Self-expression and relational mobility

Self-expression and relationship formation in high relational mobility environments:
A study of dual users of American and Japanese social networking sites

Kosuke Takemura¹ and Satoko Suzuki²

¹Faculty of Economics, Shiga University, Hikone, Japan
²Graduate School of Management, Kyoto University, Kyoto, Japan

International Journal of Psychology, 2017
Vol. 52, No. 3, 251–255
DOI: 10.1002/ijop.12208
Abstract

This study proposes that self-expression motivation, an aspect of independent/individualistic psychological tendencies, aids in the formation of social relationships when social relationships are open and mobile. In societies characterized by high relational mobility (e.g., North America), which creates market-like competition in social relationships, individuals must express their uniqueness and worthiness to form new social relationships. Self-expression motivation has a relatively weak effect on relationship formation in low relational mobility societies (e.g., Japan), where social relationships are generally predetermined. This hypothesis was examined and supported through a study on dual users of two social networking sites—Facebook and Mixi (the “Facebook of Japan”). As expected, relational mobility was higher on Facebook than on Mixi. Moreover, the association between self-expression motivation and the number of new friends met on Facebook/Mixi was more positive for Facebook than it was for Mixi. The social functionality of independent tendencies is then discussed.

Keywords: self-expression, independent culture, individualism, relational mobility, social networking sites
The motivation to express one’s individuality and uniqueness is an important aspect of independent cultures (e.g., Markus & Kitayama, 1991) and has been demonstrated to vary across cultures. Kim and Sherman (2007), for example, found that European-Americans value expression of their thoughts and preferences more than East Asians do. Aaker and Schmitt (2001) showed that Americans more preferred a brand that emphasized uniqueness than one that emphasized assimilation with others, while Chinese people’s preferences followed the opposite pattern. Strong motivation for the expression of one’s individuality and uniqueness in European-American culture has also been demonstrated in several other studies (e.g., Kim & Markus, 1999; Takemura, 2014; but see also Yamagishi, Hashimoto, & Schug, 2008).

Past research has also shown that people in Western cultures engage in social activities to establish connections with others more than do people in East Asian. For example, Westerners are more likely than are East Asians to seek social support (Taylor et al., 2006), disclose personal information to friends (Schug, Yuki, & Maddux, 2010), and trust strangers (Yamagishi & Yamagishi, 1994).

We argue that the coexistence of these two seemingly opposing psychological tendencies—the need to express one’s uniqueness and to connect with others—can be explained by a socio-ecological factor called “relational mobility.” Relational mobility is defined as the degree to which individuals voluntarily form new relationships and terminate old ones in a given society or social context (Yuki & Schug, 2012). This construct, which is generally higher in North America than in East Asia, accounts for cultural differences in several psychological processes, including self-evaluation and self-disclosure (see Yuki & Schug, 2012, for a review). We propose that, in a social environment where relational mobility is high, expressing one’s uniqueness helps in
In high mobility environments, individuals are compelled to attract others with their worthiness (e.g., their ability to be beneficial to others; see Yuki, Sato, Takemura, & Oishi, 2013). People generally have many opportunities to form new relationships and search for desirable social relationship partners. To build relationships in such competitive environments, which resemble open markets, individuals must demonstrate their unique worthiness. However, in low mobility environments, self-expression motivation may be less useful in building new relationships. In such environments, social relationships are generally determined by environmental and social constraints, and closed to outsiders (Yuki & Schug, 2012). In general, people do not trust strangers and are often unwilling to form new relationships (Yamagishi & Yamagishi, 1994). Thus, in low mobility environments, compared to in high mobility environments, self-expression may have weaker effects on the formation of new relationships, as people tend to avoid and distrust those not in their immediate social circles. In short, self-expression motivation may be more functional for relationship formation in high mobility environments than in low mobility environments.

One way of testing the above-mentioned hypothesis is to compare people in high mobility environments with those in low mobility environments. However, this approach has its shortcomings, since it involves comparing different people within different societies. Individual differences, such as personality traits (e.g., extraversion) and social skills, cannot be controlled. This limitation can be overcome by comparing the same individuals in different social environments. Therefore, we examined dual users of two different social networking sites (SNSs), Facebook and Mixi.

Facebook is an American-based SNS and one of the most popular in the world,
Self-expression and relational mobility

whereas Mixi is Japan-based. Though it is generally easier and less costly to connect with others using SNSs than using offline means (which involves face-to-face interaction), people still make choices on whom to interact with on SNSs (e.g., Arnaboldi, Guazzini, & Passarella, 2013). Thus, self-expression may play a role in relationship formation on SNSs.

