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Author(s)	THOMSON, Robert John
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A SOCIOECOLOGICAL APPROACH TO BEHAVIOR AND PSYCHOLOGICAL TENDENCIES ON SOCIAL NETWORK SITES: THE ROLE OF RELATIONAL MOBILITY

ソーシャル・ネットワーク・サイトにおける行動と心理傾向の
社会生態学的アプローチ：関係流動性の役割

Robert Thomson

人間システム科学専攻
学生番号：05135034
THOMSON Robert John

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ABSTRACT

In this dissertation, I use a socio-ecological approach to explore cross-societal differences in behavior and psychological tendencies on social network sites (SNS). Specifically, I propose that a number of behaviors and psychological tendencies associated with SNS use can be explained by relational mobility: a socioecological factor that pertains to the degree of freedom and opportunity people have in a society or social context to form and sever interpersonal relationships according to personal preference. First, in Chapter 1, I outline the rationale for incorporating offline levels of relational mobility in the explanation of online phenomenon. Next, in Chapter 2, I introduce in more detail the socioecological framework within which I approach societal differences in SNS use.

Following this, in Chapters 3 to 5 I explore empirically the role of offline relational mobility in various SNS behaviors and psychology. In Chapter 3 I explain societal differences in Internet privacy concern by way of relational mobility and Yamagishi's concept of general trust. That is, I show in a sample of US and Japanese SNS users that Japanese are more concerned about privacy on SNS than US users, and this difference is mediated by relational mobility and general trust, in serial. In Chapter 4 I use a sample of US and Japanese Facebook users to explore societal differences in self-promoting behavior and associated outcomes on Facebook. I show that US users self-promote more than Japanese users, and report more positive outcomes of self-promotion, and that these differences are mediated by relational mobility.

Finally, in Chapter 5, explore the concept of context collapse and associated interpersonal conflict on Facebook in the US and Japan, from the perspective of relational mobility. I demonstrate that compared with US Facebook users, Japanese users avoid conflict more than US users, and this difference in behavior explains a US-Japan difference in the strength of association between audience diversity and conflict on Facebook. The significance of this work is 2-fold: First, it demonstrates the different ways in which Internet users in different societies shape interaction on SNS in emic ways (rather than technology purely determining behavior) and second, they further our understanding of how the structure of objective social environments impact human behavior.

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CHAPTER I

INTRODUCTION

In 2015, the global penetration rate of active Internet users is estimated to be over 40% (Kemp, 2015). This equates to over 3 billion individuals with access to the Internet (International Telegraph Union, 2015). An estimated two-thirds or more of these Internet users are active social network site (SNS) users (Kemp, 2014). These numbers hold significance for how interpersonal relationships operate in the 21st Century; indeed, for a vast number of individuals, particularly the younger generation (boyd, 2014), interpersonal relationships are increasingly mediated by the Internet, in particular SNS.

Questions of the significance of this paradigm shift for social interaction inevitably revolve around the costs and benefits of a life 'lived online'. Why do people reveal so much of themselves online, despite the risk of behavior and disclosures being taken out of context? Why are some people seemingly not concerned about privacy, despite the threat of identity theft and fraud? How do users navigate the sensitivities of a myriad social connections within one shared online space, and avoid interpersonal conflict on SNS? In broad sweeping terms, the answers to questions such as these is that to which the current work contributes.

The way in which the current work approaches these questions, however, is cross-societal in nature. That is, while a large body of research has already built up around questions such as these within the global West, little research has been conducted which explores the generalizability of findings to societies which differ greatly in social structure, culture, and the nature of interpersonal relationships. Considering the intrinsically global nature of SNS

use, the current work therefore offers a more nuanced, socio-culturally aware view of the question of SNS use in everyday life.

Setting the Problem: SNS Use in Interpersonal Relationships

Before outlining in too much detail the specific contribution of the current work, I wish to first orient the reader in a background of a recent explosion of research into SNS behavior and psychology, and particular issues such research has thus far dealt with in the global West. In this section I will argue that the embeddedness of SNS within existing offline, face-to-face social networks is what drives much of the current literature about this topic. I will also argue that this feature of SNS is what makes cross-societal research in this area not only very suitable, but greatly needed.

Social network sites – a definition. Let us first define "SNS". SNS – social *network* sites – are Internet-based services that "allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connection and those made by others within the system" (boyd & Ellison, 2007, p. 211). More importantly, however, these are online spaces where, rather than '*networking*' (which "emphasizes relationship initiation, often between strangers"; boyd & Ellison, 2007, p. 211), users are "primarily communicating with people who are already a part of their extended social network" (boyd & Ellison, 2007, p. 211). That is, for a vast majority of users, SNS are online spaces for the maintenance of and connection with existing interpersonal ties, initially formed face-to-face (Ellison, Vitak, Steinfield, Gray, & Lampe, 2011).

For the vast majority of users, therefore, SNS – social *network* sites – are not anonymous spaces; SNS are essentially "nonyous" online spaces (Zhao, Grasmuck, & Martin, 2008) where online and offline identities are intrinsically intertwined. Within such online spaces, it becomes difficult to qualitatively divide the real from the virtual; behavior within an SNS can have implications for interpersonal outcomes face-to-face. This nature of SNS is explored more thoroughly in Chapter 4 of this work, but suffice it to say at this stage that the online spaces with which this work is concerned are assumed to be those where the online-offline distinction is weak; where the structure of incentives and outcomes of behavior online are intertwined with the structure of incentives and outcomes of behavior offline.

This is an important point to stress as I move forward; SNS – in particular those investigated in this work, such as Facebook – are *not* a social vacuum, at least in the sense of being tied to face-to-face social interaction outcomes. They are vastly different from often near-perfectly anonymous websites such as 2Channel (2ch.net), for example, a Japanese bulletin board site whose culture advocates complete anonymity on the site; there are no usernames on 2Channel (Stryker, 2011) and very few opportunities for any one individual user or groups of users to build a shared social identity. This is not to say that 'community' does not exist on an anonymous site such as 2Channel – indeed, the communal nature of this otherwise mutually anonymous space was made famous by the quasi-fictitious Japanese popular film *Train Man* (Murakami, 2005). Nor does it mean that mutually anonymous actors on the site do not migrate to more tangible offline social networks (Farrall, 201/2).

However, in comparison, networks of actors on SNS are, relatively speaking, characterized by their embeddedness in the offline "social graph" of users, rather than a mutually anonymous "virtual social graph" (Okada, 2010).

The SNS paradox. It is this characteristic of SNS – their embeddedness within offline social networks – that make them an important new media to research, insofar as their role in interpersonal relationships is concerned. I argue that in order to understand why this characteristic of SNS is important, one must acknowledge that SNS are a paradoxical medium. That is, while SNS facilitate mass management of social contacts and avenues for self-expression and identity performance on one hand, the very technological features which make social connection on SNS possible in fact impose limits on these uses. For example, while the technological features of SNS allow a user to connect to a wide array of acquaintances, and freely broadcast their opinions to those acquaintances, is it wise to take advantage of both of these affordances in equal measure? Indeed, SNS take disparate offline social networks and merge them together online, which compromises the privacy and harmony of interpersonal relationships: self-disclosures have a higher degree of permanence on SNS than in face-to-face situations, so who knows who might take offence or take advantage of personal information and opinions shared online.

It is for this reason – the integral link with offline social worlds among technological affordances which fail to perfectly replicate the offline world – that understanding the promise and pitfalls of SNS use is important. On one hand, SNS promise the benefits of maintaining contact with a broad

network of others: the bridging social capital benefits are real (Ellison, 2007), as are the bonding social capital benefits (Burke, Marlow, & Lento, 2010). The non-synchronous nature of communication on SNS also offer benefits for self-expression for those who may struggle with this in face-to-face situations (Joinson, 2003). In this sense, overall, rather than having a negative effect on offline social connection, SNS are generally seen as complementing or extending the benefits of offline social connection (Vergeer & Pelzer, 2009). On the other hand, however, those technical affordances of SNS may place limits on how willing individuals will be to make the most of the social network and self-expression benefits that SNS offer (Binder, Howes, & Smart, 2012); yes, broadcasting one's struggles with depression may elicit emotional support from one's close peers, but how might this impact one's job promotion prospects if workmates or a boss sees those updates?

This is not a quandary limited to SNS only. Even *before* the advent of the SNS revolution of the mid to late first decade of the 2000's, a large body of research had already appeared, discussing the dynamics of interpersonal relationships as mediated by electronic media. Even at this early stage of scholarship into 'new' media, the questions that pervade so much of contemporary popular and scholarly discourse regarding SNS were a theme in the literature.

In Joshua Meyrowitz's seminal work on electronic media's effect on social behavior, for example, he argues that "traditionally, neighborhoods, buildings, and rooms have confined people, not only physically, but emotionally and psychologically as well. Now, physically bounded spaces are

less significant as information is able to flow through walls and rush across great distances...electronic media have altered the significance of time and space for social interaction" (Meyrowitz, 1986, p. viii). At the time, Meyrowitz was writing in reference to the impact that radio, television, and telephony technologies had on social interaction. How much more so could one argue that this dynamic is present now in a networked age of the ability for individuals to broadcast, connect, and interact with others so freely through social media; never before have individuals' offline social networks been so explicitly represented in such relatively public ways as they are on SNS.

This is the crux of the paradox inherent in study of the role of SNS in interpersonal relationships in a contemporary world: how do users navigate the interpersonal benefits among the costs associated with lives lived online?

The Need for a Cross-cultural Approach.

Suffice the preceding section to say that much ongoing research already exists in exploring the dynamics of SNS use in everyday interpersonal relationships. Still in a relative state of infancy in the field, however, is an exploration of the implications of SNS in interpersonal relationship management in societies outside of the global West. Indeed, all of the preceding work is based on insight through studying SNS users in societies such as the US, the UK, and Western Europe. To the extent that SNS are a global phenomenon – not least indicated by the global SNS use statistics in the opening paragraph of this work, but also by the fact that the fastest growing markets for SNS are developing countries (Kemp, 2015) – research into the ways in which SNS are used in interpersonal relationships in societies outside

of the global West is sorely needed if one is to make generalizations about SNSs' role in interpersonal relationships.

Cross-cultural work to date. Recognizing the global reach of SNS, some select work has emerged to date which explores SNS use in differing societal and cultural contexts. This work is outlined in depth in the empirical work introduced in Chapter 3, 4 and 5, however suffice it to say that not only dual-country studies, but also multi-country work has been conducted investigating various dimensions of SNS use on a number of SNS platforms across a range of societies. For example, in Chapter 3, I introduce a number of dual- and multi-country studies exploring the predictors of privacy concern on the Internet. In Chapter 4, I review previous findings in relation to self-promoting behaviors and outcomes on SNS. In Chapter 5, the focus becomes the ways in which SNS users respond to situations of context collapse – multiple audiences converging upon a shared online space.

While cross-cultural research into context collapse is in a very early stage of development (i.e., cross-national studies are nearly non-existent), the former two topics in particular – Internet privacy concern and self-promotion – enjoy a healthy depth of recent research. Much of this research does not stop at simply describing the degrees to which any particular behavior or psychological tendency is represented across different societies. Much of the work, in particular in the Internet privacy concern literature, is concerned with predictors of societal variation in Internet behavior and psychology.

Traditional explanations for cross-cultural differences. As discussed in more depth in Chapter 3, a majority of previous work into behavior and

psychology on SNS attempts to locate societal variation in those behaviors and psychologies in popular cross-cultural psychology paradigms such as Hofstede's cultural dimensions including individualism vs. collectivism (Hofstede, 1980, 2001) or cultural self-construals (Markus & Kitayama, 1991). Indeed, in a recent comprehensive review of information technology (IT) use across national cultures, Leidner & Kayworth (2006) found that in over 60% of the more than 50 cross-cultural studies represented in their sample, differences in IT use and uptake were interpreted using at least one of Hofstede's five cultural dimensions. However, as demonstrated not only in Chapter 3 of the current work, but also in other recent work examining the role of national culture in use and access of SNS (Gong, Stump, & Li, 2014), cultural dimensions such as these, with their focus on shared cultural values and preferences, increasingly struggle to provide empirical explanations for societal variance in SNS use.

Some authors acknowledge this increasing difficulty for traditional cultural psychology explanations to account for consumer behavior. Citing the increasingly fluid nature of both the tacit and explicit artifacts of national culture due to global information and media systems, they go so far as to call for moving beyond national culture in consumer research. Craig & Douglas (2006), for example, write that "the parallel trends of globalization and multiculturalism make it increasingly important to develop a deeper understanding of culture and its various manifestations. Cultural influences are changing dramatically ... and are increasingly linked across vast geographic distances by modern communication media. Membership in a culture is

becoming more fluid as individuals travel widely and both adapt to new cultural contexts while transporting elements of one culture to another" (p. 338).

Overall, one can argue that the state of the field in cross-cultural research into SNS use is still young, with much work still needed. As will be discussed in Chapter 3, this will likely require a refinement of methods. However, what is clear from the state of the field, as briefly outlined above, is that new paradigms are also needed to develop theory around societal variation in behavior on SNS.

A socioecological approach to behavior and psychology on SNS. One major goal of the current work is to offer a new framework for understanding behavior and psychological tendencies on SNS which incorporates an acknowledgement of variation in the structure of interpersonal relationships across societies. This framework has at its core a socioecological perspective on human behavior and psychology. This framework is explored in more detail in Chapter 2, but suffice it to say here that this socioecological approach to cultural differences in behavior and psychology seeks to identify the locus this of societal variation in humans' fundamental inclination towards social adaptation to objective characteristics of societies and social contexts. That is, it posits that there exist objective physical, social, and interpersonal characteristics of societies that define "adaptive tasks" required for humans to flourish in a particular social ecology. Accordingly, with parallels to behavioral ecology (Davies, Krebs, & West, 2012), this approach suggests that behavioral and psychological tendencies will be selected for based on their utility in

achieving those tasks. Tendencies that are most beneficial for achieving those tasks will more likely to be selected than those that inhibit achieving those tasks.

In particular, I focus on one key socioecological factor called relational mobility – the degree to which individuals in a society or social context have the freedom and opportunity to select interpersonal relationships based on personal preference (Yuki et al., 2007; Yuki & Schug, 2012). In Chapter 2 I argue that relational mobility is one socioecological factor that defines the adaptive tasks required for socially flourishing in a society: the acquisition and retention of desirable relationships in high relational mobility societies, and the maintenance of harmony in low relational mobility societies. I will also argue that these adaptive tasks will affect the behavioral and psychological tendencies of people who live in those societies.

A much more detailed overview of the socioecological approach and relational mobility is presented in Chapter 2, but suffice it to say at this stage that considering SNSs' embeddedness within the offline social worlds of the users of SNS, there is great potential for this novel framework to provide insight into societal variation in SNS behavior and psychology. That is, if indeed the offline-online distinction is weak on SNS, behavioral and psychological tendencies aligned towards achieving adaptive tasks, defined by relational mobility, should be visible in behavior and psychological tendencies on SNS.

Moreover, however, I argue that a socioecological approach is particularly instructive due to the technological affordances of SNS. That is, in

face-to-face situations, communication is relatively ephemeral, and actors are able to reactively adjust behavior in real time, based on the responses of others; if an individual in a low relational mobility society perceives that one's interlocutor is displeased with something one has said or done, that one has disrupted harmony in some way, one is able to immediately work to rectify the situation. Due to the potentially persistent and asynchronous nature of SNS, however, a dynamic arguably emerges whereby much more attention must be paid to ensuring that one's 'performances' are, ahead of actually making those performances, indeed aligned with the adaptive tasks prescribed by the social ecology in which one is embedded.

The Scope and Contribution of the Current Work

The current work spans five main chapters, each with a different focus of investigation, but linked in their contribution to the question of "in what ways is the management of interpersonal relationships on SNS impacted by the society in which users live?" In Chapter 2, I introduce the key socioecological variable I use to predict and explain societal variation in SNS use: relational mobility. Through a review of key previous findings in relational mobility's role in explaining societal variation in interpersonal behavior, I will argue for the value in incorporating this variable into cross-societal work in SNS use. In the following three chapters, I investigate a number of SNS behaviors and psychology; the chapters run in parallel with each other, each standing alone but linked in their role in investigating the central idea of the way in which offline social ecologies affect online behavior.

In Chapter 3, I examine the way in which relational mobility might

impact one key psychological tendency on SNS, namely concern over informational privacy. Chapter 4 moves the focus to behavioral tendencies on SNS, and investigates the role of relational mobility in predicting societal variance in self-promoting behaviors on Facebook. In Chapter 5, I explore the relationship between context collapse (audience diversity) and interpersonal conflict, and the possible role that relational mobility may play in resulting conflict avoidance strategies on SNS. Finally, in Chapter 6, I will discuss the overall implications of the studies and directions for future research.

It should be noted at this point that while the predominant contribution of the current work is well within the computer-mediated-communication (CMC) field, the work also contributes to a larger dialogue about cross-societal variation in behavior and psychological tendencies in general. That is, as described above, the core framework within which this work seeks to interpret and understand that societal variation on SNS, is one that necessarily steps well outside of the CMC field, and draws heavily upon a relatively recently 'rediscovered' sociological view of human behavior and psychology in general: the socioecological approach (Oishi, 2014; Oishi & Graham, 2010). Pressing into this assertion, however, one might argue that the socioecological approach in this work is not simply a lens through which the CMC questions are viewed, but it is a lens that is, through its application to the CMC questions here within, becomes in and unto itself a focus of critical inquiry and development. In this sense, the work is, or at the very least has *become*, interdisciplinary in nature. That is, the work begins with a central question of "how might one explain societal variation in CMC?"

However, by applying a socioecological frame to the process of inquiry, the broader question of "how might one explain societal variation in human behavior and psychology?" also shares center stage. This work as a whole contributes to discussions in both of those realms.

CHAPTER II

THE SOCIOECOLOGICAL APPROACH AND RELATIONAL MOBILITY[1]

[1] The following chapter was published in part as the following peer-reviewed article:

Thomson, R., Yuki, M. (2015). How to win (and lose) friendships across cultures: Why relational mobility matters. In L. Ong (Ed.), *In-Mind Magazine*, Issue 26, No. 6. Available at http://www.in-mind.org/article/how-to-win-and-lose-friendships-across-cultures-why-relational-mobility-matters.

In this chapter, I will introduce the main theoretical framework from which I approach societal differences in behavior and psychological differences on SNS: the socioecological approach and relational mobility. Doing so will require me to step back from the main focus of the current work for a moment. That is, I will first review research outside of the computer mediated communication field which will allow a broad overview of the concept of social ecologies and their impact on behavior and psychological tendencies. I will then return to the topic of SNS and briefly reiterate my rationale for using this approach in the current work.

The Force Behind Cultural Differences: Social ecologies

The idea behind the fundamental concept of social ecologies is the general idea that what kind of behavior is optimal – or, *adaptive* – in any particular situation depends on the nature of the social context in which a person finds themselves. This is the core tenet of the *socio-ecological approach* to human behavior and psychology. By way of definition, the socioecological approach is an approach to psychology that investigates how "mind and behavior are shaped in part by their natural and social habitats and how natural and social habitats are in turn shaped partly by mind and behavior" (Oishi & Graham, 2010, p. 1).

In this sense, one can think of the *ecology* part as having some parallels with natural science. That is, in nature, plants and animals adapt and respond to their natural environment (their ecology) in order to flourish. This is a central tenet of behavioral ecology (Davies, Krebs, & West, 2012), but in a similar way, the socio-ecological approach to variation in human behavior

posits that in order to flourish, humans adapt their behavior (both consciously or not) according to their surrounding physical and social environment (Oishi, 2014; Oishi & Graham, 2010).

Historically, of course, a broad body of research has already uncovered cultural differences in *mindsets* and *shared beliefs* that impact how people in different countries feel, think, and behave. Examples of these differences in cultural mindsets and beliefs include individualism and collectivism (e.g., Triandis, 1995) independent vs. interdependent cultural self-construals (Markus & Kitayama, 1991), and analytic vs. holistic modes of thought (Nisbett, Peng, Choi, & Norenzayan, 2001). However, behind the recent resurgence in the interest in the socio-ecological approach is a growing subset of researchers who feel that something has been left out from many of the current mainstream theories of cultural differences.

How does the socio-ecological approach differ? Recent researchers who take a socio-ecological approach (see Yuki & Schug, 2012 for a review) acknowledge that mental processes and shared beliefs (what goes on *inside* people's minds) are important for understanding cultural differences in behavior. However, they also argue that the 'lost' tradition of acknowledging the impact of objective social and physical ecologies *outside* of people's minds have been put by the wayside in recent decades (see Oishi & Graham, 2010), despite a rich history in earlier years of cross-cultural psychology (e.g., Berry, 1976). They argue that realities *outside* people's minds might directly affect how people behave as well as impact *internal* mental processes – sometimes referred to as 'mental shortcuts' to the most beneficial behavior in any given

situation (see Yamagishi, 2010, 2011).

Relational Mobility: A Socioecological Concept

Throughout the current work as a whole, I will argue that *relational mobility* is a key factor in determining what strategies for interpersonal relationships, as mediated by the Internet, will be effective in any particular social environment. And here it is important to note that relational mobility is a socio-ecological concept – an external social reality – which refers to "the degree to which a particular society or group provides individuals with opportunities to choose relational partners based on their personal preferences" (Yuki & Schug, 2012, p. 137). Below, I will outline the characteristics of low and high relational mobility environments, and the implications differing levels of societal relational mobility have for human behavior and psychology.

