



Asian-Americans' Creative Styles in Asian and American Situations: Assimilative and Contrastive Responses as a Function of Bicultural Identity Integration

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ABSTRACT Bicultural individuals vary in the degree to which their two cultural identities are integrated. Among Asian-Americans, for instance, some experience their Asian and American sides as compatible whereas others experience them as conflicting. Past research on judgments finds this individual difference affects the way bicultural individuals respond to situations that cue their cultures. Asian-Americans with high bicultural identity integration (BII) assimilate to norms of the cued culture (e.g., they exhibit typically American judgments when in situations that cue American culture), whereas Asian-Americans with low BII do the opposite, contrasting against the cue (e.g., they exhibit typically Asian judgments when in American situations). We investigated whether this dynamic similarly affects creative performance, which differs cross-culturally in that novelty is encouraged more by American than East Asian norms. In two experiments, we found that cues to American (vs. Asian) culture increase the novelty of solutions in divergent thinking tasks for Asian-Americans with high BII (assimilative response) yet decrease it for Asian-Americans with low BII (contrastive response). We discuss theoretical implications for culture and creativity research and practical implications for firms seeking to foster creativity.

KEYWORDS bicultural identity, creativity, cultural norms

INTRODUCTION

With the globalization of business, managers increasingly live and work in more than one culture. How do bicultural individuals – such as Asian-American immigrants in the U.S. – draw on their dual legacies of cultural knowledge to construct cogent responses to the situations they encounter? For instance, having been exposed to two different traditions of creative problem solving – Western norms prizing the novelty/originality of solutions and East Asian norms placing more emphasis on their usefulness/social acceptability (Erez & Nouri, 2010) – can

Asian-Americans switch between these two behavioural styles depending on their situation? If so, what conditions trigger Asian-Americans' potential for more original novelty-oriented creativity and conversely, what conditions would trigger creativity with an emphasis on usefulness?

Psychology research on social judgments finds that bicultural individuals can exhibit the response tendencies associated with each of their cultures, and that these individuals automatically switch between the two response styles depending on situational cues, such as culturally associated languages or images (Hong, Morris, Chiu, & Benet-Martinez, 2000). However, not all bicultural individuals (henceforth called 'biculturals') shift in the same direction; some, like chameleons, conform to the norms of the cued culture, while others, like contrarians, shift in the opposite direction. Benet-Martinez, Leu, Lee, and Morris (2002) linked the direction of response to biculturals' identity structures, specifically the extent to which they represent their two identities (e.g., Asian and American) to be compatible as opposed to conflicting. Biculturals with integrated, compatible identities tend to respond assimilatively to cultural cues (e.g., they make more individualistic judgments than otherwise when in situations that prime American culture), whereas those with less integrated, conflicting identities respond contrastively (e.g., they make more collectivistic judgments than otherwise when in situations that prime American culture).

Organizational research finds that teams generate more novel solutions to problems when instructed to interact according to individualistic rather than collectivistic norms (e.g., Goncalo & Staw, 2006). This notion that divergent thinking is associated with individualism and Western culture has been a longstanding premise among organizational practitioners as well. Asian firms have tried to foster original thinking through Westernizing the workplace. Toyota, for example, sought increased creativity in the 1980s through replacing traditional Japanese titles with informal Western modes of address (Los Angeles Times, 1989). However, as Asian firms are increasingly populated by employees who identify with both Western and Eastern cultures, many of whom have not integrated or blended these two identities, Westernizing the workplace may produce more complex effects than it did in early eras. Given that low identity integration biculturals respond contrastively to cultural cues on judgment tasks (e.g., Benet-Martinez et al., 2002), it is important to investigate whether their creative performance responds contrastively as well. If so, then Westernizing the Asian workplace may have a counterproductive effect of diminishing original thinking and novel problem solving.

The present research examines whether bicultural identity integration (BII) moderates the effects of cultural cues on their novelty-oriented creativity. We also explore the psychological mechanism underlying assimilative vs. contrastive responses to cultural cues, that is, biculturals' tendency to act consistently vs. inconsistently with cultural norms, respectively.

CREATIVE STYLES IN EASTERN AND WESTERN CULTURES

While real-world creative problem solving requires that the solution be both novel and useful (Amabile, 1983), laboratory research on creativity predominantly focuses on the former criteria. It typically makes use of divergent thinking tasks; these require proposing novel ideas but not the next step of usefully implementing them. Given that usefulness is rarely assessed in laboratory tasks, organizational studies of *in situ* expert problem solving are needed to understand the full creative process of generating novel and useful ideas (see Hempel & Sue-Chan, 2010; Zhou & Su, 2010).