We expect relational mobility to be higher on Facebook than on Mixi. First, there are more Facebook users (e.g., more than one billion users per month when our survey took place; Facebook, 2012) than Mixi users (e.g., approximately 15 million users per month; Mixi, 2012), suggesting that people can choose their friends from a larger pool of people on Facebook than on Mixi. Second, Facebook has a more diverse user population as Facebook is widely used around the world, whereas Mixi is primarily used in Japan. This is perhaps due to the language settings of the two SNSs. On Facebook, users can choose a language interface among many options, while Mixi provides only a Japanese interface. Third, Facebook’s “share” function allows people to easily learn about others and aids in the formation of new relationships among users. When an individual “shares” others’ posts (e.g., photographs), these posts are distributed throughout that individual’s network. Mixi does not offer such an option, suggesting that there are fewer chances to build new relationships on Mixi. Fourth, people are less likely to use their real names and photographs on Mixi than they are on Facebook (Thomson & Ito, 2012), which masks Mixi users’ identities and thereby inhibits new relationship formation.

Based on the aforementioned characteristics of Facebook and Mixi, self-expression motivation was expected to be more positively associated with the number of relationships formed on Facebook, a high mobility SNS, than with that of
relationships formed on Mixi, a low mobility SNS. We conducted a survey on dual users of the two SNSs and compared the consequences of self-expression motivation between the two. Since we targeted the same users, the differences found between Facebook and Mixi cannot be attributed to individual differences. Thus, this quasi-experimental study examined the environment-dependent association between self-expression motivation and relationship formation in real-life situations, namely, social interactions on SNSs.

We also conducted a validation test to confirm that relational mobility was higher on Facebook than on Mixi. Relational mobility was measured using the index by Schug et al. (2010)—namely, the number of new friends and acquaintances acquired within a certain period (in this case, in the past month). We expected that the average number of new friends acquired within the past month would be larger on Facebook than on Mixi.

**Method**

*Participants*

Residents of Japan using both Facebook and Mixi were recruited by Borders, Inc., a marketing research firm. In total, 131 individuals (66 females) participated in the study. The participants’ age ranged from 17 to 71 years ($M = 40.26$, Median = 39, $SD = 11.78$). Seven of the participants did not have Japanese nationality.

*Procedure*

The study was conducted online. The participants answered a series of questions about the two SNSs, first about Facebook and then about Mixi. First, participants indicated when they had registered Facebook (Mixi). Second, they indicated
the number of users that they had befriended on Facebook (Mixi) within the past month (i.e., the total number of new Facebook/Mixi friends). This included those whom the participants had first met outside of the relevant SNS. Then, they indicated the number of users that they had met and befriended on Facebook (Mixi) within the past month (i.e., new Facebook/Mixi friends met on Facebook/Mixi). This number did not include individuals first met by the participant offline (e.g., at a party) or on other SNSs and then befriended on the relevant SNS. This served as the primary outcome variable. Five participants were excluded from the analyses because they did not provide this number. Also, 11 participants were excluded from the analyses as they reported a greater number of new Facebook/Mixi friends met on Facebook/Mixi than the total number of new Facebook/Mixi friends, while the former category should be a subset of the latter.

Finally, three items measuring participants’ self-expression motivation to use Facebook (Mixi) were administered. The participants indicated the extent to which each of the following was descriptive of their motivation to use Facebook (Mixi): “To inform others as to what kind of person I am,” “To express my personality,” and “To express my own opinions.” Responses were indicated on a 7-point scale, with options ranging from 1 (not descriptive at all) to 7 (very descriptive). The Cronbach’s alpha coefficients for Facebook and Mixi were high, at $\alpha = .96$ and .95, respectively. For each SNS, average score across the three items was used as an index of self-expression motivation.

**Results**

**Validation test**

We examined if relational mobility was higher on Facebook than on Mixi. Table 1 shows descriptive statistics regarding the number of new Facebook/Mixi friends
met on Facebook/Mixi. As shown in Table 1, individual differences were large and distributions were positively skewed (medians were zero and smaller than the means) for both SNSs. However, Facebook yielded higher means and maximum values than did Mixi, and a sign test revealed that the differences between Facebook and Mixi were significant ($p = .011$), as expected. In addition, this difference was not explained by the length of SNS membership; namely, the number of new friends did not correlate with participants’ membership length for both Facebook ($r = -.05, p = .613$) and Mixi ($r = -.04, p = .695$). These results showed that relational mobility was higher on Facebook than on Mixi.

