Cross-cultural management and bicultural identity integration: When does experience abroad lead to appropriate cultural switching?☆

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ARTICLE INFO

ABSTRACT

As the business world becomes more global many managers have spent significant time studying and working abroad. Does this overseas experience re-shape how managers think about the world? In this study we examined attribution patterns of Taiwanese managers who have studied and worked abroad. We found that managers who have been abroad switch their cultural orientation as a result of being shown Western or Chinese cultural icons, but this effect only occurs for those high in bicultural identity integration (BII). We confirmed that this effect occurs when "environmental" priming is used, and also confirmed that this effect is found when examining pay allocation decisions (a typical managerial issue) in addition to attribution patterns. These results point to the benefits of hiring internationally experienced managers, but also suggest that international experience may not be enough—companies need to also assess managers' BII to know if foreign experience will truly translate into culturally appropriate cognitive flexibility.

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1. Introduction

There now exists a vast literature on the difference between Western and Asian ways of acting and thinking (e.g., Chen, 1995; Earley, 1989; Leung, 1987; Liu, Friedman, & Chi, 2005; Weber, Hsee, & Sokolowska, 1998), as well as a growing awareness that those who have been exposed to both cultures vary considerably in how they manage the differences between East and West (Benet-Martínez, Leu, Lee, & Morris, 2002; Hong, Morris, Chiu, & Benet-Martínez, 2000). This paper extends that work by examining the effects of foreign culture exposure on Taiwanese managers and working adults. This study moves research on biculturalism away from student populations and the experimental lab (e.g., Benet-Martínez et al., 2002), assessing the relevance of these theories for managers and managerial practice. Importantly, this study makes it clear that the experience of living or working abroad does not inevitably allows managers to shift their cultural frame of reference as they move between Western and Asian business environments. We propose that whether managers are able to effectively shift their cultural frames depends also on how much they can integrate their Eastern and Western identities. This is theoretically important because it addresses the boundary conditions for when multicultural exposure per se is sufficient

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to bring about managerial flexibility (Hong et al., 2000). In practice, for companies where employees are expected to "manage across borders," it is important to know if foreign experiences can truly be leveraged by these employees-that is, whether these employees with foreign experience can effectively switch between local and foreign managerial practices (Friedman & Liu, 2009).

This study is very different from typical studies of international managers, which tend to focus either on whether managers adapt effectively to local cultures when they move abroad (e.g., Takeuchi, Tesluk, Yun, & Lepark, 2005) or on whether they re-adapt to their own culture upon reentry into their home culture after the foreign assignments (e.g., Black & Gregersen, 1991; Lazarova & Tarique, 2005). Our study is, to our knowledge, the first to assess quantitatively if foreign experience allows these managers to retain fluid use of both their home and foreign cultures from the angle of identity integration.

The location we have focused on for this study – Taiwan – is steeped in Chinese traditions (Yang, 1993; Yang, Yu, & Yeh, 1989), but also has strong ties to the world economy, making it a good location for our study. Many Taiwanese have studied in the West (mostly the U.S.[4]), some have worked abroad, and some have lived there for personal reasons. And, many of those who have gone abroad have returned to Taiwan, since Taiwan's government explicitly encouraged foreign-trained Taiwanese to return home in the 1990s (International Herald Tribune, 1999). As a result of these experiences, companies in Taiwan include a mixture of locally trained and educated Taiwanese, along with Western-trained and educated Taiwanese. Do those with mixed personal and educational backgrounds have any advantage when working in multinational business settings? Can they switch assumptions and practices to fit the cultural norms of different cultural environments?

This question is relevant not just to businesses operating in Taiwan, but also to any business with an international footprint. A great deal has been written about the need for international human capital (Ling & Jaw, 2006). International experience has been shown to affect CEO selection (Magnusson & Boggs, 2006) as well as the selection of CFOs (Robert Half Intl, 2002). But exactly what effect that experience has is not completely clear—we do not know if all managers who gain foreign experience really use that experience effectively. Some may gain the "insider–outsider" perspective that Bowers (2007) cites as critical for company leaders, but others may not be able to fully use their cultural knowledge. As Hurn (2006) has written, it is exceedingly difficult to identify with standard selection practices who will succeed in international assignments. Thus, understanding more clearly how foreign exposure affects managers, and how different aspects of cultural knowledge are triggered, can be useful for all companies that rely on international experience when staffing international operations.

In order to answer our research questions, we ask Taiwanese who have been abroad to respond to situations after they were primed with Chinese and Western cultural icons, a method developed by Hong et al. (2000). Specifically, we look at the cultural priming effects on general cognitive tendencies, as well as on a specific managerial practice—pay allocation decisions. Most importantly, we examine whether individuals vary in their ability to effectively respond to cultural cues since some individuals may be more resistant to bicultural influences than others. We argue that it is important to assess not only if managers have foreign experiences, but whether they are able to integrate and absorb their foreign experiences.

2. Theory

2.1. Chinese and Western cultural impact on management

There is now a vast literature comparing Western ways of thinking and behaving with Eastern ways (e.g., Nisbett, 2003; Triandis et al., 2001). For instance, in a recent meta-analysis of studies on individualism and collectivism, Chinese (among all Asian groups) displayed the largest and most consistent differences from Europeans and Americans (that is, being both less individualistic and more collectivistic) (Oyserman, Coon, & Kemmelmeier, 2002). A related core distinction between Chinese and Western cultures is between independent and interdependent views of the self (Markus and Kitayama, 1991). One manifestation of collectivism and an interdependent concept of the self is that Chinese tend to be more concerned about face (public image and reputation) and harmony than people in the West (Graham & Lam, 2003). Interestingly, in personality research, "harmony" emerges as a personality trait among Chinese, while it is absent in the Western Big-5 personality dimensions (Cheung & Leung, 1998; Cheung et al., 1996).

