

Cultural Differences and Switching of In-Group Sharing Behavior Between an American (Facebook) and a Chinese (Renren) Social Networking Site

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Abstract

Prior research has documented cultural dimensions that broadly characterize between-culture variations in Western and East Asian societies and that bicultural individuals can flexibly change their behaviors in response to different cultural contexts. In this article, we studied cultural differences and behavioral switching in the context of the fast emerging, naturally occurring online social networking, using both self-report measures and content analyses of online activities on two highly popular platforms, Facebook and Renren (the “Facebook of China”). Results showed that while Renren and Facebook are two technically similar platforms, the Renren culture is perceived as more collectivistic than the Facebook culture. Furthermore, we presented evidence for the first time that users who are members of both online cultures flexibly switch and adapt their in-group sharing behaviors in response to the online community in which they are: They perform more benevolent in-group sharing when they participate in the Renren community and less so when they participate in the Facebook community. We discussed both the theoretical and methodological implications of the current research.

Keywords

cultural psychology, communication, acculturation, social networking, cross-cultural differences, cultural frame switching, Facebook

Online social networking has become an emerging cultural phenomenon. Facebook, the most popular social networking site (SNS) to date, has reached 750 million users in 2011 (*Facebook Press Room*, 2011). Almost half of Americans have a Facebook account (Grossman, 2010) and college students on average spend half an hour on Facebook every day (Pempek, Yermolayeva, & Calvert, 2009). Numerous studies have shown that online social networking has been deeply

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embedded into our daily lives and become a common means for social interaction and communication (e.g., Burke, Marlow, & Lento, 2010; Ellison, Steinfield, & Lampe, 2007; Valkenburg & Peter, 2007, 2009).

With millions of people engaging in online communities, there is surging interest to examine the emergence of online culture. Online culture has been considered as a knowledge system formed by constellations of shared practices, expectations, and structures that members choose to follow with the help of networked computer technology (Fuchs, 2008). Whereas scholars in diverse disciplines including communication, sociology, media studies, and social informatics have researched online culture, little work has been approached from a cultural psychological perspective. With cyberspace being both “a product of and producer of culture simultaneously” (Bell, 2001), the study of online culture will broaden the scope of cultural psychology by providing new evidence to support existing cultural theories or challenge established ones. For example, it allows us to discover new cultural practices rarely seen in offline environments, which may add to, complement with, or differ from existing practices. Moreover, as online cultures are geographically unbound, people can easily participate in different online cultures without changing their physical locations. Thus, it becomes increasingly important to understand the behavioral ramifications of exposure to multiple online cultures. For example, how do individuals adapt to different cultures online? Will experience in multiple online cultures improve individuals’ cultural competence offline? These questions open up new research avenues for cultural psychologists to explore.

In the following, we first review research on online culture and behavioral switching. We then present studies that investigated cultural differences between Facebook and Renren and how individuals adapt their in-group sharing behavior to match the shared practice on the two SNSs.

Cultural Differences on SNSs

Culture is generally defined as a constellation of loosely organized values, practices, and norms shared by an interconnected group of people in a given community (Chiu, Leung, & Hong, 2010). While this definition usually refers to cultures in the real world, it may also apply to cultures online. For example, earlier research has shown that the online open-source community has a culture that emphasizes the values of freely sharing, modifying, and redistributing source materials such as software source code and promotes the practice and norm of collaboration and cooperation (Fuchs, 2008). Research on Multi-User Dungeon (MUD), an online game, showed that different branches of MUD may have different cultures, with some focusing on developing and facilitating social interactions and some focusing on exploring and pursuing adventurous experiences (Bell, 2001). As with offline culture, online culture may influence individuals through internalization of cultural values or practicing the shared in-group norms. For example, extensive exposure to the online open-source community may lead one to internalize the value of free sharing or simply practice sharing to follow the shared norm without believing in the philosophy of open source.

Earlier research on online culture focuses on online communities created for special purposes or common interests. Recently, with the rise of SNSs, online cultures are no longer only relevant to highly focused groups. They have started to become a part of our everyday lives. Since the main purposes of SNSs are to maintain and strengthen social relationships, SNS cultures often emphasize self-presentation and social interaction by providing tools to encourage everyone to disclose personal information and engage in social interactions such as photo tagging and commenting (Boyd & Ellison, 2007).

Whereas SNSs can be similar in terms of their overall goal and functionality, recent studies have shown that users of different SNSs display different online practices. For example, Cho

(2010) showed that users of Korean-based SNSs (e.g., Cyworld) have fewer but more intimate friends, tend to keep their public profile anonymous, exhibit lesser but more personal self-disclosure, and use more non-verbal communication means (e.g., graphics or icons), whereas users of American-based SNSs (e.g., Facebook) have more friends, exhibit more frequent self-disclosure, and rely more on direct text-based communication. Another recent study also showed that interestingly users of Japanese SNSs tend to use animal pictures or cartoons as their profile pictures, whereas users of American SNSs tend to display their real pictures (Marcus & Krishnamurthi, 2009). Relatedly, Chapman and Lahav (2008) found that users of American SNSs like to broadcast information about themselves by writing blogs and sharing personal pictures; users of French SNSs like to carry out discussions that are not personal; users of Korean SNSs like to share pictures with only their closed friends; and users of Chinese SNSs like to play games and share resources with other users.