Although not a specific focus of the current study, we compared the strength of the participants’ self-expression motivation between Facebook and Mixi (within-participant comparison). The difference between Facebook and Mixi was not significant, $F(1, 114) < .01$, $MSE = .77$, $p = .960$, $\eta^2_p < .001$. 
Table 1. Descriptive statistics

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(M)</td>
<td>(Md.)</td>
<td>((SD))</td>
<td>(Min.)</td>
</tr>
<tr>
<td>New Facebook/Mixi friends met on Facebook</td>
<td>0.69</td>
<td>0</td>
<td>2.96</td>
<td>0</td>
</tr>
<tr>
<td>Facebook/Mixi</td>
<td>0.52</td>
<td>0</td>
<td>2.69</td>
<td>0</td>
</tr>
<tr>
<td>Self-expression motivation Facebook</td>
<td>3.72</td>
<td>4</td>
<td>1.58</td>
<td>1</td>
</tr>
<tr>
<td>Mixi</td>
<td>3.71</td>
<td>4</td>
<td>1.36</td>
<td>1</td>
</tr>
</tbody>
</table>

**Association between the number of new friends and self-expression motivation**

We examined if individual differences in the number of new friends were explained by the individual differences in self-expression motivation for each SNS (see Figure 1 for a plot between the log-transformed numbers of new friends met on Facebook/Mixi and self-expression motivation). We conducted then a mixed-effects, zero-inflated Poisson regression predicting the number of new friends (non-transformed) by self-expression motivation, SNS (Facebook vs. Mixi), and their interaction. The model also included participants’ demographic characteristics (gender and age) as covariates. We employed the zero-inflated Poisson regression because the number of new friends was a count variable with a large number of zeros.

A summary of the results is presented in Table 2. The upper section of Table 2 displays the coefficients predicting the non-formation of relationships. The results suggest that the non-formation of relationships was more likely when self-expression motivation was low. This association was not moderated by SNS, indicating that low self-expression motivation was associated with the non-formation of relationships on both Facebook and Mixi.

The lower section of Table 2 displays the coefficients predicting the number of
relationships formed. Self-expression motivation was positively associated with the number of new friends. However, as expected, this association was moderated by SNS, suggesting that there was a more positive association between self-expression motivation and the number of new friends on Facebook than on Mixi.

Figure 1. A plot depicting the number of new Facebook/Mixi friends met on Facebook/Mixi (log-transformed) by self-expression motivation. A constant of 1 was added before logging because the log of zero was undefined.
Table 2. Zero-inflated Poisson regression predicting the formation of new relationships

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Estimate</th>
<th>(SE)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicting the non-formation of relationships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression</td>
<td>-.55</td>
<td>(.26)</td>
<td>.034</td>
</tr>
<tr>
<td>SNS (ref = Facebook)</td>
<td>1.04</td>
<td>(.56)</td>
<td>.062</td>
</tr>
<tr>
<td>Self-expression × SNS</td>
<td>-.10</td>
<td>(.52)</td>
<td>.849</td>
</tr>
<tr>
<td>Gender (ref = male)</td>
<td>1.34</td>
<td>(.62)</td>
<td>.030</td>
</tr>
<tr>
<td>Age</td>
<td>-.01</td>
<td>(.03)</td>
<td>.670</td>
</tr>
<tr>
<td>Predicting the number of relationships formed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression</td>
<td>.41</td>
<td>(.20)</td>
<td>.039</td>
</tr>
<tr>
<td>SNS</td>
<td>.70</td>
<td>(.52)</td>
<td>.178</td>
</tr>
<tr>
<td>Self-expression × SNS</td>
<td>-.56</td>
<td>(.28)</td>
<td>.044</td>
</tr>
<tr>
<td>Gender</td>
<td>.67</td>
<td>(.39)</td>
<td>.082</td>
</tr>
<tr>
<td>Age</td>
<td>-.07</td>
<td>(.02)</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Note. Estimation method: robust maximum likelihood. Self-expression was centered around the grand mean. Gender and age were participant-level variables.

**Discussion**

The results of our survey on dual users of Facebook and Mixi supported our hypothesis stating that self-expression motivation leads to social relationship formation in high mobility environments. As expected, relational mobility was higher on Facebook than it was on Mixi. Moreover, self-expression motivation was more positively associated with the number of new friends on Facebook than it was on Mixi. Interestingly, the association between the non-formation of relationships and low self-expression was not moderated by SNS, suggesting that one’s social network is less likely to grow if one does not self-express, regardless of the relational mobility level. However, environmental constraints do appear to matter in the formation of new relationships. Specifically, self-expression motivation was more associated with relationship formation in high mobility environments than in low mobility environments, as suggested by the moderating effect of SNS on this relationship.