Cross-national comparisons of several kinds of divergent thinking tasks have found that Westerners outperform East Asians (Jellen & Urban, 1989; Ng, 2001; Niu & Sternberg, 2001; Rudowicz & Yue, 2000; cf. Chandrasekaran & Tellis, 2008; Leung, Au, & Leung, 2004; Rudowicz, Lok, & Kitto, 1995). These differences have been interpreted in terms of the prevailing social norms or ideals in the culture. In Western cultures, people are expected to be independent and differentiate themselves from others, whereas in East Asian cultures, people are expected to be interdependent and mesh with others (e.g., Aaker & Schmitt, 2001; Markus & Kitayama, 1991). With regard to creative problem solving, the Western normative mandate to differentiate oneself encourages unique, original ideas that distinguish one from others. In contrast, the East Asian normative mandate to mesh with others discourages highly novel ideas that threaten convention, consensus, and group harmony.

Consistent with this norm-based account for the country differences, priming individualism heightens divergent thinking whereas priming collectivism diminishes it (Goncalo & Staw, 2006; Wiekens & Stapel, 2008). Teams instructed to follow individualistic norms generated more unique solutions to problems than teams instructed to follow collectivistic norms (Goncalo & Staw, 2006). Wiekens and Stapel (2008) found that individuals primed with individualistic self-concepts (focusing on I, me, and my) generated unusual, divergent ideas, whereas individuals primed with collectivism (focusing on we, us, and ours) generated conventional, convergent ideas.

Biculturals and Identity Integration

Early cultural priming research found that biculturals respond assimilatively to cultural cues. For example, in self-description tasks, Asian-Americans mentioned more individual rights and fewer collective duties after American priming than after Asian priming (Hong, Ip, Chiu, Morris, & Menon, 2001). Yet, recent studies reveal that assimilation is not the only response to cultural cues.

Biculturals are individuals who identify strongly with two cultures – in the case of immigrants, the ethnic heritage and host country cultures (Berry, 1990). Bicul-

naturals also vary in the structure of their cultural identifications (Phinney & Devich-Navarro, 1997). BII (Benet-Martinez et al., 2002) refers to the degree to which an individual's two cultural identities are experienced as blended and harmonious (e.g., 'I am Asian-American') rather than separate and conflicting (e.g., 'I feel caught between two cultures'). This self-report measure corresponds with more objective measures involving the structure of biculturals' social networks (Mok, Morris, Benet-Martinez, & Karakitapoglu-Aygun, 2007).

Intriguing evidence suggests that BII may determine the direction that biculturals shift in response to cultural primes. For example, in studies of social judgment (Benet-Martinez et al., 2002), Asian-Americans with high BII made more dispositional attributions after American priming than after Asian priming, reflecting an assimilative response. Conversely, Asian-Americans with low BII made more situational attributions after American priming than after Asian priming, reflecting a contrastive response. Recent research has found that BII moderates the effects of cultural primes on self-perceived motives and personality traits. Asian-Americans with high BII judged themselves higher in uniqueness motivation and extraversion after American priming than after Asian priming (assimilative response), whereas those with low BII judged themselves lower in uniqueness motivation and extraversion after American priming than after Asian priming (contrastive response) (Mok & Morris, 2009). In sum, studies of several kinds of judgments (see also Benet-Martinez et al., 2002; Mok, Cheng, & Morris, 2010) suggest that whereas individuals with high BII are chameleons who match their behaviour to cultural cues, individuals with low BII are contrarians who defy cultural cues. An important question, taken up in the present research, is the extent to which this dynamic extends beyond private judgments and plays out in performance as well.

The Present Research

The drive to be unique may affect one's style of creative performance. We examined whether BII moderates the effects of cultural cues on generating novel or uncommon ideas, building on past research on self-judgments of uniqueness motivation (Mok & Morris, 2009). We primed Asian-Americans with either Asian or American cultural stimuli and then assessed their performance in divergent thinking tasks. We hypothesized that individuals with high BII would generate more novel ideas after American priming than after Asian priming (assimilative response), whereas individuals with low BII would generate fewer novel ideas after American priming than after Asian priming (contrastive response). Our focus is on how BII affects the novelty of ideas *across* cultural contexts as opposed to within a given cultural context.

What psychological mechanism may underlie contrastive responses to cultural cues? Priming research suggests that individuals respond contrastively to stimuli

that they perceive as dissimilar to themselves (Dijksterhuis et al., 1998). Drawing on this notion, Cheng, Lee, and Benet-Martinez (2006) argued that the cultural primes in past studies (Benet-Martinez et al., 2002) were perceived as self-dissimilar in terms of valence by low BIIs, thereby evoking contrastive responses. Relative to high-BII individuals, low-BII individuals tend to have more negative experiences related to their two cultural affiliations, such as discrimination (Benet-Martinez & Haritatos, 2005; Phinney & Devich-Navarro, 1997). Given that the cultural prime stimuli in past research were positively valenced images (e.g., the U.S Capitol building in the American prime condition, or the Summer Palace in the Asian prime condition, see Benet-Martinez et al., 2002), the primes may be perceived as self-discrepant by low BIIs. When individuals with low BII were instead primed with negatively valenced stimuli (e.g., the word 'boastful' in the American prime condition, or 'materialistic' in the Asian prime condition), they exhibited assimilative responses (Cheng, Lee, & Benet-Martinez, 2006). Hence, cultural cues that are inconsistent with the valence of one's cultural experiences (e.g., positively valenced primes for low BIIs) can trigger contrastive responses.

