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A survey of Caucasian-American and Japanese young women investigated cultural differences in types of social networking site use and motives for use. Although there were some disparities between American and Japanese young women in motives for social networking site use, generally the main motive was communication with ingroup peers known offline. Participants reported lesser use for social identity gratifications and social compensation. The findings also indicated that American young women are more prone to public expressions of connection with peer group via their Facebook photographs. Japanese young women are much more likely to communicate closeness via Mixi diaries. Such diaries illustrate a preference for privacy among Japanese being available only to those considered close friends.

Keywords: Mixi; Facebook; Social Networking Site Use; Social Identity; Social Identity Gratifications; Social Compensation

Introduction and Study Rationale

Internationally, young people are in the forefront of social media use especially as subscribers to now ubiquitous social networking sites (SNSs) (Neilsen Company, 2009). In part, SNSs provide young people opportunities to identify with existing offline friends who look, think and act like they do (Paul & Brier, 2001; Pembek, Yermolayeva, & Calvert, 2009; Rademacher & Nelson, 2008). This is especially so for young women who typically use such sites to keep in touch with close friends and maintain existing relationships (Acar, 2008; Kotera, 2009; Mikami, Szwedo, Allen, Evans, & Hare, 2010; Mobile Marketing Labo, 2010; Pew Research, 2010; Takahashi,

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2010; Valkenburg & Peter, 2007a; What Japan Thinks, 2009). That said, only a limited amount of research has addressed cultural differences (or similarities) in SNS types of use and subscribers' motives for use. Much of the SNS commentary and research thus far relates to Western societies (especially North America) and the assumptions articulated about SNS use take on an axiomatic tone. But on and offline social networks based in varying geographical locations likely operate differently and therefore may impact people's interactions in differing ways (Donath & boyd, 2004).

SNSs are undoubtedly very popular in North America and Europe (Ofcom, 2010; Pew Research Center, 2010) but are also extremely popular in East Asia particularly in Japan (Mobile Marketing Labo, 2010; Takahashi, 2010; What Japan Thinks, 2009). SNS subscribers in these differing parts of the world have youth and similar user trends among women in common. For example, market research (e.g., Kashiwagi, 2009; Mobile Marketing Labo, 2010; What Japan Thinks, 2009) shows that Japanese females more than males use SNSs for blogging, messaging, playing and for self-expression. As well, Kotera's (2009) survey of Japanese students' uses of the SNS Mixi via mobile phone showed that this communication space was used chiefly among females for reinforcement of existing relations, and to a lesser extent for knowledge acquisition, and new relationships.

In America, Rainie (2003) reported that young females are more likely to talk with friends on the Internet about romantic relationships, secret things, and deep feelings than males (see also, Valkenburg & Peter, 2007b). Pew Research (2007) found that, while young women were more likely to use SNSs to maintain contact with their friends, males were more likely to use their sites to make new friends and to flirt. In their study of American college students' use of Facebook, Pembek et al. (2009) found that female participants reported that photos and media preferences such as favorite music, movies, and books helped them reach out to their friends. In a sense gender differences in communication using social media are not surprising because research provides evidence that women sometimes communicate in differing ways and for differing reasons in face-to-face interactions (e.g., self-disclosure; Dindia, 2000).

But despite similarities in use among female SNS subscribers in America and Japan, clearly Eastern and Western countries are the seats of different cultural perspectives; therefore, the first goal of the study was to map similarities and identify differences in SNS use and motives for use among young women from America and Japan.

Much of the early research and commentary about catalysts for Internet and SNS use revolved around the expression of personal identity (e.g., Chandler & Roberts-Young, 2000; Turkle, 1997)—the idiosyncratic combination of personality attributes not shared with other people (Hogg, Abrams, Otten, & Hinkle, 2004). In comparison, there is a dearth of research that focuses on social identity and/or collective self-esteem as potential antecedents to SNS use. Social identity and collective self-esteem relate to the meaning and sense of importance attached to social group belonging (Tajfel & Turner, 1986). Since by definition SNSs are about connection in a very social sense this gap is surprising indeed. Currently, the largest SNS in the world is Facebook (website.monitoring.com, 2010) and the login page proclaims: ''Facebook helps you connect and share with the people in your life.'' Connection though can be

communicated and enacted in vastly different ways and often such displays are culturally contextualized (Gudykunst, 2003, 2005). Therefore, the second goal of this study was to investigate if and to what extent social identity underlies motives for SNS use among both American and Japanese participants. In particular, the study sought to track potential relationships between participants' social identity and collective self-esteem and two specific motives for SNS use: social identity gratifications and social compensation.

The concept of social identity gratifications (SIG) addresses the use of social media to gratify the need to identify with others who may look or think like they do, and who share similar tastes and interests (Barker, 2009). By contrast, social compensation involves the use of social media to replace or supplement offline interpersonal interactions (e.g., Kraut et al., 2002; Peter, Valkenburg, & Schouten, 2005, 2006). These concepts are discussed in more detail later in relation to the theoretical thrust of the study. But first a review is provided of current information about types of use and motives for use of Mixi (Japan's largest SNS) and Facebook (most popular SNS in America).

Mixi and Facebook

Mixi is the most popular SNS in Japan with over 17 million users who typically log on via their mobile phones (Japan Pulse, 2010; Quarkbase, 2010). However, in contrast to Facebook or MySpace, Mixi membership is by invitation only and users must be over 15 years old and own a Japanese email address. There is a particular concern among Mixi users about anonymity and privacy. The use of representations of self (e.g., Japanese anime characters and pseudonyms) rather than photographs illustrates this concern (Takahashi, 2010). Facebook was launched in 2004 as an SNS for Harvard students and then in 2006, extended to anyone over the age of 13 with a valid email address. Facebook is said to have over 500 million active users worldwide (approximately 100 million access the site via mobile phone) with the average user having 130 friends and belonging to 13 user groups (website.monitoring.com, 2010). Users create profiles, which contain photos, personal interests, and the opportunity to add groups, and accumulate friends. Privacy settings control access to a personal profile so that only designated friends and users can gain access. For those who do not employ privacy settings, profiles are accessible to any Facebook member.