Collectivism, the interdependent views of the self, and the associated concerns with harmony and relationships have been shown to affect many aspects of social interaction at work. One set of findings relates to conflict and negotiation. Friedman, Chi, and Liu (2006) found that differences in inherent levels of concern for other drives Chinese managers to avoid conflict more than American managers, and Liu et al. (2005) found that concern for others tends to make Chinese more susceptible than Americans to being drawn to a negotiator's opening offer. Leung (1987) found that the desire to maintain harmony led Chinese (more than Westerners) to favor negotiation and mediation over arbitration in dispute resolution.

Chinese cultural focus on social context can also shape basic perceptions of cause and effect. Morris and Peng (1994) found that Chinese tend to see events more in terms of situation, while Americans tend to see events more in terms of

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individual intentions and dispositions. Chinese tend to see behaviors resulting from social pressures and social context, while Americans see behaviors resulting from individual volition. Subsequent studies have consistently found that Asians were more likely than North Americans to make external attributions (Choi, Nisbett, & Norenzayan, 1999; Norenzayan, Choi, & Nisbett, 2002; Norenzayan & Nisbett, 2000). Thus, the fundamental attribution error is stronger among Americans than Chinese. When Chinese do make attributions about intentions, it tends to be attributions about the disposition of collectives, not individuals (Menon, Morris, Chiu, & Hong, 1999).

Another set of findings relates to rewards and compensation. Leung and Bond (1984) found that reward allocation distinctions between in-group and out-group members were indeed more pronounced among Chinese than Americans, and Zhou and Martocchio (2001) found that Chinese managers put more emphasis on employees' relationships with bosses and coworkers when making decisions about non-monetary rewards than did Americans. The focus on collectivism in Chinese culture has also been associated with more equalitarian compensation preferences in China (Bond, Leung, & Wan, 1982; Hui, Triandis, & Yee, 1991; Leung & Bond, 1984) (although some more recent studies indicate that acceptance of differential pay systems has grown with economic reforms in China; Chen, 1995).

That being said, recent research has also shown that the differences between Chinese and Western cultures discussed thus far are dynamic rather than static. That is, the cross-cultural differences are not inevitable; they may appear or disappear when the contexts change. Specifically, it has been argued that cross-cultural differences are often mediated by the shared norms, beliefs and lay theories in the culture (Hong, 2009; Matsumoto & Yoo, 2006). To the extent that particular norms, beliefs and lay theories are shared, they serve more often as common ground in communication, and thus become the most accessible heuristics within a culture. These accessible heuristics are then likely to be used when people are under high need for cognitive closure (e.g., under time pressure). However, when people are given ample time to make judgments, they search through more alternatives and thus culturally shared lay theories play a less determining role than otherwise. Supporting these arguments, Chiu, Morris, Hong, and Menon (2000) found that Chinese and Americans displayed typical cross-cultural differences in attributions only when the participants were under high time pressure, but not when the participants were not under time pressure. In short, cultural influences operate via cognitive accessibility of cultural knowledge (norms, values, beliefs, and lay theories) shared within the cultural group. We will discuss next how this same mechanism underlies bicultural influences for individuals who have studied or lived overseas.

2.2. Mixing cultures

The limit of previous work on cross-cultural differences on approaches to work is that it focuses on characteristics of people living within one culture, and assumes a static, deep structure of culture that gives rise to stable differences between cultural groups (Chiu & Hong, 2006). This assumption is not useful in understanding multiple cultural influences on individuals in this highly mobile and rapidly globalizing world (see Hong, Wan, No, & Chiu, 2007 for a review). Many Taiwanese managers, especially, have had opportunities to live and work abroad. Throughout the 1990s, there were over 30,000 students from Taiwan in U.S. colleges and universities (Ministry of Education). In the 1990s, in an effort to bring highly trained Taiwanese students home, the government expanded the industrial park in Hsinchu, offering incentives for companies to locate there, and housing and salaries more equivalent to those offered in the U.S. As a result, thousands of Taiwanese returned to Taiwan from the U.S. (the number exceeded 5000 a year in the early 1990s; Saxenian, 2002). Thus, for many Taiwanese managers, their experience has been mixed—with strong exposure to both Chinese and Western culture. These managers, according to principals of knowledge activation (Higgins, 1996; Wyer & Srull, 1986), should have "available" both Chinese and Western cultural knowledge.

But whether these bicultural managers can effectively use that cultural knowledge is not clear. It is possible that these bicultural managers settle into using a single cultural approach to management, whether that be Western or Chinese, rather than using both approaches, applying their Western cultural knowledge in Western managerial situations and their Chinese cultural knowledge in Chinese managerial situations. This latter tendency is called cultural frame switching. While there is ample evidence of cultural frame switching among college students (e.g., Hong et al., 2000; Wong & Hong, 2005), it is not clear that working adults and managers are able to switch cultural frames, or that doing so affects managerial behaviors.