Overall, the studies reviewed above suggest that the shared practices on SNSs appear to be different between American-based SNSs and Asian-based SNSs. Asian-based SNSs tend to have tighter social relationships, with their practices reflecting an indirect communication style and less open self-disclosure; American-based SNSs tend to have wider social networks, with their practices reflecting a more direct communication style and bolder self-disclosure. As culture is often reflected by or perceived through shared practices in a community (Chiu et al., 2010; Geertz, 1973; Hofstede, 2001; Lustig & Koester, 2002), the different shared practices on American- and Asian-based SNSs suggest that these SNSs have different online cultures. Furthermore, these online cultures tend to epitomize the corresponding characteristics of the culture in which the SNS is hosted, with American-based SNS culture being more individualistic-oriented and Asian-based SNS culture being more collectivistic-oriented, suggesting that online cultures themselves might have constituted an important cultural product (Morling & Lamoreaux, 2008).

In the current research, one goal is to explore the cultural differences between two SNSs, Facebook and Renren. Facebook is an American-based SNS with more than 750 million active users. It is not accessible in China. Renren (translated as “people” in English) is a Chinese-based SNS with more than 160 million users (AppLeap & Great Wall Club, 2010). Renren has almost identical user interface and functionality as Facebook and is considered as the “Facebook of China” (Marshall, 2008). Since previous research suggests that online culture can be largely influenced by users’ national culture and that it embodies their host culture’s shared practices and imperatives (Cho, 2010; Ignacio, 2006), we hypothesize that Renren (vs. Facebook) culture is relatively more collectivistic, whereas Facebook (vs. Renren) culture is relatively more individualistic.

To identify cross-SNS cultural differences, we conducted a survey to assess users’ general perceptions of the Facebook and Renren cultures. In particular, we focused on how prevalent social sharing activities are on the two SNSs. There are two types of sharing behaviors on SNSs motivated by different needs. For the first type, users post status updates, pictures, videos, or comments about themselves for self-disclosure or self-promotion purposes. For example, users may post their own status “having dinner in school” with their friends. Narcissism has been found to correlate positively with the tendency of sharing self-promoting materials on Facebook (Buffardi & Campbell, 2008). For the second type, users share useful information to benefit others. For example, users may share a website that contains travel tips with their friends. In-group benevolent sharing was found to be more prevalent in collectivistic cultures where interdependence, cooperation, and in-group harmony are valued (Berry, Segall, & Kagitcibasi, 1997; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Smith & Bond, 1993; Triandis, 1993). In the old days, people share resources such as food, tools, and accommodation with their in-group members to optimize collective benefits. In this digital age, people can share videos, pictures, notes, and webpages with their friends online. In the current research, we focus on the second type of

benevolent sharing, which exemplifies individuals' willingness or desire to make valuable resources for others to utilize and enjoy. Drawing upon the cultural task analysis of cultural mandates (Kitayama, Park, Sevincer, Karasawa, & Uskul, 2009), we argue that SNS users are more likely to perform the cultural task of in-group sharing to achieve the pertinent cultural mandate of interdependence on Renren relative to Facebook. Thus, we hypothesize that in-group sharing is a shared practice more prevalent on Renren than on Facebook.

Behavioral Switching on SNSs

Inspired by the dynamic constructivist paradigm, a growing body of research has recognized people's role as an active participant in the culture (Chiu et al., 2010). Research within this paradigm has demonstrated that bicultural or multicultural individuals, with their extensive experiences in a second culture, can flexibly switch between their different cultural frames in response to meaningful cultural cues salient in the environment (Hong, Morris, Chiu, & Benet-Martinez, 2000). For example, research showed that Chinese American bicultural individuals whose Chinese identity is activated (through exposure to Chinese cultural primes) exhibit a prototypical Chinese inferential behavior (i.e., making more situational than personal attributions; Hong, Benet-Martinez, Chiu, & Morris, 2003) or reward allocation style (i.e., adhering to an equality rule vs. contribution rule; Fu et al., 2007), whereas the opposite occurs when their American identity is activated. Bicultural individuals were also found to be able to adapt their communication strategy according to the cultural identity of their addressee. When persuading a client to purchase an insurance plan, they incorporated more promotion-focused (vs. prevention-focused) arguments in their messages to persuade the American client than they did the Chinese client (Leung & Chiu, 2010a).