The strength of this study is its use of a within-participant design to capture the
effects of relational mobility as an aspect of the social environment rather than an individual difference. By investigating dual users of SNSs, this study provides strong support for our argument that even for the same people, the effect of self-expression motivation on relationship formation depends on the environment (i.e., the SNS).

One of the limitations of the current study is its correlational nature. Future studies need to examine causality between self-expression and relationship formation.

Similarly, we could not rule out the possibilities of confounding variables. Though, as expected, Facebook showed higher relational mobility than did Mixi, other factors may be causing the differences observed in the association between self-expression motivation and the number of new friends. For example, it is likely that there are more Western users on Facebook than there are on Mixi. Since Westerners tend to prefer uniqueness (Kim & Markus, 1999), the stronger positive effect of uniqueness expression (i.e., a greater number of new friends) on Facebook may be explained by a greater number of Western users on Facebook than on Mixi. An experimental approach manipulating relational mobility (Yuki et al., 2013) could be used to overcome this limitation. An advantage of the current study, however, is that it addressed a real-life variable, namely, the growth of the social network on SNSs. Dual users of SNSs provided a unique opportunity for determining the environment-dependent functionality of psychological tendencies in a real-life situation.

The current findings explain why individuals in European-American cultures display seemingly contradictory psychological tendencies, namely, self-expression motivation and active engagement in social activities. Considering the characteristics of the social environment (i.e., high relational mobility), independent psychological tendencies such as self-expression motivation (Markus & Kitayama, 1991) may be
understood as a part of individuals’ strategies to be successful in their social lives (Takemura, 2014). Individuals in both low and high mobility environments are motivated to have social bonds with others (Baumeister & Leary, 1995); however, people use different strategies to establish social relationships, depending on the level of relational mobility in their environment.

**Endnote**

1 See Supporting Information for the meaning of the absence of a main effect of SNS in this model.

2 The interaction effect of SNS and self-expression motivation on the number of new friends met *outside* of the relevant SNS was weaker (estimate = -2.38, *p* = .060) than that on the number of new friends met on the relevant SNS. See Supporting Information for further information.

3 The non-Japanese participants did not have a considerable influence on the results. After removing them, the interaction effect of SNS and self-expression on the number of relationships formed remained significant (estimate = -.96, *p* = .046).

**Acknowledgments**

This research was supported by a JSPS KAKENHI (Grant Number 23730576 and 25240050). The authors would like to thank Robert Thomson (Hokkaido University) and Hiroshi Shimizu (Kwansei Gakuin University) for their helpful comments on earlier versions of this manuscript.
References


Supporting Information

Self-expression and relationship formation in high relational mobility environments: A study of dual users of American and Japanese social networking sites

Appendix S1. The meaning of the main effects of SNS in the regression model

Table 2 in the main text reports that the dummy variable for SNS (with Facebook as the reference category) was only marginally significant in predicting the non-formation of relationships, and was non-significant in predicting the number of relationships formed. Some readers may view this as inconsistent with the reported results of the sign test, which indicated that the number of new Facebook friends met on Facebook was significantly larger than the number of new Mixi friends met on Mixi \( (p = .011) \). Generally speaking, the main effect in a model including interaction terms needs to be interpreted cautiously. The following formula is a simplified model of our analysis reported in Table 2:

\[
Y = \alpha + \beta_1 \times SNS + \beta_2 \times self-expression + \beta_3 \times (SNS \times self-expression) + \epsilon
\]

When \( self-expression \) is centered (as we did in our model reported in Table 2), then for a person whose \( self-expression \) is average (i.e., those who have a score of 0 on the centered \( self-expression \)), the model can be simplified to

\[
Y = \alpha + \beta_1 \times SNS + \epsilon
\]

Hence, when the variable is centered, the main effect of \( SNS \), namely \( \beta_1 \), is the effect of \( SNS \) for a person who has average \( self-expression \). In other words, \( \beta_1 \) represents the simple main effect of \( SNS \) for a person who has average self-expression motivation, and does not reflect the overall difference between Facebook and Mixi. Therefore, the main
effect of SNS in our regression model has a different meaning from the sign test, which examined the overall difference between the two SNSs.