However, recent work suggests that the moderating effect of BII does not depend on the perceived valence of cultural primes. The priming stimuli of Mok and Morris (2009) were ordinary names without any salient valence (e.g., J. Harris in the American prime condition vs. J. Chang in the Asian prime condition); yet, low-BII individuals exhibited contrastive responses and high-BII individuals exhibited assimilative responses.

We contend that the critical mechanism to account for the different responses of high- and low-BII individuals is identity-related motivation rather than perceptions of primes as self-discrepant. Individuals with high BII experience their Asian and American sides as compatible and blended, so they can express their Asian side without letting go of their American side and vice versa. Conversely, for individuals with low BII, following a situational cue to express one cultural identity entails abandoning (at least temporarily) their other cultural identity. To defend against this experience of identity loss, low-BII individuals may develop a motivated habit of resisting situational cues to act Asian or act American. Efforts to avoid conforming to situational demands could result in shifts away from the norms of the cued culture – in short, contrast effects.

In support of this motivational account, we sought to further demonstrate that perceived self-discrepancy in valence is not necessary for the contrastive responses to cultural primes of low BIIs (cf. Cheng et al., 2006). We used moderate valence primes, the approach of Mok and Morris (2009), to elude this alternative account. We conducted two experiments to test whether BII moderates the effects of cultural cues on the generation of unique ideas in a work (Experiment 1) and also non-work (Experiment 2) context.

METHOD AND RESULTS

Experiment 1

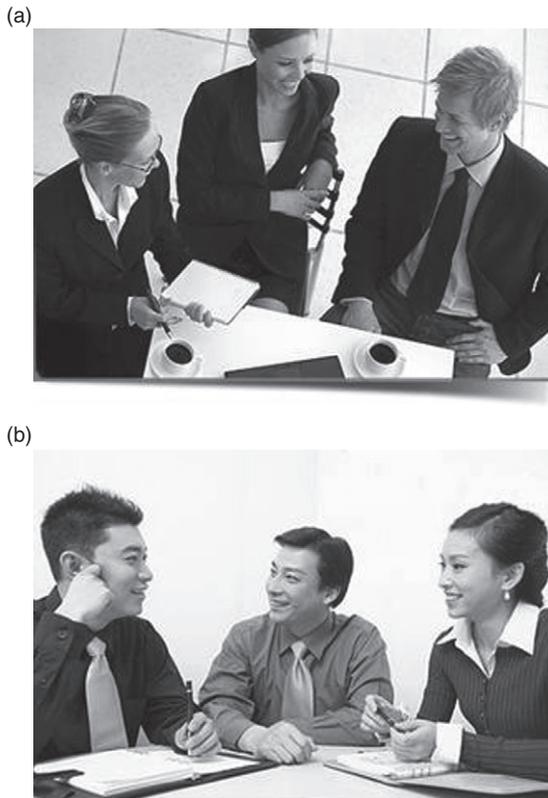
Sample. Sixty-four East Asian-Americans (27 first-generation, 33 second-generation, 4 unspecified; 29 males, 32 females, 3 unspecified; mean age = 25.20 years, $SD = 8.96$) participated in exchange for chocolates. Subjects were drawn from Columbia University ($n = 31$) and community centers in New York City ($n = 33$). The former sample comprised students who completed the study in a classroom and the latter sample comprised working individuals who completed the study at the community center. The average number of years they have lived in the U.S. collapsing across samples was 20.06 years ($SD = 10.38$). The level of identification with American and East Asian culture, rated on a scale of 1 (*very weak*) to 7 (*very strong*), was 5.16 ($SD = 1.20$) and 4.89 ($SD = 1.22$), respectively. Proficiency in English and an East Asian language, assessed on a scale of 1 (*very poor*) to 7 (*very fluent*), was 6.34 ($SD = 1.00$) and 4.47 ($SD = 1.68$), respectively. Statistical analysis found no effects of immigrant-generation or sex on the independent or dependent variables, so these factors are not discussed further. Because sample differences were found on our main dependent measure, our analysis controlled for the sample.

Materials and procedure. The instructions and task were presented on a paper survey. We adapted the creativity task from Rubin, Stoltzfus, and Wall (1991) and we embedded the cultural manipulation in the task. Participants were randomly assigned to the American or Asian priming condition. Participants were asked to imagine they were interviewing with a top marketing firm either in North America ($n = 33$) or in East Asia ($n = 31$), and they were exposed to a picture of the company (cultural) setting (see Fig. 1).