While Mixi recently opened up to outside applications similar to those available to Facebook users (especially by adding new games and a Twitter-like option called *Tsubuyaku*—to whisper) there remain significant differences between the two SNSs so much so that in a cross-cultural comparison of Facebook and Mixi features, Fogg and Iizawa (2008) concluded that Facebook better reflects the dynamics that are common to U.S. culture, while Mixi conveys a stronger Japanese perspective. American Facebook users tend to be bold and assertive in conveying their identity with an emphasis on photos, music, and news feeds (Counts & Fellheimer, 2004; Miller & Edwards, 2007) compared to Japanese SNS subscribers who, while

communicative, are typically more conservative and introspective as exemplified by the popularity of diaries/blogs (Kawaura, Sakata, & Matsuda, 2005). That said, both American and Japanese subscribers typically use their SNSs to maintain contact with those close to them offline.

Western SNS subscribers tend toward quick and direct forms of communication with a willingness to post personal views on their profiles and overall, the elements in Facebook are designed to provide for direct notifications that serve as prompts to take action (e.g., poke). Japanese SNS users tend to be more reserved, using a gradual process in getting to know others (Kageyama, 2007). Additionally, research suggests that Facebook and MySpace reflect a desire for continuous contact and awareness of others' actions (Joinson, 2008) and a focus on self (Kageyama, 2007). On the other hand, Mixi users show consideration for other people when they write their profiles by trying not to offend anyone. As well, they emphasize their sameness with others in their tight-knit circle of friends (Kashiwagi, 2009; Takahashi, 2010). In her study of Japanese SNS users, Takahashi observed that college students who developed supportive ingroups (*uchi*), typically sought information about daily activities, feelings, and personal problems through their *maimiku's* (*uchi* members) blogs as a way to maintain and reinforce their friends' *uchi* membership.

Some scholarly research touches upon motives for the use of online diaries among Japanese subscribers. For example, Kawaura, Kawakami, and Yamashita (2002) conducted a study to investigate the psychological implications of Web diaries. Web diaries fell into four categories: Self-conscious memoirs, reader conscious journals, self-conscious and narrowly restricted diaries, and reader conscious open diaries. These four types were described as typically acting as a record of fact or an expression of sentiment, and as self-oriented or reader-oriented. As well, Kawaura, Yamashita, and Kawakami (1999) showed that those who were self-conscious or those who received more positive feedback valued their Web diaries most and expressed the highest level of gratification and intention to continue the Web diary. The authors concluded that, as a form of communication, writing a Web diary acts as a type of self-affirmation.

Research about Facebook, both market and scholarly, is proliferating but much of it is beyond the scope of the present study. Typically though the research shows that people use Facebook (and MySpace) primarily to maintain contact with peer groups in existence offline (Harrison & Thomas, 2009; Joinson, 2008; Livingstone & Brake, 2010; Park, Kee, & Valenzuela, 2009; Pembek et al., 2009; Raacke & Bonds-Raacke, 2008; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). For example, in a qualitative study of British undergraduates, Lewis and West (2009) found that Facebook ''was seen as a supplement to other forms of communication, especially between close friends, and a useful way of touching base occasionally with others'' (p. 1223). Among teenagers in Great Britain, Livingstone (2008) found that communication via SNSs is in part necessary to confirm members' place within the peer network, with older teenagers posting links to favored sites and to those of other friends.

This is mirrored in other Western research relating to motives for SNS use and identity (see Joinson, 2008). For example, in a study of SNS use, Stern and Taylor (2007) found four main reasons for use among 532 undergraduate Facebook subscribers: to show the world who they are; to keep in touch with old friends and to a lesser extent to meet new ones; and to check on the status of their romantic relationships. Another study of undergraduate Facebook users (Ellison, Steinfield, & Lampe, 2007), examined the formation of social capital. Findings were similar to research mentioned above (to develop and maintain ties with friends), but also they found that Facebook use was related to measures of psychological well-being with the suggestion that it may offer benefits for users experiencing low self-esteem. Therefore, although Ellison et al. do not specifically say so, their findings hint at the possibility of social compensation among SNS users who experience feelings of isolation offline.

Extant market and academic research suggests there are both similarities and differences in the types of and motives for SNS use among American compared to Japanese subscribers. Therefore, based on this research, the following two hypotheses were posited:

H$_1$: The primary motive for SNS use for both American and Japanese young women will be peer communication.

H$_2$: American young women will be more likely to post photographs on Facebook while Japanese participants will be more likely to post diaries on Mixi.

As a supplement to these hypotheses, the following two research questions were posed:

RQ$_1$: Comparing American to Japanese young women, what is the relative importance of other SNS use motives?

RQ$_2$: Comparing American to Japanese young women, what other forms of SNS use are reported?

The maintenance of identity and close connections to friends are common themes in research investigating SNS use. Next we discuss a theoretical framework that draws these themes together. Two theoretical streams are discussed: Social identity theory (SIT) and uses and gratifications (U&G). These theoretical streams combine in the concept of social identity gratifications (SIG).

Theoretical Framework

Social Identity

SIT is a Western-based theory that posits that a large part of self-concept is obtained from group memberships (ingroups). People are motivated to evaluate their ingroup positively primarily through social comparisons with other groups (outgroups) (see Tajfel, 1978). Social identity is fundamental to the concept of collective self-esteem (Luhtanen & Crocker, 1992), which denotes those aspects of identity that have to do

with group membership and the value placed on group membership. Personal identity and social identity signify distinct forms of representation (Brewer & Gardner, 1996) but personal self-esteem and collective self-esteem are related in that together they feed into an overall sense of self-worth. In SNSs, both personal and social identity cues are evidenced. SNS users post material that relates to their individual preferences but also include content that acts as a group marker. People who value their ingroup may use SNSs to seek opportunities to communicate with valued peer group members as a way to supplement their offline interactions and in this way, SNS use may provide even greater positive experiences of peer group belonging. This is sometimes referred to as the rich-get-richer hypothesis (Gross, Juvonen, & Gable, 2002; Kraut et al., 2002; Peter et al., 2005).