To examine frame switching abilities, we use the dynamic constructivist approach to culture (Hong & Chiu, 2001; Hong et al., 2000), which conceptualizes cultures as knowledge systems within which individuals interpret the social world and derive meanings. Within this approach it is not necessary to assume that individuals hold within themselves just one culture – Chinese or Western – but may, after exposure to multiple cultures, hold several knowledge systems. Presenting Chinese (Western) cultural icons to those individuals increases the temporal accessibility of (or bring to the fore) Chinese (Western) cultural knowledge in their minds; as a result, they display typical Chinese (Western) responses.However, the dynamic constructivist approach also posits that bicultural individuals are not just passive recipients of cultural priming. There are boundary conditions in which bicultural individuals would *not* respond toward the cultural priming. Specifically, Benet-Martínez et al. (2002) have proposed that individual differences in bicultural identity integration (BII) may affect whether the participants would apply the activated cultural systems to the task at hand. That is, the bicultural individuals differ in the extent to which they view the identities associated with the two cultures as compatible or conflicting. While biculturals high in BII describe their identities as 'compatible', biculturals low on BII experience them as largely 'oppositional'. To the extent that low BII participants may resist integration of bicultural experience, they should be less likely than those with high BII to be affected by the cultural primes. Indeed, Benet-Martínez et al. (2002) have shown that only participants with high

BII responded to cultural primes, showing more internal attributions in the American priming condition and more external attributions in the Chinese priming condition. If anything, participants with low BII responded in an "opposite" way to the cultural primes (showing more external attributions in the Western priming condition but more internal attributions in the Chinese priming condition).

Extrapolating these findings to the present study, we expect that foreign cultural exposure does not necessarily guarantee that Taiwan managers with foreign experience will be flexible in switching cultural frames. That is, it is not inevitable that all of the Taiwan managers who had experience studying or working overseas will show cultural frame switching responses toward different cultural primes. It is important to also know the level of BII of the managers. Yet, there has been a dearth of research in management that examines the identity of the managers as a moderating effect on the potential beneficial effects of their experiences abroad. The present research sought to fill this knowledge gap by testing the following hypothesis.

H1. Among Taiwanese managers who have exposure to the West, those with high BII should display stronger cultural priming effects than those with low BII. That is, for those high in BII, Western culture primes activate internal attributions and Western managerial tendencies whereas Chinese culture primes activate external attributions and Chinese managerial tendencies. However, this will not occur for those low in BII.

3. The present research

We conducted two studies to test our predictions. In the first study we examined the interaction effects of cultural primes and BII on attributions of Taiwanese managers, allowing us to test if Benet-Martínez et al.'s (2002) findings are replicable among Taiwanese managers. In Study 2, we examined the effects of "environmental" cultural primes, and tested the interaction effects of cultural primes and BII on a managerial decision. In sum, the key contributions of the two studies as a whole are that we (1) tested the effects of BII on managers, rather than students, and (2) tested the interaction effects of cultural primes and BII directly on both attributions and managerial decisions, and (3) tested these relationships using both cultural icon primes (a typical method used previously) and "environmental" primes (a novel new method), enhancing the external validity of the findings.

3.1. Study 1

3.1.1. Method
3.1.1.1. Participants. We collected data from 50 managers working for different companies who were part of an Executive MBA program in Taiwan (*mean age* = 40.3 years, *SD* = 9.0, 49% males). To be clear, even though these study participants were MBAs, they were at the same time full-time managers working for companies across Taiwan. In order to find these subjects, we had to screen a much larger group of managers to find those who had significant foreign experience. To determine that this was the cases, we asked whether they studied/lived/worked in Western countries before. For the selected 50 managers, the average length of Western country experience was 3.75 years (Minimum = .5 years, Maximum = 21 years). Among these 50 managers, 36 had study experience, while 21 had work experience (implying that seven had both study and work experience).

3.1.1.2. Materials and procedures. Cultural priming. Participants were randomly assigned to the Chinese or Western priming condition. Instructions specified that, "Suppose you are asked about the characteristics of Chinese/Western culture by someone who knows nothing about it. How would you describe it? Write ten statements to describe Chinese/Western culture. Before you start, we will show you some pictures related to Chinese/Western culture. These pictures may give you some ideas. However, you need not use, describe or even mention these pictures in your answer." First, each participant was shown eight pictures which represented Chinese or Western cultural images (following the method described in Hong et al., 2000). The Chinese pictures included a Chinese dragon, two men doing calligraphy, and a painting of Confucius. Parallel Western pictures included a bald eagle, several football players, and a photograph of Abraham Lincoln. Participants were asked to look at each picture and think about the culture it represented for a minute. Second, after reviewing the images (in the form of a small booklet of photographs), participants were given three minutes to write ten statements. These steps ensured that participants spent at least five minutes focused on Chinese or Western culture. In order to address political sensitivities in Taiwan, we explained that "Chinese" referred to the cultural traditions of those living in China, Hong Kong, Taiwan, and Singapore.

Attributions. To assess attributional tendencies, we used an attribution task, initially developed by Morris and Peng (1994). Participants were shown a picture of a single fish swimming in front of a group of fish. Then they were asked to explain the actions of the one fish which was in front of the others, by responding to 8-point Likert-type scales (1 = very unlikely, 8 = very likely). One question asked participants the extent to which that fish's action was due to factors "internal" to the fish ("for example, it is hungry and looking for food"), while the other asked to what extent that fish's action was due to factors "external" to the fish ("for example, the school of fish behind is chasing the lead fish") (Benet-Martínez et al., 2002; Hong et al., 2000, used the same method for measuring social attributions).

Bicultural identity integration (BII) measure. After finishing the attribution task, participants answered a single question about BII adapted from Benet-Martínez et al. (2002). Participants read the following statement: "Upon returning from

Table 1
Study 1: correlation coefficients between variables.