Participants read that part of the marketing firm interview involved an aptitude test, specifically, a test of their ability to create new names for products. They were asked to create a new product label within each of seven product categories (three of which were used in the original study by Rubin et al., 1991) and six examples were provided for each category (see Appendix I). A creativity score was formed by summing the number of labels generated that did not share word endings with any of the examples ($M = 4.13$, $SE = 1.61$). A higher score indicates better creative performance on the dimension of novelty – generating ideas that do not rely on existing ideas and examples in the environment.

Afterwards, participants rated themselves ‘at the present time’ on several dimensions. To assess whether task motivation differed by sample or cultural priming condition, participants rated themselves on the items ‘focused’, ‘critical’, and ‘analytic’ (Kray, Galinsky, & Wong, 2006) on a scale of 1 (*strongly disagree*) to 7 (*strongly disagree*); the items were averaged to form an index of *task motivation* ($\alpha = 0.74$). To explore whether demand characteristics were involved (e.g.,

Figure 1. Priming stimuli embedded within the creativity task (Experiment 1). (a) American cultural setting. (b) Asian cultural setting



participants were aware of cultural norms in creativity), participants rated themselves on the descriptors ‘unimaginative’ (reversed) and ‘creative’ on the same scale ($r(64) = -0.63$, $p < 0.001$) to measure *self-reported creativity*. To probe the relation of mood and creativity (Davis, 2009) and explore whether the cultural cues were perceived as self-discrepant in terms of valence, participants rated their current *mood* on a scale of 1 (*very bad*) to 7 (*very good*) (Forster, Friedman, & Liberman, 2004). Presumably, if low BIIs are reminded by the primes that their own cultural experiences have been negative, this will be associated with negative mood. To assess *bicultural identity integration* or *BII*, participants rated themselves on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*) in relation to a description of identity integration (BIIS-P; Benet-Martinez & Haritatos, 2005):

I am a bicultural who combines both American and Asian cultures and does not feel caught between these two cultures. I feel like an Asian-American (i.e., hyphenated), and do not feel like someone moving between the two cultures.

They also rated a reverse-direction vignette using the same 7-point scale:

I am a bicultural who keeps American and Asian cultures separate and feels conflicted about these two cultures. I am mostly just an Asian who lives in America (vs. an Asian-American), and I feel as someone who is caught between two cultures.

The two vignette measures have been used interchangeably in past research (Benet-Martinez & Haritatos, 2005; Benet-Martinez et al., 2002). These measures were correlated, $r(64) = -0.62$, $p < 0.001$, so we reversed ratings on the latter vignette and averaged them with the former vignette to form a BII score. Higher scores reflect more integrated cultural identities ($M = 5.07$, $SD = 1.24$, Median = 5.00). Lastly, participants provided demographic information on a survey.

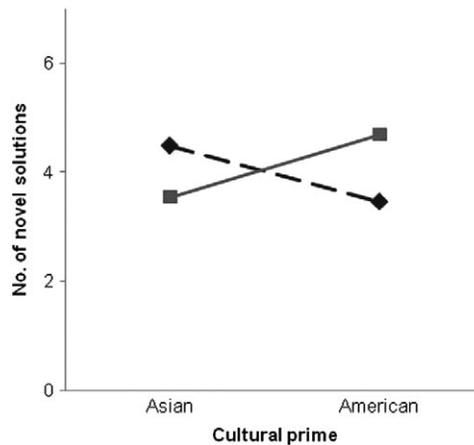
Results and Discussion of Experiment 1

Self-report. The task motivation index ($M = 4.90$, $SD = 1.07$) did not vary by sample, cultural priming, BII, or their interactions. Similarly, there were no effects of sample, cultural priming, or BII on self-reported creativity ($M = 4.16$, $SD = 1.37$), suggesting that participants did not feel experimenter demand to be less creative in the Asian cultural setting. Furthermore, mood ($M = 4.66$, $SD = 1.22$) did not vary by sample, cultural priming, BII, or their interactions, suggesting that low-BII participants did not perceive the primes to be self-discrepant in terms of valence. The creativity score was uncorrelated with task motivation, self-reported creativity, mood, or BII.

Creative performance. We submitted the novelty-oriented creative performance score to a 2 (sample: student vs. working) by 2 (cultural prime: Asian vs. American) by BII (continuous) between-subjects ANCOVA. There was a main effect of sample, $F(1, 59) = 8.45$, $p < 0.01$, $\eta^2 = 0.13$, suggesting that working (vs. student) participants generated more novel labels. A main effect of cultural prime emerged, $F(1, 59) = 4.43$, $p < 0.05$, $\eta^2 = 0.07$. This was qualified by a significant interaction with BII, $F(1, 59) = 4.61$, $p < 0.05$, $\eta^2 = 0.07$.^[1] To explore the interaction, subjects were classified as high and low on BII based on a median split (Benet-Martinez et al., 2002). As hypothesized, individuals with high BII ($n = 29$) performed better at generating novel solutions after American than after Asian priming ($M = 4.69$, $SE = 0.35$, vs. $M = 3.54$, $SE = 0.43$). In contrast, individuals with low BII ($n = 35$) performed worse after American than after Asian priming ($M = 3.46$, $SE = 0.37$ vs. $M = 4.49$, $SE = 0.33$).^[2] Figure 2 displays the interaction.

