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Romantic Music Activates Minds Rooted in a Particular Culture

Abstract: *Photographs of celebrities or objects of two incompatible cultural meaning systems were selected as experimental stimuli. By investigating bicultural individuals' (Westernized Chinese Singaporeans) naming of these photographs, and then their selection of a culture-associated beverage (tea or coffee) in the presence of a piece of background music, the present study found a profound switching between different cultural frames in response to the romantic music of China or USA. The findings suggest that the responses to the musical cue evoke more responses with strong cultural associations for a dominated culture (the Chinese way of naming & coffee-drinking) than for a dominating culture (the Western way of naming & tea-drinking).*

Imagine the following business conversation in English:

Q: It wouldn't be best to address Osama bin Laden as Mr. Osama, would it?

A1: No, it would be best to address him as Mr. Bin Laden.

A2: Yes, it would be best to address him as Mr. Osama.

In the above conversation, the nationalities or 'cultures' (in the broad sense) matter in answering the question. It is very likely that A1 would be given by an English-speaking person from a Western country, while A2 would be given by an English-speaking person from the Muslim world (e.g., Indonesia, Malaysia and Pakistan).¹

Moreover, if the above conversation were not in English but in Chinese or Japanese (i.e., in a language used in a Confucianist Culture), different answers would be observed as follows:

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[1] Note that most Western media refer to the Malaysian Prime Minister Mahathir bin Mohamad as Dr. Mahathir.

Q: It wouldn't be best to address Osama bin Laden as Mr. Osama, would it?

A1: Yes, it would be best to address him as Mr. Bin Laden.

A2: No, it would be best to address him as Mr. Osama.

Contrary to English, answers in Chinese or Japanese begin with an agreement (A1's Yes) or a disagreement (A2's No) with Q's statement that it wouldn't be best to address Osama bin Laden as Mr. Osama. There are therefore at least four possible answers depending on the respondent's cultural background.

As the world becomes increasingly globalized, people are finding themselves exposed to more cultures and cultural dilemmas, such as a naming contest between Japan (a black enamel used to produce a durable glossy finish) and Nippon (Land of the Rising Sun), or a naming contest between China (porcelain or earthenware) and Zhong Guo (Central Kingdom). Another example is the naming of the highest peak in the world. The possible response could be Mt. Everest, or Sagarmatha (means: goddess of the sky in Nepal), or Chomolungma (means: mother goddess of the universe in Tibet), depending on which culture you internalized.

An interesting question to ponder is how a bicultural individual would respond in the above conversation. Bicultural individuals are described as people who have internalised two cultures to the extent that both cultures are alive inside them (LaFromboise *et al.*, 1993). Because the above four answers are incompatible with each other, yet all 'culturally correct', a bicultural individual's answer turns out to be one of chasing the 'more' correct, as a result of shifting between interpretive frames rooted in different cultures in response to external cues (LaFromboise *et al.*, 1993).

A further question raised is: under what sort of priming condition bicultural individuals would apply one of the two conflicting cultural meaning systems to guide their interpretation of a stimulus. Specific musical pieces may activate superordinate knowledge structures (Martindale & Moore, 1988), suggesting that exposing bicultural individuals to music with strong cultural associations activates interpretive constructs in their related cultural knowledge network.

To test this, a naming task for bicultural individuals was deliberately designed. The participants were 223 Chinese Singaporean undergraduates from various disciplines at Nanyang Technological University. They all participated as volunteers. These students were considered as bicultural individuals because they are ethnic Chinese but educated in English (the official language as well as the medium of instruction in Singapore) in a Western (mainly American) education system.