Characteristics of low relational mobility social environments. Traditionally, human societies – such as small-scale tribal societies – tended to be low in relational mobility, characterized by relatively 'closed' interpersonal networks and stable group memberships. In social circumstances like these, interpersonal relationships (friends and acquaintances etc.) are generally defined by existing social network structures (like hierarchies and histories of social groups, and work, school, and community groups in more recent times). In short, in a low relational mobility environment, people tend to stay in long-standing relationships and groups, and it is hard to change them if they want to.

Researchers have pointed out that nowadays these characteristics are still prevalent in East Asian cultural regions such as Japan and China (Falk,

Heine, Yuki, & Takemura, 2009; Li, Adams, Kurtiş, & Hamamura, 2014; Schug, Yuki, Horikawa, & Takemura, 2009; Wang & Leung, 2010; Yuki & Schug, 2012) and also in Western Africa (Adams & Plaut, 2003). If one zooms in a little closer, however, some regions within a country may be lower in relational mobility than others: rural regions, for example, tend to be lower in relational mobility than big cities (Yamagishi, Hashimoto, Li, & Schug, 2012).

Characteristics of high relational mobility societies. In contrast to low relational mobility societies, high relational mobility North American societies such as the US and Canada have histories which involve relatively recent and drastic movement of populations. Researchers tentatively suggest that all of that movement of people may have caused those North American societies to end up being higher in relational mobility (Oishi & Graham, 2010). Big city urban areas also tend to be higher in relational mobility, compared to rural areas. In such societies and social environments, opportunity and freedom abounds to select friendships based on personal preference (Li et al., 2014; Schug et al., 2009).

Put simply, a high relational mobility environment is an environment where people have a high degree of freedom and opportunity to meet and freely associate with strangers, and can (relatively easily) leave their current relationships according to their own preferences. Note the emphasis here on *freedom* and *opportunity* to select and move between relationships; this emphasis makes it different to *residential* mobility. Whereas *residential* mobility is all about the *actual* movement of people, *relational* mobility is primarily concerned with the *potential* or *ability* of movement between

relationships (Oishi, Schug, Yuki, & Axt, 2014). The two are related, but mean different things for behavior, as described below.

The effects of relational mobility on behavior and psychology. To date, scholars have shown that relational mobility can explain a host of cultural differences such as in similarity between friends (Schug et al., 2009), what determines happiness (Sato & Yuki, 2014; Yuki, Sato, Takemura, & Oishi, 2013), levels of self-disclosure (Schug, Yuki, & Maddux, 2010a), shame (Sznycer et al., 2012), confidence in one's own abilities (i.e., self-enhancement; Falk et al., 2009), and of trust in others in general (Yamagishi & Yamagishi, 1994; Yuki et al., 2007).

But how does this all relate to strategies for behavior, in particular in interpersonal relationships? That is, how does relational mobility affect which behavioral strategies will and won't be optimal in a given social context? To answer this, we now need to look at what socio-ecological researchers refer to as 'adaptive tasks' required for human flourishing in differing levels of relational mobility. After that, I will look at some of the strategies people use to achieve those adaptive goals.

Adaptive tasks and related behavioral strategies in low relational mobility societies. Considering the closed, committed nature of interpersonal relationships in low relational mobility social contexts, the primary adaptive task in environments like these is to *maintain harmony* within one's existing relationships. Why? Because disharmony means individuals risk being either: 1) eternally stuck in an awkward disharmonious relationship or 2) rejected and face the daunting task of having to form new friendships in a society where

alternative options are scarce.

Research to date has uncovered a number of strategies people use to achieve the low relational mobility 'adaptive task' of *maintaining harmony*. People may be aware of these strategies and purposefully apply them in their everyday interactions with people. Or, people may just 'do' these strategies unconsciously. Here, I will talk about one illustrative behavior, *avoiding offence*, and the emotion of *shame*.

A good strategy to employ in order to maintain harmony is to *avoid offending others*. Yamagishi and his colleagues (Yamagishi, Hashimoto, & Schug, 2008) argue this is because in low relational mobility societies, like Japan, people generally belong to long-lasting, tight-knit relationships, and they have a relative lack of opportunity to obtain new relationships. In such a society, they argue, it is in people's interest to make sure they don't cause offence. After all, if one offends a friend, one may either end up stuck in a disharmonious relationship, or worse, be rejected and struggle to make new friends.

Yamagishi and his colleagues demonstrated this through a simple cross-cultural experiment (Yamagishi et al., 2008). By giving people in the US (high relational mobility society) and Japan (low relational mobility society) a choice between a relatively scarce and unique pen, and an ordinary pen, Yamagishi showed that when people didn't know if they were the first or last to choose (an uncertain social situation), Japanese people were more likely than Americans to choose the ordinary pen. This was despite Japanese, as well as Americans, having a preference for the unique pen. Yamagishi and his

colleagues argued that despite the Japanese's preference for a unique pen, participants from low relational mobility Japan chose the ordinary pen because they were concerned they might prevent *others* from being able to indulge in their preference, and thus causing offence. Of course, offending others in a high relational mobility society is likely to elicit the same results: possible disharmony and rejection. And indeed, when Americans were told that there were others after them who would have the opportunity to choose a pen, they tended to choose an ordinary pen. But since there are an abundance of other relationship options in a high relational mobility social context, the *cost* of being rejected is lower; at least there is a relatively higher likelihood of finding alternative relationships. Therefore, in situations of social uncertainty, Americans tended to choose the unique pen "by default", while the Japanese default behavior was to choose the ordinary pen.

Linked to this strategy of not offending others are cultural differences in how likely people are to experience the emotion of *shame*. Sznycer and colleagues define shame as "an emotion that evolved to deal with the risks and consequences of social devaluation" (Sznycer et al., 2012, p. 354). That is, if an individual feels shame, they can immediately adjust their behavior to avoid being thought of badly by, or offending, their peers. Shame therefore acts as an 'alarm bell' of sorts, motivating the person to adjust their behavior. In high relational mobility environments, however, the emotion of shame is not as common. After all, people in high relational mobility environments can more easily replace relationships, so the *cost* of social devaluation in friendships is not as high.

Adaptive tasks and related behavioral strategies in high relational mobility societies. For the average reader in a high relational mobility society, the emphasis on maintaining harmony in low relational mobility societies may appear a daunting, cognitively draining task; surely the need to constantly be careful of one's actions so as to not cause offence must be taxing. The reality is, however, that people living in high relational mobility societies also have challenges of their own.

Previously, we saw that in high relational mobility social environments, people have a high degree of freedom to choose friends and acquaintances based on their personal preference. In such social contexts, scholars argue the most important adaptive tasks are the *acquisition and retention* of beneficial relationships (Oishi et al., 2014; Yuki & Schug, 2012).

The importance of acquiring and retaining beneficial relationships in a high relational mobility social context is sometimes framed in the sense of high relational mobility societies as *open markets* for interpersonal relationships. Conceptually, one way to grasp the dynamics of such an idea might be to imagine that one has been invited to a speed-dating gathering with one's group of friends. In the group, however, is a friend whom one has secretly had a crush on but never got the nerves to ask out on a date. In that speed-dating situation – an open marketplace for potential romantic partners – there would be very few limitations on whom one might choose to interact with. One might come in contact with any number of interesting, socially attractive people, some of whom might be even more appealing than one's current secret crush. In this sense, there are plenty of opportunities to

potentially *acquire* a more desirable relationship. On the other hand, however, one's secret crush is *also* coming into contact with a number of socially attractive people. In an open market like this, therefore, one should probably be focused on 1) keeping an eye out for potentially new and better relationship options (acquisition), and 2) making sure one's secret crush does not abandon you for someone else (retention).

This rather extreme example captures something of the social dynamics in a high relational mobility environment. It also demonstrates to an extent the difference between *residential* and *relational* mobilities: if one's secret crush has to move cities because their new job requires it (an example of residential mobility), there's likely little one can do about it. But if it is simply a matter of how much freedom one's secret crush has to choose who they end up entering a relationship with (relational mobility), that is something one can try to do something about. Note that the concept of relational mobility is not only limited to romantic relationships, but is also relevant to friendships, business contacts, group memberships etc.

Let us now move on to strategies involved in the adaptive tasks of the *acquisition and retention* of beneficial relationships in a high relational mobility society. Here, I will briefly mention strategies in three domains: self-enhancement, general trust, and self-disclosure.

First, a high level of positive self-regard (a high level of *self-enhancement*) can be thought of as helping people in high relational mobility societies to achieve their goal of *acquiring* desirable relationships (Falk et al., 2009). For a moment, think about if the opposite was true: If one

thinks one is not worthy of the attention of others around oneself, this is likely to affect one's willingness to approach desirable others, and this might mean one miss valuable relationship opportunities. In an open market of interpersonal relationships, therefore, one might expect individuals to have a *positively biased perception* of their self-worth – that is to self-enhance – as this will act as a booster for interacting with and making the most of all those opportunities to meet increasingly beneficial friends.

In low relational mobility social contexts, however, high self-regard may only court relational danger: It may end in unwanted status competition within groups, causing disharmony. Also, if an individual thinks that they are the bearer of highly valued traits, they may end up being dissatisfied with their current unambitious friends. Overall, in such contexts it is better to avoid offence by making sure that you, at least, downplay your greatness and stay out of the spotlight. Indeed, Falk et al. (2009) found this dynamic to exist in the US and Japan, and indeed relational mobility played a part.

Secondly, in high relational mobility societies, a high belief in the benevolence and goodwill of strangers (a high level of *general trust*) will help individuals to approach potential new friends (Yamagishi & Yamagishi, 1994). Once again, consider if the opposite were true: Every day one comes in contact with people who could possibly be one's new best friend with great benefits, but one holds the belief that all strangers are out to harm people. With this mindset, how will one be able to approach those potentially great new friends? By developing a high level of general trust in others however (and a keen sense of who is trustworthy and who is not), a person can break free from

safe, committed social relationships and explore other possibilities. In this sense, to borrow Yamagishi's particular terminology, a high relational mobility environment is one that is high in opportunity cost (Yamagishi & Yamagishi, 1994). There is great opportunity cost associated with staying embedded within committed relationships, when there may be more valuable or preferred relationships outside of those current relationships: general trust allows an individual to step outside of those current relationships and capitalize on other opportunities.

In contrast, research has shown that general trust is lower in low relational mobility societies. Yamagishi and colleagues argue this is because people simply have no need to develop the 'skill' of general trust in low relational mobility societies (Yamagishi & Yamagishi, 1994). Relationships are long lasting and stable, with strong social rules within groups. Group members keep an eye on each other, making sure others pull their weight and do not take advantage of others. In this sense, people can *rest assured* that in-group members will not take advantage of them. There is, however, less need for trust in strangers (that is, general trust) in low relational mobility environments: Why develop a skill that just opens a person up to the potential of being taken advantage of by outsiders?

The two points above refer primarily to the *acquisition* of desirable relationships in high relational mobility societies. My third point refers to the *retention* of current relationships: in high relational mobility societies, *self-disclosure* (revealing sensitive information about the self) appears to be a good strategy to retain current close friends (Schug et al., 2010a). That is, by

telling a close friend about one's most embarrassing experience, for example, this demonstrates one's willingness to be vulnerable with that friend. This in turn communicates one's commitment to your friendship. And if one's friend sees that one is committed, they are more likely to respond in kind. Of course, there is the risk that one's friend might be put off by one's admission. But even if a person's self-disclosure leads to rejection, in a high relational mobility society at least, there are plenty of options to form new relationships. In this way, the *benefit* of self-disclosure (solidifying an otherwise unstable friendship) outweighs the potential *cost* (rejection) in high relational mobility societies. In low relational mobility societies, this cost-benefit situation is reversed: there are few opportunities to make new friends upon rejection, so best to keep those potentially embarrassing admissions to oneself.

Future directions for relational mobility research. There are a few issues which still need to be addressed in future research into relational mobility. First is the *measurement* of relational mobility. Some possible indicators such as residential mobility and number of recent new friends exist, but these indicators measure *actual* movement, rather than *potential* movement. These indicators also confuse *personal mobility* with societal *relational mobility*: For example, an extrovert might more frequently make new friends than an introvert. One solution is Yuki and colleagues' relational mobility scale (Yuki et al., 2007). This scale asks people their perceptions of how relationally mobile *others* are around them. Also, researchers are not completely sure about what causes variation in relational mobility. Is it due to recent histories of residential mobility as alluded to above? Or is it due to

changes in technology (such as railways, communications etc.)? Furthermore, in what way do people notice and adapt to changes in relational mobility (Zhang & Li, 2014)? While these issues still remain for socioecological research involving relational mobility, the concept of relational mobility still holds plenty of promise for theorizing online behavior, as I argue below and in the empirical chapters of Chapters 3, 4, and 5.

The Socioecological Approach and Online Behavior

What implications does this socioecological approach have for behavior and psychology on the Internet? At this point, it is worth reiterating what was put forward in the introduction section. That is, the socioecological approach to human behavior and psychology is one that informs theory regarding the nature of interpersonal relationships in a society. Therefore, considering that SNS users' online SNS networks are essentially a replication of offline social networks, the socioecological approach has the potential to inform societal differences in behavior and psychological tendencies on SNS.

In Chapter 3, I demonstrate that in relation to societal differences in privacy concern on the Internet, these differences can indeed be explained via relational mobility. Specifically, I show that SNS users in Japan – a low relational mobility society – have higher privacy concerns, and that this tendency is linked to the fact that those Japanese users tend to have lower levels of general trust; Japanese SNS users are more concerned about privacy concern because they worry about what might become of their personal information should it get into the hands of someone they don't know. Users in the high-relational mobility US, on the other hand, have lower levels of

privacy concern because they are less likely to believe that a stranger would take advantage of their private information, should it be leaked online. Users' offline social ecologies impact the ways in which they feel about online environments.

Similarly in Chapter 4, I demonstrate that Facebook users in the US tend to self-promote more on Facebook than Japanese users, and that this difference in behavioral tendencies can be explained in part by relational mobility; in high-relational mobility US society, one has to work harder at making one's social value known in a more open marketplace for relationships – behavioral strategies mirror that which one would expect from individuals living in a social ecology where important adaptive tasks are the acquisition and retention of desirable relationships.

Findings in Chapter 5 regarding conflict avoidance strategies also support an implied impact of relational mobility on behavior on SNS. Specifically, results suggested that Japanese, more so than US users, tended to avoid interpersonal conflict on SNS regardless of how diverse their SNS network was. This matches behavior I would expect from individuals living in a low relational mobility society, where the maintenance of harmony is an important adaptive task.

Conclusion

In this chapter, I have reviewed research which provides a compelling and parsimonious framework for understanding societal differences in human behavior and psychological tendencies. This socioecological framework suggests that to understand differences in behavioral and psychological

tendencies across societies, it is important to understand the characteristics of *external* social environments which surround individuals. This socioecological approach to cultural and regional differences in mind and behavior complements previous cross-cultural research. One socioecological factor explored in this chapter is one that is gaining increased attention in recent years: relational mobility. North American societies, as well as urban areas, are high in relational mobility, which means there are an abundance of options for interpersonal relationships. In such a social ecology, people tend to be more confident in their abilities, trust strangers, and be more open about sensitive personal matters. Behaving this way helps them in their goals of acquiring and keeping beneficial friendships. The social environments in East Asia and rural areas, however, tend to be low in relational mobility. Interpersonal relationships are generally pre-determined, and there are fewer options to meet new people. In a social ecology like this, it appears wise to avoid offending others. Doing so will help to maintain harmony in those long-lasting, hard to replace relationships.

In the next few chapters, I will now turn to particular societal differences in online behaviors and psychology that I argue can be explained by employing a socioecological approach, using relational mobility as a key explanatory variable.

CHAPTER III

A SOCIO-ECOLOGICAL APPROACH TO NATIONAL DIFFERENCES IN ONLINE PRIVACY CONCERN: THE ROLE OF RELATIONAL MOBILITY AND TRUST[2]

[2] This chapter is published in full as the following peer-reviewed journal article:

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Introduction

The drive to uncover predicting factors in between-country privacy concern online is more than a passing curiosity. Indeed, concerns by internet users over how personal information might be used or accessed in e-commerce transactions could be costing merchants millions of dollars a year in lost revenue by some estimates (Wu et al., 2012). Also, data management activists blame cultural differences in privacy concern for sluggish national regulation responses to alleged privacy infringements by global SNS (Schrems, 2012). Furthermore, creating online environments where users from an array of cultures can comfortably share personal information with each other is, arguably, a deciding factor in the effectiveness of personalized advertising for global companies such as Google and Facebook (Pariser, 2011). So far, however, research has yet to come to a consensus on between-country factors which can effectively explain differing levels of online privacy concern across societies.

This paper offers unique insights into this area: we report findings from a cross-national study conducted in Japan and the United States, which proposes and tests a novel hypothesis focusing on the structure of interpersonal relationships offline in which a user is embedded (a *socio-ecological approach*; see Oishi & Graham, 2010), and how this affects users' privacy concern on SNSs. Namely, I argue societal differences in relational mobility – the degree to which individuals have the opportunity and freedom to select interpersonal relationships within a given society or societal context according to their own preference (a distal society-level factor; see

Schug et al., 2010; Yuki et al., 2007; Yuki & Schug, 2012) – drive societal differences in general trust (an individual-level belief), which in turn drive concern over what might become of personal information, should breaches of privacy occur online (an individual-level psychology).

Literature Review

National differences in online privacy concern. Numerous previous studies show that people in different countries do, indeed, differ in online privacy concern (Bellman, Johnson, Kobrin, & Lohse, 2004; Cao & Everard, 2008; H. Cho, Rivera-Sánchez, & Lim, 2009; Jones, 2010; Hanna Krasnova, Veltri, & Günther, 2012; H. Krasnova & Veltri, 2010; Liu, Marchewka, & Ku, 2004; Lowry, Cao, & Everard, 2011; Park, 2008; Tsoi & Chen, 2011; Veltri, Krasnova, & Elgarah, 2011). Most studies focus on informational privacy; 'the ability to control who gathers and disseminates information about one's self or group and under what circumstances' (Burgoon et al., 1989, p. 134). This is understandably so, given most studies focus specifically on online activities whereby disclosure of personal information is an integral part, such as SNSs (Hanna Krasnova et al., 2012; Veltri et al., 2011) and e-commerce (Park, 2008).

It is here that a vast majority of researchers turn to Hofstede's (Hofstede, 1980, 2001) classic dimensions of culture for insights that might account for cultural differences in privacy concern online. In surveying individuals in more than 50 counties, Hofstede identified four main dimensions along which cultures differ; Individualism vs. Collectivism, Uncertainty Avoidance, Masculinity, and Power-distance. It is these

dimensions of culture – shared and individually held cultural mindsets which drive behavior – upon which many researchers seek to explain societal differences in privacy concern online.

However, conclusions are inconsistent across studies. In the short list of studies referenced above alone, three studies suggest a positive relationship between individualism and privacy concern (H. Cho et al., 2009; H. Krasnova & Veltri, 2010; Milberg, Smith, & Burke, 2000), and three suggest a negative relationship (Bellman et al., 2004; Lowry et al., 2011; Park, 2008). The relationship between privacy concern and uncertainty avoidance is in a similar situation; four studies suggest a positive relationship (Cao & Everard, 2008; Hanna Krasnova et al., 2012; Lowry et al., 2011; Veltri et al., 2011) and two suggest a negative relationship (H. Cho et al., 2009; H. Krasnova & Veltri, 2010).

Quite aside from procedural variation between studies (see Method section in the current paper for an example), the reason behind these conflicting results arguably lies in the fact that the theoretical bases upon which the conclusions are made are intrinsically shaky; after all, what may be intuitively plausible in one pair of countries may not be so in another. Take the two following assertions as an example, the former predicting a *negative* relationship between individualism and privacy concern, the latter predicting a *positive* relationship: '…people from high individualistic cultures are less concerned with higher levels of disclosure of private information…[because] cultures high in [individualism] often value success, achievement, and economic gain, perhaps even over privacy' (Lowry et al., 2011, p. 176); and,

‘considering that beliefs about an individual’s right to keep his or her privacy constitute an important part of social norms in countries with high [individualistic] values… people in these countries are also expected to have higher privacy concerns’ (H. Krasnova & Veltri, 2010, p. 3). Both studies found in their respective samples (the US and China in the former, the US and Germany in the latter) results which supported their hypotheses regarding the user motivations driving privacy concern online. It should be noted, however, that even taking in a larger sample of countries does not seem to solve this issue, with two multi-country studies (Bellman et al., 2004; Milberg et al., 2000) also producing conflicting results.

Back to basics: trust. In approaching the current state of affairs in cross-cultural research into concern over privacy on the Internet, I thought it beneficial to get back to basics, as it were, and suggest a very simple premise: concern over privacy online – that is, the desire to have control over who has access to information about the self – is first and foremost about *trust*. Admittedly, this premise is hardly ground-breaking. Indeed, the term ‘trust’ appears often in the cross-cultural literature quoted above. For example, Liu et al.'s (2004) study discusses knowledge of Internet platform privacy safeguards (initiatives on the part of the service providers to protect consumers’ privacy) as antecedents of consumer trust; trust here being synonymous with privacy concern. Bellman et al. (2004) also talk about both national privacy regulations and trust-facilitating Fair Information Principles (FIPs): If consumers are interacting within an online environment where industrial regulation (in regards to data handling and security) is effective, users will

trust providers, resulting in less concern over privacy, and less aversion to disclosing personal information.

'Trust,' however, is a slippery concept to grasp, and requires careful definition. Therefore in the current paper I wish to make a clear distinction between trust as *particularized trust* and *assurance*, and trust as *general trust* (Gheorghiu, Vignoles, & Smith, 2009; Yamagishi, 2011; Yamagishi & Yamagishi, 1994). Indeed, despite these distinctions being fundamental to the concept of trust, such conceptual distinctions have evaded much of the online privacy concern literature to date.