The results provide preliminary evidence that BII moderates the effects of cultural cues on performance in generating novel solutions. In a divergent thinking

Figure 2. Creativity performance in generating novel solutions across priming conditions for high and low bicultural identity integration (BII) participants (Experiment 1). (—◆—) Low BII, (—■—) High BII



task, cultural cues evoked assimilative responses for high-BII individuals and contrastive responses for low-BII individuals. We extend evidence for the interaction of cultural cues and BII on self-perceptions of uniqueness (Mok & Morris, 2009) to the behavioural performance of generating original ideas. Moreover, results lend support to the account based on identity-related motives rather than perceptions of prime valence as self-discrepant.

Yet, there are alternative explanations for the contrastive responses shown by low-BII individuals. First, it could be argued that a single-item measure of mood cannot fully capture the perceived valence of primes. In this respect, the perception account for the contrastive responses is not decisively ruled out.

Second, a skeptic might ask whether the priming stimuli featuring either Asian or Caucasian employees (Fig. 1) arouse participants' concerns about being manipulated. Research documents that awareness of a stimulus as a prime can trigger overcorrection for its influence, resulting in contrastive responses (Wheeler, DeMarree, & Petty, 2007; Wegener & Petty, 1997). Additionally, awareness of experimenter manipulation can trigger reactance (Lombardi, Higgins, & Bargh, 1987). Individuals with low BII may be more sensitive to the possibility that their cultural identity is being targeted as they tend to have personalities higher in neuroticism and vigilance (Benet-Martinez & Haritatos, 2005). This heightened sensitivity of low BIIs to the priming stimuli could explain their contrastive response to the priming stimulus in Experiment 1.

A third concern is that participants were asked to imagine themselves in an interview setting. One could argue that this task evoked evaluation apprehension. Individuals with low BII may have higher fear of negative evaluation in an American (vs. Asian) context as their acculturation experiences have been more negative

(Benet-Martinez & Haritatos, 2005). Evaluation apprehension could suppress performance and lead low BIIs to produce fewer novel ideas in the American context relative to the Asian context.

Experiment 2

We sought to replicate the findings in Experiment 1 and to rule out the above alternative accounts. First, the primes in Experiment 2 were pretested for valence using a multiple-item measure of mood. Second, we modified our procedure such that the primes were presented in a separate, ostensibly unrelated task, and the novelty of ideas was assessed after several filler tasks. Together, this greatly reduces the chance that participants could consciously identify the priming stimuli as an influence on the creativity task. This design provides a stronger test for non-conscious processes through which biculturals respond to cultural primes.

Third, to reduce evaluation apprehension and to explore the contrastive responses as a more private dynamic, the creativity task made no reference to a work setting. Also, the task did not provide salient examples; we sought to assess spontaneous idea generation. Participants were asked to generate examples of several categories (e.g., fruit, vehicle) (e.g., Ward, Patterson, Sifonis, Dodds, & Saunders, 2002; Wiekens & Stapel, 2008), and we assessed the novelty of the ideas. Our hypothesis is that individuals with high BII would generate more novel ideas after American than after Asian priming, whereas individuals with low BII would generate fewer novel ideas after American than after Asian priming.

Subjects. A total of 112 East Asian-Americans (47 first-generation, 65 second-generation; 47 males; mean age = 24.23 years, $SD = 6.88$) participated in exchange for \$5. Participants were drawn from Columbia University ($n = 61$) and online forums for New York City residents ($n = 51$). The former sample comprised students and the latter sample comprised working individuals. The average number of years lived in the U.S. was 17.97 years ($SD = 10.66$), collapsing across sample. Level of identification with American and East Asian culture was 5.21 ($SD = 1.29$) and 5.16 ($SD = 1.21$), respectively, and proficiency in English and an East Asian language was 6.60 ($SD = 0.84$) and 4.83 ($SD = 1.82$), respectively, rated along the same scales as that in Experiment 1. Immigrant-generation, sex, and sample did not affect the results below, so these variables are not discussed further.