Limited research investigating the importance of peer group belonging comparing Western and Japanese participants has been equivocal in that the assumption that Japanese are more group-oriented than Westerners has not always been confirmed. For example, Sato and Cameron (1999) conducted a study among Japanese and Canadian students, hypothesizing that the Japanese participants would post higher scores on collective self-esteem; however, Canadian participants scored significantly higher than did Japanese participants on measures of collective self-esteem. The authors speculated that Canadians who were highly group-oriented were members of groups who promoted independence but Japanese who were group-oriented were members of groups promoting interdependence. They also wondered if there were social desirability issues for Japanese participants as typically self-effacing (rather than self-promoting) and this extended to the evaluation of their social groups.

As well, the meaning of group belonging is not necessarily the same for Western and Eastern participants. In a survey of Japanese and American respondents, Yuki (2003) found that the central theme of East Asian group behavior is cooperation within a group, which is represented cognitively as an *interpersonal network* among members. By contrast, for Americans, ingroup loyalty and identity is related to ingroup homogeneity and status. This finding was partially supported in a study of the relationship between subjective well-being and the ethnic/racial homogeneity of the Facebook friendship networks of first-year college students (Seder & Oishi, 2009). For European Americans, having more homogeneous friendship networks was associated with higher life satisfaction and positive affect. In the Yuki study, Japanese respondents' knowledge of the relational connections in the group and feelings of personal connectedness with other group members predicted ingroup loyalty and identity. In other words, the findings indicated that the Japanese emphasized *intragroup* (inside the group) relations rather than intergroup (between group) ones.

Finally, in a rare study addressing the importance of group belonging and SNS use among Japanese participants, Takahashi (2010) employed group and in-depth interviews and participant observation to compare engagement with Mixi versus MySpace. Her research confirmed that young Japanese females more than males use SNSs when they feel lonely or to strengthen their friendships. Also, discussing social groups, she describes the distinction between *uchi* (inside, us) versus *soto* (outside, them). The findings highlighted that, whereas in the past Japanese people had only

one *uchi*, with the emergence of SNSs Japanese young people have multiple *uchis* or ingroups and can connect with them through Mixi. That said, Takahashi found that whereas Mixi acts as a conduit for communication with close peer group members, MySpace is for more diverse contacts not just close friends. She concluded that these forms of usage result from the differing cultural origins of the two SNSs. This leads us next to a discussion of uses and gratifications and social identity gratifications as theoretical explanations for why people choose social media and how they use them.

Uses and Gratifications

Uses and gratifications research (U&G, Katz, Blumler, & Gurevitch, 1974) is concerned with how individuals gratify their needs though media use, as well as the motives and outcomes associated with media use. From this perspective therefore, media audiences are seen as goal-directed and active. A. M. Rubin and R. B. Rubin (1985) view the U&G perspective as one that explains the role of mass media from the perspective of the consumer. The U&G tradition is associated with individual-level goals such as information seeking or to facilitate interpersonal needs. Typically group motivations for mass media use have not been investigated; however, Blumler (1985) believed that we should attend to the degree to which group members maintain and reinforce social identities through what they see, read, and hear in the media. Also, in relation to Internet use, Papacharissi and Rubin (2000) argue that the U&G perspective can facilitate understanding of how people "use technologies to negotiate their identities, social positions, and emotional lives" (p. 176).

Social Identity Gratifications

SIG comprises facets of both SIT and U&G. Research shows that people choose and avoid media content based on group belonging (Abrams & Giles, 2007). Thus in examining media use, Harwood (1997) theorized that people bolster their sense of social identity via mainstream media content (i.e., TV programming) that features people who look and behave as they do and who belong to the same social group. This is the process of media social identity gratifications.

The interactive nature of Internet use and SNSs in particular makes this process much more significant. It might be expected then that those who espouse a high level of social identity and collective self-esteem would seek to bolster these further via the use of SNSs. However, people experience varying degrees of social identity with their ingroup(s); indeed, some individuals may feel no sense of identity at all with their supposedly most salient ingroup. As well, collective self-esteem can be both positive and *negative* because it is the outcome of how a person evaluates his or her own group in addition to how others evaluate that group (Luhtanen & Crocker, 1992). Individuals who perceive their social group to be an unpopular one and believe that others evaluate the group negatively may wish to distance themselves from it (Luhtanen & Crocker, 1992). But some research has shown that those who report negative collective self-esteem can also make use of social media to seek identification with others.

Using a sample of American first-year college students, Barker (2009) investigated gender differences in motives for SNS use, group belonging, and collective self-esteem. Participants high in positive collective self-esteem were strongly motivated to communicate with peer group via SNSs. Females were more likely to report high positive collective self-esteem, greater overall SNS use, and SNS use to communicate with peers. However, although negative collective self-esteem correlated with SIG, it was also associated with social compensation, suggesting that those who felt negatively about their social group used SNS as an alternative to communicating with others.

Social Compensation

The social compensation hypothesis suggests that people who are socially anxious may use social media to gain more positive friendship experiences compared to those they experience offline (Cambell, Cumming, & Hughes, 2006; Gross et al., 2002; Kraut et al., 2002; Peter et al., 2005, 2006). This phenomenon is illustrated by the term the poor get richer (Ellison et al., 2007). Social interactions that occur using SNSs are predominately conducted via on-screen text. Thus, communicating in this way may create a more comfortable environment for those who are uneasy in face-to-face situations (Desjarlais & Willoughby, 2010). Put another way, people experiencing social anxiety may be more likely to report SNS use for social compensation than those who feel at ease with their peers.

Several studies among adolescents support this hypothesis. For example, Peter et al. (2005) showed that extraverted adolescents self-disclosed and communicated online more frequently, which facilitated online friendships. However, introverted adolescents were more likely to communicate online to compensate for lacking social skills. In another study (Valkenburg & Peter, 2007a), socially anxious adolescents perceived the Internet as more valuable for intimate self-disclosure than did non-socially anxious respondents, and this perception resulted in more online communication. Desjarlais and Willoughby (2010) investigated whether the positive association between online communication with friends and reports about friendship quality was stronger for adolescents with low levels of social anxiety (rich-get-richer) or high levels of social anxiety (social compensation). They found support for both the rich-get-richer and social compensation hypotheses among adolescent girls, but for adolescent boys the relationship was stronger only for those with high social anxiety.