Notably, most, if not all, studies demonstrated flexible behavioral switching among individuals with bicultural experiences in controlled lab settings. As the second research goal, we seek to take a step further to examine if similar cultural switching behavior would occur in natural online environments. SNSs allow individuals to easily participate in different online cultures without changing their physical location. They become a natural platform to study how individuals change their behavior to match the cultural environment they are in. As previous research showed that, through participating in a culture and communicating with other cultural members, individuals can grasp the shared reality in the culture and use it as behavioral guides in their future interactions (Hardin & Higgins, 1996; Leung & Chiu, 2010a; Levine & Higgins, 2001). Thus, it is conceivable that individuals who are participants of multiple SNSs can detect the nuanced differences in those online communities and flexibly switch their behaviors accordingly. Since Facebook and Renren are two platforms with almost identical user interface and functionality, it is likely that users' behavioral switching is not accounted for by technical differences between the two platforms. We hypothesize that individuals who use both Facebook and Renren will flexibly switch their online behavior according to the online culture that they are in; that is, the same user will perform more benevolent in-group sharing on Renren and less so on Facebook.

Overview of Current Studies

In a set of three studies, we aim to achieve two goals. First, we seek to identify cross-cultural differences between two technologically similar SNS platforms, Facebook and Renren. Second, we aim to demonstrate cultural frame switching in online environments by examining how SNS users flexibly adapt their in-group sharing behavior to match the cultural practice on the two platforms.

In Study 1, we asked participants to rate the Facebook and Renren cultures on characteristics reflecting values of collectivism and individualism. We also asked participants to evaluate Facebook and Renren regarding their system performance, security, and usability. We predict that Facebook and Renren will differ in their cultural orientations, but display similar technical capabilities. Study 2 involved two sub-studies to investigate behavioral switching of sharing activities. In Study 2a, we asked the same users to rank order the frequency of their common activities they performed on the two SNSs. In Study 2b, we went beyond the commonly used self-report method by coding users' actual activities to provide further evidence of flexible switching of sharing behaviors in the two culturally distinctive online environments. We predict that the same user will perform more in-group sharing on Renren than on Facebook. We also asked participants to compare the usefulness of the information shared on Renren and Facebook to test our hypothesis that in-group sharing on Renren (vs. Facebook) is more for benefiting the collectives as opposed to serving self-interests.

Our participants are undergraduate students in a large Singaporean university. They graduated from high school in China and came to Singapore for college. When they were in China, they started using Renren (as Facebook is not accessible in China). When they came to Singapore, they became Facebook users because Facebook is the dominant SNS in Singapore. We consider our participants as individuals with bicultural experiences online, because they have had extensive exposure to two culturally different online environments (i.e., Facebook and Renren).

Study 1

In Study 1, we tested the hypothesis that Renren and Facebook differ in their cultural orientations, with Renren being more collectivistic and Facebook being more individualistic. We also sought to establish that Renren and Facebook are two technically similar platforms in terms of system performance, security, and user-friendliness of in-group sharing functions. This would eliminate the possibility that behavioral differences in the two online communities are attributable to technical differences between the two platforms.

Method

Participants. Thirty-seven college students (22 females, 15 males; mean age = 21.68 years, $SD = 2.40$) at a large Singapore university participated in exchange for payment. All of them are Mainland Chinese who had been using Facebook and Renren for at least 12 months and had more than 50 friends on each platform.

Procedure and Measures. Participants completed a set of questionnaires on perceived characteristics and various technical capabilities of Facebook and Renren. The questionnaires were in Chinese, the participants' native language. We counterbalanced the order of questionnaires that asked about Facebook and Renren.

Perceived cultural characteristics. We created a survey to examine the perceived cultures of Facebook and Renren using characteristics that are related to either a collectivistic or an individualistic orientation in the context of online social networking. Previous research has shown that attributes such as sharing-oriented (Berry et al., 1997; Triandis, 1995), conformity-oriented (Bond & Smith, 1996), hierarchical (Triandis, 1995), and supportive (Miller, 1997) pertain to collectivistic cultural characteristics, and attributes such as self-expressive (Kim & Sherman, 2007), assertive (Church & Lonner, 1998), egalitarian (Triandis, 1995), and competitive (Triandis, 1993) pertain to individualistic cultural characteristics. We asked participants to indicate the extent to

which these characteristics described their perceived cultures of Facebook and Renren on a scale from 1 (*not at all*) to 7 (*extremely*).

Website Analysis and Measurement Inventory (WAMMI). WAMMI (www.wammi.com) is a measure widely used in industry for assessing the overall system performance (e.g., attractiveness, controllability, efficiency, helpfulness, and learnability) of an online platform. It includes 20 statements, such as “I feel in control when I’m using this website,” “This website is too slow” (reverse scored), and “Everything on this website is easy to understand.” Participants indicated their degree of agreement with each statement regarding Facebook and Renren using a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*; $\alpha = .83$ for Facebook and $\alpha = .81$ for Renren).

Privacy and Data Security Concern Scale. We used the scale developed by Tuunainen, Pitkänen, and Hovi (2009) to assess user perception of information security on Facebook and Renren. Participants answered five items each for Facebook and Renren, including “I worry about my privacy and data security while using Facebook [Renren]” (reverse scored) and “I feel comfortable writing messages on my friends’ walls,” on a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). One of the five items was eliminated in our analyses due to low internal consistency with other items (α increased from .73 to .86 for Facebook and from .55 to .83 for Renren).