Materials and procedure. Participants received a weblink with instructions to complete the study in one sitting and in a private and quiet location. The priming manipulation was embedded in a book cover evaluation task. Participants were randomly assigned to view four book covers from either American ($n = 54$) or East Asian culture ($n = 58$), and they listed two thoughts evoked by each cover (see Fig. 3).^[3]

Figure 3. Priming stimuli embedded within a book cover evaluation task (Experiment 2). (a) American cultural primes. (b) Asian cultural primes

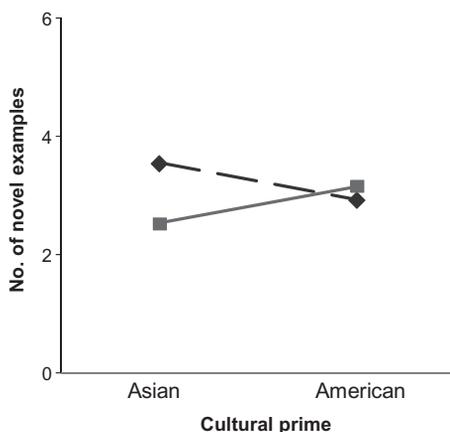


Next, subjects engaged in several unrelated filler tasks (e.g., judging the desirability of helping behaviours, forecasting stock trends) that took approximately 10 min. Then they received the creativity task. Participants were asked to name one example of the following categories: animal, fruit, outdoor activity, appliance, furniture, and vehicle. Participants' examples were coded as novel or '1' if they constituted less than 10 percent of all mentioned examples for each category; otherwise, they were coded as conventional or '0' (see Wiekens & Stapel, 2008; e.g., 'watermelon' is more novel than 'apple' as it constituted 5 percent vs. 36 percent of all responses for the fruit category). A *creativity* score was the sum of the number of novel examples for each participant ($M = 3.03$, $SD = 1.17$). Afterwards, subjects rated the two BII vignettes used in Experiment 1 along the same scale, $r(112) = -0.63$, $p < 0.001$, with higher scores reflecting higher *bicultural identity integration* or *BII* ($M = 5.07$, $SD = 1.42$). The creativity score was uncorrelated with BII, $p > 0.10$. Last, participants completed a demographic survey.

Results and Discussion of Experiment 2

A regression analysis was conducted on the novelty-oriented creativity score with the following predictors: cultural prime (Asian vs. American), BII (mean-centered), and the interaction between cultural prime and BII. The interaction term was significant ($\beta = 0.22$), $t(108) = 2.85$, $p < 0.01$. We decomposed the interaction at

Figure 4. Novelty scores across priming conditions for high and low bicultural identity integration (BII) participants (Experiment 2). (◆) Low BII, (■) High BII



one standard deviation above and below the mean (Aiken & West, 1991) to observe the simple effect of cultural priming for high- and low-BII participants. Supporting the hypothesis, individuals with high BII generated more novel examples after American than after Asian priming ($\beta = 0.31$, $t(108) = 2.05$, $p < 0.05$, implying assimilation to the cultural cue. Conversely, individuals with low BII generated fewer novel examples after American than after Asian priming ($\beta = -0.30$), $t(108) = -1.99$, $p < 0.05$, implying contrast to the cultural cue. Figure 4 shows the interaction.

In sum, the results of Experiment 2 using a different divergent thinking task and priming manipulation are consistent with the results of our first experiment, showing that BII moderates the effects of cultural cues on creative performance. The contrastive process did not involve self-discrepant primes (cf. Cheng et al., 2006). Moreover, our procedure of assessing creativity distanced from the priming task and in a relatively private context makes it very unlikely that priming awareness or evaluation apprehension played a role in the contrastive responses.

DISCUSSION

In two experiments, varying in creativity measures and priming methods, the effects of cultural primes on Asian-Americans' creative performance styles were moderated by BII. Asian-Americans with high BII generated more novel ideas after exposure to American than to Asian cues (assimilative response), whereas those with low BII generated fewer novel ideas after exposure to American than to Asian cues (contrastive response). This study provides empirical evidence that BII moderates the effects of cultural cues on creative performance, extending past findings with measures of judgments (Benet-Martinez et al., 2002; Mok & Morris, 2009) and decision making (Mok et al., 2010).

The findings imply that situational cues to culture elicit culturally congruent responses for biculturals with high identity integration whereas culturally incongruent responses for biculturals with low identity integration. We observed this whether the primes were embedded in (Experiment 1) or removed from (Experiment 2) the creativity task. Our findings are not consistent with alternative accounts for the contrastive responses of biculturals with low identity integration, such as priming awareness, evaluation apprehension, or self-discrepancy perceptions. Our results converge with research (Mok & Morris, 2009; Zou, Morris, & Benet-Martinez, 2008) suggesting that identity-related motives and not mere perceptual mechanisms account for the culturally contrastive responses.

Theoretical Implications

The present research provides a new look at the question of how priming cultural concepts influences creative performance. Prior research has emphasized main effects such as individualism fostering originality or novelty (e.g., Goncalo & Staw, 2006; Wiekens & Stapel, 2008). The present research, however, reveals that for biculturals, cultural primes can bolster or diminish the novelty of ideas depending on individuals' level of BII. The results imply that Western cultural cues are conducive for generating novel solutions among Asian-Americans with highly integrated, compatible identities, whereas Asian cultural cues evoke this response among those with less integrated, conflicting identities.