Booklets which contained eight photographs of celebrities or objects (Fig. 1) were administered to the student participants in a small group of 5 to 10 people, while a piece of background music was played continuously. All these celebrities and objects selected were of two incompatible naming systems based on respective cultures. This can most easily be understood with the aid of a tree diagram (Fig. 2). Such a selection of experimental stimuli serves to ensure that the

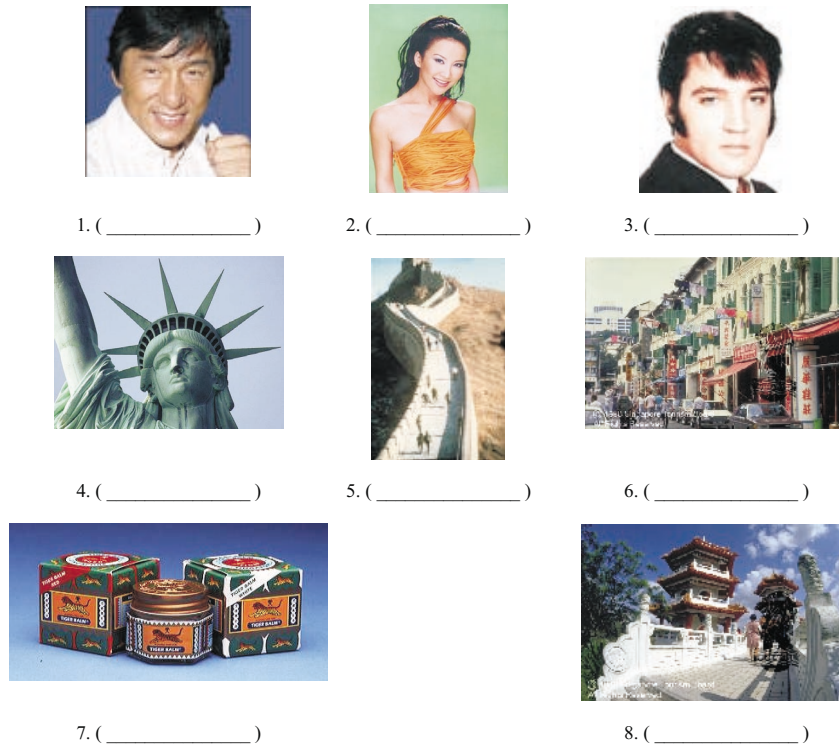


Figure 1. The eight photographs of celebrities or objects, which the participants were asked to write down their names, in either Chinese/Hanyu Pinyin or English, in the blanks provided.

response will be in a way deeply rooted either in Chinese culture or Western culture, regardless of whether the expression is in English or Chinese.

The background music played in a tutorial room was either a piece of Chinese music (soundtrack: *The Butterfly Lovers*²) or a piece of American music (*Titanic* soundtrack: *My Heart Will Go On*). These two pieces were presumably well matched, considering that they have much in common with each other (e.g. a soothing melody, a romantic theme, a tragic ending et al). The 223 Chinese Singaporeans were randomly assigned to one of the two background music conditions. That is, about half the participants ($n = 113$) were exposed to Chinese music, and the other half ($n = 110$) to American music. Participants in the small group setting were then instructed in English to write down the names of celebrities or objects in these photographs, either in English or in Chinese/Pin-Yin (phonetic spelling). When participants completed the naming task, light refreshments, tea (*Rickshaw Jasmine*) and coffee (*Nestle Nescafe*), were served and participants' selection recorded.

[2] Without the cultural background, it is impossible to translate 'The Butterfly Lovers' to its original Chinese title 'Liang Zhu' (two family names for the hero and the heroine respectively), and vice versa.

Results indicated that the background music triggered related knowledge and was linked with participants' selection of beverage from the respective culture. Relatively more naming responses (70.6%) were rooted in Chinese culture when Chinese music was played, whereas more responses (51.2%) were rooted in