Individuals who experience negative collective self-esteem are unhappy about the groups with which they associate or are associated with. Social media provide the opportunity then to reinvent oneself or to find the company of others. But as discussed above, research with regard to social identity is sometimes contradictory when comparing North American and Japanese participants and also research about SNSs in this theoretical domain is in its infancy (see Kwon & Wen, 2010). A small amount of research in America has addressed social identity gratifications as a motive for SNS use, but no research of this kind has been conducted in Japan. Similarly, no

research about the role of social compensation as a motive for SNS use has been carried out in Japan although there exists quite a body of research in Europe and America. Therefore, the following and last research question was posed:

RQ₃: Among American young women compared to those from Japan, what is the nature of the relationship between level of social identity and valence of collective self-esteem and motives for SNS use (especially social identity gratifications and social compensation)?

Method

Participants

The sample consisted of a total of 282 female undergraduates in their first year at university (age range 18–19 years). Japanese participants ($n = 118$) reported an average age of 18.34 ($SD = .48$) and were recruited from a number of classes at a central university in Japan. Among Japanese participants, 80% used Mixi as their server while the remainder used other SNSs such as Gree and Mobagee. The Caucasian American participants ($n = 164$) reported a mean age of 18.32 ($SD = .48$) and were recruited from an across campus mandatory introductory communication class at a South Western university. All of the Caucasian participants used Facebook. Participants received an email containing a brief summary of the study goals as well as Institutional Review Board informed consent information and the SurveyMonkey URL.

Questionnaire and Measures

The original version of the questionnaire used in this study was employed in two prior studies involving first-year American students. The reliabilities for the measures in these earlier studies were good (ranging from .80 to .93) and produced similar outcomes on both occasions (Barker, 2009); however, the questionnaire had never been employed in Japan. Therefore, it was translated into Japanese and then back translated into English. Initially, it was piloted with 17 Japanese students (results not included in the final analysis). Some amendments were made for clarity prior to administering the questionnaire in the present study. Within the questionnaire there were several scales measuring variables of interest. These included, motives for SNS use, a group identification measure, collective self-esteem scales as well as formatting, type, frequency, and duration of use questions. With the exception of the frequency questions and nominal-type use questions, the participants' scores were the overall means of the items comprising the scales. All scale items were closed-ended and participants responded on a 7-point range (e.g., 1 = very strongly disagree; 7 = very strongly agree). Factor analyses and Cronbach alphas were computed to assess the applicability of these scales among participants in each location (see Data Analysis). The benchmark for statistical significance in this study was $p < .05$. Scale items included in the analysis and their reliabilities are shown in Table 1.

Table 1 Scales and Reliabilities.

Scale and Scale Items	Japan	America
Peer Group Communication	.86	.87
I go on my SNS to:		
Communicate with close friends		
Stay in touch with close friends		
Swap news with close friends		
Pass Time	.85	.84
I go on my SNS:		
To pass time away		
Because it's a habit		
Because it gives me something to do		
Entertainment	.86	.84
I go on my SNS because it's:		
Enjoyable		
Exciting		
Pleasant		
SIG	.91	.86
I go on my SNS to:		
See people with a similar background		
Meet people like me		
Meet new people like me		
Interact with people like me		
Social Compensation	.88	.83
I go on my SNS:		
Because there's no one to talk to		
Because it makes me feel less lonely		
To see what happens to people like me		
Because it helps me learn about myself		
To see what could happen to me		
To get away from other people		
Positive Collective Self-Esteem	.79	.88
I am glad to be a member of my group		
I feel good about the group I belong to		
Others consider my group good		
Negative Collective Self-Esteem	.74	.87
I often feel I am a useless member of my group		
I feel I don't have much to offer my group		
I often feel my group is not worthwhile		
I often regret that I belong to my group		
Frequency of SNS Use	.80	.74
How long do you spend on weekday?		
How long do you spend on weekend?		
How many times visit weekday?		
How many times visit weekend?		
How many times visit friends weekend?		
How many times visit friends weekday?		

Motives for SNS Use

Based on prior research (Barker, 2009; Harwood, 1999a, 1999b; Papacharissi & Rubin, 2000; Rubin, 1979, 1984), existing measures of media gratifications were reviewed and a combination of interpersonal, socio-psychological, media, and CMC

motives were conceived. These included SIG, social compensation, peer communication, passing time, and entertainment. For example, on a 7-point scale participants were asked how much they agree that they go to their SNS to pass away the time, or because it is convenient, to swap news with close friends, to communicate with close friends. Seven amended items from the age identity gratifications scale (Harwood) were used to measure motives for using SNSs for social identity gratifications. The original scale was intended to measure identification with characters (in terms of age) within television content (e.g., "I watch television because I enjoy watching young people like me"; I watch television to see people who I identify with"). Therefore in this study participants were asked how much they agree that they go to their SNSs to interact with people who are like them or to identify with people like them. See Table 1 for the motives items included in the final analysis.

Group Identification and Collective Self-esteem

The Tropp and Wright (2001) inclusion-of-ingroup-in-self measure was used to assess group identification.

This measure has been used in a variety of research contexts (e.g., Abrams & Giles, 2007) and results have indicated that it is a valid and reliable measure for assessing group identity. It is highly correlated with other group identification measures; moreover, its visual representation appears to capture the underlying basis of ingroup identification in the form of the inter-relationship of self and group.

Additionally, 12 amended items from the collective self-esteem scale (race-specific version, Crocker, 2007; Luhtanen & Crocker, 1992) were employed. The 16 original items referred to the value placed by respondents upon being members of a racial group—how much affinity with their racial group participants feel and also how distant, uninvolved they feel (e.g., "I often regret that I belong to my racial/ethnic group"; "Overall, my racial/ethnic group is considered good by others"). The 12 amended items used in the current study had been successfully employed in two prior studies (reliabilities respectively: positive collective self-esteem .91, 91; negative collective self-esteem .84, .83). Agreement with six of the items indicates a high level of collective self-esteem (e.g., "In general, I'm glad to be a member of my group")— *positive collective self-esteem*. Agreement with the other six items indicates a disconnect from group and collective self-esteem (e.g., "I often regret that I belong to my group") —*negative collective self-esteem*. See Table 1.