To begin with, I would argue that to date, literature about online privacy concern which includes reference to "consumer trust" as an antecedent to privacy concern is in fact referring to one of either 1) *particularized* trust or 2) *assurance*. Particularized trust is that where an individual's decision to trust is conditional on knowledge that the trustee is (or is not) reliable in their behavior, is competent, and acts with integrity and fairness (Barber, 1983). Also referred to as *informational trust* by Yamagishi (2011), this conceptualization of trust fits well with Liu et al.'s (2004) discussion of online privacy concern where it is the degree of consumers' knowledge of institutions' competence in the form of privacy safeguards that determines online privacy concern.

Assurance, on the other hand, is the "expectation of benign behavior for reasons other than goodwill of the partner" (Yamagishi & Yamagishi, 1994, p. 132), and it is often "conditional on ... the sanctioning system within which the relationship between [the individual] and [the trustee] exists" (Gheorghiu

et al., 2009, p. 366). Therefore, applying Yamagishi's concept of assurance to informational privacy concern online, one could easily argue that within a regulatory framework whereby Internet-related organizations are bound by law to protect the privacy of their users – as is discussed in Bellman et al. (2004) – there is in fact no need for *trust* per se: users have assurance their personal information is safe, and therefore there should be reduced levels of privacy concern. In other words, to the extent to which users have knowledge of the law-related sanctioning systems in place to protect their personal data, users' privacy concern levels should vary.

In the current paper, however, I do not wish to dwell on particularized trust and assurance. Rather, I wish to focus on privacy concern beyond regulatory sanctioning systems and consumers' knowledge of platform's privacy protection capabilities, and wish to introduce the concept of *general trust*, something not previously explored in the online privacy concern literature. By general trust, I refer to the "expectation of goodwill and benign intent" (Yamagishi & Yamagishi, 1994, p. 131) of others in general. Put another way, general trust is a "psychological state to accept vulnerability based solely on [a person's] expectations that most people are reliable, honest, good and kind, acting fairly, and not harming [others] intentionally" (Gheorghiu et al., 2009, p. 366). I argue societal differences in general trust – shown by previous research to exist (e.g., Gheorghiu et al., 2009; Yamagishi, 2011) – should drive the degree of privacy concern an Internet user will experience, quite independent of assurances made via the regulatory environment or policies of service providers.

That is to say, organizations make mistakes, information gets lost, and default privacy settings change: I argue it is within the midst of this uncertainty that general trust is likely to have an effect. Put another way, no matter how secure a system is in protecting privacy, it is within the uncertainty of what is beyond the control of the system where beliefs about the goodwill of others – general trust – will affect user concerns: If an individual has a high expectation of the benevolence and goodwill of strangers in general (high in *general trust*), the individual should be less likely to be concerned about the possibility of unintended dissemination of personal information to individuals outside of their SNS network that they do not know; in general, strangers are not out to take advantage of others, so why be concerned? However, if an individual believes 'everyone is a thief' (Yamagishi & Yamagishi, 1994), concern over how an unknown stranger might use one's personal data should be high, if and when informational breaches might occur. Considering the way general trust varies reliably cross-nationally in large multi-national studies (e.g., Gheorghiu et al., 2009; Yamagishi, 2011), general trust has the potential to be a valuable concept in understanding cultural differences in privacy concern online.

A socio-ecological approach. My discussion thus far has not touched on *why* societies should differ in general trust. In exploring society-level determinants of privacy concern online, this would be a glaring omission. In the current paper, therefore, I wish to extend my model to include a specific society-level factor which will aid in predicting privacy concern online across cultures: a socio-ecological factor called *relational mobility* (Yuki & Schug,

2012), previously shown to explain between-country differences not only in general trust (Yuki et al., 2007), but also a host of other cross-national differences in behavior and cognition (see Yuki & Schug, 2012 for a comprehensive review).

According to a socio-ecological approach to human behavior,

> 'culture-specific' behaviors are not seen as necessarily arising from differences in predominant values or beliefs…; rather, cultural differences are characterized as differences in adaptive strategies (both conscious and not) tailored toward producing desirable outcomes in a particular social environment' (Schug et al., 2010a, p. 1477).

Within this conceptual framework, relational mobility refers to the degree to which individuals have opportunities and the freedom to voluntarily form new relationships and terminate old ones in a given social environment, according to one's preference (Schug et al., 2010a). In high relational mobility environments, there are plenty of opportunities to meet new people, leading individuals to have relative freedom to choose new relationships and leave current ones. On the other hand, low relational mobility environments are characterized by relative difficulty in forming and dissolving relationships, and there is a relative lack of opportunities for meeting new people; relationships are thus generally determined by circumstance, tend to be long standing, and be characterized by strong obligatory ties. Previous research found relational

mobility to be high in North American societies, such as the United States, whereas East Asian societies, such as Japan, are low in relational mobility (Falk et al., 2009; Schug et al., 2009; Sznycer et al., 2012; Wang & Leung, 2010; Yuki et al., 2007).

Relational mobility and trust. Important in the current thesis is that relational mobility is a core concept when accounting for why individuals in different societies differ in general trust. Yamagishi and colleagues (Yamagishi, 2011; Yamagishi & Yamagishi, 1994) argue it is only when individuals have opportunities and the freedom to take advantage of beneficial interpersonal relations outside of current committed attachments that general trust – the general belief in the benign intent and goodwill of others – is adaptive: general trust becomes an enabling force that allows one to step outside of the confines of safe, assurance-rich relationships and make the most of opportunities lying outside of existing connections. Hence it is in high relational mobility societies, such as the US, that general trust, along with the ability to discern trustworthiness and dishonesty in others (Yamagishi, Kikuchi, & Kosugi, 1999), is high (Yuki et al., 2007).

In contrast, when relational mobility is low there is little adaptive value in developing trust in the generalized other. Opportunities for, and the freedom to choose beneficial relationships outside of one's present committed relationships are few, so there is less benefit in looking outside of one's current relationships. Indeed, trusting a stranger involves the risk of being taken advantage of, so there is more benefit all round in remaining in committed, closed relationships. For this reason, generalized social trust is lower in low

relational mobility societies such as Japan (Yamagishi & Yamagishi, 1994).

Hypotheses: An integrated model. Taking the above discussion into account, and focusing on SNS users in Japan (low relational mobility) and the US (high relational mobility), I hypothesize an integrated model shown in Figure 3-1. That is, I hypothesize the following.

H1 Japanese SNS users are more concerned about privacy online than United States SNS users (c).

H2 The cultural difference in online privacy concern between Japan and the United Sates is mediated by relational mobility (a_1b_1).

H3 Relational mobility's effect on online privacy concern is mediated by general trust (d_1b_2).

H4 Overall, the cultural difference in online privacy concern between Japan and the United States is mediated by an indirect effect via both relational mobility and general trust ($a_1d_1b_2$).

Method

Participants. 100 SNS users from Japan and 278 SNS users from the US participated in a web survey (administered on Qualtrics, a popular online survey system), designed to explore the hypotheses outlined above. Participants were recruited to the online survey using popular crowd-sourcing sites in both countries: Lancers.jp in Japan and Amazon Mechanical Turk in the United States. Participants were instructed only to take part if they were currently active users (more than one login a month) of some form of SNS (e.g., Facebook in the US; Facebook or Mixi in Japan). For participation, respondents were paid JPY100 in Japan, and US$1.00 in the US.

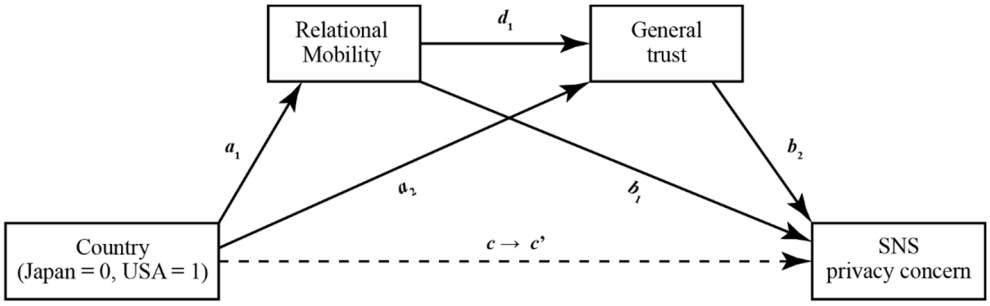

Figure 3-1. Hypothesized integrated mediation model

To ensure data accuracy, responses with a response time below three minutes or above 30 minutes (average completion time was 13.6 minutes) were removed from the samples, leaving total final valid response numbers of 90 SNS users from Japan (M_{age} = 33.98, SD_{age} = 8.96; 54 female) and 256 SNS users from the US (M_{age} = 31.17, SD_{age} = 10.44; 152 female). When asked "in the past week, on average, approximately how many total minutes per day have you spent actively using social network sites such as Facebook or Mixi?", reported time spent on SNS was similar in Japan (M = 28.34 minutes, SD = 41.85) and the US (M = 31.58 minutes, SD = 46.52), $t(346) = 0.73$, $p > .05$. d = .07.

Procedure and materials. Online survey text was simultaneously developed in both English and Japanese by one bilingual researcher, with subsequent edits made by a team of 6 Japanese/English bilingual researchers to ensure equivalency in meaning (see dependent, independent, and mediating variable sections below for scale cross-cultural equivalency measures).

Dependent measure. The dependent measure was a 4-item privacy

concern scale based on Krasnova & Veltri's (2010) online privacy concern scale. My version of the scale asks participants to "please imagine you've just posted some information (such as a photo of yourself, a wall post, your birth date, your real name etc.) on an SNS you use often. In regards to that information, how concerned would you be about the possibility of the following happening?" The four items to which participants responded were: "The information will be used in a way I did not foresee;" "the information will become available to someone without my knowledge;" "the information will be misinterpreted;" and "the information will be continuously spied on (by someone unintended)." Respondents answered using a 5-point scale (1 = Not concerned at all; 3 = Moderately concerned; 5 = Very much concerned).

Note that this is a qualitative departure from Krasnova and Veltri's (2010) original scale, where the scale's lead-in consists of "in regards to the information *you post on [SNS]*, how concerned are you about the possibility of the following happening"? (Emphasis added). Thomson & Ito (2012) found that when the question is framed in this way, true concern over privacy is not captured: That is, framed in its original iteration, Krasnova and Veltri's scale assumes disclosure has already taken place – it directs participants to dwell on *information already posted to an SNS*. Indeed, in previous studies (Thomson, 2013; Thomson & Ito, 2012a) it was found that Japanese were *less* concerned than Americans about the information they actually post on SNS, and this was shown to be due to differences in the volume of self-disclosure on SNS: Americans disclose more on SNS, and therefore have more concern over the privacy of the information they actually post. In the current thesis, however,

I am interested in privacy concern independent of actual disclosure tendencies, and therefore adjusted question wording accordingly.

Cronbach's alpha coefficients for the privacy concern scale were sufficient in both Japan (α = .87) and the United States (α = .85) supporting the internal consistency of the scale in both country's samples (see Table 3-1). I also demonstrated the cross-cultural validity of the scale by showing its structural invariance across samples, using Procrustes Factor Analysis (Fischer & Fontaine, 2011), a widely used method for ascertaining whether or not scale items measure the same concept in each country sampled (Gelfand et al., 2011; McCrae, Zonderman, Costa Jr., Bond, & Paunonen, 1996; Sircova et al., 2014). The procedure was as follows. Using the Japan sample, a reference factor structure was produced using standard principal axis factoring (one factor extracted explaining 69.65% of variance). A subsequent factor structure produced using the United States sample's data was rotated towards this structure using Procrustes rotation (using Fischer & Fontaine's SPSS macro (2011, p. 192)), with the resulting factor structure compared with the original Japan factor structure. Structural invariance (agreement) is measured by

Table 3-1.

Relational Mobility, Privacy Concern, and Trust by Country

	Japan (N = 90)			United States (N = 256)				Between-country comparison[a]		
Measure	α	*M*	*SD*	α	*M*	*SD*	Identity Coefficient	*df*	*t*	*d*
Relational mobility	.84	3.73	.61	.84	4.33	.66	.94[b], .98[c]	344	-7.64***	-.96
Privacy concern	.87	3.63	.92	.85	3.36	1.05	1	344	2.13*	.27
General trust	.87	3.75	1.14	.90	4.30	1.19	.99	344	-3.81***	-.47

[a] *p < .05, **p < .01, ***p < .001.
[b] Identity coefficient for the 'meeting' factor in the relational mobility scale (see Table 2 for detailed factor loadings).
[c] Identity coefficient for the 'choosing' factor in the relational mobility scale (see Table 2 for detailed factor loadings).

calculating the identity coefficient, the most stringent index of fit between factor structures. As a result, factor loadings in both countries were effectively identical, with the Identity Coefficient equaling 1 (see Table 3-1); this well surpasses a recommended minimum of .90 (Fischer & Fontaine, 2011, p. 192). In this way, the privacy concern scale was found to be structurally invariant across both samples.

Mediating variables.

Relational mobility. The survey text included Yuki et al.'s (2007) 12-item relational mobility scale. The relational mobility scale consists of two correlated factors insomuch as participants are asked to evaluate 1) the degree to which others around them in their immediate society (such as their neighbors, friends, co-workers etc.) have opportunities to get to know other people (Factor 1, 'meeting'), and 2) how much choice others around them have in forming or dissolving interpersonal relationships (Factor 2, 'choosing'). Participants responded on a scale from 1 (strongly disagree) to 6 (strongly agree) to statements such as 'it is easy for them (people around you) to meet new people' and 'it is often the case that they cannot freely choose who they associate with' (see Appendix A for full scale item wordings). It is important to note here the emphasis on participants evaluating others around them, rather than the evaluation of their own mobility. This helps to avoid individual-level confounding factors such as personality, physical attractiveness, and abilities etc.: More outgoing and more socially attractive individuals are likely to have higher *personal* relational mobility. Enquiring about people around the participant allows for a better snapshot of the offline

socio-ecological environment surrounding users. This intersubjective measurement technique is sometimes referred to as a referent-shift consensus model of measurement (Chan, 1998; Klein & Kozlowski, 2000).

Cronbach's alpha coefficients for the 12-item relational mobility scale were sufficient in the Japan ($\alpha = .84$) as well as United States ($\alpha = .84$) samples. In order to show the cross-societal structural equivalence of the scale, factor analysis was first conducted using the Japan sample using principal axis factoring and varimax rotation, which resulted in two clear correlated factors (a 'meeting' factor and 'choosing' factor) explaining 55.5% of variance (see Table 3-2 for factor loadings). The US data was then compared to the Japan factor structure using Procrustes factor analysis outlined in detail above (see Table 232 for Procrustes-rotated factor loadings). Results showed a high level of structural invariance across the two samples, with identity coefficients of .94 ('meeting' factor) and .98 ('choosing' factor).

General trust. Yamagishi and Yamagishi's (1994) 6-item general trust scale was used to measure individuals' beliefs about honesty and trustworthiness of others in general. Sample items include "most people are honest," and "most people are basically good and kind," with respondents answering on a scale from 1 (strongly disagree) to 7 (strongly agree). Cronbach's

Table 3-2

Relational mobility scale (Yuki et al., 2007) factor loadings

Items[a]	Factor loadings[b]			
	Japan (N = 90)		USA (N = 256)[c]	
	Meeting	Choosing	Meeting	Choosing
RMob1	0.11	**0.75**	0.22	**0.69**
RMob2	0.16	**0.71**	-0.04	**0.77**
RMob3	**0.57**	0.03	**0.48**	-0.01
RMob4	-0.03	**0.78**	0.29	**0.59**
RMob5	0.12	**0.79**	0.23	**0.74**
RMob6	**0.64**	0.28	**0.54**	0.20
RMob7	**0.65**	0.02	**0.70**	0.22
RMob8	0.24	**0.73**	0.26	**0.73**
RMob9	**0.73**	0.06	**0.31**	0.11
RMob10	**0.73**	0.26	**0.65**	0.28
RMob11	**0.74**	0.19	**0.79**	0.23
RMob12	**0.87**	0.07	**0.77**	0.25
Total variance explained	37.17%	18.36%	37.51%	11.39%
Between-factor correlation	.60		.67	
Overall Cronbach's α	.84		.84	
Identity coefficients			.94	.98

[a] See Appendix A for item wording.
[b] Factor loadings > .3 displayed in bold.
[c] Procrustes-rotated factor loadings shown.

alpha coefficients showed high reliability of the scale in both Japan (α = .87) and the United States (α = .90). Procrustes factor analysis, using the Japan sample's factor structure (one factor produced with principal axis factoring, explaining 66.3% of variance) as a reference showed very high structural invariance across the two samples (Identity coefficient = .99).

Statistical analysis information. All statistical analyses which follow were performed using SPSS 21 statistical software. All mediation analyses were performed using Hayes' (2013) PROCESS plugin for SPSS. All bootstrap intervals are bias-corrected and based on 5,000 bootstrap samples, and all reported regression coefficients are completely standardized (Hayes, 2013, p.

293).

Results

First, H1 was tested using respondent location (0 = Japan, 1 = United States) as independent variable and privacy concern as dependent variable. As expected, results indicated Japanese users were indeed more concerned about privacy on SNS (M = 3.63, SD = .92) than American users (M = 3.36, SD = 1.05), $t(344) = 2.13$, $p < .05$, $d = .27$.

Next, H2 was tested using country of residence as independent variable, online privacy concern as dependent variable, and relational mobility as mediating variable (see Figure 3-2, path a_1b_1). Results indicated a significant indirect effect via relational mobility; β = -.059 (95%CI = -.103, -.007), indirect to total effect ratio = .44. This suggests societal differences in relational mobility partially accounts for country differences in privacy concern on SNS between Japan and the United States.

In the same way, H3 – exploring *why* relational mobility affects online privacy concern – was tested using relational mobility as independent variable, SNS privacy concern as dependent variable, general trust as mediating variable, and country of residence as a control variable (see Figure 3-2, path d_1b_2). Results indicated a significant indirect effect via general trust; β = -.023 (95%CI = -.058, -.003), indirect to total effect ratio = .15. This matches my theory insomuch as individual differences in privacy concern on SNS are due, in part, by individual differences in general trust, variance in which is partially determined by the degree of relational mobility extant in a user's social environment (irrespective of country of residence).

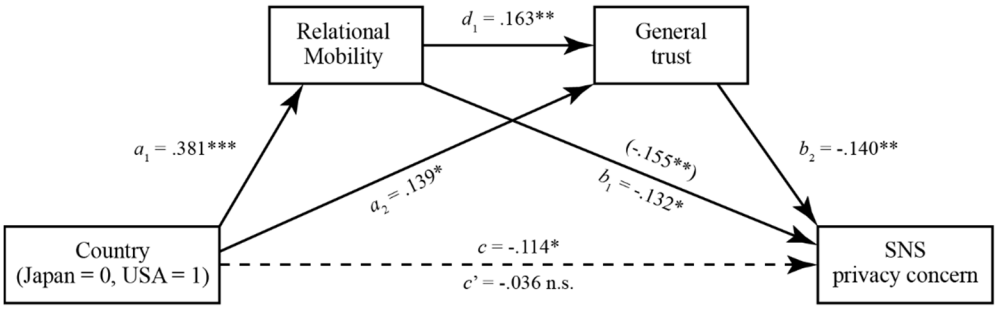

Figure 3-2. Standardized regression coefficients for the relationship between country of residence (either Japan or the USA) and privacy concern on SNS as mediated by both relational mobility and general trust. *c* is the total effect, whereas *c*' is the direct effect of country of residence on SNS privacy concern, controlling for differences in relational mobility and general trust. The coefficient in parentheses is the 'total' effect of relational mobility on SNS privacy concern, whereas b_1 is the direct effect, after controlling for general trust.
*p < .05, **p < .01, ***p < .001.

Finally, H4 was tested using country of residence as independent variable, SNS privacy concern as dependent variable, and relational mobility and general trust as mediating variables in serial (see Figure 3-2, path $a_1d_1b_2$). Results indicated a significant indirect effect via the two mediators; β = -.009 (95%CI = -.023, -.002), indirect to total effect ratio = .08. These results are consistent with my thesis whereby one reason Japanese SNS users are more concerned about the privacy of their personal information on SNS than users in the US is because they live within a low relational mobility society which offers little incentive to develop a general belief in the goodwill of strangers. A resulting lower level of general trust thus drives concern over what might happen to their personal information on SNS should it get into the hands of an

unknown stranger.

Discussion and Implications

The results reported here offer a novel explanation for between-country variance in informational privacy concern online. I found cross-national differences in privacy concern online between Japan and the United States, with Japanese SNS users reporting higher concern over privacy than United States users. I showed this is partially due to differences in relational mobility in the two societies: lower relational mobility in Japan leads to lower general trust, which in turn drives concern over what might become of personal information should breaches of privacy occur.

Theoretical implications.

***A socio-ecological approach to human psychology*.** From a broad perspective, my findings have implications for theory regarding between society differences in human psychology. That is, I began my literature review in the opening of this paper by critiquing previous attempts at explaining cross-national differences in privacy concern, and while my thesis does not directly help the state of theorizing about cross-national differences vis-à-vis cultural dimensions, it does allow for a fresh take on how a characteristic of the social ecology that surround individuals impacts beliefs, which then drive psychological states. This socio-ecological approach to human cognition is not at all mutually exclusive to the cultural-psychological approach to date. However, rather than focus on how mindsets (i.e., cultural dimensions) affect mindsets (i.e., privacy concern), the socio-ecological approach demonstrated in this paper illuminates the value in acknowledging environment-level factors

(external to the individual), which drive selection of beliefs adaptive to said social environment, which in turn drive mindsets: in short, how the nature of offline interpersonal ecologies impact the psychology of online interaction.