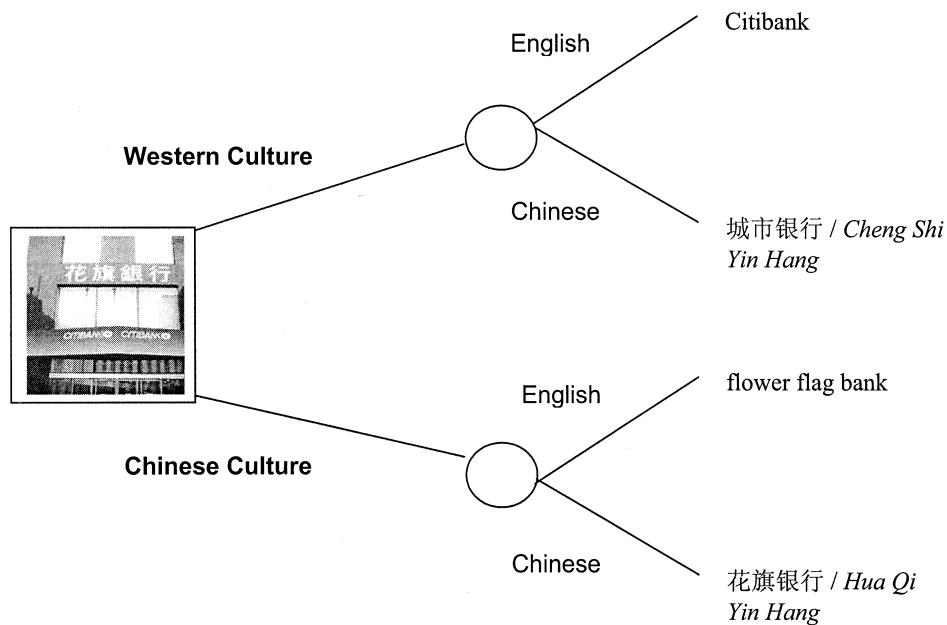


Figure 2 A tree diagram illustrating the naming process for an international brand: Citibank. Culture node and language nodes are denoted by a square and circles respectively. Citibank has long been known in Mainland China and Taiwan as “Hua Qi Yin Hang” (花旗銀行). Without deeper bicultural knowledge, a bilingual individual would literally translate “Hua Qi Yin Hang” (花旗銀行) as “flower flag bank” but not “Citibank”, or, literally translate “Citibank” to “Cheng Shi Yin Hang” (城市銀行) but not “Hua Qi Yin Hang” (花旗銀行). Note that the cultural mind is so deeply rooted in the Chinese language market that the bank has recently decided not to use its Chinese name other than “Hua Qi Yin Hang”, despite the fact that Citibank Hong Kong and Citibank Singapore have used the Chinese name of “Wan Guo Bao Tung Yin Hang” (万国宝通銀行) (literally means “international treasure through bank”) for 100 years.

Western culture when American music was played ($P < 0.01$), despite an overall bias in favour of responses rooted in Western culture (Table 1). American music led to the choice of coffee (60.2%) surpassing tea, whereas Chinese music led to the opposite effect on the selection of coffee ($P < 0.01$) despite an overall bias in favour of tea over coffee (Table 2).