Frequency of Use and Type of Use

First, general information questions were included concerning server identification, length of membership, restricted or unrestricted access, and number of regular visitors. Participants were also asked to provide the number of visits they make to their SNSs (and to their friends' SNSs) on an average weekday as well as on an average Saturday or Sunday (between 1 to 5 with an option to type in other number estimates). Next they were asked to provide estimates of the length of time spent on

their SNSs on an average weekday and on an average Saturday or Sunday (between 1 to 12 hours with an option to type in other lengths of time). The responses to these frequency and duration questions were summed to form a global measure of SNSs usage. As well, participants were asked to estimate how often they change the content and/or features (options 1 to 7 where 1 = never; 7 = very often). Also they were asked about the kinds of features are included on their page (options: yes/no; e.g., special backgrounds or wallpapers, photos, video, music, animation, movie clips, diary, blogs) and types of color schemes they like to use. Finally, participants were asked if they provide personal information: hobbies, likes/dislikes, people they admire, name, email and home address, or telephone number.

Data Analysis

All analyses were conducted using SPSS Statistics 17. Scale items were coded positively; therefore, a high score indicated higher SIG, higher group identification, use of SNSs to communicate with peer group, etc. To assess the validity and reliability of the scales, two exploratory factor analyses for each sub-sample were performed (using maximum likelihood, promax rotation, factors with eigen values greater than one plus scree plot)—one for motives for SNS use and another for collective self-esteem.[1]

Exploratory factor analysis was deemed most appropriate in this case because, although the research instrument had been previously used with American samples garnering consistent results, it had not been employed in an international setting. As well, the theoretical underpinning for this research was new with regard to Japan and relatively new in America. As mentioned earlier, the research results in this theoretical area have been unclear, and therefore a confirmatory factor analysis seemed inappropriate. For the SNS use motives there was a fair amount of similarity in the factor structures for the locations. In both cases six factors resulted (Japan variance explained = 70.62%; U.S. variance explained = 61.51%). For collective self-esteem the factor structures were different in that for Japan four factors resulted (66.60% variance explained) and for the U.S. there were three factors (67.58% variance explained). As each resulting scale was required to hold across sub-samples only items that loaded in common across sub-samples were included in the scales. The resulting scales were also tested for internal consistency using Cronbach alpha. Items not contributing to reliability were deleted. The scales posted very good to acceptable reliabilities for both sub-samples, ranging from a minimum of .74 to a maximum of .91 (as mentioned, see Table 1 for items included in the analysis and Cronbach reliabilities).

To test Hypothesis 1 (peer group communication as the primary SNS motive for use by sub-sample) and to answer Research Question 1 (other SNS motives for use by sub-sample) a repeated measures ANOVA was used. Sub-sample (Japan vs. America) was the between-subjects factor and SNS motives for use formed the within-subjects factor. To test Hypothesis 2 (differences by sub-sample in types of SNS use; photographs vs. diary) and to determine other similarities and differences in use by sub-sample (Research Question 2), chi-square tests were computed. For Research

Question 3, zero-order Pearson correlations were computed to investigate the relationships between social identity, valence of collective self-esteem (positive and negative) and SNS use motives. The Fisher r-to-z transformation was used to test for statistical differences between correlations across populations (Japan vs. America). Additionally, using social compensation and SIG as dependent variables, multiple regression assessed the relative importance of social identity, valence of collective self-esteem and sub-sample as predictive variables. Finally, MANOVA was employed in supplemental analyses related to diary use and levels of social identity, positive collective self-esteem and negative collective self-esteem.

Results

H_1:   The primary motive for use for all participants will be peer communication.

Hypothesis 1 was partially supported. The repeated measures ANOVA indicated a significant difference across sub-samples on SNS motives for use ($F(1, 268) = 16.11$, $p < .0001$, $\eta^2 = .06$). On average, American participants reported that communicating with close friends was the most important motive overall with passing time second. However, Japanese participants posted the highest mean for passing time with communication with close friends second. But, a post hoc paired-sample t-test ($t(115) = -.84$, $p = .40$) revealed no statistical difference between the means for these two motives among Japanese participants. Hence communicating with friends and passing time appeared to be equally important to Japanese participants. The descriptive statistics for the SNS motives and other scales are summarized in Table 2.

H_2:   American females will be more likely to post photographs on Facebook, while Japanese females will be more likely to post diaries on Mixi.

Hypothesis 2 was confirmed. All of the American participants used Facebook and the overwhelming majority of Japanese participants used Mixi (none used Facebook). Therefore SNS type served as the sub-sample predictor for the chi-square tests. Fully 77% of Facebook subscribers posted a picture of themselves compared to 21% of Mixi ($\chi^2 = 129.31$, $df = 3$; $p < .01$). Also 78% of Facebook users posted pictures of their friends compared to 20% of Mixi subscribers ($\chi^2 = 115.60$, $df = 3$; $p < .01$) and 72% of Facebook users posted pictures of themselves with their friends while 26% of Mixi participants posted such pictures. By contrast, 58% of Mixi users posted pictures of cartoon characters compared to 35% of Facebook users.

The most notable finding was the disproportionate use of a diary. Fully 84% of Mixi subscribers used the diary feature compared to 4% of Facebook users. Also, supplemental analyses showed that among Japanese, those who kept a diary were more likely than their non-diary counterparts to use Mixi to pass time ($F(1, 111) = 30.82$, $p < .0001$, $\eta^2 = .22$), for entertainment ($F(1, 111) = 25.85$, $p < .0001$, $\eta^2 = .19$), for peer communication ($F(1, 111) = 18.03$, $p < .0001$, $\eta^2 = .14$), SIG ($F(1, 111) = 7.67$, $p < .01$, $\eta^2 = .07$), and social compensation ($F(1, 111) = 4.46$, $p < .05$, $\eta^2 = .22$). Also, among Japanese participants, those who posted a diary were more frequent

Table 2 Descriptive Statistics: Scale Means and Standard Deviations.