***Internet privacy concern*.** More specifically, my findings allow for an intuitively appealing theoretical account for interpreting cross-societal differences in privacy concern online. That is, it makes sense that Japanese users would be more concerned about privacy: They live in a social ecology characterized by comparatively limited opportunities for interaction outside current interpersonal relationships, which leads to relatively closed social relations, leading in turn to a diminished need for developing a belief in or expectation of the goodwill of unknown others. As Yamagishi and colleagues state, "once socio-relational bases of security are removed, Japanese...feel more insecure than Americans" (Yamagishi et al., 1999, p. 157). That is, when faced with having to deal with the faceless unknown realm of the Internet "out there," beyond the confines of a password-protected online social network of friends – "out there" where socio-relational bases of security are indeed non-existent – it is no wonder higher concern exists in Japan; "they have not developed a high level of belief in human benevolence" (Yamagishi et al., 1999, p. 157).

A statistically average American, on the other hand, lives in a social ecology where outside opportunities for interaction are comparatively abundant, thus expectations of the benevolence of strangers are adaptive: such expectations allow individuals to make the most of those potentially beneficial interpersonal opportunities. This leads to a higher 'default' level of general

expectation of the benevolence of others, and are therefore less privacy concern on SNS.

The above point notwithstanding however, what are we to make of supposedly high relational mobility, high trusting American users' emphatic outcries at Facebook's many privacy faux pas, for example? (e.g., New York Times, 2014; Ostrow, 2009). If users in the United States are so willing to believe in the goodwill of others, why should privacy 'scandals' be such a concern? This, I argue, lies in the 'double-edged-sword' nature of high trusters: they too, paradoxically, depend upon institutional assurances which allow them to exercise their skill at determining who is trustworthy and who is not. That is, Yamagishi and colleagues (Yamagishi et al., 1999) showed high trusters are not necessarily gullible, indiscriminately opening themselves up to exploitation. In face-to-face interaction, the mechanism by which high trusters avoid exploitation is through development of a high level of social intelligence; they can more effectively pick up on cues indicating untrustworthiness in others.

In the age of SNSs, and in much of computer-mediated-communication however, this information is missing: One cannot judge the trustworthiness of a stranger one cannot interact with. Therefore, in order to avoid exploitation from those few dishonest people, I would argue Facebook users in high relational mobility societies such as the US do put a very high value on the responsibility of Facebook to keep their information safe. This is not as contradictory as it may sound. Yes, high trusters have a *general* belief in the goodwill of others. This does not mean,

however, that they blindly believe that swindlers do not exist. Therefore, it would make sense that if the company charged with being careful with one's data does not hold up their end of the bargain, there will be outcry.

A final important point to make is that findings from the present study do not suggest an absence of within-country variance; quite the contrary, my study provided support for H3, whereby irrespective of country of residence, users' subjective ratings of relational mobility in their immediate surroundings impact their levels of general trust, which in turn was associated with their level of privacy concern. That is, relational mobility and general trust are also associated with *within-country* variance in Internet privacy concern. In this way, my findings implicitly overcome one common criticism of cross-cultural research, whereby within-nation variance in culture is ignored (see admonitions to this effect in Lenartowicz, Johnson, & White, 2003; Tung, 2007, p. 207). While the present study offers little clues as to the ecological antecedents to within-country relational variance (and by association general trust), future studies might wish to explore possible antecedents such as rural vs. urban environments (Yamagishi et al., 2012), high vs. low turnover industries (Yuki et al., 2013), and life-stage differences (Sato & Yuki, 2014).

Practical implications. In focusing on consumers' levels of generalized trust, my findings carry important practical implications for organizations offering services online, over and above implications put forward by previous research such as in Bellman et al. (2004) and Milberg et al. (2000). Indeed, as shown in the introduction, this previous research makes clear that consumer trust in the form of particularized trust (awareness of and

confidence in platforms' policies associated with privacy) and assurance (awareness of and confidence in the privacy regulatory environment) significantly impact consumers' information privacy concerns. Accordingly, I concur with recommendations by others such as Bellman et al. (2004) for the customization of privacy policies in order to, for example, appease privacy concerns associated with country-specific regulatory shortcomings. However, my findings suggest there may also be value in pre-empting general trust related privacy concerns, especially in societies where the nature of interpersonal relationships foster a lower level of trust in the generalized other, such as in low relational mobility Japan. Pre-emptive measures might include increasing visibility of privacy policies and regulation in order that users are aware of the lengths a platform or regulatory body goes in their efforts to reduce the likelihood that personal information gets into the hands of a stranger. Indeed, as indicators of socio-ecological realities across societies become more widespread (see Oishi, 2014 for a review), Internet platform and service providers should be able to predict with more effectiveness the likely sensitivities of consumers, allowing for better customization of privacy policies across countries and regions.

Limitations and future directions. A worthwhile and natural extension to my thesis would be to explore empirically how socioecology-driven privacy concerns actually impact privacy *behaviors* online; a step beyond the scope of the current study. Indeed, at least for SNS users from the US, Ellison and colleagues (Ellison et al., 2011) suggest that despite concerns over privacy, users do continue to disclose more than would

be expected given their privacy concerns. This paradox makes sense, of course, when one considers the social-capital benefits of disclosing information about the self: Ellison et al. offer the example that "members of one's social network cannot suggest a new job possibility if they do not know [their connections] are looking" (Ellison et al., 2011, p. 20). At the same time, however, self-reported levels of disclosure by SNS users in Japan are lower than users in the US (Thomson & Ito, 2012b). While I acknowledge the challenges inherent in collecting ecologically valid behavioral data from sites such as Facebook (Thomson & Ito, 2014), behavioral outcomes of privacy concerns require further elaboration and study.

Additionally, future studies would do well to control for particularized trust and assurance (e.g., Internet users' knowledge and/or expectations surrounding the enforcement of privacy policies and privacy-protection laws) in order to partial out the unique role of users' levels of general trust (i.e., the expectation of the benign intent of strangers in general) in Internet privacy concern.

Lastly, I acknowledge the correlational nature of the mediation analyses in the current study: future work should incorporate experimental methods whereby relational mobility is manipulated in order to establish empirical causation (such as relational mobility priming studies; see Yuki et al., 2013 for an example).

Conclusion

My findings illuminate the role that the nature of humans' face-to-face *offline* environment play in how humans approach interaction

online, on the Internet. This is a novel theoretical departure from previous cultural-psychological explanations of cross-national differences in privacy concern inasmuch as society-level socioecological factors are shown to impact interpersonal beliefs at the individual level, in turn impacting individual users' mindsets vis-à-vis concern over privacy. More specifically, my findings support the notion that societal differences in relational mobility, a socioecological factor, determines societal differences in general trust (beliefs about the goodwill of others), which in turn drive differences in concern over the privacy of one's personal data online.

CHAPTER IV

CROSS-SOCIETAL DIFFERENCES IN SELF-PROMOTION ON FACEBOOK: THE MEDIATING ROLE OF RELATIONAL MOBILITY ON BEHAVIORS AND OUTCOMES[3]

[3] This chapter is currently under review as the following publication:

Thomson, R., Yuki, M. (under review). Cross-societal differences in self-promotion on Facebook: The mediating role of relational mobility on behaviors and outcomes.

Introduction

Well established is the notion that individuals differ in proneness to making direct references to one's abilities, successes, and status – that is, self-promoting – on social network sites (SNS) such as Facebook. As more and more individuals around the globe turn to SNSs for the maintenance and organization of existing offline relationships (Ellison et al., 2011), a growing body of research locates these individual differences in self-promoting behaviors in individual-level characteristics of SNS users such as narcissism (e.g., Buffardi & Campbell, 2008; Winter et al., 2014), extraversion (Ong et al., 2011), self-esteem (Mehdizadeh, 2010; Subramanian, Wise, Davis, Bhandari, & Morris, 2014), need for popularity (Utz, Tanis, & Vermeulen, 2012; Winter et al., 2014), Machiavellianism in males (Abell & Brewer, 2014), and gender (Haferkamp, Eimler, Papadakis, & Kruck, 2011).

Lacking in the literature, however, is a treatment of how offline social factors impact the degree to which individuals self-promote on SNS. To the extent that 1) self-presentation in general has long been seen as a strategic social behavior for interpersonal benefit (e.g., Goffman, 1959, 1990), and 2) most SNS users connect with existing offline social networks on SNS (Ellison et al., 2011), exploring the impact of offline social environments on self-promoting behavior on SNS – specifically those SNS whose main function is the maintenance of offline ties – should be a natural extension to an already wealthy body of understanding on the topic.

Therefore, in order to make an initial inroad into this arena, the current paper examines the relationship between the structure of individuals'

offline social ecologies and self-promotion on SNS. I do this by surveying Facebook users in two societies traditionally seen as varying greatly in social structure and interpersonal contexts: Japan and the United States. In choosing these two countries – popular in contemporary cultural psychology over the last two decades (e.g., Markus & Kitayama, 1991) – I expect to be able to investigate two central questions not yet explored in SNS self-promotion literature to date: 1) do individuals in different societies differ in their levels and outcomes of self-promotion on SNS, and 2) why might differences exist?

Cross-cultural differences in self-promotion off- and on-line. In the current study, I follow Ellis & Wittenbaum's (2000) conceptualization of self-promotion as the act of "[presenting] the self as skilled and capable by extolling personal attributes that facilitate success" (p. 708). Note that this definition is purposefully narrow in scope. While previous research deploys terms such as self-presentation, self-enhancement, and self-promotion interchangeably, I consider the former two terms to be too broad for effective theorizing regarding the behavior of *self-promotion* in particular. For example, definitions of self-*presentation* are often rooted in Goffman's (1959, 1990) dramaturgical model, where individuals' behavior, in response to situations, is not limited only to Ellis & Wittenbaum's (2000) definition of self-*promotion*, but also the moral- and norm-driven construction of settings (such as décor), appearance, and manner; the presentation of "the self as skilled and capable by extolling personal attributes" is but one part of this process, albeit a potentially large part. Likewise, self-enhancement differs from self-promotion in that the former is simply one's positive self-assessment of one's own self-value (i.e., a

perception; see Sedikides & Strube, 1995), whereas the latter is a *behavior*. Adopting a narrower working definition of self-promotion should allow us to better develop my theory, outlined below, with more parsimony.

Much literature has already explored cross-cultural differences in self-promotion in *offline* social situations: Cameron, Lau, Fu, & Lee (2012) found in their observations of children as young as 7 years old in China and Canada, that clear self-promotion was valued more positively among Canadian children than in Chinese children; Schmid Mast, Frauendorfer, & Popovic (2011) found self-promoters to be evaluated more highly in job interviews in Canada than in Switzerland; and Paulhus, Westlake, Calvez, & Harms (2013) found Canadian job applicants of European heritage both self-promoted more than applicants of East Asian heritage, and were rated as more highly hirable by both European- and Asian-Canadian judges as a result. Why do these national and/or cultural differences exist?

While each of the studies mentioned above interpret their findings according to differences in various cultural norms and values – such as modesty norms in East Asia versus self-confidence norms in Canada (Cameron et al., 2012), "Anglos" culture of uniqueness and forcefulness in Canada versus modesty in Swiss culture (Schmid Mast et al., 2011), and Western presentation styles that tend to encourage self-promotion (Paulhus et al., 2013) – a common theme emerges whereby a tendency towards cultural individualism encourages self-promotion, whereas cultural collectivism tends to curb overt promotion of the self to others.

Perhaps most influential in popularizing this view is Ellis &

Wittenbaum (2000) in their comprehensive treatise on verbal self-promotion. Drawing on a rich history of cross-cultural psychology research, they tie individual differences in self-promotion to individualistic and collectivistic tendencies towards either independent or interdependent self-concept, a popular paradigm within traditional cross-cultural psychology (Markus & Kitayama, 1991). That is, they posit that individuals with a highly independent self-concept tend to self-promote more, because they value self-promotion as a norm in the sense that self-promotion is an integral part of expressing the independent self: "the more that individuals view the self as an achieving entity that is separate from others [i.e., construe the self as independent of others], the more they should promote themselves by extolling personal attributes" (Ellis & Wittenbaum, 2000, p. 708). On the other hand, they argue, individuals with an interdependent self-concept tend to avoid direct self-promotion, and in fact value norms of self-effacement both privately and publically, because doing so is an integral part of expressing the interdependent connection of the self with others. Indeed, in their sample of U.S. American college students, the authors found empirical evidence that students with an independent self-construal verbally self-promoted more than those with an interdependent self-construal. In a similar vein, Kim, Berger, Kim, & Kim (2014) more recently found initial support for the notion that self-promoting college professors may be liked more by students identifying more highly with independent rather than interdependent self-concepts.

Bringing this review of literature back to behavior on SNS, there do exist a handful of papers which refer to cross-cultural differences in

self-presentation online in general (e.g., Cho, 2010; Chu & Choi, 2010; Kim & Papacharissi, 2003; Rosen, Stefanone, & Lackaff, 2010; Rui & Stefanone, 2013; Uski & Lampinen, 2014), but very few directly refer to self-promotion in the context of extolling one's attributes worthy of success. Of those papers, Rosen et al. (2010) and Rui & Stefanone (2013) do refer to self-promotion: They found that individuals within the US who identified with a more individualistic cultural identity tended to share photos more often, arguing that "individualistic people tend to engage in self-promotion, and are more likely to place the needs of the self above the needs of the in-group for the purpose of achievement" (Rosen et al., 2010, p. 6) and "because personal achievement is valued in individualistic cultures, these individuals share photos as a means to compete for attention" (Rui & Stefanone, 2013, p. 112). An arguably tenuous association with Ellis & Wittenbasum's conceptualization of self-promotion notwithstanding, the theoretical foundation of both papers rest in the previously mentioned independent and interdependent self-construal idea.

However, there are two significant weaknesses of this cultural psychology approach to self-promotion, both off- and on-line. The first theoretical weakness lies in its tautological nature; individuals who construe themselves as independent, for example, will place value on self-promoting behavior, because doing so allows them to 'be' that independent self that they construe themselves to be. However, to borrow from Sato & Yuki (2014): that which is "explained" (self-promoting behavior) and "that which does the explaining" (the culturally-determined importance placed on self-promotion)

are “almost synonymous” (Sato & Yuki, 2014, p. 1) (see also Matsumoto, 1999, p. 300). This begs the question: why are certain behaviors valued, beyond the fact that the self construes them to be valuable?

Secondly, in all the studies referred to above, the country–culture–behavior link fails to be empirically proven: In those studies where self-promoting behavior of individuals is compared between countries or ethnicities, found differences are merely *interpreted* as the results of national or heritage-based differences in self-construals – empirical association between hypothesized culturally determined self-construals and behavior is not demonstrated. Also, where the independence/interdependence paradigm and its association with self-promotion is empirically tested, all that is proven is that individual differences – at the individual level – drive individual differences in self-promotion; we are none the wiser as to the effect of national or regional social environments on self-promoting behavior (see Matsumoto, 1999, p. 291, for a more detailed exposition). In summary, no previous studies offer any demonstrable empirical path of association between society membership, attributes of said society, and individual self-promoting behavior.

Back to basics: Incentive-driven self-promotion and the socio-ecological approach. In light of my review of the literature above, I wish to ‘get back to basics’ as it were, and reorient the question of self-promotion online to classic theories of self-presentation – in which self-promotion behavior is a part – whereby such behavior is seen as an incentive-driven behavior in response to social situations. In order to do so, I will approach self-promotion online from a “socio-ecological perspective”

(Nisbett & Cohen, 1996; Oishi & Graham, 2010; Schug, Yuki, & Maddux, 2010; Uskul, Kitayama, & Nisbett, 2008; Yuki & Schug, 2012), whereby human behavior in general is considered to be "adaptive strategies (both conscious and not) tailored toward producing desirable outcomes in a particular social environment" (Schug et al., 2010b, p. 1477). Specifically, I will focus on differences in the behavioral incentive structures that exist in the social ecologies surrounding users *offline* in differing social environments, and how these incentive structures might impact self-promotion behavior *online*.

The advantage in adopting this approach is that according to classic incentive-oriented theories, self-presentation *in general* is commonly argued to be a strategic behavior, driven by a desire by individuals to create favorable impressions in others around them. That is, the goal of self-presentation is to increase one's level of sociability and status (Bond, 2013; Goffman, 1959, 1990); saying the right things to the right people is likely to help increase connections with desirable others, and may help to gain higher status in social networks and groups. This is why self-presentation seen to be *incentive-driven*: People present themselves, driven by "the compulsion toward social adjustment and adaptation" (Ichheiser, 1949, p. 9). People therefore adjust the amount and the way they express themselves, in line with social situations, so they might elicit the most beneficial responses from others around them. It follows, therefore, that to understand self-promotion on SNS, one needs to understand the nature of interpersonal relationships, or prevalent incentive structures embedded in relationships, within a given society or social environment.

Relational mobility and cross-societal differences in self-promotion.

A socio-ecological variable that I argue affects the nature and degree of self-promotion both within and between countries is *relational mobility*. By way of definition, relational mobility refers to "the degree to which there is an availability of options in a given society or social context regarding interpersonal relationships, such as opportunities to acquire new, maintain current, and sever old relationships" (Yuki et al., 2013, p. 742). In high relational mobility social environments, there are plenty of opportunities to meet new people, and individuals tend to have greater freedom in choosing new relationships and leaving current ones. On the other hand, low relational mobility social environments are characterized by committed and exclusive interpersonal relationships and groups, relative difficulty in forming and dissolving relationships, and there is a relative lack of opportunities for meeting new people; relationships are thus generally determined by circumstance and tend to be long standing. A great deal of studies have found relational mobility to be high in North American societies, such as the United States, whereas East Asian societies, such as Japan, are low in relational mobility (e.g., Falk, Heine, Yuki, & Takemura, 2009; Schug et al., 2010, p. 201; Sznycer et al., 2012; Wang & Leung, 2010; Yuki et al., 2007; Yuki et al., 2013).

A useful analogy used by previous research to describe how relational mobility can impact behavior is that of *interpersonal markets*. Yuki and colleagues (e.g., Falk et al., 2009; Yuki et al., 2013) consider high relational mobility societies or social environments, such as the United States, to be

essentially open markets for interpersonal relationships, "where individuals strive for success in acquiring more beneficial social relationships" (Yuki et al., 2013, p. 742). Naturally, however, individuals cannot invest in an infinite number of interpersonal relationships as individuals' time, material, and cognitive resources are limited (Roberts, Dunbar, Pollet, & Kuppens, 2009). This means individuals must be selective in whom they invest those resources in. One's success, therefore, in maintaining current valued relationships, in addition to acquiring more desirable ones, should be determined to some degree by the extent to which one can effectively 'advertise' one's desirability in realms such as resource-richness (Aloise-Young, 1993; Barclay, 2012, 2013; Schmitt & Buss, 1996) and interpersonal similarity (Schug et al., 2009).

In this way, overt self-promotion arguably makes more sense within an environment characterized by relational freedom and choice – environments high in relational mobility – than those devoid of such freedom and choice: As discussed above, in a competitive interpersonal marketplace, individuals with greater resources and competence should be more likely to be chosen by a well-endowed other than those with less resources to offer. Also, if the risk of one's current interaction partner leaving for another is comparatively high, it makes sense to remind the partner of one's own resourcefulness and competence; individuals must ensure the other will continue to select oneself as an interaction partner.

On the other hand, low relational mobility environments, such as Japanese society, or rural areas within a nation, can be conceived of as relatively closed markets for interpersonal relationships, where relationships

tend to be ascribed and difficult to change. Accordingly, in such environments, sociability and status are more likely to be attained through one's ability to get along with and maintain harmony with others: Interpersonal conflict carries the risk of long-standing souring of the difficult-to-replace relationship, or worse, the risk of rejection in a social environment where alternatives are hard to come by. Thus, in a low relational mobility social environment, a good strategy is to do one's best to avoid offending others (Yamagishi et al., 2008). Accordingly, one would expect individuals embedded within a low-relational mobility environment to avoid overt self-promotion, which runs the risk of causing costly status competition (Merten, 1997; Urban, 2011).

At this stage, I wish to re-orient my discussion back to self-promotion on SNS, in particular to SNS where online-offline environments are tightly connected with each other; that is, where gains or losses in interpersonal relationships online are likely to directly impact the quality of interpersonal relationships offline (Binder et al., 2012). Facebook is a prime example of this dynamic: Users predominantly connect with others known offline, rather than creating new links with previously unknown others online (Ellison et al., 2011). Therefore, one would expect behavior on Facebook to follow offline interpersonal relationship strategic lines: Users from high relational mobility societies, such as the US, should be driven to self-promote in order to 'advertise' one's resource-richness, and I would expect SNS users from low relational mobility societies, such as Japan, to avoid overt self-promotion which may sour those offline relationships they seek to maintain via Facebook.

In line with the discussion above, I hypothesize as follows:

H1 Facebook users in the United States exhibit higher levels of self-promotion on Facebook than users in Japan.

H2 Between-country differences in self-promotion (H1) will be statistically mediated by relational mobility in participants' local offline environment.

Furthermore, however, my theory should not only predict differences in self-promotion *behavior*, but should also extend to social outcomes (such as accrual of desirable relationships, extension of interpersonal networks, and increase in status) associated with self-promotion online. Therefore, one should expect that

H3 To a greater degree than Facebook users in Japan, users in the US will report more positiveness in outcomes associated with self-promotion on Facebook;

H4 Cross-societal differences in the degree of reported positiveness of outcomes associated with self-promotion on Facebook will be statistically mediated by relational mobility.

Furthermore, in relation to the kinds of benefits associated with self-promotion on Facebook, one would expect that,

H5 Compared with Japanese users, more US users will report the accrual of desirable relationships and extension of interpersonal networks as positive outcomes of self-promotion on Facebook.