Why do cultural cues trigger different responses in biculturals? We propose that individuals with integrated bicultural identities can comfortably inhabit the role invited by the cultural cue without strain on their other cultural identity. In contrast, individuals who feel conflict between their two cultures cannot enact one identity without strain against their other identity, so they resist conforming to the invitation of cultural cues and overcompensate as a result. Resistance motives that are conscious at first are likely to become automatized and non-conscious over time. Further research is needed to test all the steps of this model of the process.

It is worth distinguishing the current findings from the emerging literature on second-culture experience as an antecedent of creativity gains. Studies find that performance on creativity tasks is associated with living in another culture (Leung, Maddux, Galinsky, & Chiu, 2008) and adapting to it (Maddux & Galinsky, 2009). Some studies find creativity gains only when two cultures are experienced simultaneously (Leung & Chiu, 2010) or when the problem to be solved involves both cultures (Cheng, Sanchez-Burks, & Lee, 2008). The evidence suggests that several mechanisms may be involved in gains from foreign exposure, including access to broad pools of idea, reduced conventionality of associations, and the like (see Chiu & Kwan, 2010; Leung & Morris, 2010). Whereas this other literature concerns the potential of bicultural experience to foster enduring gains in creative virtuosity, the current research concerns biculturals' creative versatility – their flexibility in shift-

ing between different cultural styles of creativity (Leung & Morris, 2010). Our research suggests that biculturals may be capable of different styles of creativity and the direction of their shift in response to cultural cues depends on their level of BII.

Practical Implications

Organizational success depends to a large extent on finding creative solutions. Across many industries, ranging from advertising to consulting to healthcare, clients and consumers are drawn to products that are designed and marketed in novel, original ways. As increasing numbers of employees are bicultural, particularly in Asia, understanding how to foster original thinking in biculturals is an important and practical matter.

It is also important, at times, for managers to know how to reign in employee's originality. Too much emphasis on novelty entails costs on other important dimensions. In Experiment 1, for example, novelty in pasta naming was operationalized as names with endings other than those in the examples (-*ti*, -*ni*, and -*na*). Some of the novel names for pasta that participants generated (e.g., *wongsta*) did not fit the spelling patterns of the Italian language. This corresponds to many product names in our supermarkets, where novelty often comes at the cost of orthographic propriety (e.g., Campbell's *SpaghettiOs*; Kraft's *Cheez Whiz*). Highly novel solutions that clash with extant patterns catch the consumer's eye; yet, they rarely succeed in connoting quality or seriousness. While the Asian emphasis on the usefulness/social acceptability of solutions inhibits wildly original ideas that break patterns, it may focus problem solving on ideas that are interesting variations within existing patterns, which are preferable on many dimensions.

The present research suggests that the practice in Asian firms of using Western symbols to prime individualism and original thinking can backfire. For bicultural employees who have Western and Eastern identities that are not well integrated, Western symbols will induce contrastive responses, which in the context of creativity means inhibited novelty. It still may be possible for Asian firms to prime the concept of individualism as a means of spurring a novelty orientation; however, they should find ways to prime individualism that do not cue Western culture at the same time. This could be done, for example, through exercises that bring out employees' independent self-concept or through sharing stories of individuals from non-Western cultures who succeeded in their endeavours through self-reliance.

While culturally contrarian behaviour by individuals with low BII may be unhelpful in roles like sales that require meshing with audience expectations, it can be helpful for other organizational functions. In group decision making, low-BII individuals are more able to resist incorrect solutions that are advanced by the majority of the others in a cultural ingroup – hence low BIIs protect firms against the groupthink that can arise in culturally similar teams (Mok & Morris, 2010). Likewise, contrarian responses to cultural norms may be advantageous in the

process of creative problem solving. For example, Asian-American managers with low BII could propose more novel solutions in Asian workplaces, perhaps stimulating employees to behave inconsistent with collectivist conventionality. On the other hand, in Western workplaces, Asian-American managers with low BII may help temper excessive novelty in teams by raising concerns about the usefulness/acceptability of solutions.

While these tendencies to go against the flow may be valuable for the organization, this is not to say that they will be appreciated at the moment; deviants from cultural norms are socially sanctioned (Earley & Ang, 2003; Francis, 1991). Biculturals with low identity integration may be judged as unoriginal or conventional in Western work settings, whereas in Asian work settings they may be judged as too novel or impractical. An important challenge for managers is to recognize the value that contrarians bring and counter this informal social sanctioning.

One way managers can reduce culturally contrarian responses when they are unhelpful is by creating a workplace climate that fosters identity integration. Making positive experiences with culture accessible can temporally increase identity integration (Cheng & Lee, 2009), as can inducing positive emotions or inducing mindsets of similarity – rather than difference – focus (Mok & Morris, forthcoming). Hence, managers have levers with which to influence the level of BII in their employees.