Usability of sharing functions. To confirm that the usability of the sharing functions did not differ across Facebook and Renren, we modified the widely used System Usability Scale (Brooke, 1996) to focus on sharing functions. Our scale includes 10 items such as “I used the sharing functions frequently” and “I found the sharing functions unnecessarily complex” (reverse scored). Participants answered each item for Facebook and Renren using a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*; $\alpha = .85$ for Facebook and $\alpha = .84$ for Renren).

Results and Discussion

Perceived Cultural Characteristics

We first examined the dimensionality of the perceived SNS culture scale by performing a principal axis factoring on the eight characteristics separately for Renren and Facebook. The scree plot indicated a three-factor solution for both SNSs. For Renren, this factor analysis with varimax rotation showed that the first factor accounted for 27.14% of the total variance and had significant loadings from “supportive” (.76) and “self-expressive” (.72). The second factor accounted for 21.11% of the total variance and had significant loadings from “egalitarian” (.72), “competitive” (.53), and “assertive” (.44). The last factor accounted for 18.16% of the total variance and had significant loadings from “conformity-oriented” (.55), “sharing-oriented” (.47), and “hierarchical” (.42). A similar factor structure emerged for the analysis on Facebook, with the first factor loaded significantly on “hierarchical” (.79), “sharing-oriented” (.41), and “conformity-oriented” (.49); the second factor loaded significantly on “self-expressive” (.63) and “supportive” (.50); and the last factor loaded highly on “egalitarian” (.62), “assertive” (.58), and “competitive” (.44). These three factors, respectively, accounted for 33.07%, 16.36%, and 12.96% of the total variance.

Taken together, the factor analyses derived three dimensions that characterize the two SNSs pertaining to their social networking functional attributes (“self-expressive” and “supportive”), their collectivistic attributes (“hierarchical,” “sharing-oriented,” and “conformity-oriented”), and their individualistic attributes (“egalitarian,” “assertive,” and “competitive”). Cronbach’s alphas for the dimension of social networking functional attributes are $\alpha_{\text{Renren}} = .74$ and $\alpha_{\text{Facebook}} = .58$, the collectivistic dimension are $\alpha_{\text{Renren}} = .61$ and $\alpha_{\text{Facebook}} = .60$, and the individualistic dimension are $\alpha_{\text{Renren}} = .60$ and $\alpha_{\text{Facebook}} = .63$.

Next, we performed a repeated measures analysis (SNS Type [two levels] \times Attribute Dimensions [three levels], both within-participants factors) testing for differences in the average ratings on the dimensions of collectivistic attributes, individualistic attributes, and social networking functional attributes across Facebook and Renren. A multivariate test of within-subjects effects showed a significant interaction between SNS type and attribute dimensions, $F(2, 72) = 8.56, p < .001, \eta_p^2 = .19$, revealing that Facebook and Renren differ on some, but not all, attribute dimensions. Follow-up analyses showed that participants rated the Renren culture ($M = 5.28, SD = .90$) significantly more collectivistic than the Facebook culture ($M = 4.59, SD = 1.09$), $F(1, 36) = 11.91, p = .001, \eta_p^2 = .25$. They did not rate the Facebook culture ($M = 4.45, SD = 1.04$) significantly more individualistic than the Renren culture ($M = 4.18, SD = 1.02$), $F(1, 36) = 2.55, p = .12, \eta_p^2 = .07$, though the means were in the predicted direction. The two SNSs did not differ on the dimension that characterizes their social networking functions ($M_{Renren} = 5.93, SD_{Renren} = .83$ and $M_{Facebook} = 6.05, SD_{Facebook} = .73$), $F < .55, ns$.

System Performance

Next, we carried out a repeated measures test on the three technical aspects of the two SNSs: overall system performance, privacy and data security, and sharing function usability. Results of a multivariate test of within-subjects effects did not reveal a main effect of SNS type, $F(1, 72) = 1.23, p = .27, \eta_p^2 = .03$. Follow-up analyses confirmed that participants did not rate Facebook and Renren differently on overall system performance ($M_{Facebook} = 3.50 (.49)$ and $M_{Renren} = 3.64 (.44)$; $F(1, 36) = 1.91, p = .18, \eta_p^2 = .05$), privacy and data security ($M_{Facebook} = 4.02 (1.37)$ and $M_{Renren} = 3.70 (1.18)$; $F(1, 36) = 3.30, p = .08, \eta_p^2 = .08$), and the usability of sharing functions ($M_{Facebook} = 2.88 (.59)$ and $M_{Renren} = 3.05 (.62)$; $F(1, 36) = 1.58, p = .22, \eta_p^2 = .04$). This confirms our hypothesis that Facebook and Renren are two similar platforms in terms of system performance and technical capacities.

To summarize, the findings of Study 1 suggest that the culture of Renren is more collectivistic than that of Facebook, with users who participated in both online communities perceiving the Renren culture as being more sharing-oriented, conformity-oriented, hierarchical, and less egalitarian. The two platforms do not differ technically on system performance, data security, and user friendliness of their sharing functions. These results set the stage for further investigations on flexible switching of actual sharing behaviors, providing the basis that users' behavioral differences in online sharing across the two platforms are likely due to differences in their culturally shared practice as opposed to differences in technical capabilities.