Method

In order to empirically test the hypotheses posed, I conducted a web survey of Facebook users in Japan and the United States.

Participants. In April 2013, ninety-five Japanese Facebook users (63.16% female; M_{age} = 33.93, SD_{age} = 9.56) and ninety-five US Facebook users (45.26% female; M_{age} = 32.92, SD_{age} = 10.34) participated in an online survey. This sample was sufficiently powered (β = .93) to detect medium effect sizes (f = .25) in analysis of covariance tests (two groups, up to three covariates). Participants were recruited via crowd-sourcing websites: Lancers.jp in Japan and Amazon Mechanical Turk in the United States.

Materials and procedure. Online survey text was simultaneously developed in both English and Japanese by one bilingual researcher, with subsequent edits made by a team of bilingual researchers to ensure equivalency in meaning.

Dependent measure. The dependent measure was an original 4-item Facebook self-promotion scale, where participants responded on a scale of 1 (strongly disagree) to 6 (strongly agree) to the following statements: "If I was to get a promotion at work, I would share this on Facebook;" "if I was to win some kind of award, I would share this on Facebook;" "if, generally, something went well in my daily life, I would share this on Facebook;" and "if misinformation about me is (or was to be) spread on Facebook, I make sure (or would make sure) to deny it in my Facebook status updates."

Mediating variable. The mediating variable – relational mobility – was measured using Yuki et al.'s (2007) 12-item relational mobility scale, abbreviated to 4 items due to space constraints in my online questionnaire. The four items were chosen for their high factor loadings across previous studies. This scale asks participants to evaluate how relationally mobile others around

them (friends, neighbors, workmates etc.) are in their social environment. The four items were: “They (those people around you) have many chances to get to know other people;” “it is easy for them to meet new people;” “they can choose who they interact with;” and “these people are able to choose the groups and organizations they belong to.” Participants responded on a scale of 1 (strongly disagree) to 6 (strongly agree). Note the scale does not ask to what degree participants *themselves* are relationally mobile. By tapping participants’ perceptions of the level of relational mobility of others in their immediate society, not of themselves, one can more effectively assess the characteristics of their social environment, while diminishing to an extent the confounding effects of characteristics of the self, such as participants’ own popularity and personality (see Yuki et al. 2007). Such a technique has been referred to as a referent-shift consensus model of measurement (Chan, 1998; Klein & Kozlowski, 2000), with Yuki et al.’s (2007) scale widely employed in previous studies (see Oishi, Schug, Yuki, & Axt (2014) for a comprehensive review)

Self-promotion benefit measures. In order to explore actual experienced social benefit from self-promotion on Facebook, I asked participants “In regards to information you have posted on Facebook in the past (such as your relationship status, interests, your preferences, photos etc.), on balance, which have you generally experienced the most: positive impacts or negative impacts?” Participants responded on a 7-point bipolar scale from “1 = Nothing but negative impacts” to “7 = Nothing but positive impacts.” For those participants who answered above the mid-point of this scale, I followed this question up with an open-ended text question, where I asked specifically

"What sorts of positive things have you experienced posting information on Facebook (such as your relationship status, interests, your preferences, photos etc.)?" Participants were instructed to write anything that came to mind.

Note that my emphasis on the posting of general information about the self – relationship status, interests, preferences, photos etc. – could be construed as a slight departure from my original working definition of self-promotion. However, previous research has emphasized the self-promoting role 'profile work' (Uski & Lampinen, 2014), that is the careful crafting of profiles, has in individuals' network expansion and facilitation of relational success (see also Boyd & Heer, 2006). Thus, I consider the information users post on SNS profiles as constituting, at least in part, self-promotion behavior.

Facebook usage items. Facebook's appearance on the SNS scene was later in Japan (23% penetration rate in 2013: eMarketer, 2014) than the US (57.2% penetration rate in 2012: InternetWorldStats, 2014). Therefore, in order to measure and control for possible differences in the nature of users' familiarity with Facebook and network composition, I included the following variables.

Facebook start date. I asked respondents "Approximately when did you start using Facebook?" Indeed, one might argue that the more familiar one is with Facebook, the more comfortable one might be with sharing details about the self (Frye & Dornisch, 2010; Spitzberg, 2006).

Facebook network composition. I also included a question designed to explore my assumption that users connect on Facebook primarily with others

who they also know offline. That is to say, if Facebook users connect predominantly with anonymous unknown others, there should be no reason to expect offline relational mobility to impact online self-promotion behavior. Therefore, I asked participants "Do you see Facebook as a place to meet new people? Or is it a place for maintaining existing relationships?" Participants responded on a 4-point scale consisting of "1 = A place only for meeting new people," "2 = Both apply, but more for meeting new people," "3 = Both apply, but more for maintaining existing relationships," "4 = A place only for maintaining existing relationships." During analysis, the former two categories were collapsed into one category called "*mainly for meeting new people*" and the latter two categories collapsed into one category called "*mainly for maintaining existing relationships*." I call this variable "Facebook relationship formation vs. maintenance."

Results

Facebook usage differences. I first compared the US and Japan samples for differences in Facebook use. In regards to months since registering, I noted that Facebook users in the US had more experience with using Facebook (M_{MONTHS} = 51.3, SD_{MONTHS} = 24.94, Mdn_{MONTHS} = 48) than users in Japan (M_{MONTHS} = 17.02, SD_{MONTHS} = 13.97, Mdn_{MONTHS} = 13.5), $t(147.39) = 11.71$, $p < .001$. I also noted that while a vast majority of users in both countries – 81% of Japanese and 93% of US users – indicated Facebook as being a place for mainly maintaining existing relationships, this was a significant difference between the samples, $\chi^2(1, N = 190) = 5.57$, $p < .05$. Taking these two Facebook usage differences into account, I have included

these variables (months on Facebook and Facebook relationship formation vs. maintenance) as control variables in applicable analyses which follow.

Scale reliability and cross-societal construct validity. Detailed scale reliabilities and structural equivalency for all measures across the two countries are shown in Table 4-1. For the dependent measure, the self-promotion scale, internal consistency was adequate across samples (Cronbach's αs > .71). Cross-societal validity of the scale was demonstrated by showing its structural equivalence, using Procrustes Factor Analysis (see Fischer & Fontaine, (2011) for a detailed overview). This step is crucial in ascertaining whether or not the scale items measure the same concept in the two countries. My procedure was as follows: Using the Japan sample data, a reference factor structure was produced using standard principal components (one factor extracted, explaining 59% of variance). Then, the subsequent factor structure in the United States data was rotated towards this structure using Procrustes rotation, with the resulting factor structure compared with the reference factor structure. Agreement is measured by calculating the identity coefficient (IC in Table 4-1), the most stringent index of fit between factor structures. This showed the self-promotion scale's identity coefficient to be above the bare minimum of .85 (Fischer & Fontaine 2011: 192). The 4-item relational mobility scale, the mediator variable, also showed sufficient cross-societal reliability (α > .79) and structural equivalence (*IC* = .97) (see Table 4-1).

Between-nation differences in self-promotion behaviors and relational mobility. Means, standard deviations, and confidence intervals for

all measures by country are shown in Table 4-1. First, country was entered into an ANCOVA with dependent variable self-promotion. As expected, when controlling for gender, months on Facebook, and Facebook relationship formation vs. maintenance, United States participants reported significantly higher levels of self-promotion on Facebook than Japan participants (See Table 4-1). Next, I entered country into an ANCOVA with relational mobility. Replicating previous studies (Falk et al. 2009; Schug et al. 2009; Schug et al., 2010; Yuki et al. 2007; Yuki et al. 2013), when controlling for gender, months on Facebook, and Facebook relationship formation vs. maintenance, perceived levels of relational mobility in the surrounding offline social environment were significantly higher in the United States than in Japan (see Table 4-1).

Mediating effect of offline relational mobility on between-nation differences in self-promoting behavior. Following this, I conducted mediation analyses (Hayes, 2012) to test whether relational mobility could account for the between-country differences in self-promotion tendencies. Controlling for gender, months on Facebook, and Facebook relationship formation vs. maintenance, bootstrap regression analysis (5,000 samples) showed a significant indirect effect via relational mobility ($\beta = .080$, 95% CI = .002, .191), indicating partial mediation (Fig 4-1). This equated to a small to medium effect size ($\kappa^2 = .04$) (see Preacher & Kelley, 2011). That is, supporting H2, part of the reason why US Facebook users engage in greater levels of self-promotion on Facebook than do Japanese users was because the former live in a social ecology that is higher in relational mobility than the latter.

Table 4-1

Scale Reliability, Scale Between-Country Structural Equivalence, and Univariate Effects for Country on Self-promotion Behavior and Outcomes, and Relational Mobility

Dependent variable	Country	α	IC[a]	*M*	*(SD)*	95% Confidence Interval[b]		*df*	*df* error	*F*[c]	η^2	Observed power
						Lower Bound	Upper Bound					
Self-promotion	Japan	.77	-	3.55	1.46	3.24	3.88	1	188	14.84***	.07	.97
	U.S.	.71	.87	4.66	1.20	4.30	4.92					
Relational mobility	Japan	.86	-	3.90	0.90	3.78	4.15	1	188	8.50**	.04	.83
	U.S.	.79	.97	4.39	0.75	4.23	4.55					
Outcomes of self-promotion on Facebook	Japan	-	-	4.33	0.97	4.15	4.52	1	188	22.49***	.11	.99
	U.S.	-	-	5.22	0.87	5.04	5.39					

Note. [a] *IC* represents the identity coefficient, representing factor structure equivalence when compared to the Japan sample's factor structure; values above .85 represent adequate structural equivalence (Fischer & Fontaine 2011, p. 192). $^{**}p < .01$, $^{***}p < .001$. [b] Based on 5,000 samples. [c] Controlling for gender, months on Facebook, and Facebook relationship formation vs. maintenance

Social benefits associated with self-promotion on Facebook.

Finally, I conducted analyses to test H3, H4, and H5. First, supporting H3, a univariate analysis of variance test revealed that when participants were asked whether they had experienced positive or negative outcomes from self-presenting on Facebook, Facebook users from Japan generally reported neither positive nor negative outcomes, whereas Facebook users from the US reported greater positiveness in outcomes overall (see Table 4-1). Furthermore, and supporting H4, a mediation analysis showed that this national difference in experienced outcomes was partially mediated by relational mobility (indirect effect: $\beta = .075$ (95% CI = .014, .140), $\kappa^2 = .04$; see Figure 4-2). This partial mediation result provides initial, direct evidence suggesting that self-promotion confers benefits for those living within a high relational mobility society.

In order to test H5, I then delved into the free text responses from Facebook users in Japan (41 text responses) and the US (77 responses), seeking to categorize specific benefits associated with self-promotion on Facebook in high vs. low relational mobility societies. Using a grounded approach (Glaser & Strauss, 1999), the first author (native English, fluent Japanese bilingual) began this categorization process by first examining the free-text responses independently, identifying four overarching themes within the responses in both countries: 1) interpersonal communication, 2) instrumental information, 3) social network advancement, and 4) positive affirmation. Responses coded as "interpersonal communication" included themes such as ease of communication, keeping in touch with contacts far

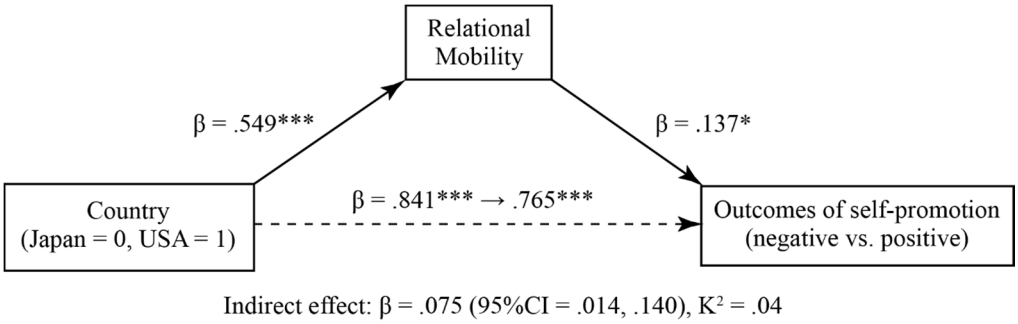

Figure 4-1. Partial mediation by relational mobility of the national difference in experienced benefits of self-promotion between the United States and Japan (controlling for gender, months on Facebook, and Facebook relationship formation vs. maintenance).
* $p < .05$, ** $p < .01$, *** $p < .001$.

away, and sharing everyday life; e.g., "grandparents know what is going on in my life without writing long letters." Instrumental information includes themes such as social event information and product information; e.g., "Parties, great meals, travel opportunities." Social network advancement included

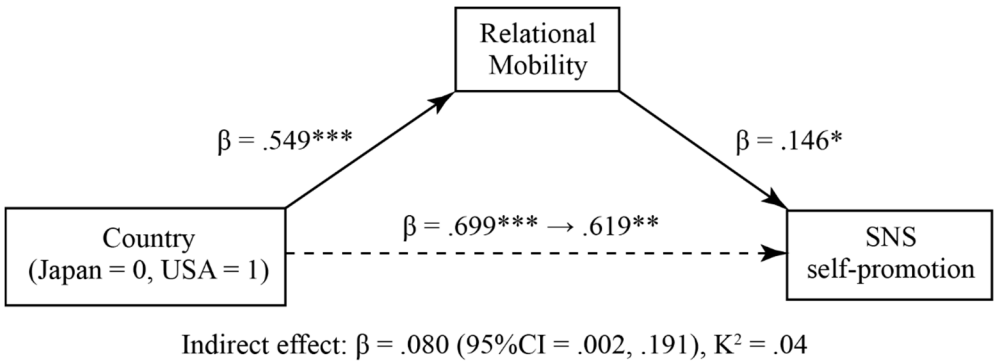

Figure 4-2. Partial mediation by relational mobility of the national difference in self-promotion between the United States and Japan (controlling for gender, months on Facebook, and Facebook relationship formation vs. maintenance).
* $p < .05$, ** $p < .01$, *** $p < .001$.

themes such as making new friends, finding out similarities with others, business or career advancement, and dating; e.g., “I can find out that I have things in common with someone that I did not know about before,” and “When I have posted in the past I was out of work people helped me look for a job.” Positive affirmation included comments such as “I have received (so far) a lot of positive feedback and even some new friends because of the types of posts that I put on my Facebook pages.”

Two bilingual research assistants then independently coded the free-text responses according to the categorization scheme provided by the first author. Inter-rater reliability across the three raters (first author and two research assistants) was acceptable for each of the categories (interpersonal communication, $\alpha = .92$; instrumental information, $\alpha = .77$; social network advancement, $\alpha = .83$; positive affirmation, $\alpha = .86$). Therefore, ratings across the three raters were amalgamated and the percentage of participants within each country reporting each of the possible positive benefits were calculated (one free-text response may include more than one category).

The percentage of respondents in each country indicating the specific benefits listed above are displayed in Table 4-2. As my theory would predict, and supporting H5, a significantly higher percentage of Facebook users from the US than users from Japan mentioned social network advancement as an experienced benefit to self-promotion on Facebook, $\chi^2(1, N = 118) = 6.58$, $p < 0.01$; based on the odds ratio, the odds of a respondent reporting social network advancement as a benefit of self-promotion on Facebook was 4.75 times higher if they came from the US than if they came from Japan. This

Table 4-2

Percent of respondents reporting benefits associated with self-promoting on Facebook: Japan vs. United States

	Japan (N = 41)		USA (N = 77)		Between country difference	
	N	(%)	*N*	(%)	*df*	χ^2
Interpersonal communication benefits	34	(82.9%)	54	(68.4%)	1	2.93, ns
Instrumental information	7	(17.1%)	10	(13.0%)	1	0.36, ns
Social network advancement	3	(7.3%)	21	(27.3%)	1	6.58, $p < .01$
Positive affirmation	4	(9.8%)	23	(29.9%)	1	6.13, $p < .05$

result lends credence to my theory inasmuch as active self-promotion is an adaptive strategy to ensure real-world relational benefits in a relationally competitive high relational mobility society.

Also notable is the statistically significant national difference in experienced positive affirmation: 29.9% of users from the US as opposed to 9.8% of users from Japan cite positive affirmation as a benefit to self-presenting on Facebook, $\chi^2(1, N = 118) = 6.13$, $p < 0.05$; based on the odds ratio, the odds of a respondent reporting positive affirmation as a benefit of self-promotion on Facebook was 3.94 times higher if they came from the US than if they came from Japan. This may point to a self-enhancement related benefit to self-promotion on Facebook in relationally competitive high relational mobility societies such as the US: Self-promotion and resulting positive affirmation may aid to bolster an individual's subjective sense of "market value," thus making them more competitive (i.e., more willing to approach and pursue desirable others) within a high relational mobility environment (see Falk et al., 2009).

General Discussion

In the current study, I explored theoretically and empirically how and

why self-promotion on SNSs might differ between and within societies. A survey from users of Facebook, the world's largest SNS, showed that as predicted, US users indicated a higher willingness to post self-promoting content than did Japanese users. Also supporting my prediction, the difference in self-promoting content between Americans and Japanese was statistically mediated by the level of relational mobility in participants' offline contexts. I further demonstrated that higher levels of relational mobility in the US explained higher levels of experienced positive benefits associated with self-promotion on Facebook in the US compared with Japan. Furthermore, post-hoc content analysis of open ended question response text in both countries indicated that those benefits revolve specifically around social network advancement in the US to a greater degree than in Japan.

These findings are consistent with my theory that individuals' optimal level of self-promotion should differ depending on the incentive structure inherent in the social ecology within which they are embedded, with users strategically adjusting those levels of self-promotion accordingly. In general, self-promotion to a certain degree should be universally beneficial in any society; for example in the context of mate selection (Barclay, 2012; Schmitt & Buss, 1996) and partner selection in general (Aloise-Young, 1993). However, my findings suggest that overt appeals to social status to be particularly adaptive in particular types of social contexts: For instance, social ecologies that are high in relational mobility. Self-promotion is adaptive in the sense that 'advertising' one's status in particular domains should make oneself attractive within an open, competitive marketplace of interpersonal

relationships, where one needs to show one's value as a partner in order to ensure and maintain selection by others (Falk et al. 2009; Yuki et al. 2013).

Implications. In this way, my findings extend beyond computer-mediated-communication, having implications for cross-cultural research in general inasmuch as the socio-ecological theory is useful in explaining between-country differences in interpersonal relationships and behaviors. That is, the socio-ecological approach, which emphasizes objective societal differences in structural incentives and associated behaviors elicited by those incentives, can serve as a useful tool for theorizing vis-à-vis cultural differences with parsimony and explanatory power (see also Schug et al. 2009, 2010; Yuki et al. 2013).

My findings also have important implications for understanding online behavior. That is, it is noteworthy that I found relational mobility in users' offline social context to be related with levels of self-promotion online. In a classic computer-mediated-communication theory, just the simple act of communicating via a computing device has been shown to encourage an increased sharing of information regarding the self (Joinson, 2003). At least in the context of offline social graph based SNS such as Facebook, however, insights from the current cross-societal study illuminate the fact that individuals' social realities outside cyberspace should not be overlooked when approaching behavior online.

Relationship formation vs. retention. One point worth stressing here is the seemingly counter-intuitive findings regarding motivations for using Facebook (formation vs. maintenance of relationships) and my argued

role of self-promotion in 'social network advancement'. That is, if self-promotion online is supposed to be related to finding new beneficial relationships, shouldn't more Facebook users from the US report the formation of new relationships as a main motivation for using Facebook? On the contrary, my findings suggest the importance of self-promotion in the *retention* of desirable relationships in high relational mobility societies, something often missed in discussion of relational strategies in high relational mobility social contexts. That is, when one's current relational partners also have a plethora of attractive potential options, one must work comparatively harder in retaining one's current partners and group memberships (see Schug et al., 2010); remind others of one's value, and one can retain one's relational place.

In a similar vein, however, it is worth noting that the Japan sample taken on its own serves as anecdotal evidence of a behavioral strategy when seeking new relationships. That is, acknowledging the greater proportion of Facebook users from Japan reporting meeting new people as a motivation for using Facebook, I ran a post-hoc explorative analysis of the data, seeking to find out whether Japanese, when seeking new relationships, do indeed follow a hypothesized strategic behavior of self-promotion. That is, when Facebook users in Japan use Facebook in order to seek out new relationships, do they self-promote more? A univariate analysis of variance test suggested the answer to be yes: when controlling for gender and months on Facebook, Japanese who used Facebook for meeting new people ($N = 19$) tended to self-promote more ($M = 4.22$, $SD = 1.34$) than those who used Facebook to maintain current relationships ($N = 76$, $M = 3.39$, $SD = 1.45$), $F(3, 95) = 4.74$, $p < .05$, $\eta^2 = .05$.

Could this indicate the use of potentially high relational mobility Internet environments by those in low relational mobility societies, in order to circumvent relationship acquisition limitations offline? This would be a worthy line of future inquiry.

Limitations. It is worth noting an important caveat to the current study, already briefly mentioned previously: My findings relate only to social network sites such as Facebook where the vast majority of users' online networks are based on their real-world social networks (Ellison et al. 2011). That is, my theoretical premise assumes that people's behaviors online will be directly related to the structure of social gains and losses in their offline social ecology. In contrast to this, in an online environment characterized by anonymity, such as 2Channel in Japan or its US-based sibling 4Chan, where cutting off ties with anonymous others is relatively easy, there should be little concern for creating offence, or consequently being rejected from, current virtual relationships. Based on this assumption, one might expect less differences in self-promoting behaviors between mutually *anonymous* Internet users in Japan and the US.