Limitations and Future Research Directions

The present research documents an interaction of cultural priming and BII on creating novel ideas. A limitation of this research is that we explore the interaction effect on a single metric of creativity, the originality of ideas. Other metrics related to novelty are fluency (number of ideas generated per category) and flexibility (different categories of responses). The usefulness dimension is tapped by metrics such as elaboration (detail in idea generation) and practicality (Amabile, 1983). As individualistic (vs. collectivistic) primes encourage exploratory thinking (e.g., Wickens & Stapel, 2008), Western cultural norms may encourage fluency and flexibility as well, although high pressures for originality may hinder fluency. Asian cultural norms may encourage elaboration and usefulness. For example, creativity studies find that under some conditions, idea elaboration (Nouri, Erez, Rockstuhl, & Ang, 2008) and appropriateness (Bechtoldt, De Dreu, Nijstad, & Choi, 2010; Lubart, 1990, 1999) is higher for East Asian than Western participants. Future research should investigate whether levels of BII influence assimilation or contrast to cultural norms in these other creativity domains.

Another question for future research is whether biculturals' generation of unique solutions has implications for their decision making. Individuals who engage in divergent thinking may be less influenced by conventional heuristics and hence avoid anchoring biases (Strack & Mussweiler, 1997). Research could examine

whether biculturals with high identity integration are less likely to use base rate information (e.g., prior probability of an event) when in Western vs. Asian workplaces, whereas individuals with low identity integration exhibit the reverse.

The present research focused on biculturals who are immigrants and have a minority group status (Asians in the U.S.). It is important to explore whether the results and identity-related motives generalize to other bicultural populations. Friedman, Liu, Chi, Hong, and Sung (2008), for example, studied Westernized Taiwanese managers who studied or worked in the West before returning home to Taiwan and found that their level of BII moderates the effects of cultural cues on their reward allocation judgments. Whereas managers with high BII assimilated to cultural cues (e.g., they used an equity rule when in Western situations), managers with low BII contrasted against the cue (e.g., they used an equality rule when in Western situations). This suggests that the dynamic may occur for biculturals who have acquired their second culture through a temporary stay abroad rather than through immigration. Future research should examine the dynamics of identity integration in other populations of biculturals, such as those who have acquired their second culture through growing up in a longstanding multicultural society such as Hong Kong or in a society long-permeated by influence of Western cultures such as the Philippines.

CONCLUSION

More attention should be paid to the way that cultural norms shape styles of creative performance. Whereas the existing literature suggests that Western culture may encourage the generation of novel ideas more than Asian norms, the current research deepens this knowledge by considering how the structure of bicultural individuals' dual identification affects their responses to cultural cues. For bicultural individuals, assimilative or contrastive responses to cultural cues hinge on the integration or conflict in their cultural identities. The psychology of bicultural individuals provides a healthy challenge to simplistic theories of cultural influence on behaviour and it is an increasingly important practicality in a business world populated by employees who identify with multiple cultures.

NOTES

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- [1] The cultural prime \times BII interaction was also significant using the products in Rubin et al.'s (1991) study, $F(1, 59) = 5.13$, $p < 0.05$, $\eta^2 = 0.09$.
- [2] Another way to analyse the data is a regression analysis (similar to the one presented in Experiment 2). The cultural prime \times BII interaction was significant ($\beta = 0.64$), $t(59) = 2.15$, $p < 0.05$. An analysis to observe the simple effect of cultural priming for high- and low-BII participants (at plus or minus one standard deviation from the mean) fell short of reaching significance. We therefore classified participants as high and low on BII using a median split. The

pairwise contrast comparing the cultural conditions was significant for high- and low-BII participants, both $p < 0.05$.

- [3] A pre-test was conducted to assess the valence of primes. A separate sample of 99 Asian-American students completed the priming task and then rated their current mood on the 20-item Positive Affect Negative Affect Scale (Watson, Clark, & Tellegen, 1988) on a scale of 1 (*not at all*) to 5 (*extremely*). We found no effects of cultural priming or of BII on both mood measures, suggesting that the primes were not self-discrepant for low-BII participants.

APPENDIX I

Creativity Task (Experiment 1)

Please create a *new label* for each product category below:

1. nuclear element* (e.g., radon, plutonium, argon, carbon, radium, uranium) [on, ium]
2. pain reliever* (e.g., panadol, anacin, aspirin, bufferin, tylenol, midol) [ol, in]
3. beverage (e.g., gatorade, ribena, lemonade, orangina, accelerade, kool-aid) [ade, na, aid]
4. flower (e.g., liaris, daisy, amaryllis, pansy, lily, iris) [is, sy, ly]
5. font (e.g., helvetica, arial, verdana, tahoma, mangal, lucinda) [ca, al, na, ma, da]
6. cocktail (e.g., bellini, alexander, bacardi, martini, joker, daiquiri) [ni, er, da, ri]
7. pasta* (e.g., spaghetti, lasagna, fettuccini, rotini, pastina, rigatoni) [ti, na, ni]

Note: An asterisk (*) denotes products drawn from Rubin et al.'s (1991) study. Common endings are in square brackets; creative labels were those that did not contain the endings of the examples.

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