Variables[a]	Mean	SD	1	2	3	4	5	6
1. Age	40.30	9.00						
2. Gender	.49	.51	.10					
3. Overseas Experience	3.75	4.61	.13	.25				
4. Cultural Priming	.53	.49	.17	−.10	−.24			
5. BII	4.28	2.00	.00	.04	.09	.13		
6. Internal attribution	4.37	2.20	−.03	.20	.11	.05	.10	
7. External attribution	5.63	2.15	−.16	−.15	.03	.08	−.33[*]	−.35[*]

[a] "Gender", 1 = female, 0 = male; "Cultural Priming", 1 = Western Priming, 0 = Chinese Priming.
[*] $p < .05$.

working or studying abroad, I felt that I had to keep the Western and Chinese parts of myself separate, and I felt *conflicted* about the two cultures. I feel like someone who is *caught* between two cultures." This was different from the original item from Benet-Martínez et al. (2002) in that the lead-in to this item was changed from "I am a bicultural who..." to "Upon returning from working or studying abroad..." Participants rated how well the statement described their own experiences on an 8-point Liker-type scale (1 refers to definitely not true and 8 refers to definitely true). In order to avoid confusion, we reverse coded this item, so that the higher the score was, the higher the BII. Demographic information, including age, education, and overseas experience, was provided in the last section of the questionnaire.

Means, standard deviations, and correlations for demographic variables, BII, internal attribution, and external attribution are provided in Table 1.

3.1.2. Analysis of data

None of the demographic variables (age, gender, and overseas experience) had any effects on attributions, so we did not include them in further analysis. To test H1, that BII would moderate the response to cultural primes, we needed to assess whether the relationship between internal and external attributions (that is, whether the relative emphasis on internal versus external attributions) was affected by a two way interaction between Cultural Prime (Western versus Chinese) and BII. To test whether such an interaction effect existed, we conducted a repeated-measures ANOVA, with attribution as the repeated measured (internal and external) and Cultural Prime, BII, and Cultural Prime × BII as the predictors. A significant interaction effect will confirm that the impact of cultural primes on the relative emphasis on internal versus external primes is affected by BII. The exact nature of the relationship thus identified would need to be examined with post hoc analyses of the pattern of findings. In order to see whether internal or external attributions are stronger for groups higher and lower in BII, we examined the relative strength of internal and external attributions for those subjects higher in BII (above the median) and lower in BII (below the median).

3.1.3. Results and discussion

This three-way interaction effect was significant, $F(1,45) = 4.71$, $p < .05$. In the ANOVA, we treated BII as a continuous variable. In order to interpret the direction of this effect, we median split participants into high versus low BII groups. That is, participants who had scores higher than the median (5.0) were categorized as "high BII" and those who had scores lower than the median were categorized as "low BII." Fig. 1 shows the results. Consistent with our prediction, there were no discernable cultural priming effects among participants with low bicultural integration. Regardless of the cultural prime condition, these participants in general made more external attributions ($M = 6.43$, $SD = 1.65$) than internal attributions ($M = 4.16$, $SD = 1.98$, $F(1,23) = 20.08$, $p < .01$). By contrast, participants with high bicultural integration displayed the predicted cultural priming effects, such that they made more external ($M = 5.80$, $SD = 1.75$) than internal attributions ($M = 3.63$, $SD = 1.33$)
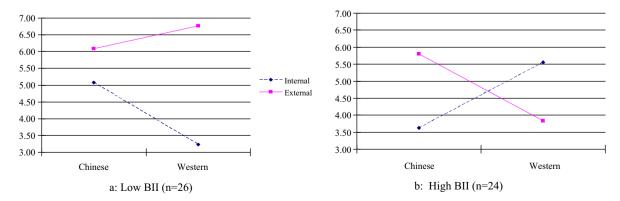

a: Low BII (n=26)

b: High BII (n=24)

Fig. 1. Study 1: interaction effect of Cultural Prime × Attribution × BII. (a) Low BII ($n = 26$); (b) high BII ($n = 24$).

in the Chinese prime condition ($t(9) = -1.67$, $p = .05$ one-tailed), but made more internal ($M = 5.55$, $SD = 1.95$) than external attributions ($M = 3.84$, $SD = 2.17$) in the Western prime condition ($t(15) = 1.72$, $p < .05$ one-tailed). The predicted Cultural Prime × Attribution interaction effect was only significant, $F(1,22) = 4.31$, $p < .05$, for those high in BII.

In sum, the results suggested that among those who had overseas experiences, people with low BII did not respond to the cultural primes, whereas those with high BII responded to cultural primes as we stated in Hypothesis 1.

Study 1 provided confirmation that Taiwanese managers who had worked or studied in Western countries were sensitive to cultural primes. When shown Western cultural icons, they exhibited more Western patterns of thinking; when shown Taiwanese Chinese cultural icons, they exhibited more culturally Chinese patterns of thinking. This effect of priming, however, was only true for those high in Bicultural Identity Integration. Those who are able to integrate the Western and Eastern parts of themselves responded in culturally expected ways to cultural icons. These findings in general are similar to those found by Benet-Martínez et al. (2002), thereby replicating the BII moderation effect among managers.

3.2. Study 2

To further explore the effects of BII, we expanded beyond the approach used in Study 1 in two ways. First, unlike Study 1 which used cultural icons as cultural primes (Hong et al., 2000), Study 2 used what we will call "environmental priming." Prior research using primes had subjects look directly at images from different cultures, forcing subjects to pay attention to those images for a short but sustained period of time. In thinking about the applicability of cultural priming in managerial situations, there will rarely be a case where managers are asked to stare at pictures of the Great Wall or the Statue of Liberty. Rather, cultural priming – or the real-world equivalent of it – will likely occur more in the form of having the overall surroundings be more Chinese or Western. A room or an office or a meeting space will likely have decorations, paintings, music, and food. Therefore, we used this type of "environmental priming" in Study 2. In addition, instead of looking at the effects of cultural primes on attributions, we directly measured the effect of cultural priming on the pay allocation decisions.