Study 2

As Study 1 suggested that Renren might embody a more collectivistic orientation in its online culture, in Study 2, we tested the cultural frame switching hypothesis that the same SNS users would perform more in-group sharing on Renren than on Facebook, thus flexibly switching their sharing behaviors in response to the online culture they are in. Specifically, in a set of two studies, Study 2a had participants rank order how often they used major functions on Facebook and Renren, and we predicted that the sharing functions would be ranked more frequently used on Renren (vs. Facebook). In Study 2b, going beyond self-reports, we categorized actual user activities on the two SNSs as either sharing or non-sharing and predicted that sharing activities were more prevalent on Renren than on Facebook. Furthermore, we predicted that the information shared on Renren (vs. Facebook) would be perceived as more useful.

Method

Participants

In Study 2a, a sample of 100 college students (60 females, 40 males; mean age = 21.84 years, SD = 2.13) provided self-report data; in Study 2b, 35 students (20 females, 15 males; mean age = 22.60 years, SD = 2.87) provided actual online behavioral data. All participants are mainland Chinese studying in Singapore who had been using both Facebook and Renren for at least 12 months. They participated in the study in exchange for S\$5 (~US\$3.8).

Procedure

In Study 2a, participants completed a survey to rank order major functions on Facebook and Renren according to how often they used them, with a lower number representing more frequent usage (i.e., a higher ranking). Questions for Facebook and Renren were counterbalanced in order. The functions provided were: (1) updating status, (2) uploading pictures, (3) tagging pictures, (4) commenting on others' activities, (5) sharing links, (6) sharing others' posts, (7) posting notes, and (8) playing games.

In Study 2b, we coded actual online activities on participants' SNSs. Participants were assured that no personal information would be recorded. Two coders who were unaware of the study hypotheses independently coded the most recent 20 events listed on the Profile page and 20 events on the News Feed page in the participant's Facebook and Renren accounts. Whereas the events listed on the Profile page provided a sample of the participants' own recent activities on the SNSs, those listed on the News Feed page provided a sample of their friends' recent activities. The two independent coders coded each event as sharing or non-sharing. Since we were interested in benevolent sharing, we operationalized sharing events as those that require users to click the share button or link. Examples of sharing events included sharing others' pictures, posts, videos, and webpages. All other events were coded as non-sharing. For instance, posting one's own status update (e.g., "working out at the gym") was coded as non-sharing, whereas sharing links to websites or videos (e.g., the featured Youtube video of the day) was coded as sharing.

While the experimenters were coding the online events, participants filled out a survey about how much they had benefitted from the information shared on Facebook and Renren, with the questions for the two SNSs presented in a counterbalanced order. Participants indicated their degree of agreement on seven statements with a 7-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*). Two sample statements are "From what others share on Facebook [Renren], I get to know recent news better" and "From what others share on Facebook [Renren], I learn useful information" ($\alpha = .82$ for Facebook and $\alpha = .84$ for Renren). We also asked participants to directly compare across Facebook and Renren how much they had benefited from the information others shared on the two SNSs. Participants rated 10 statements such as "I become more knowledgeable" and "I am more informed about current events" using a 7-point Likert-type scale (1 = *only from Facebook*, 4 = *equally from Facebook and Renren*, 7 = *only from Renren*; $\alpha = .91$).

Results and Discussion

Frequency ranking of functions. Collected from Study 2a, Table 1 shows participants' rankings of major functions on Facebook and Renren according to how often they used them. We performed the Wilcoxon Matched Pairs Signed-Ranks Test on the rankings and found that participants ranked "sharing links" and "sharing others' posts" significantly higher on Renren than on

Table 1. Average Rank of Usage Frequency of Functions on Facebook and Renren

Function	Facebook	Renren	Z	p
Updating status	3.08 (2.01)	2.86 (1.77)	1.16	.25
Uploading pictures	4.39 (2.15)	4.38 (1.75)	.08	.95
Tagging pictures	5.24 (2.07)	6.41 (1.37)	5.22	< .001
Commenting on others' activities	2.73 (1.85)	2.88 (1.72)	.52	.60
Sharing links	4.30 (1.99)	3.36 (2.06)	4.11	< .001
Sharing others' posts	4.43 (2.01)	3.70 (1.99)	3.44	< .001
Posting notes	5.07 (1.97)	5.62 (1.63)	2.05	.40
Playing games	6.63 (1.84)	6.64 (1.92)	.91	.36

Note. Lower rank denotes higher usage frequency. Numbers in parentheses are standard deviations.

Facebook: $Z(N = 100) = 4.11, p < .001$ for “sharing links,” and $Z(N = 100) = 3.44, p < .001$ for “sharing others’ posts.” Unexpectedly, the function of “tagging pictures” was ranked higher on Facebook than on Renren, $Z(N = 100) = 5.22, p < .001$. All other functions were not ranked differently between the two SNSs (Z s ranged from .081 to 1.16, *ns*).