Also worth noting is my narrow operationalization of self-promotion: in the current study I only consider relatively direct appeals to one's abilities and successes on Facebook. However, to borrow from Hall's classic treatise on high and low context communication styles (Hall, 1976), it is conceivable that Facebook users in Japan – a high context culture – do self-promote, albeit in less directly overt ways (see also Kim & Papacharissi, 2003). An empirical question such as this warrants investigation in future studies.

Conclusion

What explains overt self-promoting behavior on SNS? This study demonstrates that part of the answer to this question lies in the nature of SNS users' offline socio-ecological environments. That is, both between and within the US and Japan, results show that the degree of an individual's self-promoting behavior depends in part on how relationally mobile the social environment is which surrounds the user. This tendency also extends to real life social outcomes of self-promotion; in high relational mobility environments, where freedom and opportunity abounds in selecting relationships, individuals report higher levels of self-promotion on Facebook as well as benefits such as social network advancement and positive affirmation. My findings illustrate the importance of considering socioecological factors in self-promotion on SNS and the need to consider offline social realities in accounting for online behavior.

CHAPTER V

CONTEXT COLLAPSE IN THE US AND JAPAN:

A SOCIO-ECOLOGICAL APPROACH TO AUDIENCE DIVERSITY

AND CONFLICT AVOIDANCE BEHAVIOR ON SNS

Introduction

In recent years, the topic of context collapse – i.e., the presence of a multiplicity of social spheres in one's social network site (SNS) network – has received increasing attention in the study of interpersonal behavior online. Attention typically focuses on context collapse and its association with interpersonal tension on SNS. That is, studies to date have invariably found that in SNS where users typically connect with individuals from a multiplicity of offline social spheres, and broadcast to many social contacts at once, users report experiencing increased levels of interpersonal conflict as levels of context collapse increase (Binder et al., 2012). This creates an uneasy paradox when theorizing regarding SNS's role in the maintenance of offline social capital: the idea that SNS can be a space for maintaining all of one's important bridging and bonding social capital (Ellison, 2007) is at odds with the inherent limitations that interpersonal conflict, induced by context collapse, may put on users' willingness to replicate their offline social world online.

Previous research concerning context collapse, however, and discussions around its implications for behavior on SNS to date, has been conducted primarily in Western societies such as the United States and the United Kingdom. To the extent that SNS usage is a global phenomenon, cross-cultural studies are essential in order to ascertain how applicable previous findings are to social contexts vastly different to those found in Western societies. Therefore, the current work addresses this gap in the literature by comparing implications and outcomes of context collapse among Facebook users in the US and Japan, two societies traditionally shown to differ

substantially along a number of social and cultural dimensions. Ultimately, I identify a number of key conditional processes which indicate outcomes of context collapse differ across the two societies. My findings offer a more nuanced, socio-ecologically informed theory on how SNS users across disparate societal contexts navigate the interpersonal challenges inherent in states of context collapse online.

Literature Review

Collapsed Contexts

Context collapse is a term used to refer to a situation – most commonly in an online space – where multiple categories of people known to an individual converge in the same situation at one time. Popularized by Marwick & boyd (2010), the term context collapse is but one way to refer to this network dynamic, and others have referred to it as group co-presence (Lampinen, Tamminen, & Oulasvirta, 2009), conflicting social spheres (Binder et al., 2012; B. Marder, Joinson, & Shankar, 2012), and the multiple audience problem (Clark & Schaefer, 1987; Fleming, Darley, Hilton, & Kojetin, 1990; Van Boven, Kruger, Savitsky, & Gilovich, 2000). This network dynamic is particularly salient on SNS, due to the digitally afforded breakdown of physical and temporal barriers online that otherwise would allow audiences to be separated, as they might be offline.

Despite the term context collapse being coined as early as 2006 (D. Boyd & Heer, 2006), it was only recently that a comprehensive review of literature about context collapse was conducted by Davis & Jurgenson (2014). In their review, the authors conceptually define *context* in their discussion as

"role identities and their related networks" (Davis & Jurgenson, 2014, p. 477). That is, conceptually, they argue that "the self is made up of multiple identities, each of which exists within a network of others who hold particular expectations about who the actor is. These expectations inform appropriate – and inappropriate – lines of action and identity performance" (Davis & Jurgenson, 2014, p. 477). That is, humans inhabit a number of different, often fuzzily defined networks of others and collectively, there may exist variance between those networks regarding the expectations that people within those networks hold towards any one particular actor within that network. Those networks are the 'contexts' within the term context collapse. It is important to note that while the terms "context", "audience", and "social spheres" are used somewhat interchangeably within the literature, the key concept is the focus on characteristics of *clusters* of egos within a network, rather than a focus on characteristics of individuals within a network.

Davis & Jurgenson define *collapse*, therefore, as the "overlapping of role identities through the intermingling of distinct [interpersonal] networks" (Davis & Jurgenson, 2014, p. 477). A definition of the nature of 'intermingling,' however, arguably differs within the literature. At its most basic level, this may be operationalized as the presence of multiple categories of contacts within an online space, measured simply by the summation of the raw number of clusters within an individual's network, without taking into account the number of individuals within each cluster or category (e.g., Vitak, 2012). A more nuanced view, however, takes into account the number of contacts within each category. That is, this view operationalizes context

collapse as “audience diversity,” construed as a function of both numbers of categories as well as the degree to which each category represents the entire network as a whole, in terms of proportions of network members within each category or cluster (e.g., Binder et al., 2012).

It is important to note however, that while context collapse may often be conceived as an inherently negative state, where, for example, one’s extended family and drinking buddies both end up sharing the same online space, this need not be so: David and Jurgenson (2014) point out that collapsed contexts may not only be unexpected and unwanted (they refer to these situations as context *collisions*), but they may be intentional; disparate contexts may be brought together in order to pool knowledge and foster bridging social capital. Such intentional collapsing of contexts is referred to by the authors as context *collusions*.

Outcomes of context collapse. Previous research has found clear implications of context collapse for users of SNS, both positive and negative: Following Davis & Jurgenson's (2014) typology of context collapse, in the case of context *collusions* (where actors intentionally bring together disparate contexts) there are obvious benefits in the form of extended social capital (Ellison, 2007) and access to hitherto unreachable resources in a number of domains: “one might elicit sympathy through a Facebook status update, elicit consulting work via LinkedIn, information via Twitter, or funds via Kickstarter” (p. 481). Of more concern in the literature, however, is the case of context *collisions*: “occasions in which contexts come together without any effort on the part of the actor, and sometimes, unbeknownst to the actor, with potentially

chaotic results" (p. 481).

The impact of context collisions is of particular interest to researchers because of the way interpersonal conflict ultimately puts limitations on the very benefits that SNS are lauded to offer in terms of social capital maintenance and self-expression. These implications of context collisions were demonstrated in Binder et al.'s (2012) study of Facebook users among university staff and students in the UK. The authors explored the characteristics of users' audience members and conflict outcomes, finding a positive association between audience diversity and experienced tension. Similarity, Brandtzæg et al. (2010) found among Norwegian Facebook users of a variety of ages that as the diversity of social contacts increased on Facebook, users reported increased feelings of social surveillance, and concern over other-generated content. Litt et al. (2014) in their sample of college students in the US also found as network diversity increased on Facebook, so too did tension and face-threats. A common theme within the literature, therefore, is that on SNS there is a general tendency for tension and conflict to increase as audience diversity increases.

Actor responses to context collapse and resulting conflict. What strategies do users employ – if any – in order to mitigate the potential interpersonal conflict associated with context collisions on SNS? Hogan (2010) argued that as audience diversity increases, users, implicitly aware of the persistent nature of self-expressions on SNS, will increasingly adopt a 'lowest common denominator' approach to self-presentation: choosing to post only content within any given domain that will be the least offensive to the

most sensitive individuals in one's imagined audience. Brandtzæg et al.'s (2010) study demonstrates this in action: as diversity increases, users increasingly "share only a part of themselves, without becoming too private and personal" (p.1023). The lowest common-denominator approach can also be retrospective; users self-curate content already posted through 'wall-cleanings' (Brandtzæg et al., 2010; Raynes-Goldie, 2010), checking back over past disclosures to sanitize one's digital artifacts so that they might be appropriate for a wider imagined audience (Litt, 2012).

There are of course a number of ways that users might attempt to segregate audiences on SNS, thus reducing opportunities for conflict; in this case, absolute levels of audience diversity are unaffected, but the state of context *collapse* – the 'intermingling' of disparate categories of contacts – is reduced. One method of doing this is to employ tools provided by platforms to sort contacts into groups, and select those groups to which posts are to be displayed on a per post basis. Indeed, one study found that as audience diversity increased, so did users' tendency to use the Lists feature on Facebook (Vitak, 2012). Users in general, however, have been found to shun such tools due to the complexity of cognitively having to sort social contacts (Boyd & Hargittai, 2010; Lipford, Besmer, & Watson, 2008).

Implications of context collapse for lauded SNS use benefits. As Binder et al.'s (2012) study in particular implies, technical affordances of SNS that elicit states of context collapse have important practical implications in regards to the role of SNS for interpersonal relationship management. On the one hand, SNS hold value for the maintenance of social capital (Ellison, 2007)

and self-expression. Paradoxically, however, the very act of adding a multitude of contacts to SNS networks – a requirement for effective social capital maintenance via SNS – may diminish the self-expression benefits of SNS; both potential benefits afforded by SNS do not appear to effectively work in perfect unison. The average SNS user, therefore, walks a fine balance between seeking to maintain disparate social contacts online, and making the most of the self-expression affordances that SNS offer.

Context Collapse: A Cross-cultural Perspective

While the previous research reviewed above offers an important insight into the dynamics of interpersonal relationship management and self-expression on SNS, the vast majority of studies that explore context collapse to date have been conducted with Western samples (although, see Androutsopoulos, 2014; Bi, 2015). To the extent that SNS are a global phenomenon, cross-cultural studies are required in order to be able to make wider generalizations regarding context collapse and its potential impact on self-expression and relationship management on SNS.

In order to offer a first foray into this area, in the following section I wish to first outline a framework for understanding the ways in which the implications of context collapse may vary across cultures. This will begin by making explicit the underlying assumption in the previous studies outlined above: conflict is costly. Working with this assumption, I will provide a framework for theorizing the costs and benefits associated with context collapse and tension on SNS, and relate these to possible differences in the implications that context collapse could have for users in different societies.

The cost of conflict: A socio-ecological approach. In the previous section, I reviewed literature that showed that context collapse is a source of interpersonal conflict on SNS. In response to, or in anticipation of this conflict, users employ a number of strategies to avoid or reduce conflict. What previous research does not mention, however, is *why* conflict is something that people wish to avoid. Previous research simply indicates that it appears that 1) conflict is, at some level, an unwanted state of affairs, and 2) people wish to reduce it or avoid it. What I propose in this section is that the reason that people avoid conflict is because it carries with it fundamentally uncertain structures of costs and benefits, and that part of conflict avoidance is a fundamental motivation by humans to avoid the *relational uncertainty* that is brought about by interpersonal conflict. I will further argue that there exist differences between society-level characteristics that work to determine how costly relational uncertainty is in any given society.

In order to lay out this framework for understanding cross-societal differences in the cost of relational uncertainty, let us first consider previous findings about the various outcomes associated with interpersonal conflict in general. First, one definite cost of interpersonal conflict appears to be that of reduced psychological well-being (Bono, McCullough, & Root, 2008); conflict makes people unhappy. Less predictable, however, are outcomes in terms of the longevity of interpersonal relationships. That is, in the best case scenario, if individuals manage to work through interpersonal conflict successfully, it may in fact confer long term *benefits* upon those involved via increased intimacy and closeness, due to an increase in shared understanding

of the other through reconciliation. An equally possible *cost*, however, is mutual ambivalence and even termination of the relationship, due to the development of feelings of dislike, and the exposure of basic incompatibilities (Braiker & Kelly, 2013). This is where I argue relational uncertainty exists in interpersonal conflict: while conflict it is bound to make people unhappy, in the long run, it may result in either costs or benefits for the longevity of a relationship.

From a socio-ecological perspective, I argue that this concept of relational uncertainty brought about by interpersonal conflict is a key to understanding the ways in which the implications of context collapse on SNS may vary between societies. In particular, I argue that individuals' sensitivity to relational uncertainty caused by conflict should differ between societies, and this should help predict the ways in which SNS users in different societies react to situations of context collapse.

Socio-ecological approach and relational mobility. In order to understand the degree to which relational uncertainty caused by conflict may be perceived differently across societies, I propose approaching this issues from a socio-ecological approach. A socio-ecological approach posits that many differences in human behavior and psychology that are observed between peoples in different societies (so called "cultural differences") can be considered as "adaptive strategies (both conscious and not)" (Schug et al., 2010b, p. 1477) in line with adaptive tasks extant within different social environments (Oishi, Schug, Yuki, & Axt, 2014; Yuki & Schug, 2012). Here I wish to focus on one particular socioecological factor, *relational mobility*, one

socio-ecological factor which has been identified in a raft of recent research as a determinant of a number of adaptive tasks and concurrent behavioral and psychological outcomes. Relational mobility is defined as "the degree to which there is an availability of options in a given society or social context regarding interpersonal relationships, such as opportunities to acquire new, maintain current, and sever old relationships" (Yuki et al., 2013, p. 742).

In societies low in relational mobility, represented by East Asian societies such as Japan and China, as well as traditional rural communities, relationships tend to be long lasting and are to a large extent predetermined by circumstance and pre-existing social structures. Furthermore, there are fewer opportunities to form new relationships, outside of current social structures (Yamagishi et al., 2008). In such social environments, an important adaptive task is the maintenance of harmony within existing relationships. Not doing so could run the risk of long-term discomfort in those long lasting, difficult to change relationships, or, in a worst case scenario, one might be rejected from current relationship and face the daunting task of having to finding new relationships. In such a society, the relational uncertainty that interpersonal conflict entails should be a much more salient, daunting thing; the costs of the relationship *not* returning to a harmonious state are high.

In North American societies, however, where there are relatively abundant opportunities to form and sever relationships – where individuals inhabit a relatively 'open market' for interpersonal relationships (Falk et al., 2009) – individuals need to balance two opposing adaptive tasks: the retention of current desirable relationships on the one hand, and the acquisition of

alternatively more beneficial relationships on the other (Oishi et al., 2014; Thomson & Yuki, 2015). While interpersonal conflict is still likely to be painful, there do exist alternate options for relationships should conflict lead to rejection or undesired disharmony. Arguably, in fact, in such social environments, conflict could even be adaptive: conflict may work to either 1) strengthen current desirable relationships or 2) expose basic incompatibilities between interaction partners, which may in turn allow them to more efficiently pursue subsequent, more desirable partners (c.f., Schug, Yuki, Horikawa, & Takemura, 2009). Both outcomes of the relational uncertainty brought about by conflict carry with them relatively less cost, and may in fact confer benefits.

Bringing this discussion back to the topic of context collapse on SNS in Japan and the US, previous findings that suggest that audience diversity is positively related to interpersonal conflict on SNS in the US and other Western societies makes sense: conflict, while painful, could be argued to have the silver lining of making sure one's current relationships are worth sticking with in the face of plenty of alternatives. If, however, indeed conflict is more costly in low relational mobility Japan, one might expect that previous findings in the US will not be replicated in Japan. That is, because Japanese users should be more careful to avoid costly conflict, due to living in a low relational mobility society, one should observe less Facebook users in Japan experiencing conflict, regardless of audience diversity. Therefore, one might hypothesize that:

H1 The magnitude of the association between audience diversity and conflict will be weaker in Japan than the US.

Also, I hypothesize that:

H2 Japanese Facebook will display higher content posting sensitivity than US users, and this difference will mediate cross-societal differences in the magnitude of association between audience diversity and conflict.

Finally, a socioecological framework states that it is the nature of interpersonal relationships offline – i.e., relational mobility – that is one cause of difference in the cost of conflict between the US and Japan. Therefore I hypothesize that

H3 The US-Japan difference in content posting sensitivity will be mediated by cross-societal differences in relational mobility.

Method

In order to explore the hypotheses posed, I administered a web survey to Facebook users in Japan and the US.

Participants

134 Facebook users from Japan (M_{age} = 33.7, SD_{age} = 7.77, 77 female) and 116 users from the United States (M_{age} = 32.1, SD_{age} = 10.37, 53 female) participated in a web survey. Participants were recruited to the online survey using crowd sourcing sites Lancers.jp in Japan and Amazon Mechanical Turk in the US. For participation, participants were paid 100yen in Japan, and US$1 in the US.

Procedure and Materials

Online survey text was developed in both Japanese and English simultaneously by one bilingual researcher, with subsequent adjustments made

by a team of 6 bilingual researchers to ensure equivalency in meaning.

Facebook usage variables. In order to understand basic similarities and differences in Facebook usage patterns across the two samples, the following variables were measured.

Time since registering on Facebook. Participants were asked "Approximately how long have you been actively using Facebook? (Actively here means logging in at least once a month)." Response options were 1= Less than 6 months, 2 = 1 year, 3 = 1 – 2 years, 4 = 2 – 3 years, 5 = 3 – 4 years, 6 = 4 – 5 years, 7 = More than 5 years.

Time per week using Facebook. Participants were asked "During the last week, approximately how long did you spend per day (on average) on Facebook?" and responded using the following scale: 1 = Less than 10 minutes, 2 = 10 to 29 minutes, 3 = 30 minutes to an hour, 4 = 1 to 2 hours, 5 = 2 to 3 hours, 6 = more than 3 hours.

List usage. Within the Facebook platform, users are able to organize their Friends into separate "Lists". Subsequently, when making status updates or posting photos, users are able to choose to display updates to select Lists, rather than all members of one's network. I asked "Are you using Friend lists?" with possible answers being 1 = "Yes", 2 = "No", and 3 = "This is the first time I've heard of Lists". For analysis, this variable was recoded such that 0 = "No" (including 2 and 3 above) and 1 = "Yes".

Facebook network characteristics.

Facebook network size and composition. Following from Binder et al. (2012), network size was calculated using the summation method, whereby

participants report the number of people known to them in a total of 16 categories: Immediate family, other birth family (extended family), family of spouse or significant other, people you work closely with at work, other people in your workplace, business contacts, best friends, friends from college, high school classmates, childhood friends, people known through hobbies, people from religious organizations, people from other groups or organizations, neighbors, Facebook only friends, others. Respondents were asked to estimate two numbers for each category: those added as Friends on Facebook (Facebook Network), and a total number which encompassed all known people (on- and offline; Total Network). If any individual in their network belonged to two or more groups, respondents were instructed to include them in the category which best applied. The numbers for both Facebook Network and Total Network were summed to produce an estimated network size for both types.

Direct size estimate of Facebook network size. As a comparison to the summation method, participants were asked to report the total number of Facebook Friends they had in their Facebook Network.

Context collapse (audience diversity). In order to quantify the concept of context collapse, audience diversity in users' Facebook Network was calculated as a proxy for context collapse. In order to make comparisons with users' offline networks, a network diversity score for users' Total Network was also calculated. Following from Binder et al. (2012), audience diversity was estimated by calculating the Blau index; a diversity index that takes into account the number of categories present in a network, and the

proportion of individuals from one's total Facebook Network within each category. Formally, the Blau index is represented by

$$1 - \sum p_i^2 \quad (1)$$

where the sum of the squared proportion of people in each category in relation to the total network size is subtracted from 1. For example, suppose that an SNS user has a total of 150 Friends in his or her Facebook Network. This user indicates that they have added three family members, two workplace acquaintances, 129 university friends, and 16 contact from the high school they used to attend as Friends on Facebook. Their Blau index would be 0.25, as follows:

$$1 - ((3/150)^2 + (2/150)^2 + (129/150)^2 + (16/150)^2) = \mathbf{0.25} \quad (2)$$

In comparison, consider another Facebook user, also with a total of 150 individuals in their Facebook Network, who has 24 family members, 27 workplace acquaintances, 61 university friends, and 38 high school friends in their Facebook network. Their Blau index would be 0.71, as follows:

$$1 - ((24/150)^2 + (27/150)^2 + (61/150)^2 + (38/150)^2) = \mathbf{0.71} \quad (3)$$

Conceptually, this method roughly captures the dynamics of context collapse; a higher Blau index (i.e., higher audience diversity) indicates a more advanced

state of context collapse.

More importantly, however, while the users in equation 2 and 3 both have the same Facebook Network size and number of categories present in their network, it is the user in equation 3 that is arguably at a higher risk of encountering context collision: there are a larger proportion of contacts present in each separate category, increasing the chances that one of those individuals will take issue with an identity performance by the actor which is incongruent with the expectations the individual has of the actor in relation to the context in which the individual knows the actor. Put simply, there are more 'voices' within each category, increasing the risk that conflict may occur.

Conflict on Facebook. Adapting Binder et al.'s (2012) scale for measuring online tension, I used a 4-item scale which asked approximately how often participants themselves experience the following on Facebook: criticism expressed at posted content, social blunders, damaging gossip, and breaches of trust. Whereas Binder et al. (2012) used a Likert response scale (very rarely to very often) I opted for a definite categorical scale whereby: 1 = Never, 2 = Once a year, 3 = Less than a month, 4 = Once a month, 5 = 2 to 3 times a month, 6 = Once a week, 7 = 2 to 3 times a week, 8 = Daily.[1] The decision to move away from the original Likert scale was made in order to minimize the influence of differences in reference groups in Japan and the US.

Conflict avoidance on Facebook.

Content Posting Sensitivity. As a way of capturing the degree to which users attempt to avoid posting potentially inflammatory content, I created a four-item Content Posting Sensitivity scale to measure the degree to

which participants avoid posting content that might cause offence. Specifically, I asked "What considerations to you make when you post Facebook updates that go to everyone in your Facebook Friend network? To what degree do you agree or disagree with the following statements?" The four items were "If there's a topic I think my friends on Facebook won't appreciate, I'll make sure I won't post about it," I do not post things on Facebook that I know will get me into quarrels with my friends," "I don't post status updates on Facebook regarding issues where public opinion is clearly divided," "I avoid expressing my personal beliefs and opinions on Facebook." Participants responded on a 6-point scale ranging from 1 = Strongly disagree to 6 = Strongly agree. Alpha reliabilities for the 4-item scale were acceptable in the Japan (α = .71) and US (α = .84) samples.