3.2.1. Method
3.2.1.1. Participants.
We posted information about the experiment on the largest Bulletin Board System (BBS) in Kaohsiung (the second-largest city in Taiwan) and used contact information obtained from responses to that posting to invite potential participants. This outreach generated 158 (managerial and non-managerial) working adults in the screening phrase. In order to address our current research objective, we included in the next step only those who had studied/lived/worked in Western countries before, based on a question asking if they had worked or studied abroad. A question asking them to identify the countries they had been to confirmed that time abroad was in Western countries (almost all were in the U.S. and Canada). This resulted in a sample of 44 Taiwanese working adults (mean age = 30.4 years, $SD = 6.8$, 46.7% males) who were asked to participate in the experiment. For the 44 adults, the average length of Western country experience was 9.9 months (Minimum = 5 months, Maximum = 36 months). Among these 44 adults, 40 had jobs requiring supervision of other employees.

3.2.1.2. Materials and procedures.
Environmental cultural priming. This study was conducted in an office space of a regular commercial building in Kaohsiung. Participants were randomly assigned into the Chinese and Western environmental priming conditions. In the Chinese cultural priming condition, the room was decorated with a Chinese-theme. Two Chinese paintings and three bamboo decorations were hung on the walls. One calligraphy-styled pen container and one Chinese style decoration was placed on the table. Tea and Chinese snacks were served, and Chinese music was played during the study. In the Western cultural priming condition, the room was decorated with a Western theme. Two Western paintings and seven Christmas cards were hung on the wall. One Mickey Mouse pen container and one Mickey Mouse doll with Christmas styled dressing was placed on the table. Coca-Cola and Western snacks were served, and Western music was played. In order to have participants spend some time in the Chinese (or Western) environment, they were first asked to work on several unrelated filler tasks. These tasks typically took about five minutes to finish, ensuring that subjects were surrounded by either Western or Chinese environmental primes for at least five minutes.

Managerial decision task. After the filler tasks, subjects were given a pay allocation task to assess their use of equity pay (theoretically favored by Westerners) versus equality pay (theoretically favored by Chinese). After the participants finished the pay allocation task, they received approximately US$5 in local currency.

The pay-allocation task involved a scenario that described work done by two employees, on an overtime project for which they would be paid a bonus. In the scenario, one employee was described as doing about 55% of the work during the same time that the other employee did only about 45% of the work. The scenario was written for this study, and is shown in Appendix A. Participants were asked to allocate the available bonus money between the two employees. A pure equity approach would be to give the more productive employee 55% of the bonus pool. Any pay less than this (that is, closer to 50%) would indicate that the participant was influenced (completely or to some degree) by an equality pay rule. Since every participant in this study had overseas experience, we asked them to answer the single-item BII question created by Benet-Martínez et al. (2002). This was the same measure as that used in Study 1. Demographic information, including age and gender, was provided in the last section of the questionnaire.

Table 2
Study 2: correlation coefficients between variables.

Variables[a]	Mean	SD	1	2	3	4
1. Age	30.39	6.81				
2. Gender	.47	.50	−.07			
3. Cultural Priming	.54	.48	−.19	−.14		
4. BII	4.82	2.03	.11	−.28	.05	
5. Bonus Allocation	52.56	2.53	−.02	−.07	.05	.12

[a] "Gender", 1 = female, 0 = male; "Cultural Priming", 1 = Western Priming, 0 = Chinese Priming.
* $p < .05$.

3.2.2. Analysis of data

In order to assess whether cultural primes generated more culturally appropriate pay allocation decisions for those higher in BII than those lower in BII, we ran regressions predicting pay allocation decisions as a function of Cultural Prime (Western versus Chinese), BII, and the Cultural Prime × BII interaction. H1 is supported if the interaction is significant, and the direction of the effect is that higher BII subjects are more likely to respond to cultural primes with more culturally appropriate pay allocation decisions. These patterns will be assessed with a slope analysis (Aiken & West, 1991) as well as by examining the results for those higher and lower in BII (using a median split).
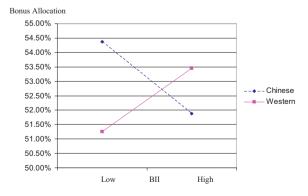
Means, standard deviations, and correlations for pay allocation and BII are shown in Table 2.

3.2.3. Results and discussion

Neither age nor gender was significantly related with bonus allocation decision, so we did not include them in further analyses. Results revealed a significant Cultural Prime × BII interaction effect ($t = −1.97$, $p < .05$, $\Delta R^2 = .08$). Results of a simple slope analysis (Aiken & West, 1991) are shown in Fig. 2. In the Chinese priming condition, BII was negatively related with bonus allocation ($t = 1.76$, $p = .04$, one tailed), suggesting that participants with a higher BII allocated less bonus to the productive employee than did participants with a lower BII, thus exhibiting culturally appropriate responses to the cultural primes. Conversely, in the Western priming condition, BII was positively related with bonus allocation ($t = 1.45$, $p = .10$, one tailed), suggesting that participants with a higher BII allocated more, although only marginally more, bonus to the productive employee than did participants with a lower BII, thus exhibiting more culturally appropriate responses to the cultural primes.

This pattern is more apparent using a median-split to divide the sample—participants who scored above the median of BII were "high BII" participants, whereas those who scored below the median of BII were "low BII" participants. With the Chinese environmental prime, high BII participants awarded a lower percentage of the bonus pool to the efficient employee ($M = 51.88\%$, $SD = 2.59\%$) than did low BII participants ($M = 54.38\%$, $SD = 1.77\%$) ($t(14) = 2.26$, $p < .05$, one-tailed); with the Western environmental prime, high BII participants awarded a higher percentage of the bonus to the productive employee ($M = 53.46\%$, $SD = 2.40\%$) than did low BII participants ($M = 51.25\%$, $SD = 2.23\%$, ($t(27) = 2.56$, $p < .01$, one-tailed). Although the participants in general allocated the rewards relatively equally (rather than equitably) between the two targets, high BII participants responded in a more culturally typical way – adopting a Chinese approach (allocated almost equally between the two employees) in a Chinese environment, but a more Western approach (allocated more to the productive employee) in an Western environment – than did low BII participants.