The above results suggest that the same users performed in-group sharing in the forms of sharing links and others’ posts more often when using Renren than when using Facebook. As for the unexpected rank differences for “tagging pictures” (higher ranking on Facebook vs. Renren), although we refrain from making specific explanations for this finding, we suppose that picture tagging is less prevalent on Renren because it serves a disclosure purpose and users favor anonymity and prefer not being identifiable to out-group members in an Asian context (Cho, 2010). Accordingly, participants performed less picture tagging on Renren than on Facebook.

Coding of actual user activities. Collected in Study 2b, we recorded a total of 1,239 events on Facebook (644 and 595 events from the News Feed and Profile pages, respectively) and 1,211 events on Renren (688 and 523 events from the News Feed and Profile pages, respectively). The total number of events was different between Facebook and Renren because some participants did not have enough events on their pages. Each event was coded as sharing or non-sharing.

As the number of sharing events was limited on Facebook and this led to somewhat large variances between the two SNS event samples, we used square root transformation to equalize the variances before analyses were performed. A paired-samples t test on the transformed data showed that on the News Feed page, Renren ($M = 1.34, SD = .43$) had a significantly higher ratio of sharing over non-sharing events than Facebook ($M = .29, SD = .21$), $t(33) = 14.73, p < .001, d = 2.53$ (see Figure 1). Since the News Feed page listed the most recent activities performed by the participants’ friends, these activities represented a sample of the overall user activities in the participants’ online communities. The higher ratio of sharing events found on Renren’s (vs. Facebook’s) News Feed page confirms Study 2a’s finding that in-group sharing appears to be a more prevalent shared practice on Renren than on Facebook.

We also compared participants’ own activities listed on their Facebook and Renren Profile pages to examine their flexible switching of sharing behaviors. As predicted, a paired samples t test showed that for the same user, the ratio of sharing to non-sharing events was significantly higher on the Profile page of Renren ($M = 1.56, SD = 1.20$) than on that of Facebook ($M = .08, SD = .13$), $t(26) = 6.45, p < .001, d = 1.24$ (see Figure 1).

Benefits of in-group sharing. The above results confirmed that users performed in-group sharing more often on Renren than on Facebook. However, it was unclear if such sharing was to benefit other in-group members or the self. One might as well share materials to express individuality or

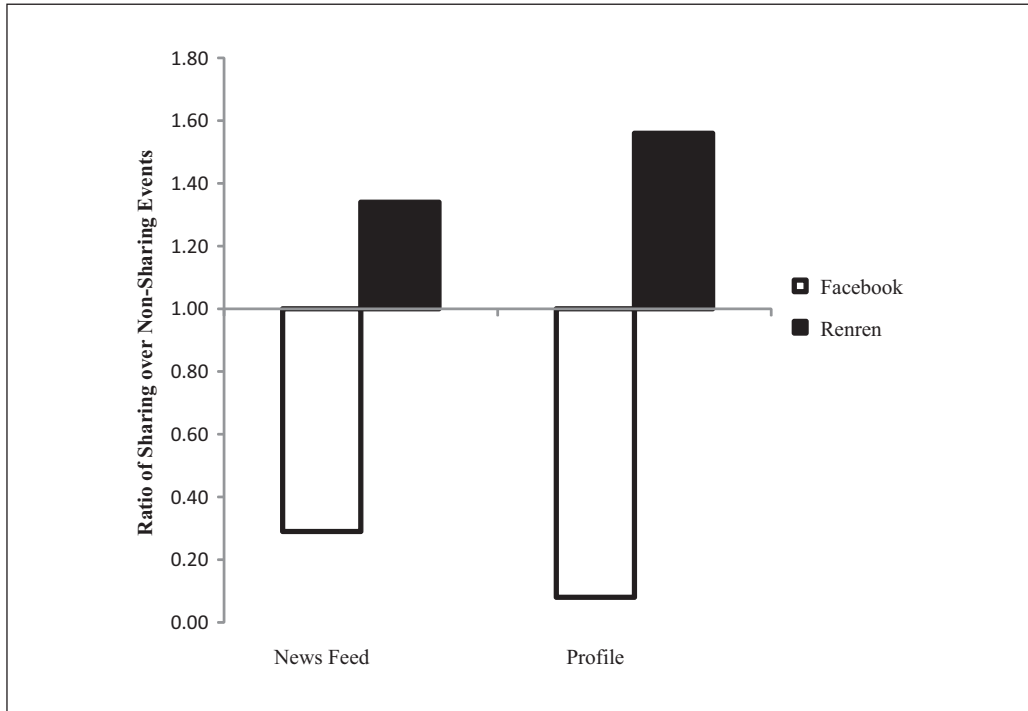


Figure 1. The Ratio of Sharing Over Non-Sharing Events (Square Root Transformed) on the News Feed and Profile Pages Across Facebook and Renren

self-interest. In Study 2b, when participants were asked to rate the usefulness of the shared information separately for the two SNSs, they considered the information shared on Renren ($M = 5.45$, $SD = .97$) significantly more beneficial than that on Facebook ($M = 5.00$, $SD = .89$), $t(34) = 3.37$, $p = .002$, $d = .57$. Similar results were obtained when participants directly compared Renren against Facebook. We performed a one-sample t test that tested if participants' responses differed from the neutral value ($4 = \text{equally from Facebook and Renren}$) and found that participants favored Renren significantly more than Facebook ($M = 5.09$, $SD = 1.04$), $t(34) = 6.22$, $p < .001$, $d = 1.05$. This suggests that users not only performed in-group sharing more often on Renren (vs. Facebook), the information shared on Renren (vs. Facebook) was also considered more useful to other in-group members.