Table 1. Summary of naming results by type of background music

	Background Music	
	Chinese	American
Responses rooted in Western culture		
1. Jackie Chan (杰克·陈/ <i>Jie Ke Chen</i>)	88	96
2. Coco Lee (可可·李/ <i>Ke Ke Li</i>)	103	99
3. Elvis Presley (埃尔非斯·普里斯利/ <i>Aierfeisi Pulisili</i>)	97	99
4. Statue of Liberty (自由塑像/ <i>Zi You Su Xiang</i>)	100	103
5. Great Wall (大墙/ <i>Da Qiang</i>)	93	103
6. Chinatown (中国城/ <i>Zhong Guo Cheng</i>)	92	99
7. Tiger Balm (老虎油/ <i>Lao Hu You</i>)	100	105
8. Chinese Garden (中国花园/ <i>Zhong Guo Hua Yuan</i>)	88	93
Total	761 (48.8%)	797 (51.2%)
Responses rooted in Chinese culture		
1. 成(become)龙(dragon)/ <i>Cheng Long</i>	25	13
2. 李(surname)玟(given name)/ <i>Li Wen</i>	9	4
3. 猫(cat)王(king)/ <i>Mao Wang</i>	13	6
4. 自由(liberty)女神(goddess)/ <i>Zi You Nu Shen</i>	5	4
5. 长(long)城(castle)/ <i>Chang Cheng</i>	16	5
6. 牛(buffalo)车(chariot)水(water)/ <i>Niu Che Shui</i>	10	1
7. 万(million)金(gold)油(oil)/ <i>Wan Jin You</i>	9	3
8. 裕(wealthy)华(magnificent)园(garden)/ <i>Yu Hua Yuan</i>	2	1
Total	89 (70.6%)	37 (29.4%)
<p>Notes: Letters in italic are Chinese Pin-Yin (phonetic spelling). There are 1, 8, 8, 11, 6, 21, 6, and 39 missing data for Jackie, Coco, Elvis, Statue of Liberty, Great Wall, Chinatown, Tiger Balm and Chinese Garden respectively. A 2 (Chinese music vs. American music) \times 2 (response rooted in Chinese culture vs. response rooted in Western culture) \times 8 (Jackie Chan vs. Coco Lee vs. Elvis Presley vs. Statue of Liberty vs. Great Wall vs. Chinatown vs. Tiger Balm vs. Chinese Garden) G^2 test revealed a significant relationship between background music and response pattern ($G^2(1) = 22.91, p < 0.01$) and a significant relationship between item and response pattern ($G^2(7) = 44.61, p < 0.01$), but no significant relationship between background music, response pattern and item ($G^2(7) = 4.58, p > 0.05$).</p>		

Table 2. Summary of beverage choice by type of background music.

	Background Music	
	Chinese	American
Beverage Choice		
Tea (Rickshaw Jasmine)	76 (58.5%)	54 (41.5%)
Coffee (Nestle Nescafe)	37 (39.8%)	56 (60.2%)

A 2 (Chinese music vs. American music) \times 2 (choosing tea vs. choosing coffee) χ^2 test revealed a significant relationship between background music and beverage choice, $\chi^2(1) = 7.57, p < 0.01$.

Cultural priming studies have tested a wide range of verbal primes, such as words related to African Americans (Gaertner & McLaughlin, 1983), pictures of a masculine man (Chiu, Hong, Lam, Fu, Tong, & Lee, 1998), and iconic cultural symbols (Hong, Morris, Chiu, & Benet-Martinez, 2000). The results of the naming study described in this paper further our understanding by showing that priming Westernized Chinese Singaporeans with a nonverbal (musical) cue activated related knowledge and primed the way of naming.

It has been shown that relative sales of German and French wine in a British supermarket were affected according to whether Parisian accordion music or German bierkeller pieces were being played on a tape deck near the drinks display (North, Hargreaves, & McKendrick, 1997). The data observed during the refreshment phase of this study are interesting in light of the in-store music study in that, the Chinese and American music did not prime the selection of a product closely related to the respective country, but a product deeply rooted in the respective culture (i.e., the tea is not made in China and the coffee is not made in USA).

The two cultures tested were not equally alive inside our bicultural participants, in the sense that Western culture dominates Chinese culture in terms of naming (which might, in part, be due to the use of English as the language of instruction), while Chinese culture surpasses Western culture in terms of beverage preference. There has been an analogue of these findings: A Western heart with a Chinese stomach. Such an uneven internalization did not eliminate the priming effect. In fact, the dominated or suppressed culture (the Chinese way of naming (7.5%) and coffee-drinking (41.7%)) was not only activated by its associated music, but also activated to a larger degree than the dominant culture (the Western way of naming (92.5%) and tea-drinking (58.3%)). The overall findings suggest that, if there were 'something' that carries less accessible or deeper-rooted cultural knowledge to the fore of a decision maker's mind, it could be 'something' which is less directly, less explicitly and less consciously associated with the assigned task, and that a plausible candidate to play such a role could be romantic music.

Acknowledgements

This research was initiated while the author was teaching at Nanyang Technological University and completed while working as a visiting scholar at Department of Psychology, Peking University. The author is grateful to Tamo Nakamura for her insightful comments and GOH Chen Peng, Aileen Kwek Meei Huey and TAN Hui Ping for their help in data collection.

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Paper received November 2004