Appendix S2. The formation of new relationships with other Facebook (Mixi) users met outside of Facebook (Mixi)

We expected that the moderation effect by SNS (Facebook vs. Mixi) on the association between self-expression motivation and relationship formation would be weaker when participants met the new friend outside of the relevant SNS than when they met on the relevant SNS. This is because we hypothesized that the characteristics of Facebook and Mixi (e.g., the availability of “share” function) influence the number of opportunities to meet new people (i.e., relational mobility) on each SNS, and thus moderate the effect of self-expression motivation on relationship formation in that SNS. The number of new Facebook (Mixi) friends whom the participant first met offline (e.g., at a party) or on another SNS and then befriended on the relevant SNS is less likely to be affected by the environmental characteristics of the relevant SNS.

In fact, as seen in Table S1, when we conducted the mixed-effects, zero-inflated Poisson regression predicting the number of new friends met outside of the relevant SNS by self-expression motivation, SNS (Facebook vs. Mixi), and their interaction effect, we found that the interaction effect between self-expression motivation and SNS was only marginally significant in predicting the number of relationships formed (the lower section of Table S1). Thus, as expected, the pattern

---

1 In addition, when predicting the non-formation of relationships (the upper section of Table S1), the interaction effect between self-expression and SNS was significantly negative, suggesting that the association between self-expression and non-formation of relationships was stronger (more positive) on Facebook than on Mixi. If the interaction effect were significantly positive, it would indicate that the boundary condition of SNS’
that self-expression motivation is more positively associated with relationship formation on Facebook than on Mixi was more evident when we analyzed the number of new friends met on the relevant SNS than when we analyzed the number of new friends met outside of the relevant SNS.

Table S1. Zero-inflated Poisson regression predicting the formation of new relationships with other Facebook (Mixi) users met outside of Facebook (Mixi)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Estimate (SE)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicting the non-formation of relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression</td>
<td>.34 (.22)</td>
<td>.131</td>
</tr>
<tr>
<td>SNS (ref = Facebook)</td>
<td>4.33 (1.34)</td>
<td>.001</td>
</tr>
<tr>
<td>Self-expression × SNS</td>
<td>-1.40 (.37)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Gender (ref = male)</td>
<td>-.99 (1.26)</td>
<td>.434</td>
</tr>
<tr>
<td>Age</td>
<td>-.04 (.04)</td>
<td>.363</td>
</tr>
<tr>
<td>Predicting the number of relationships formed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-expression</td>
<td>1.06 (.30)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>SNS</td>
<td>2.05 (1.06)</td>
<td>.053</td>
</tr>
<tr>
<td>Self-expression × SNS</td>
<td>-2.38 (1.27)</td>
<td>.060</td>
</tr>
<tr>
<td>Gender</td>
<td>-.55 (.70)</td>
<td>.434</td>
</tr>
<tr>
<td>Age</td>
<td>-.08 (.03)</td>
<td>.007</td>
</tr>
</tbody>
</table>

Note. Estimation method: robust maximum likelihood. Self-expression was centered around the grand mean. Gender and age were participant-level variables.

The interaction effect when predicting the number of relationships formed was marginally significant rather than non-significant (the lower section of Table S1). This could be explained by the process depicted in Figure S1.

characteristics (i.e., relational mobility as an aspect of the social environment rather than an individual difference variable) was not supported.
1. [paths f1 and m1] A participant’s self-expression motivation on Facebook/Mixi may be associated with self-expression motivation in general (consistent with this view, self-expression motivation on Facebook was strongly positively correlated with that on Mixi, $r = .65, p < .001$, suggesting that self-expression motivation is a person-level characteristic).

2. [path g1] A participant’s general motivation of self-expression may be associated with the number of new friends in general.

3. [paths f2 and m2] The number of new friends in general may be associated with the number of new Facebook/Mixi friends met outside of Facebook/Mixi.

4. Path f2 may be stronger than path m2: The number of Facebook users is larger than the number of Mixi users. It is more likely that the person met outside of Facebook/Mixi has a Facebook account than a Mixi account. Therefore, path f2 may be stronger than path m2.

As a result, the total association between self-expression motivation on Facebook and
the number of *new Facebook friends met outside of Facebook* (path $f_1 \times g_1 \times f_2$) can be greater than *the corresponding association for Mixi* (path $m_1 \times g_1 \times m_2$). This corresponds to the interaction effect of self-expression motivation (on Facebook/Mixi) and SNS on the number of new Facebook/Mixi friends met outside of Facebook/Mixi.

In short, the relatively weak interaction effect that we found (Table S1) was possibly due to spurious correlations via general self-expression motivation; thus, our hypothesis was not threatened.