In summary, the results of Study 2 suggest that the same users displayed different online behaviors on an American-based and a Chinese-based SNS; they performed more in-group sharing on Renren than on Facebook. Interestingly, their disparate patterns of in-group sharing on Renren and Facebook matched the overall sharing patterns displayed by the user's online friends, as suggested by the activities on participants' *News Feed* page. One might argue that these friends' online activities constitute only a small sample of activities that may not accurately represent what other users generally do and therefore the shared practices of the SNS cultures. We contend that, however, it is the practices and activities nominally engaged by their friends that are most likely to reflect the immediate cultural environment in which the participants are actively involved. Our findings suggest that users tend to flexibly switch their in-group sharing behaviors to match the practice of the online culture that they are in.

General Discussion

Past research has shown that bicultural individuals can flexibly change their behaviors in different cultural contexts (Hong et al., 2000). The present research demonstrated a similar phenomenon online. From both self-reports and analyses of actual online behaviors, our research makes two novel contributions to cross-cultural research. First, we identified cross-cultural differences between Facebook and Renren. Specifically, we showed that users who have experiences with both SNSs perceive the Renren culture to be more collectivistic than the Facebook culture. Second, we demonstrated behavioral switching in the context of online culture. Specifically, we showed that the same user performs more benevolent in-group sharing on Renren than on Facebook. This provides new evidence of dynamic behavioral switching in a natural setting, suggesting that users flexibly switch their behavioral tendency to match the shared practice in their participating online cultures.

The current findings have important implications, both theoretically and methodologically. In terms of theoretical significance, first, our studies demonstrate that SNSs are interesting cultural environments on their own. Their technological capabilities enable them to afford new norms and practices that are not previously observed offline. For example, instant in-group sharing of information such as videos and pictures can be easily done online but not offline. Nevertheless, the use of new media may not alter the fundamental essence of a culture—the newly emerged norms and practices online may evolve from and later reinforce the shared norms and imperatives prevalent in the culture where the online community is hosted. Thus, SNS practices could be important manifestations of cultural products that contribute to a sense of “cultural consensus” (Lamoreaux & Morling, *in press*).

Second, our research suggests that SNS users can actively participate in multiple online cultures and acquire multicultural experiences through social interactions in the virtual world. As previous research showed that multicultural experiences are conducive for enhancing one’s cultural competence and creative cognitions (Leung & Chiu, 2010b; Leung, Maddux, Galinsky, & Chiu, 2008; Maddux, Leung, Chiu, & Galinsky, 2009), it would be interesting to find out if the multicultural experiences acquired online would result in similar consequences in offline contexts and if such experiences would produce enduring changes in individual capabilities.

Relatedly, it would also be interesting to study if long-term participation in foreign online cultures would lead individuals to acculturate into these foreign cultures, similar to being acculturated into a foreign culture through living or working abroad. Just as Japanese showed an increase in their self-esteem when they stayed in North America (Heine, Lehman, Markus, & Kitayama, 1999) and Americans switched their attention to focus more on contextual information when they lived in Japan (Kitayama, Duffy, Kawamura, & Larsen, 2003), will similar process of acculturation occur through participating in foreign online cultures? Furthermore, will online multicultural experiences facilitate a cosmopolitan identity that transcends cultural boundaries and helps individuals develop a sense of being a citizen of the world (Cannon & Yaprak, 2002; Gillespie, McBride, & Riddle, 2010)? Our studies prompt future research to further explore these interesting possibilities.

Third, the current finding that individuals switch their behaviors in response to different online cultures is relevant to the theorizing that cultural norms regulate people’s behaviors at different levels of internalization (Chirkov, Ryan, & Willness, 2005; Wan & Chiu, 2010). It is plausible that SNS users’ flexible switching of sharing activities is purely a behavioral adaptation in response to the corresponding online cultural context. This exemplifies the case where behavioral acculturation occurs without value assimilation (Gibson, 1988; Savani, Morris, Naidu, Kumar, & Berlia, 2011), as changes in behaviors are likely to emerge earlier and more easily than the internalization of cultural values. It is also possible that individuals gradually acquire and

internalize the mindset or general goals associated with the online culture through their active participation in the culture. As Oyserman, Sorensen, Reber, and Chen (2009) stated, "cultural mindsets can be relatively easily shifted" (p. 52); when individuals participate in a particular SNS, they temporarily activate the associated knowledge structure of the online culture and also the accompanying behavioral tendencies (see also Higgins, 1996; Oyserman & Lee, 2008). Their behavioral switching, therefore, is not simply behavioral; rather, it entails a deeper level of cultural mindset switching. Future research is needed to further investigate the underlying mechanism that motivates individuals to switch their online behaviors.

