psychology*, *71*(3), 464–478.

Chartrand, T. L., Maddux, W., & Lakin, J. L. (2005). Beyond the perception-behavior link: The ubiquitous utility and motivational moderators of nonconscious mimicry. In R. Hassin, J. Uleman, & J. A. Bargh (Eds.), *Unintended thought 2: The new unconscious* (pp. 334–361). New York: Oxford University Press.

Chen, M. K., & Risen, J. L. (2010). How choice affects and reflects preferences: Revisiting the free-choice paradigm. *Journal of Personality and Social Psychology*, *99*(4), 573–594.

Crocker, J., Niiya, Y., & Mischkowski, D. (2008). Why does writing about important values reduce defensiveness? *Psychological Science*, *19*(7), 740–747.

Custers, R. (2010). The unconscious will: How the pursuit of goals operates outside of conscious awareness. *Science*, *329*(5987), 47–50.

Festinger, L. (1957). *A theory of cognitive dissonance.* Stanford: Stanford University Press.

Heine, S. J., & Lehman, D. R. (1997). Culture, dissonance, and self-affirmation. *Personality and Social Psychology Bulletin*, *23*(4), 389–400.

Heine, S. J., & Norenzayan, A. (2006). Toward a psychological science for a cultural species. *Perspectives on Psychological Science*, *1*(3), 251–269.

Higgins, E. T. (1996). Knowledge application: Accessibility, applicability, and salience. In E. T. Higgins, & A. R. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.

Hoshino-Browne, E., Zanna, A. S., Spencer, S. J., Zanna, M. P., Kitayama, S., & Lackenbauer, S. (2005). On the cultural guises of cognitive dissonance: The case of Easterners and Westerners. *Journal of Personality and Social Psychology*, *89*(3), 294–310.

Imada, T., & Kitayama, S. (2010). Social eyes and choice justification: Culture and dissonance revisited. *Social Cognition*, *28*(5), 589–608.

Kitayama, S., & Park, J. (2012). *Error related brain activity reveals self-centric motivation: Culture matters.* Unpublished manuscript, Ann Arbor.

Kitayama, S., Snibbe, A. C., Markus, H. R., & Suzuki, T. (2004). Is there any "free" choice? Self and dissonance in two cultures. *Psychological Science*, *15*(8), 527–533.

Kitayama, S., & Uchida, Y. (2005). Interdependent agency: An alternative system for action. In R. Sorrentino, D. Cohen, J. M. Ison, & M. P. Zanna (Eds.), *Culture and social behaviour: The Ontario symposium*, *Volume 10*. (pp. 165–198)Mahwah, NJ: Erlbaum.

Lakin, J. L., & Chartrand, T. L. (2003). Using nonconscious behavioral mimicry to create affiliation and rapport. *Psychological Science*, *14*(4), 334–339.

Lee, S. W. S., & Schwarz, N. (2010). Washing away postdecisional dissonance. *Science*, *328*(5979), 709.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*(2), 224–253.

Morling, B., & Evered, S. (2006). Secondary control reviewed and defined. *Psychological Bulletin*, *132*(2), 269–296.

Oishi, S., & Diener, E. (2001). Goals, culture, and subjective well-being. *Personality and Social Psychology Bulletin*, *27*(12), 1674–1682.

Oishi, S., & Graham, J. (2010). Social ecology: Lost and found in psychological science. *Perspectives on Psychological Science*, *5*(4), 356–377.

Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin*, *134*(2), 311–342.

Srull, T. K., & Wyer, R. S. (1979). The role of category accessibility in the interpretation of information about persons: Some determinants and implications. *Journal of Personality and Social Psychology*, *37*(10), 1660–1672.

Steele, C. M., & Liu, T. J. (1983). Dissonance processes as self-affirmation. *Journal of Personality and Social Psychology*, *45*(1), 5.

Steele, C. M., Spencer, S. J., & Lynch, M. (1993). Self-image resilience and dissonance: The role of affirmational resources. *Journal of Personality and Social Psychology*, *64*(6), 885–896.

Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology*, *60*(5), 649–655.

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, *96*(3), 269–289.

Weyers, P., Mühlberger, A., Kund, A., Hess, U., & Pauli, P. (2009). Modulation of facial reactions to avatar emotional faces by nonconscious competition priming. *Psychophysiology*, *46*(2), 328–335.