Scale	Sub-Sample	Mean (*SD*)
Peer Group Contact	Japanese	4.53 (1.61)
	American	5.86 (1.08)
Pass Time	Japanese	4.62 (1.56)
	American	5.14(1.35)
Entertainment	Japanese	4.40 (1.36)
	American	4.90 (1.11)
SIG	Japanese	3.77 (1.51)
	American	3.49(1.42)
Social Comp	Japanese	2.44 (1.09)
	American	2.80 (1.15)
Pos Coll esteem	Japanese	5.05 (1.15)
	American	5.69 (1.12)
Neg Coll esteem	Japanese	2.91 (1.03)
	American	2.17 (1.16)
Group ID (1 Item)	Japanese	4.11 (1.68)
	American	4.85 (1.57)
Frequency SNS Use	Japanese	15.72 (6.38)
	American	15.83 (11.34)

Mixi users than those who did not post a diary ($F(1, 111) = 25,62$, $p < .0001$, $\eta^2 = .19$). By contrast, for the very few Americans who reported doing so, posting a diary was associated with social compensation ($F(1, 145) = 14.26$, $p < .0001$, $\eta^2 = .09$, SIG ($F(1, 145) = 5.08$, $p < .05$, $\eta^2 = .03$), and negative self-esteem ($F(1, 145) = 4.04$, $p < .05$, $\eta^2 = .03$).

RQ₁: Comparing American and Japanese females, what is the relative importance of other motives for SNS use?

The order of importance for the other motives for SNS use for each of the sub-samples was (respectively) entertainment, SIG, and social compensation. However, the means were significantly different for the sub-samples for all of the motives. Therefore, Americans were more likely than were Japanese participants to report using their SNSs to communicate with close peer group friends ($F(1, 256) = 61.57$, $p < .01$, $\eta^2 = .194$), for social compensation ($F(1, 256) = 6.0$, $p < .01$, $\eta^2 = .023$), entertainment ($F(1, 270) = 9.24$, $p < .01$, $\eta^2 = .035$), and to pass time ($F(1, 270) = 7.51$, $p < .01$, $\eta^2 = .028$). While Japanese participants were more likely to use SNSs for SIG than were Americans ($F(1, 256) = 4.09$, $p < .05$, $\eta^2 = .016$).

RQ₂: Comparing American to Japanese young women, what other forms of SNS use were reported?

Table 3 Correlations: Number of Friends, SNS Use Motives, Collective Self-Esteem.

	Number of Friends			
Scale	J	A	z	p
Pos Self-Esteem	.23**	.02	1.75	.08
Pass Time	.48**	.18*	2.79**	.003
Peer Comm	.33**	.13	1.74	.08
Frequency Use	.46**	.20*	2.41*	.02

*$p < .05$, **$p < .01$.

With regard to other types of SNS use and frequency of SNS use, some of the most notable findings were that 88% of Facebook users posted music, while only 8% of Mixi users did so ($\chi^2 = 82.91$, $df = 3$; $p < .01$). There was a significant difference in reported number of friends for SNS server ($F(1, 276) = 53.86$, $p < .0001$, $\eta^2 = .16$). Mixi users reported number of friends with unrestricted access on average between 70 and 80 while Facebook users reported an average of 100–150 friends with unrestricted access. For Japanese, number of friends was correlated with positive self-esteem, SNS to pass time, for entertainment, peer communication and frequency of use. See Table 3.

Among Mixi users, 57% said that they restrict access to a select group of friends compared to 37% of Facebook users ($\chi^2 = 54.61$, $df = 3$; $p < .01$). As might be expected 96% of Facebook users published their email address, but only 1% of Mixi users did so ($\chi^2 = 101.82.00$, $df = 3$; $p < .01$).

RQ₃: Among American females compared to those from Japan, what is the nature of the relationship between level of social identity, valence of collective self-esteem, and motives for SNS use?

Table 4 displays the zero-order Pearson correlations between group identity, positive and negative collective self-esteem, and motivations for SNS use across sub-samples.

The pattern of relationships between the social identity and collective self-esteem measures and SNS use motives were quite similar across sub-samples. For the most part there were no statistical differences between the correlations. For example, those participants posting high levels of positive self-esteem tended to be more likely to use their SNSs to communicate with close friends and to pass time. However, there were five noteworthy differences between samples, especially with regard to negative collective self-esteem and social compensation. These findings are summarized in Table 5.

The results indicated that although there was a positive relationship between negative collective self-esteem and social compensation for both samples, it was considerably higher for the American females. Also, the relationship between negative collective self-esteem and SIG was significant only for Americans as was the

Table 4 Correlations for Sub-Samples between SNS Use Motives, Collective Self-Esteem, and Group Identity.

	Pos Coll Esteem		Neg Coll Esteem		Group ID		Soc Comp		Pass Time		SIG		Entertain		Peer Comm	
	J	A	J	A	J	A	J	A	J	A	J	A	J	A	J	A
Neg Coll Esteem	−.59**	−.55**														
Group ID	.26**	.33**	−.20*	−.30**												
Social Comp	−.14	−.17*	.29**	.49**	.01	−.06										
Pass Time	.39**	.33**	−.17	−.02	.19*	.22**	.31**	.38**								
SIG	−.04	−.10	−.03	.23**	.00	.02	.47**	.60**	.33**	.38**						
Entertain	.25**	.38**	−.17	−.05	.11	.21*	.44**	.35**	.62**	.67**	.42**	.42**				
Peer Comm	.40**	.50**	−.21*	−.26**	.23*	.29**	.31**	.04	.61**	.58**	.26**	.11	.64**	.58**		
Frequency Use	.19	.11	−.07	.25*	.22*	.11	.25**	.21*	.52**	.40**	.26**	.26**	.41**	.42**	.49**	.20**

*$p < .05$, **$p < .01$.

Table 5 Significant Differences between Correlations: Japan vs. America.