Looking at the results in another way, we found that the high BII participants allocated a higher percentage of the bonus to the productive employee in the Western prime condition (53.46%) than in the Chinese prime condition (51.88%, $t(19) = 1.47$, $p = .08$, one-tailed), suggesting that high BII participants were affected by the cultural primes in the right direction, thereby supporting Hypothesis 1. In contrast, the low BII participants allocated a lower percentage of the bonus to the efficient employee in the Western prime condition (51.25%) than in the Chinese prime condition (54.38%, $t(22) = 3.0$, $p < .01$, one-tailed), suggesting that low BII participants were responding in a contrastive way against the cultural primes. This result is

Fig. 2. Study 2: interaction effect of Cultural Prime × BII on Bonus Allocation ($n = 44$).

consistent with Benet-Martínez et al. (2002) who found that low BII individuals can at times not only be unresponsive to primes, but in fact exhibit a contrast or reactance effect toward primes. That is, because participants low in BII often feel that their Chinese and Western identities are incompatible and oppositional, the cultural primes would activate their identity concerns. As a result, they would respond in the opposite way from the cultural primes, i.e., respond in a typically Chinese way to the Western prime and respond in a typically Western way to the Chinese prime.

Study 2 provided confirmation that cultural primes can occur simply by virtue of having an environment be more Eastern or Western; it is not necessary to have people stare at images to have an effect. Thus, simply having a meeting in a Western-themed office space may create the kind of effects we expect from Western cultural primes. Study 2 also confirms the results found in Study 1 regarding BII. That is, culturally appropriate responses to cultural primes may not occur for everyone. Those high in BII do respond appropriately; in that sense, they are culturally adaptive. Those low in BII do not respond appropriately; just having experience abroad is not enough to ensure cultural frame switching. Lastly, responses to cultural primes affect not only core cognitive processes, like attributions, but also managerial decisions like pay allocation.

4. General discussion

While we have long known that those who move to new countries (such as Chinese who move to the U.S.) struggle to integrate the culture of their homeland with the culture of their new home (Hong et al., 2007), our research shows that similar patterns occur when Taiwanese live or work in the West and return to work in Taiwan. These individuals do not return unchanged by their experience. As Alfred Schuetz put it many years ago (1945), the "home-comer" is not likely to ever fit as naturally into his or her home environment. Such people return with different assumptions—different "taken-for-granted" aspects of how they see the world. This is the first study that we know of to test the effects of foreign experience on biculturalism among adult employees and managers (rather than college students) after spending time abroad. There have been many studies of reentry to home cultures (e.g., Black & Gregersen, 1991; Lazarova & Tarique, 2005) but none looking quantitatively at how these people retain and use both their newly acquired foreign cultural ideas and their original home-culture ideas. Also, prior studies have looked at the ways in which time spent abroad affects managers (e.g., Takeuchi et al., 2005), but those studies focus more on adaptation to the new host culture, rather than the ongoing parallel use of both cultures, or the effects on cultural and managerial norms after returning home.

4.1. Implications for practice

Our results suggest that multinational companies (which are staffing positions with the expectation that employees be able to manage effective in multiple cultures) recognize that foreign experience may not always lead to the ability to retain and appropriately use two separate cultural systems. This characteristic (of bicultural dexterity) can be very useful in multinational companies since it makes it possible to switch to a cultural mode that fits the circumstances. For example, based on our findings we should expect that, when meeting with Western clients who trigger Western thought patterns, Taiwanese who have foreign experience may adopt assumptions that are appropriate for that Western audience, but when they meet with Taiwanese clients who trigger culturally Chinese thought patterns, these individuals may adopt assumptions that are appropriate for that Chinese audience. This should make them more effective working with both Taiwanese and Westerners. We expect this pattern to be true not only of Taiwanese who have been abroad, but others who have been abroad such as Westerners who have spend a great deal of time in Japan or Singapore, or Japanese who have worked a great deal in the U.S. For those with foreign experience, they may be quite effective at switching back and forth between the managerial cultures of these countries as circumstances demand.

However, it is important to not just assume that foreign experience has made a manager capable of switching cultural frames. Some individuals with foreign exposure may not be fully bicultural in the sense that they have not successfully integrated the two identities. For these low BII individuals, it is less likely that they will respond appropriately to the cultural context. These individuals are likely to be more confused about their cultural exposure. For those companies that need and expect effective cross-cultural "switching," this may be a point to watch when hiring. An international firm might try to assess applicants' BII rather than just assuming that experience abroad will make them effective in multinational work environments. There has been prior work on BII (Benet-Martínez et al., 2002), but extending that work to managers confirms that the concept is relevant to working adults, and that it has an impact on how adaptive managers will be. Thus, while it might be common practice to simply look at a job candidate's time abroad to assess his or her fit for foreign assignments, our findings indicate that companies need to be careful to examine not just the quantity of experience abroad but the nature of the applicant's feelings about their foreign experiences. This has clear implications for hiring and staffing for international assignments.