Status and photo update frequency. I also asked how often users made status updates and uploaded photos containing themselves or others on Facebook, using a categorical scale of 1 = Never, 2 = Less than once a month, 3 = Once a month, 4 = 2 to 3 times a month, 5 = Once a week, 6 = 2 to 3 times a week, 7 = Daily.

Relational mobility. In order to attempt to quantify the role of relational mobility in conflict-related strategies and outcomes, used Yuki et al.'s (2007) relational mobility scale to measure participants' perceptions of relational mobility around them. The relational mobility scale consists of two correlated factors insomuch as participants are asked to evaluate 1) the degree to which others around them in their immediate society (such as their neighbors, friends, co-workers etc.) have opportunities to get to know other

people (Factor 1, ‘meeting’), and 2) how much choice others around them have in forming or dissolving interpersonal relationships (Factor 2, ‘choosing’). Participants responded on a scale from 1 (strongly disagree) to 6 (strongly agree) to statements such as ‘it is easy for them (people around you) to meet new people’ and ‘it is often the case that they cannot freely choose who they associate with’ (see Appendix A for full scale item wordings). Alpha reliabilities for the scale were acceptable in the Japan ($\alpha = .73$) and US ($\alpha = .86$) samples, and previous cross-cultural studies with similar samples have demonstrated the scale’s robust cross-cultural structural equivalence (Thomson, Yuki, & Ito, 2015).

Results

During analyses, I began by noting basic cross-societal differences in Facebook usage patterns, network composition, experience of conflict, conflict avoidance behaviors, and relational mobility. I then proceeded to test the hypothesized conditional processes stated in the hypotheses.

Simple Cross-societal Differences

Facebook usage patterns. An important first step during analysis was to establish basic similarities and differences in Facebook usage between the two country’s samples. Overall, compared with participants from Japan, US participants had been using Facebook longer, made status updates more frequently, and spent more time per week on Facebook (Table 5-1). In regards to the use of the Lists feature on Facebook, there was no substantive difference in the proportion of Japanese (31.4%) and US (39.1%) users who made use of the feature ($\chi^2(1, N = 268) = 1.74, p = .19$).

Table 5-1

Facebook usage, network characteristics, online tension, conflict avoidance, and relational mobility by country.

Measure	Japan (N = 153)			United States (N = 115)			Between-country Comparison		
	α	M	*SD*	α	*M*	*SD*	*df*	*t*	*d*
Basic Facebook usage variables									
Time since registering		3.48	1.53		5.86	1.47	266	-12.78***	1.59
Time spent on Facebook per day		2.02	1.18		2.93	1.50	210.61	-5.57***	0.67
Total Network characteristics									
Size		174.37	247.70		391.70	443.81	166.78	-4.73**	0.60
Diversity		.75	.13		.70	.16	216.76	2.99**	0.34
Facebook Network characteristics									
Size		84.46	112.14		224.93	246.39	149.54	-5.69***	0.73
Diversity (adjusted for Time on Facebook)		.62	.39		.69	.32	264.70	-1.47	-.20
Experience of conflict on Facebook	.77	1.12	.39	.85	1.95	1.24	131.17	-6.39***	0.90
Content posting sensitivity	.71	4.76	.89	.84	4.14	1.23	199.11	4.57***	0.58
Relational mobility	.73	3.74	.60	.86	4.14	.68	227.78	-4.94***	0.62

Network size and composition. As a second step, I compared US and Japan participants' social network characteristics, both their Facebook Network and their Total Network. All specific mean values can be found in Table 5-1. Overall, respondents from the US reported significantly larger network sizes than respondents from Japan, both in respects to Total Network and Facebook Network. Interestingly, however, while Japanese respondents reported higher Total Network diversity than US respondents, there was no difference between the two samples in respects to diversity in their Facebook Networks when controlling for time since registering on Facebook. This may imply that Japanese are more selective in the breadth of social spheres they add to their Facebook Network. Indeed, even after controlling for time since registering on Facebook, the association between Facebook Network diversity and Total Network diversity was lower in Japan ($r = .37$, $p < .001$) than in the US ($r = .67$, $p < .001$), and difference was significant ($z = -3.253$, $p < .01$). This suggests that US Facebook users may tend to have a more full representation of offline networks on Facebook than Japanese users, which in turn suggests that perhaps US Facebook users are less selective in terms of who they add to their Facebook Network.

Conflict on Facebook. In regards to experienced conflict on Facebook, compared to Facebook users from the US, Japanese users in the sample reported experiencing significantly less conflict (Table 5-1). Acknowledging the seemingly floor-effect nature of the mean and medians (US *Mdn* = 1.5, Japan *Mdn* = 1) however, I produced distribution plots for this variable within each country (Figure 5-1), and discovered that a full 71% of

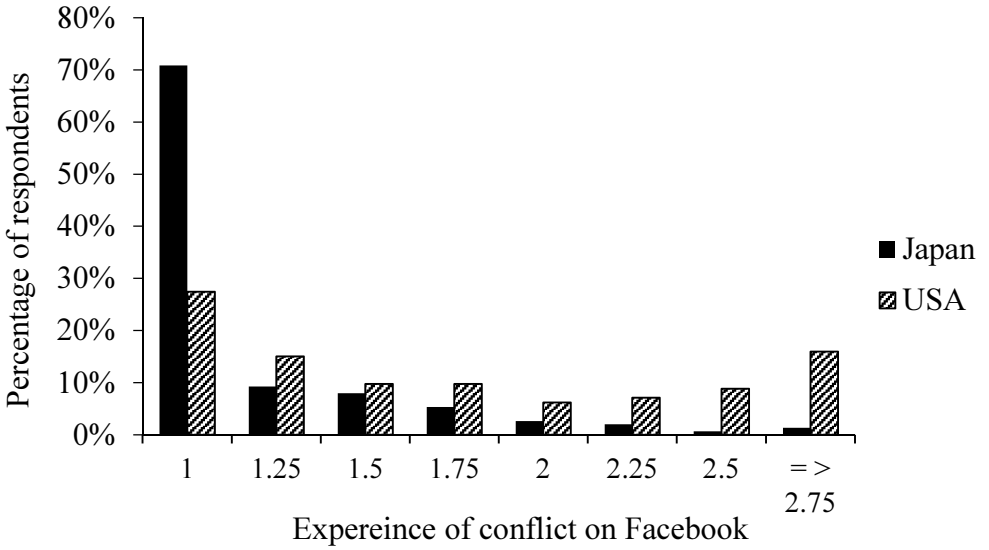

Figure 5-1. Distribution (in percent) of mean conflict scores in Japan and the US

Japanese reported having never experienced any of the conflict situations described in the 4-item conflict on Facebook scale, compared with 27% of US participants who reported the same. Taking into account the drastically skewed nature of the data, I decided transform this variable into a binary categorical variable for analysis by recoding participants' mean scores on the conflict on Facebook scale such that 0 = Never experienced conflict on Facebook and 1 = Experience conflict on Facebook once or more a year. Doing so revealed that significantly more US than Japanese users experience conflict on Facebook at least once a year (73% vs. 29%), χ^2 (2, N = 265) = 49.45, p < .001. All analyses that follow use this newly created binary conflict on Facebook variable.

Conflict avoidance behaviors and relational mobility. Overall,

Japanese reported significantly higher levels of Content Posting Sensitivity than US users, and also reported lower relational mobility (Table 5-1).

Associations: Facebook Network Diversity, Country of Residence, and Online Tension

I now move on to the various associations posited in the hypotheses. First, H1 stated that Facebook Network diversity should be more strongly associated with online tension in the US than Japan. Conducting a moderation analysis, I found that indeed, the interaction between audience diversity and country of residence significantly predicted conflict on Facebook (Table 5-2, Model 1). Probing this interaction, I found that while diversity was strongly positively associated with conflict in the US sample ($b = 6.653$, $p < .001$), no significant association was found in the Japan sample ($b = 1.803$, $p = .11$) (see Figure 5-2). This result replicates previous research insofar as in

Table 5-2

Mediating effect of content posting sensitivity on cross-national differences in the magnitude of the association between audience diversity and content posting sensitivity on Facebook, controlling for Facebook network size – Hierarchical multiple regression analysis.

	Model 1		Model 2	
	b	*p*	*b*	*p*
Country (Japan = 0, US = 1)	-1.789	.204	-1.355	.347
Blau Index	1.669	.139	9.994	.057
Country × Blau Index	4.878	.017	3.910	.063
Content Posting Sensitivity	-	-	0.530	.433
Content Posting Sensitivity × Blau Index	-	-	-1.697	.105
R^2 (Cox & Snell)	.27		.31	

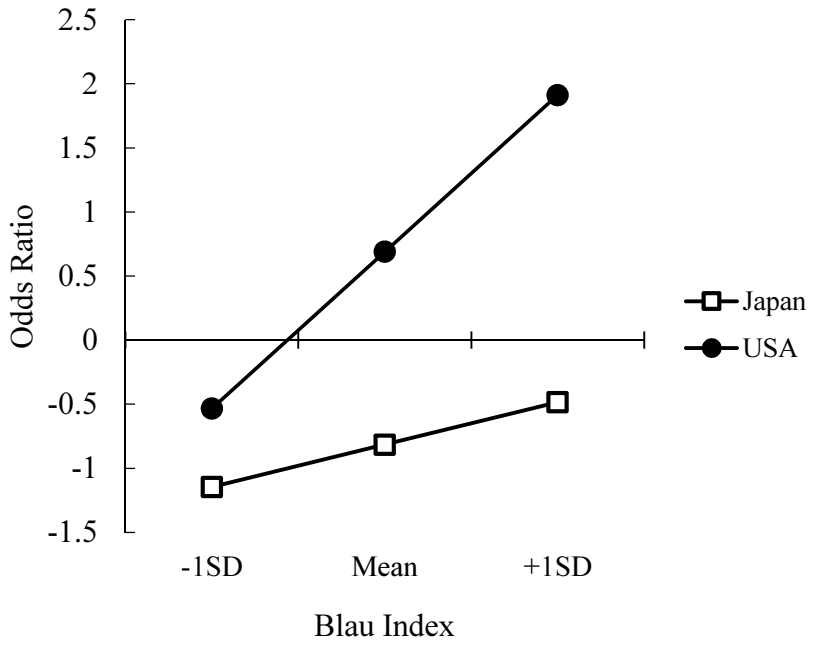

Figure 5-2. The odds of experiencing conflict in the last year at differing levels of audience diversity on Facebook, as moderated by country of residence.

the US, the more audience diversity there is, the more people experience conflict. However, this result also suggests that this phenomenon may not be universal across societies.

Next, H2 predicted that the US-Japan difference in the magnitude of the association between audience diversity and conflict would be mediated by societal differences in levels of content posting sensitivity. In order to test this hypothesis, I conducted a hierarchical regression analysis, outlined in Table 5-2, Model 2. As can be seen, by entering an interaction term between audience diversity and content posting sensitivity[4], the previously significant

[4] This interaction term is significant at the 90% level. This relatively weak reliability is

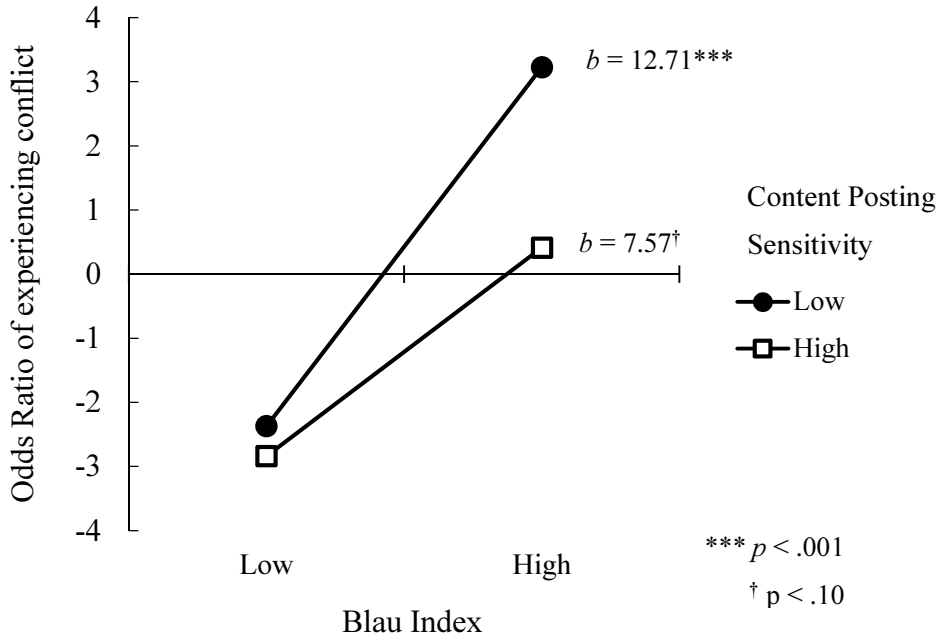

Figure 5-3. The odds of experiencing conflict in the last year at differing levels of audience diversity on Facebook, as moderated by content posting sensitivity.

audience diversity by country interaction term ceases to be significant, suggesting a mediating effect of the audience diversity by content posting sensitivity interaction. Probing this the interaction between audience diversity and content posting sensitivity (while controlling for the audience diversity by country interaction), I find that indeed, when content posting sensitivity is low, the relationship between audience diversity and the odds of experiencing conflict is stronger (Figure 5-3). Furthermore, the indirect effect of the interaction term of audience diversity by country on conflict via the interaction term of audience diversity by content posting sensitivity was significant, b = -1.050 (95%BCa CI = -2.970, -.012).

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likely due to the non-independence of the audience diversity and content posting sensitivity variables.

My final hypothesis, H3, predicted that the Japan-US difference in content posting sensitivity would be mediated by relational mobility. In order to test this hypothesis, I conducted a mediation analysis whereby the independent variable was country of residence, content posting sensitivity was the dependent variable, and relational mobility was the mediating variable. The conceptual model and results are indicated in Figure 5-4. As can be seen in Figure 5-4, the inclusion of relational mobility does not impact the strength of the between-country difference in content posting sensitivity. This appears to be due to a non-significant path between relational mobility and content positing sensitivity while controlling for country of residence (Figure 4-4, Path *b*). These results do not support H3, and suggest that relational mobility does not explain the between-country difference in content posting sensitivity.

Discussion

General Overview of Results

In my survey of Facebook users in the US and Japan, I explored theoretically and empirically the implications of context collapse on

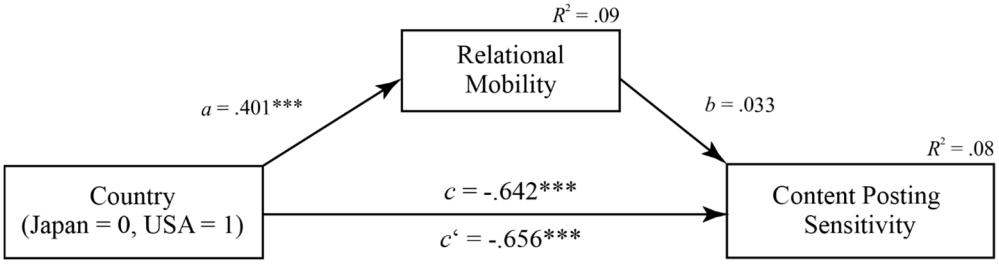

Figure 5-4. Results from a mediation analysis testing the mediation by relational mobility of the country difference in content posting sensitivity.

interpersonal conflict and associated conflict avoidance behavior on SNS. I found that as predicted, a previously demonstrated positive association between audience diversity and interpersonal conflict on SNS was replicated in my US sample, but this association was not replicated in Japan; regardless of audience diversity, Japanese Facebook users did not experience an increase in interpersonal conflict. Also as predicted, this difference in the magnitude of association between audience diversity and conflict was shown to be due to between-country differences in content posting sensitivity; Japanese tend to be more sensitive about the content they post on Facebook compared to Facebook users in the US. This result is what is expected considering Japan is a low relational mobility society. However, while I predicted that the country difference in content posting sensitivity would be statistically explained by differences in relational mobility between the US and Japan, this prediction was not supported.

The current study contributes to understanding regarding the ways in which SNS users outside of a Western social context manage multiple social spheres online. It clearly shows that a diverse audience on SNS does not necessarily lead to experiencing interpersonal conflict online. That is, the current study suggest that the degree to which audience diversity will result in interpersonal conflict is dependent on the country where an individual lives. Therefore, a more generalizable theory about the role of context collapse on SNS behavior and interpersonal conflict will need to take into account differing conflict avoidance tendencies across societies.

Limitations and Future Directions

I would like to focus on several points in the following discussion: 1) the apparent non-association of relational mobility with content posting sensitivity (Figure 5-3, Path *b*), 2) issues regarding comparing Facebook users in the US and Japan, and 3) society- versus individual-level relational mobility.

Generalized vs. particularized relational mobility. First, I would like to discuss the apparent non-association of relational mobility with content posting sensitivity. I propose that this finding may be due to a key difference between what I call *generalized* relational mobility and *particularized* relational mobility, a distinction not made previously in relational mobility research. I define *generalized* relational mobility as the overall relational mobility present in a society. That is, the relational mobility of other people in an individual's immediate society – such as one's neighbors, school friends, and work colleagues etc. This is what the relational mobility scale measures, when not adjusted to measure perceptions of relational mobility in a specific social context (Yuki et al., 2007). In its most general form, the lead-in to the relational mobility scale asks "How much do you feel the following statements accurately describe people in the *immediate society in which you live (friends and acquaintances in your school, colleagues in your workplace, and residents in your town etc.)*?" (italics added). I propose that responses to the relational mobility scale when worded like this will measure a respondents' generalized perceptions of relational mobility.

In contrast to this, I define *particularized* relational mobility as an individual's perception of the relational mobility in any one particular social

context. For example, relational mobility may be higher in one's extended social circle compared with one's workplace. It may also differ between one's core sphere of 'best' friends versus that of a voluntary association that one is a part of. I propose that this is an essential distinction that may have critical implications for the ways in which relational mobility impacts behavior on SNS.

Key to understanding particularized relational mobility's role in SNS behavior is the idea that when faced with a diverse audience on SNS, the user is likely to behave according to the perceived expectations one or more specific groups of others within which conflict would be the most relationally fatal. This is the idea behind the 'lowest common denominator' approach to self-expression on SNS, introduced earlier (Hogan, 2010); when presented with a diverse audience, users tend to choose to post only content that will be the least offensive to the most sensitive social spheres in one's imagined audience. Here, I would like to propose that particularized relational mobility may be one factor in determining which social sphere is the most problematic for a user, and the particular relational mobility of that problematic social sphere will be an important factor in how an individual behaves on SNS.

To illustrate this point, suppose a respondent from the US reports that generalized relational mobility is "5", but they indicate that the relational mobility of their lowest relationally mobile social sphere their Facebook network is "3". Suppose that this respondent indicates that this lowest relational mobility social sphere is their work contacts. Suppose another respondent, this time from Japan, indicates their perception of generalized

relational mobility to be the same as the former individual, “4.5”, however, the lowest relationally mobile social sphere is “1”. They also indicate that their lowest relational mobility social sphere is their work contacts. In this case, surely the individual from the US will be more willing to risk courting conflict by way of being less sensitive when posting content on Facebook. The relational mobility of the lowest relational mobility social sphere – their work contacts – is still higher than that of their Japanese counterpart; they can risk creating conflict within their work contacts because the relational mobility is relatively higher in that social sphere compared to their Japanese counterpart, which means that the cost of conflict will be lower in their work contacts than the cost of conflict within the Japanese respondent’s work contacts.

To reiterate, the implied issue here is that even though any one Japanese Facebook user might perceive general relational mobility in their immediate society to be high, they may not perceive all those clusters of individuals within their Facebook the same way. Indeed, there may be greater variability *between* each of those separate social spheres’ relational mobility in Japan than the US. If this is the case, one could expect that those Facebook users in Japan who report high levels of generalized relational mobility (which implies a lower cost of conflict) and also report high audience diversity might still be relatively sensitive about posting content on Facebook. On average, the relational mobility of the lowest relational mobility social sphere may be overall quite low in Japan (compared to the US), despite some Japanese respondents reporting high generalized relational mobility.

They key concept here is the absolute ‘gap’ between generalized

relational mobility in a person's surrounding environment and the particularized relational mobility of any one individual's lowest relational mobility social sphere. The larger the gap – i.e., the larger the discrepancy between generalized and particularized relational mobility – the less that generalized relational mobility will have an effect on behavior on SNS, and the more that the particularized relational mobility of the lowest relational mobility social sphere will dictate how an individual behaves on SNS.

In order to seek some anecdotal evidence for this possibility, I have produced plots in Figure 5-5 demonstrating the strength of the association between audience diversity and content posting sensitivity at different levels of relational mobility, when estimated in Japan and the US separately. In the two panels in Figure 5-5, I have produced plots showing the level of content posting sensitivity at low (25^{th} percentile) and high (75^{th} percentile) audience diversity for those Facebook users reporting low (25^{th} percentile) and high (75^{th} percentile) relational mobility in Japan in Panel A, and the US in Panel B.