Relationship	*r*		*z*	*p*
	J	A		
Neg Esteem/SIG	−.03	.23**	−2.6	.03
Neg Esteem/Social Comp	.29**	.49**	−1.95	.05
Neg Esteem/Freq SNS Use	−.07	.25**	−2.67	.008
Peer Comm/Freq SNS Use	.49**	.20**	2.73	.006
Peer Comm/Social Comp	.31**	.04	2.30	.02

*$p < .05$, **$p < .01$.

relationship between negative collective self-esteem and frequency of SNS use. By contrast, the positive relationship between peer communication and social compensation was significant for Japanese females but not for American females. The relationship between peer communication and frequency of SNS use was also higher for Japanese participants.

Supplemental tests indicated that the American participants posted slightly higher scores for group identity (Japanese $M = 4.11$, $SD = 1.67$; American $M = 4.85$, $SD = 1.57$; $F(1, 256) = 13.91$, $p < .01$, $\eta^2 = .052$) and positive collective self-esteem (Japanese $M = 5.05$, $SD = 1.15$; American $M = 5.69$, $SD = 1.12$; $F(1, 256) = 20.63$, $p < .01$, $\eta^2 = .075$). And while the means for negative collective self-esteem were below the mid-point for both Japanese and American participants, the Japanese posted a slightly higher mean for negative collective self-esteem (Japanese $M = 2.91$, $SD = 1.03$; American $M = 2.17$, $SD = 1.16$; $F(1, 256) = 28.49$, $p < .01$, $\eta^2 = .100$).

Two exploratory multiple regression analyses, using stepwise selection, identified the best predictors of social compensation and SIG. Five variables were entered: Positive collective self-esteem, negative collective self-esteem, group identity, peer group communication, and sample (Japan vs. American). In both cases negative collective esteem was the strongest predictor. For social compensation, 3 variables accounted for 24% of the variance in social compensation (overall $F(3, 264) = 29.38$, $p < .0001$), respectively: Negative collective self-esteem (*r* square $= .11$, $\beta = .49$, $p = 0001$), peer group communication (*r* square change $= .12$, $\beta = .31$, $p = 0001$), and sample (American) (*r* square change $= .02$, $\beta = .17$, $p = 006$). For SIG, in a very weak model, again 3 variables accounted for 6% of the variance (overall $F(3, 265) = 6.69$, $p = .0001$), respectively: Negative collective self-esteem (*r* square $= .02$, $\beta = .21$, $p = 02$), peer group communication (*r* square change $= .03$, $\beta = .18$, $p = 007$), and sample (Japanese) (*r* square change $= .02$, $\beta = −.17$, $p = 01$).

Discussion

The present study investigated similarities and differences in types of SNS use and motives for SNS use among American and Japanese young women. As well the goal

was to determine if social identity and collective self-esteem are correlates of motives for SNS use for both locations. Of particular interest in this regard were peer group communication, social identity gratifications, and social compensation. As hypothesized and mirroring other research examining motives for SNS use among young women in general, on average participants used SNSs for communication with ingroup peers known to them offline (the rich get richer—Kraut et al., 2002). However, participants reported use to a lesser degree for social identity gratifications and social compensation (the poor get richer—Ellison et al., 2007). Clearly, there were similarities across samples but some interesting dynamics did emerge with regard to differences in SNS use and motives for use among the sub-groups. The overall picture from the findings is such that American young women are much more prone to public expressions of connection with and celebration of peer groups on SNSs as exemplified by posting photographs. Japanese young women seem to nurture their Mixi friendships and in part communicate their closeness via diaries. It may be that Japanese young women are less likely to define their friends in terms of shared social identities, than to simply see them as close "personal" friends. This then is a more intimate, intragroup (among group) process (Yuki, 2003) and maybe a more "private" one than that undertaken by the American Facebook users who perhaps look for social affirmation in a different and more public fashion.

The types of SNS uses reported by the American and Japanese young women in this study seem to reflect their differing cultural perspectives on communication. As mentioned, American Facebook subscribers were much more likely to post photographs of themselves, of their friends, and of themselves with their friends. Interestingly, the American participants were also more likely to post their choice of music (another type of group marker, Bakagiannis & Tarrant, 2006). By contrast, Japanese participants were overwhelmingly more likely to post diaries on Mixi and more likely to post cartoon characters.

Mixi users (all Japanese) were more likely to restrict access to a select group of friends compared to American Facebook users. This may be because the friends allowed access by Mixi users are *literally* friends; that is, people they know very well offline (for discussion of cross-cultural differences in the meanings of "friends," especially "best friends," see Gudykunst & Nishida, 1986). In contrast "friends" on Facebook may or may not be known well (boyd, 2006). In other words, Americans seem willing to "throw their net" much farther a field. This suggests that American participants are more assertive in their promotion of self and their desire to communicate with others than are Japanese participants. Mixi is more exclusive and private than Facebook, understandably so considering the popularity and the value placed on diary use among Japanese. The diary is a form of communication with close friends but also considered private on some level. This exemplifies a much more unobtrusive and considered form of self-expression than that shown on Facebook. Among Japanese participants, those who kept a diary were more likely than Americans to report SNS use to pass time, for entertainment, peer communication, and social identity gratifications. Posting a diary was also strongly related to frequency of use for Japanese participants. Again for Japanese young women, number

of friends was more strongly correlated to frequency of use, passing time, and marginally more correlated to using SNSs for peer communication. All of this reflects research, which says that young Japanese sometimes spend inordinate amounts of time tracking and responding to Mixi *maimiku* (ingroup friends) and some experience Mixi "fatigue" (*tsukare*) trying to keep up (Takahashi, 2010).

In regard to the relative importance of motives for SNS use, for both sub-samples the most important motives for SNS use were to communicate with close peer group members and to pass time. These findings reflect other social media research, which shows that female participants are likely to use social media for relational purposes and connection to their friends (e.g., Valkenburg & Peter, 2007b). However, Americans were relatively more likely than Japanese to report communication with close friends, social compensation, entertainment, and to pass time as motives for SNS use. While Japanese participants were more likely to report SNS use for SIG than were Americans.