Another implication of our research is that, if multinational teams are staffed with truly bicultural individuals (those high in BII), their behavioral norms may be affected by things as simple as choosing whether to have a presentation made in Chinese versus English, serving Chinese versus Western food, or playing Chinese versus Western music. Each of these elements of a work environment can served as "environmental primes"—aspects of the work environment that bring to the fore either Chinese cultural norms or Western cultural norms. As a manager, if you know that your Taiwanese team includes bicultural individuals, what images and sounds and language you choose in your presentation to them may trigger different cultural norms. As such, you may *choose* to trigger Western or Taiwanese cultural norms, depending on what you expect

would be most effective. Thus, bicultural individuals can be culturally managed—whether they are returning Taiwanese, or others who have become bicultural.

4.2. Study limitations

The main limitation of this study is that our sample sizes are small—due to the fact that within our initial sample, only some respondents had been abroad. But such small samples make it less likely that we would have found three-way interaction effects in several studies; this gives us greater confidence in these results. Also, we have looked only at crude measures of time abroad, while others have looked at length of time abroad as a key variable (e.g., Takeuchi et al., 2005). We are not rejecting the value of those prior studies, but were able to find effects based on a more simple measure—having been abroad or not. If anything, our more crude measure should have made it less likely for us to find effects. Despite these limitations, this is the first study that we know of to assess the bicultural sensitivities of Chinese managers with Western experience. As the presence of bicultural work teams and the mobility of highly skilled employees increase (Saxenian, 2002), this issue will grow in importance. This can be seen in the returnees (aka "sea-turtle") phenomenon common to parts of China (Zweig, 2006).

4.3. Future research

How much of a problem – or benefit – biculturalism presents to these people and those they work with and manage, is not yet clear. Recent research has shown that exposure to multiple cultures enhance creativity at the individual level (Leung & Chiu, 2010; Leung, Maddux, Galinsky, & Chiu, 2008); also reminiscent of our BII findings, this beneficial effect is more prominent for those who endorse an integrative orientation (Tadmor, Galinsky, & Maddux, 2011). At the group level, many questions are still unexplored: are those who adopt Western ways of thinking disruptive within the Taiwanese workplace, or do they provide an alternative perspective that helps teams to avoid group think and also become more creative? Are bicultural individuals comfortable fitting back into their home culture, and are they effective working within it? Also, is the success of these people dependent on the culture of the company where they work? It may be that these bicultural individuals can manage better within multinational companies, since they are able to operate according to several cultural systems. Although this research does not provide an answer to these questions yet, it is clear that these returning Taiwanese bring different assumptions to the workplace than those who have not gone abroad.

Appendix A. Pay allocation scenario for Study 2

Guanhui Chen is working for an IT company. He was sent to a branch in Taipei as Operation Manager. Zhiqi Li and Bingren Ho are accountants working for Chen. These two employees have been working together for long time, and are friends.

Chen was asked to enlarge the business scope. Recently, he spent most of his work time writing the proposal to achieve this goal. One Friday afternoon, Chen asked Li and Ho help evaluate the business so that he could complete this proposal, and promised them a total bonus of 10,000 NTD for the overtime work they would need to do (this amount approximately equaled about 1/6 of employee's average month salary). Both Li and Ho are executive accountants, and they worked very hard. In the end, Li finished 55% of the assignment, while Ho finished the other 45% of the assignment.

Question: Suppose you are Chen. How would you distribute the 10000 NTD?
                                               Li will receive ____ dollarsand Ho will receive ____ dollars.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology*, 33, 492–516.

Black, J. S., & Gregersen, H. B. (1991). When Yankee comes home: Factors related to expatriate and spouse repatriation adjustment. *Journal of International Business Studies*, 22, 671–694.

Bond, M. H., Leung, K., & Wan, K. C. (1982). How does cultural collectivism operate? The impact of task and maintenance contributions on reward distribution. *Journal of Cross-Cultural Psychology*, 13, 186–200.

Bower, J. L. (2007). Solve the succession crisis by growing inside–outside leaders. *Harvard Business Review*, 85(11), 90–96.

Chen, C. C. (1995). New trends in rewards allocation preferences: A Sino-US comparison. *Academy of Management Journal*, 38(2), 408–428.

Cheung, F. M., & Leung, K. (1998). Indigenous personality measures: Chinese examples. *Journal of Cross-Cultural Psychology*, 29, 233–248.

Cheung, F. M., Leung, K., Fan, R. M., Song, W. Z., Zhang, J. X., & Zhang, J. P. (1996). Development of the Chinese Personality Assessment Inventory. *Journal of Cross-Cultural Psychology*, 27, 181–199.

Chiu, C. Y., & Hong, Y. Y. (2006). *Social psychology of culture*. New York: Psychology Press.

Chiu, C., Morris, M. W., Hong, Y., & Menon, T. (2000). Motivated cultural cognition: The impact of implicit cultural theories on dispositional attribution varies as a function of need for closure. *Journal of Personality and Social Psychology*, 78, 247–259.

Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures variation and universality. *Psychological Bulletin*, 125, 47–63.

Earley, P. C. (1989). Social loafing and collectivism: A comparison of the United States and the People's Republic of China. *Administrative Science Quarterly*, 34, 565–581.

Friedman, R., Chi, S., & Liu, L. A. (2006). An expectancy model of Chinese-American differences in conflict avoiding. *Journal of International Business Studies*, 37, 76–91.

Friedman, R., & Liu, W. (2009). Biculturalism in management: Leveraging the benefits of intrapersonal diversity. In S. Wyer Rober, Chi-yue Chiu, & Ying-yi Hong (Eds.), *Understanding culture: Theory, research, and application* (pp. 343–360). New York, NY: Psychology Press.

Graham, J. L., & Lam, N. M. (2003). The Chinese negotiation. *Harvard Business Review*, *81*, 82–91.