In terms of methodological significance, first, our research provides an example of how to leverage online data to study interesting sociocultural phenomena. With millions of people participating in online social networking, SNSs become an excellent platform that naturally records people's social behaviors. By studying the voluminous data housed on SNSs, we can validate or extend existing theories previously developed based on self-report surveys or lab studies (e.g., Goel, Mason, & Watts, 2010).

Second, we utilized a within-participants paradigm to examine how sharing practices were performed within the same individual user in different online contexts. This approach has the advantage of methodologically keeping the individual users constant while isolating the online cultures that are operative in guiding users' behaviors. Alternatively, with a between-participants design, if we compare across the online behaviors of users with distinct cultural backgrounds on different SNSs (e.g., Americans using Facebook, Chinese using Renren, Koreans using Cyworld), we might not be able to make a clear prediction of how online culture influences user behaviors, as the users' behaviors might reflect their national culture, the online culture, or both. Another between-participants design is to identify the culture of an online environment (e.g., Facebook) and examine if users with different cultural backgrounds (e.g., Americans, Chinese, and French) adapt their behaviors to the same online culture, leading to behavioral convergence among different users. This approach cannot rule out the possibility that technical functionality or user interface design of the SNS causes users to change their behavior. By studying the same users' behavior on two technologically similar SNSs, we can identify users' behavioral dynamics that reflect the online culture at work rather than the technical disparities between the two platforms.

Notably, there are two potential alternative explanations for the current findings. First, although Study 1 confirmed that system performance, security, and the usability of sharing functions are similar across Facebook and Renren, the two SNSs differ in their language medium. Facebook's user interface is in English, whereas Renren's is in Chinese (although users can communicate in Chinese on Facebook and English on Renren). In our view, language is part of the cultural systems on SNSs. Indeed, considerable evidence suggests that language constitutes a part of the larger culture such that the use of Chinese can activate the Chinese cultural system and the use of English can activate the Western cultural system (e.g., Bond, 1983; Trafimow, Silverman, Fan, & Law, 1997). Thus, it is reasonable not to consider the effect of language as a rival explanation of the current finding, but to view language as an important element of the online culture in which the users are participating.

Another alternative account concerns how different degrees of closeness of friendship on the two SNSs might have affected individuals' sharing behaviors. Our participants joined the Renren community when they were in China, and later became Facebook users after they arrived in Singapore. It is plausible that participants are closer to their friends on Renren than those on Facebook and therefore share more on Renren. Although data on closeness of friendship are not available in the current studies, our Study 2b examined the sharing behavior of our participants' friends (displayed on the News Feed page). Results showed that participants' friends on Renren engaged in sharing acts more frequently than participants' friends on Facebook. This suggests that the difference in sharing behavior found between the two SNSs is less likely to be associated with the closeness of friendship, as participants' friends on Renren and Facebook should all have

close friends in their social network. Nevertheless, we acknowledge that the closeness of friendship is an important variable to be controlled in future research. Relatedly, future studies can systematically examine how the closeness of friendship and the properties of one's social network (e.g., size and density) would relate to one's cultural and social behaviors on SNSs.

Although our results suggest that in-group sharing is a more prominent practice on Chinese SNSs than on American SNSs, we want to note that collective knowledge sharing has been widely observed on American-based social media platforms. For example, websites such as Wikipedia, Youtube, and Flickr have engaged millions of users to contribute collectively and share their products for free. Kelly (2009) suggested that digital technology is creating a global collectivist society online by maximizing individual autonomy while facilitating collaborative sharing. Collective knowledge sharing could be driven by different motives, as Wei, Liu, and Francesco (2010) revealed that Americans tend to engage in knowledge sharing to establish a sense of individuality while Chinese tend to do so to enhance group harmony. It is possible that many American users of knowledge-sharing websites are motivated by the need to promote their self-worth and to display individual determinations. Meanwhile, research has shown that some people in individualist cultures are allocentrics who have a collectivist orientation and endorse the value of collective sharing (Triandis, Leung, Villareal, & Clack, 1985). Therefore, it is conceivable that some American users of collective knowledge-sharing websites are allocentrics who participate in collective sharing due to their benevolent motive. Future research is needed to better understand users' characteristics and their motives that lead to different kinds of online social sharing behaviors.

Conclusion

Although an accumulating body of research has started to examine online social media, to the best of our knowledge, no research has demonstrated how the same users adapt their social interactions to different online cultures. The present article fills this gap by studying the practice of in-group sharing, a highly common online behavior afforded by many SNSs. Our findings demonstrated for the first time that users with extensive experiences with two culturally distinctive SNS communities can flexibly switch their online behaviors to match the shared practice on those SNSs. With online social networks becoming a highly viable research tool, the current research offers an example of utilizing online data to study an emerging sociocultural phenomenon. We highly encourage other researchers to capitalize on this valuable resource and study the cultural dynamics of their own interest.

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