Concerning the relationships between social identity, valence of collective self-esteem and SNS motives for use, in both groups, participants with high social identity and collective self-esteem used their SNSs for peer communication and participants who reported negative collective self-esteem were more likely to seek social compensation via SNSs. These findings are consistent with social identity theory which states that individuals who feel a sense of negative social identity are more likely to distance themselves from their existing ingroup and seek identification with others who are not members of their ingroup. That said, for the American participants the relationship between negative collective self-esteem and the social compensation and SIG motives was stronger than for the Japanese. As well the regression analysis indicated that being an American female was a predictor of social compensation. By contrast, the relationship between peer group communication and social compensation was moderately strong for Japanese but non-significant for Americans. This seems to imply that Japanese participants may view social compensation differently—perhaps as a way of seeking comfort from their close peers and as a way to confirm interdependency with their personal close friends. But for Americans experiencing negative collective self-esteem, SNSs provide an opportunity for contact or interaction with others *outside* their immediate peer group. This may also be suggestive of weaker ties among American SNS users compared to Japanese subscribers.

Implications and Future Research

The findings suggest that for Japanese participants (and perhaps other East Asians) communication via SNSs is not necessarily about group salience. Japan is a highly homogeneous society and based on this study it appears that for young women relationship maintenance via Mixi is more about intragroup networking than group belonging. That said, for Japanese SNS users there may be an unconscious process of self-categorization—group members are simply "aware" of the interpersonal similarities that exist between "friends" in the network. Yuki (2003) speaks of the

relational self which is more concerned with self-definition "in terms of connections and role relationships with significant others" (p. 169) and is associated with interpersonal relatedness, intimacy, and interdependence. This allows group members to monitor each other's behaviors via their diaries and may account for the rather surprising association of peer communication and social compensation among Japanese participants. On the other hand, members of a Japanese person's *Maimiku* may be individually very important, and yet many of them may not be friends with each other. In future research it might be helpful to ask respondents about the degree to which they considered their *Maimiku* a group to which they feel attached, and from which they get a sense of belonging.

In contrast to Japan, North America is ethnically diverse and research investigating Facebook in the U.S. (e.g., Grasmuck, Martin, & Zhao, 2009) shows that ethno-racial identities are salient, highly elaborated, and reflective of offline experiences. Therefore perhaps for the Caucasian participants in this study, in- and outgroups are more salient on Facebook. The findings indicate that these Caucasian Americans assertively celebrate their ingroup belonging via SNSs using photos, music, and applications allowing high-profile connection. On the other hand, those who reported that they did *not* value their ingroup used Facebook for social compensation and SIG; that is, as an alternate form of social interaction. Clearly, as Yuki (2003) suggests, it is important to take account of differing cognitive foundations when comparing intergroup and intragroup phenomena in social media. A better understanding of how these affect motives for SNS use as well as forms of use has the potential to facilitate both interpersonal and business communication in international settings.

In this study, participants were not asked to report self-construals in terms of independence/interdependence. Inclusion of such assessments could have shed more light on *why* participants responded as they did with regard to social identity and collective self-esteem. Relatedly, for the sake of comparison, the scale items were required to hold across sub-samples. However, the data suggest that participants interpreted the meaning of some of their motives for use in differing ways (especially social compensation and social identity gratification) and clearly attributed differing levels of importance to them. As mentioned social identity may mean different things in different cultures. Heine, Lehman, Peng, and Greenholtz (2002) identified the reference group effect, which speaks about the use of Likert scales without the provision of clear reference groups with which to compare in cross-cultural contexts. In this study, participants were asked to consider their closest group of friends when responding to questionnaire items. It is very possible that such a request requires much more clarification. As well, the discrepancy between sub-samples in positive and negative collective self-esteem may be attributed to the tendency of Americans to be more self-promoting (in this case in relation to their assessments of their peer group) and for Japanese to be more self-effacing (about their peer group). In future, research involving participants from contrasting cultural backgrounds the measures should be more carefully constructed to take account of this.

Too, Walther (2009) highlighted the failure of intergroup researchers to pay attention to findings describing the influence of interpersonal interactions within CMC groups (e.g., Wang, Walther, & Hancock, 2009). Future research then should investigate the relationship between the interaction of interpersonal and intergroup factors on motives for SNS use and forms of use. Finally, it is entirely possible that young people in both older, or younger cohorts versus the narrow age band involved here might respond very differently in terms of SNS use. Young males (Eastern and Western) tend to make more instrumental use of SNSs. Therefore these findings will not generalize outside the population addressed here. Future research should re-examine these relationships with all of the above in mind. Additionally, the increasing popularity of Twitter as well as the video-sharing site YouTube, plus the huge popularity of anime/avatar construction in Japan (Nagata, 2009) provide parallel contexts for SIG and social compensation research. SNS users tend to visit their own and others' SNSs daily (several times) over long periods. How this affects motivations for use over time can be best achieved by conducting longitudinal panel studies. Also, the SNS phenomenon is not age-specific. Several SNSs are now designed for older adults and many special interest groups. Intergenerational and cross-group comparisons may provide telling information about the ways in which social identity is developed, reinforced, or inhibited in such contexts.

Note

[1] In Japanese sample factor analyses, for motives: Total variance explained 70.62%; KMO = .88, Bartlett's Test of Sphericity, $\chi^2 = 2980.70$, $df = 595$, $p < .0001$; goodness of fit = ratio chi square/$df = 1.49$ and for collective self-esteem: Total variance explained 66.61%; KMO = .75, Bartlett's Test of Sphericity, $\chi^2 = 485.16$, $df = 66$, $p < .0001$; goodness of fit = ratio chi square/$df = 1.61$. In the American sample factor analyses, for motives: Total variance explained 68.11%; KMO = .88, Bartlett's Test of Sphericity, $\chi^2 = 5869.44$, $df = 595$, $p < .0001$; goodness of fit = ratio chi square/$df = 1.91$ and for collective self-esteem: Total variance explained 66.70%; KMO = .88, Bartlett's Test of Sphericity, $\chi^2 = 1285$, $df = 66$, $p < .0001$; goodness of fit = ratio chi square/$df = 1.97$.

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