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

Hong, Y. (2009). A dynamic constructivist approach to culture: Moving from describing culture to explaining culture. In R. S. Wyer Jr., C. Chiu, & Y. Hong (Eds.), *Understanding culture: Theory research application* (pp. 3–23). New York: Psychology Press.

Hong, Y. Y., & Chiu, C. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, *19*, 181–196.

Hong, Y. Y., Morris, M., Chiu, C. Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, *55*, 709–720.

Hong, Y. Y., Wan, C., No, S., & Chiu, C. (2007). Multicultural identities. In KitayamaF S., & CohenF D. (Eds.), *Handbook of cultural psychology* (pp. 323–345). New York NY: Guilford.

Hui, C. H., Triandis, H. C., & Yee, C. (1991). Cultural differences in reward allocation: Is collectivism the explanation? *British Journal of Social Psychology*, *30*, 145–157.

Hurn, B. (2006). The selection of international business managers: Part 1. *Industrial and Commercial Training.*, *38*(6), 279–286.

International Herald Tribune. (1999, March 18). *Taiwan's industrial ambitions—It aims to move up technology ladder.* , p. 15

Lazarova, M., & Tarique, I. (2005). Knowledge transfer upon repatriation. *Journal of World Business*, *40*, 361–373.

Ling, Y. H., & Jaw, B. S. (2006). The influence of international human capital on global initiatives and financial performance. *International Journal of Human Resource Management*, *17*(3), 379–398.

Leung, K. (1987). Some determinants of reactions to procedural models for conflict resolution: A cross-national study. *Journal of Personality and Social Psychology*, *53*, 898–908.

Leung, K., & Bond, M. H. (1984). The impact of cultural collectivism on reward allocation. *Journal of Personality and Social Psychology*, *47*, 793–804.

Leung, A. K-y., & Chiu, C-y. (2010). Multicultural experience, idea receptiveness, and creativity. *Journal of Cross-Cultural Psychology*, *41*, 723–741.

Leung, A. K-y., Maddux, W. W., Galinsky, A. D., & Chiu, C-y. (2008). Multicultural experience enhances creativity: The when and how? *American Psychologist*, *63*, 169–181.

Liu, L. A., Friedman, R., & Chi, S. (2005). RenQing' versus the 'Big 5': The need for culturally sensitive measures of individual differences in negotiations. *Management and Organization Review*, *1*(2), 225–247.

Magnusson, P., & Boggs, D. J. (2006). International experience and CEO selection: An empirical study. *Journal of International Management*, *12*(1), 107–125.

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

Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research. *Perspectives on Psychological Science*, *1*, 234–250.

Menon, T., Morris, M. W., Chiu, C. Y., & Hong, Y. Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology*, *76*, 701–717.

Ministry of Education (R.O.C), web site. http://www.edu.tw/EDU_WEB/EDU_MGT/BICER/EDU7954001/c9/1950-2004.pdf

Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, *67*, 949–971.

Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently and why*. New York: Free Press.

Norenzayan, A., Choi, I., & Nisbett, R. E. (2002). Cultural similarities and differences in social inference: Evidence from behavioral predictions and lay theories of behavior. *Personality and Social Psychology Bulletin*, *28*, 109–120.

Norenzayan, A., & Nisbett, R. E. (2000). Culture and causal cognition. *Current Directions in Psychological Science*, *9*, 132–135.

Oyserman, D, Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3–72.

Robert Half International. (2002). Financial executives cite value of international experience. *New Mexico Business Weekly*, *February 1*.

Saxenian, A. L. (2002). Transnational communities and the evolution of global production networks: The cases of Taiwan. *China, and India. Industry and Innovation*, *9*, 183–202.

Schuetz, A. (1945). The homecomer. *American Journal of Sociology*, *50*, 369–376.

Tadmor, C. T., Galinsky, A. D., & Maddux, W. W. (2011). Biculturalism and integrative complexity: Capturing the key to the creative and professional benefits of multicultural experiences. Working paper, Tel Aviv University, Israel.

Takeuchi, R., Tesluk, P. E., Yun, S., & Lepark, D. P. (2005). An integrative view of international experience. *Academy of Management Journal*, *48*, 85–100.

Triandis, H. C., Carnevale, P., Gelfand, M., Robert, C., Wasti, S. A., Probst, T., et al. (2001). Culture and deception in business negotiations: A multilevel analysis. *International Journal of Cross Cultural Management*, *1*, 73–90.

Weber, E. U., Hsee, C. K., & Sokolowska, J. (1998). What folklore tells us about risk and risk taking: Cross-cultural comparison of American German, and Chinese proverbs. *Organizational Behavior and Human Decision Processes*, *75*, 170–186.

Wong, R. Y.-M., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, *16*, 429–434.

Wyer, R. S., & Srull, T. K. (1986). Human cognition in its social context. *Psychological Review*, *93*, 322–359.

Yang, K. (1993). "Chinese social orientation". An integrative analysis. In L. Y. Cheng, F. M. C. Cheung, & C.-N. Chen (Eds.), *Psychotherapy for the Chinese: Selected Papers from the first international conference* Hong Kong, Chinese University of Hong Kong, (pp. 19–56).

Yang, K., Yu, A., & Yeh, M. H. (1989). Chinese and individual modernity and traditionality: Construct definition and measurement. In *Proceedings of the interdisciplinary conference on Chinese psychology and behavior* (pp. 287–354) (in Chinese).

Zhou, J., & Martocchio, J. J. (2001). Chinese and American managers' compensation award decisions: A comparative policy-capturing study. *Personnel Psychology*, *54*, 115–145.

Zweig, D. (2006). Learning to compete: China's efforts to encourage a reverse brain drain. *International Labor Review*, *145*, 65–89.