If indeed high relational mobility implies lower costs, or even benefits associated with conflict, then in both panels, I would expect to see a stronger negative association between audience diversity and content posting sensitivity for those SNS users reporting high relational mobility; surely for people living in high relational mobility environments in the US and Japan, who also have highly diverse SNS networks, it would be adaptive to be less sensitive about posting content on SNS – being more expressive should allow the user to engage in a modicum of conflict, in order to seek the relational benefits of conflict such as the strengthening of existing relationships through

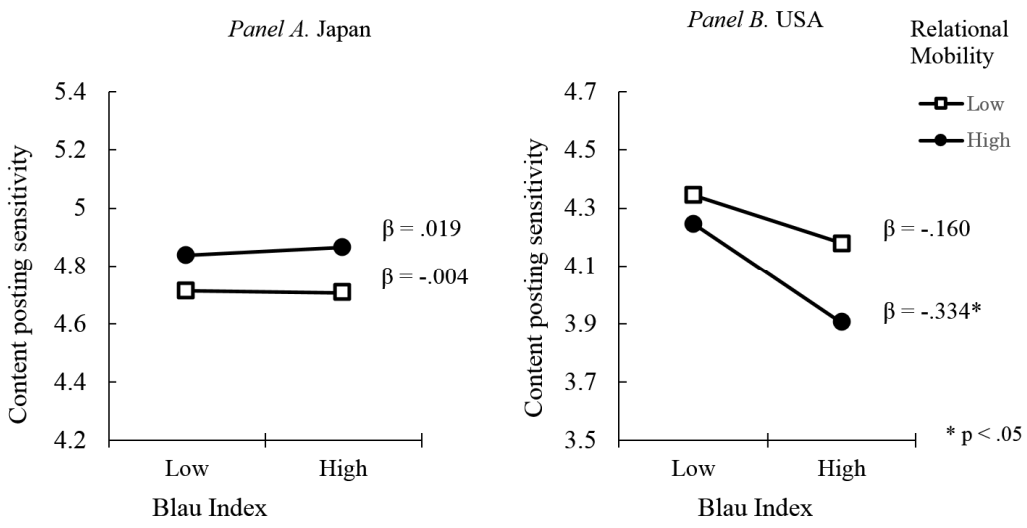

Figure 5-5. Levels of content posting sensitivity and corresponding standardized slope coefficients at differing levels of audience diversity on Facebook, as moderated by relational mobility, by country

mutual discovery of fundamental compatibilities. The reason that I predict this to happen in particular for people with diverse audiences on SNS is because I consider high audience diversity to imply a large market for possible desirable alliances, especially when relational mobility is high: when one finds oneself in the presence of a diverse market of possible alliances, and that market is open and mobile, surely one should attempt to capitalize on the relational opportunities that lie there within.

A test of the implied three-way interaction in Figure 4-5 (the moderation by country of the audience diversity by relational mobility interaction) was not significant (β = -.069, p = .28), however if we begin with Panel B, the plot produced within the US sample does provide anecdotal evidence for the notion that in the US, at high levels of perceived generalized

relational mobility, those with high audience diversity also report lower levels of content post sensitivity.

This points to two related possibilities: 1) SNS users in high relational mobility social contexts in the US do indeed seek to capitalize on possible benefits associated with interpersonal conflict in high-diversity situations, and 2) in the US, there is relatively little discrepancy between users' generalized relational mobility and the average level of relational mobility in US users' lowest relational mobility social spheres. That is, this result may suggest that in general, for all US users who report high generalized relational mobility, the relational mobility in each of their social spheres on SNS is also generally quite high, with few particularly low relational mobility "outlier spheres".

Turning our attention to Panel A, however, there appears to be no discernable pattern in the effect of relational mobility on the strength of the association between audience diversity and content post sensitivity. Why do Japanese SNS users who, within Japan, report generalized relational mobility to be high, and also have highly diverse SNS networks, not capitalize on that potentially lucrative relational marketplace by causing a little conflict? I argue that this is because despite generalized relational mobility being high, there may be one or more "outlier" social spheres where relational mobility is particularly low. That is, overall, the discrepancy between generalized relational mobility and the particularized relational mobility of low relational mobility 'outlier' spheres in Japan may, overall, be larger than in the US.

Naturally, this is an empirical question, which warrants investigation in future work. This concept has, however, two major implications for theory

about how relational mobility might impact content posting sensitivity on Facebook: 1) it implies that generalized relational mobility may have little explanatory value, and 2) if the average relational mobility of the lowest relationally mobile social sphere on Facebook differ between the US and Japan, then one might expect particularized relational mobility to have an impact on content posting sensitivity. This should be an important future direction of inquiry.

SNS popularity across societies. One limitation that may be contributing to the lack of support regarding relational mobility's role, however, may be the selection of SNS to compare across the two societies. That is, while choosing Facebook as a platform to compare across US and Japanese users helps to orient the current study's findings to previous work in this area, Facebook penetration rate differences in the US and Japan may raise questions regarding the role that Facebook plays in everyday life in Japan, and the direct comparability of Facebook users in Japan and the US. That is to say, Facebook arguably occupies a much larger part of US Internet users' lives with 58% of the US adult population using Facebook (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015), whereas Facebook usage as a whole in Japan is much lower: a recent Japan government report indicates only 28.1% of Japanese above 10 years old use Facebook (Ministry of Internal Affairs and Communications, 2015b). Future studies would do well to compare SNS use across platforms that are more widely used in both countries, such as Twitter, in order to better control for difficult to predict bias in types of people who use the platform in question in each country.

Society- versus individual-level relational mobility. Another limitation that is not necessarily peculiar to the current study but to dual-country studies in general, is the issue of levels of analysis. That is, much of the preceding discussion proposes that the discrepancy between society-level generalized relational mobility and society-level particularized relational mobility – both contextual macro-level variables – impacts behavior on SNS. Unfortunately, the reality of dual-country studies such as the current study is that inevitably, while a mediating variable such as relational mobility is conceptualized as a contextual variable, it is nonetheless relegated to the role of an individual-level variable during analysis. Even while controlling for country of residence, as is the case for the relational mobility variable in the moderated mediation model above, the researcher is still at the whim of individuals' appraisal of society-level relational mobility, which may well be imperfect.

One way to improve a contextual variable's predictive power is to treat it as such by aggregating individual appraisals to the society level, as is the case in many multi-country studies employing multilevel analysis. This way, one would be able to treat relational mobility as a contextual variable, both conceptually and statistically, would be to employ multi-country studies in order to create aggregated group-level means and use these in multi-level analysis (Matsumoto & Yoo, 2006). This would allow for a better estimation of true 'society-level' relational mobility, and no doubt help to more accurately elucidate the role of different types of relational mobility and conflict avoidance behavior on Facebook.

Conclusion

Does context collapse on SNS lead to conflict on SNS? In my study of Facebook users in the US and Japan, we can for the first time state that the answer to this question may depend on what country the SNS user lives in: while the answer is "yes" in the US, the answer is "no" in Japan. Furthermore, I found that this difference was partially explained by differences in the degree to which Facebook users in Japan and the US are sensitive about posting content on Facebook. What is yet unclear, however, is what is behind these cross-societal differences in behavior. In the present study I explored a compelling theoretical account from a socioecological perspective posits that it is relational mobility that should define how costly conflict is in any one society; when relational mobility is low, as it is in Japan, conflict should carry the risk of creating disharmony in, or being rejected from, long lasting and difficult to replace relationships. However, I was not able to empirically demonstrate a link between relational mobility and cross-societal differences in content posting sensitivity. One possible explanation for this apparent non-association of relational mobility may be discrepancies in the level of relational mobility in a user's general surroundings, compared to how relationally mobile one or more specific 'critical' social spheres may be within one's network. When an individual finds oneself standing, albeit virtually, in front of all one's social spheres, it is likely that he or she will adjust the content of their utterances so as to acquiesce to the social sphere in which the cost of conflict is the highest – i.e., the one the one with the lowest relational mobility.

CHAPTER VI

GENERAL DISCUSSION

The cross-societal studies presented in the current work support a new framework for understanding societal differences in behavior and psychology on SNS. This framework takes into account socio-ecological characteristics of users' offline social environments, in particular relational mobility. The rationale behind taking into account users' offline social contexts is based on SNSs' embeddedness in existing offline social networks; SNS are online spaces where individuals are maintaining increasingly diverse representations of their offline interpersonal social spheres, where behavioral outcomes online should impact relationships offline. Overall, the three studies presented in the current work provide evidence that suggests that this is the case. Overall the studies support the notion put forward in the introduction that behavior and psychological tendencies online are, in part, selected tendencies in response to the adaptive tasks, defined by differing levels of relational mobility, required in differing societies for social flourishing within one's social world in general.

In Chapter 3 I hypothesized that the reason there is societal variation in degrees of privacy concern on SNS between US and Japan SNS users was because Japanese live in a low relational mobility society, in which general trust has relatively lower adaptive value; because Japanese have a lower level of belief in the benevolence and goodwill of strangers, therefore, they are concerned about what might become of personal information should it get into the hands of unknown third parties. Surveying SNS users from Japan and the US, results supported this hypothesis. This study demonstrated one way in which psychological tendencies in relation to SNS use may be impacted by the relational mobility of offline interpersonal relationships.

In Chapter 4 I hypothesized that previously demonstrated cross-national differences in self-promoting behaviors on Facebook could be attributed to relational mobility: In a high relational mobility society such as the US, where users inhabit an open market for interpersonal relationships, it was argued that people would self-promote on SNS more than Japanese users, because doing so should manifest as a strategic behavior in order to achieve the adaptive task of acquiring and maintaining desirable interpersonal relationships. In low relational mobility Japan, however, self-promoting tendencies would be relatively lower, due to the risk that self-promotion might play in creating status competition in relationships, thus causing disharmony. Furthermore, it was hypothesized that outcomes of self-promotion would be more positive in the US than Japan, and self-promotion would be linked with the acquisition and retention of relationships in the US. Surveying general-population Facebook users in the US and Japan, I found evidence supporting these hypotheses. Not only did Facebook users in the US self-promote more than Japanese, and report more positive outcomes associated with self-promotion, but these cross-national differences were partially explained by relational mobility. Furthermore, users from the US reported more social-network expansion benefits associated with self-promotion. This study demonstrated one way in which relational mobility might impact behaviors and interpersonal outcomes associated with SNS use.

Finally, in Chapter 5, I hypothesized that due to the relatively high relational costs associated with interpersonal conflict in low-relational mobility Japan, Japanese SNS users would avoid conflict on SNS more than

users in the US, and this would mean that there would be a weaker relationship between audience diversity and interpersonal conflict on SNS in Japan. Through yet another cross-national study of US and Japanese SNS users, I found mixed support for these hypotheses. That is, as predicted, I replicated a previously demonstrated association between audience diversity and interpersonal conflict in the US, and this association was not replicated in Japan. I showed that this difference in association was due to societal differences in the degree to which Japanese and US SNS users avoided conflict on SNS: Japanese tended to be more sensitive about the content they posted on Facebook. However, while the difference in content posting sensitivity between the US and Japan mirrored that which would be expected from a high relational mobility society such as the US, and low relational mobility in Japan, this difference in content posting sensitivity was not statistically explained by societal differences in relational mobility.

As discussed in more detail below, these studies imply that in order to develop generalizable theory about behavior and psychological tendencies on SNS, it is necessary to explore cross-societal approaches which take into account socioecological features of the societies in which users live. That is, it is clear that offline social ecologies impact behavior and psychology on SNS. Beyond understanding of behavior and psychological tendencies on SNS (and media theory more generally), however, the findings also speak to the conceptualization of societal differences in human behavior and psychology in more general terms.

Implications for SNS research. The current work demonstrated that

by approaching cross-national differences in behavior and psychology on SNS from a socioecological approach, new avenues arise for theorizing Internet behavior and psychology. Chapter 3 of the current work, with its incorporation of the concept of general trust, is a good example of this. In previous literature about predictors of privacy concern on the Internet, only two types of trust had been explored: particularized trust and assurance. That is, as introduced in Chapter 3, a raft of previous research had explored the ways in which differences in national privacy regulation (assurance) and the visibility of privacy policies (particularized trust) across countries impacted the mindsets of consumers in different societies towards informational privacy. The impact, let alone the concept, of generalized trust however, had not been explored in the literature. It was only by considering characteristics of users' offline socioecological environment that 1) making a distinction between assurance, particularized trust, and general trust was made possible, and 2) a parsimonious theory beyond particularized trust and assurance was able to be put forward.

Likewise, in Chapter 4, by taking a socioecological approach to societal differences in self-promoting tendencies on SNS, it became possible to articulate an integrative theory of SNS behavior which connected predictions to a more fundamental background in social psychological theory – that is, the fundamental idea of social behavior being strategic, driven by humans' desire to adapt to specific social situations. This approach allows theory to acknowledge the fundamental agentic nature of SNS users; it 'gets back to basics' as it were, and affirms the Lewinian notion of human behavior

being a function of situations and individuals (Lewin, 1939). In contrast to previous work that explores cultural differences in SNS users' mindsets in SNS use, my approach allows for a view of SNS users responding to objective offline social environments when behaving online.

Implications for media theory: technological determinism.

Technological determinism in relation to media theory is the idea that the nature of the dominant mediums through which human being communicate shape society and culture. The central tenet within a technological determinist perspective is that technology's impact on society, culture, and ways of thinking is a one-way phenomenon: "it is the medium that shapes and controls the scale and forms of human association and action" (McLuhan, 1996, p. 152). This idea, first articulated by theorist Marshal McLuhan (1962) still has strong proponents both in popular literature (e.g., Pariser's (2011) missive about web personalization's effect on worldviews) and in more academic works (e.g., Castells' (2009) global theory on the networked society). The reason I bring this topic up at this point is because indeed, on the surface, one might be tempted to assume some form of universal impact on global users of popular SNS platforms such as Facebook, such that behavior and psychology becomes more uniform across cultures due to a 'platform imperialistic' effect. Within such a 'platform imperialism' paradigm, the values and culture of capitalist societies in which the globally dominant platforms emerged slowly but surely seep into the minds of users outside of those original societies (Jin, 2015). Within popular literature, at least, there is much rhetoric that suggests that such a notion – Facebook's ability to impact culture – is conceivable (Blincoe,

2009; Pagel, 2014).

It should be clear, however, that the current work provides evidence of the fallacy of an extreme view such as this. In the current work it is clear that to some extent, the ways in which individuals behave on SNS and the ways in which users feel about such spaces not only differs across societies, but such differences in behavioral and psychological tendencies are directly linked with the nature of those societies. It is the user and the society in which the user is embedded that impacts the way the technology is appropriated, rather than the other way around. Indeed, a very recent review of literature about culture in SNS use corroborates this view: SNS use mirrors offline norms and culture (Vitkauskaite, 2016).

Implications for cross-cultural research in general. The current work furthers cultural psychology, more specifically socioecological theory, in a few ways. As shown in Chapter 3, the current work provides further support for the notion that social ecologies, external to the individual, can impact beliefs (i.e., beliefs about the benevolence about strangers), which then drive mindsets (such as concern over privacy) of people who inhabit those social ecologies. Chapter 4 in particular provides support for the notion that an adaptive task of *retention* of desirable interpersonal relationships is important in high relational mobility societies; despite a vast majority of US Facebook users reporting using Facebook to maintain offline social ties, they still self-promoted more than Japanese. Chapter 5 introduces the possibility of effects of generalized versus particularized relational mobility, particularly in situations where multiple members of an individual's wider social network

encroach upon a shared space.

These implications not only align SNS research with the wider field of social psychology, but also the focus on humans as an adaptive species helps research into online behavior communicate more effectively "with that of other disciplines in social and natural sciences (e.g., ecological anthropology, human ecology, economics, and evolutionary biology) that view individual behaviors as the product of incentives and adaptations to social and natural environments" (Yuki & Schug, 2012, p. 145); even within so-called 'virtual' spaces, albeit ones that are closely tied to offline worlds, humans as a species select behaviors according to adaptive incentives in their social environment.

Limitations and Future Directions

The current work carries with it a number of overall limitations which warrant mention here. In particular, these limitations include issues surrounding the difference between generalized relational mobility and particularized relational mobility, the cross-sectional nature of the studies, and the representativeness of samples used, both in respects to the nature of crowd-sourced samples and the use of simple dual-country studies.

Generalized vs. particularized relational mobility. While the current work provides some evidence for the ways in which the relational mobility of offline environments impacts the dynamics of social interaction on SNS, the discussion in Chapter 5 introduces scope for a more refined theory that acknowledges the peculiarity of SNS as a social space. That is, it is a space where temporal and special boundaries are often collapsed, allowing otherwise

disparate social spheres to converge upon the same space. In this sense, studying the impact of relational mobility on SNS behavior is fundamentally different from studying the impact of relational mobility on behavior in non-mediated settings.

As discussed briefly in Chapter 5, I believe the key to understanding this difference is understanding the difference between 'generalized' relational mobility and 'particularized' relational mobility. I define generalized relational mobility as the overall perceived relational mobility of one's immediate social surrounding. This perception of relational mobility is an average, of sorts, of the relational mobility of all one's social spheres. That is, when asked about "people in the immediate society in which [one] lives (friends and acquaintances in your school, colleagues in your workplace, and residents in your town etc.)", one is essentially being asked to consider overall, how relationally mobile those people are. If one was to collate responses from a number of individuals in a nation, for example, and aggregate all those 'general' perceptions into one average society-level index (as seen in Thomson, Yuki, Kito, et al., 2015), then one could produce a reasonably accurate estimate of overall society-level 'generalized' relational mobility. This generalized relational mobility could conceivably, and indeed does appear to, predict generalized patterns of reported behavior (Thomson, Yuki, Kito, et al., 2015) in offline, face-to-face settings.

As argued in the discussion in Chapter 5, however, matters arguably become complicated when using generalized relational mobility to predict behavior on SNS. Allow me to demonstrate this complication once again by

way of an example. Suppose someone from Japan reports that in general, relational mobility in their immediate surrounding is high. When pressed, suppose that this individual tells us that on a scale of 1 to 3 (1 = low, 2 = mid, 3 = high), the relational mobility of their friends and acquaintances in their school is "3", residents in their town are also "3", but colleagues in their workplace are a "1". That same individual, when asked *in general*, in face-to-face settings whether they would tell someone that they won an award, that individual might say yes; after all, *in general*, their immediate surrounding is, on balance, high in relational mobility. If the individual was asked if they would tell their workmates that they had won an award, however, the answer might be "no". The individual's workplace is low in relational mobility, so the individual would select behavior that would help achieve the task of maintaining harmony. In this way, differences in the specific relational mobility *within* different social spheres could conceivably differ *between* social spheres, and this will impact behavior within each social sphere.

While this may seem like a departure of Yuki et al.'s (2007) original concept of relational mobility in a society at large, this concept of 'particularized' relational mobility is not at all at odds with relational mobility as a socio-ecological concept. That is, one of the versatilities of relational mobility is that it defines characteristics of society both at the macro and micro levels: society-, temporal-, and contextual-level situations can all be characterized by differing levels of relational mobility. Indeed, Yuki and colleagues have not only uncovered between-society differences in behavior and psychological tendencies that can be explained by relational mobility, but

also within-society differences. Friendship vs. family relationships (Schug et al., 2010), high vs. low turnover industries (Yuki et al., 2013), and what stage one is at in life (Sato & Yuki, 2014) can all differ in degrees of relational mobility.

In offline settings, this is not much of an issue when seeking to understand the role of general relational mobility in average patterns of behavior; our individual in the present example above can confidently say that *in general* their behavior aligns with behavior that would be selected in high relational mobility settings, and statistically, analyses would reflect this. In online settings, in particular on SNS, however, the issue of context collapse arises. If one's SNS network includes all three categories above – friends and acquaintances in school, residents in their town, and their work colleagues – and the individual has not taken steps to separate those audiences on the SNS platform, then despite relational mobility on balance being high (both on- and offline), it would conceivably be the relational mobility of the lowest relational mobility group, i.e. one's work colleagues, where the consequences for adopting behavior that is incongruent with the adaptive tasks extant within that social sphere is most relationally risky, that will determine what behavioral strategies one selects to perform. Even if one might wish to align one's behavior to the higher relational mobility social spheres, and thus reap possible interpersonal benefits within those spheres, this would come at the potential cost of rejection or disharmony within the difficult to replace interpersonal relationships in the lowest relational mobility social sphere.

Furthermore, there is a reason I chose to use above the example of a

Japanese individual. That is, workplaces in Japan have long been known to be relatively low in job mobility. Therefore it would be fair to assume that for a Japanese person with a significant cohort of work colleagues within one's Facebook network, unbridled self-expression could conceivably be an issue. In the US, however, job mobility is higher; the costs of getting on the wrong side of one's boss should therefore be lower than in Japan. This difference – the difference in relational mobility between one's highest and lowest relational mobility social sphere – could, I argue, be key to a more accurate understanding of relational mobility's impact on behavior on SNS. If that difference is large, one could expect less of an impact of generalized relational mobility on SNS behavior. If the difference is small, however, the impact of generalized relational mobility may be higher.

This discussion regarding particularized vs. generalized relational mobility has implications for not only the work on context collapse in Chapter 5, but also for self-promotion and privacy concern on SNS, discussed in Chapters 3 and 4. That is, if particularized relational mobility is indeed a more salient driver of behavior on SNS, then not only might we see the hypothesized mediation of conflict-avoidance behaviors by relational mobility in a particularized form, but the mediation of cross-cultural differences in self-promotion and privacy concern by particularized relational mobility may also be much larger in effect size. This is, naturally, an empirical question that would warrant further investigation in future work.

SNS use and long-term cultural change. Let us now move on to a second limitation of the current work, its cross-sectional nature. This limitation

speaks to the question of whether the use of 'foreign' SNS in Japan leads to socio-cultural change or not. That is, in the discussion above, I argued that the current work is one example of the way in which rather than a 'platform imperialistic' effect of SNS on behavior, users appropriate SNS according to existing social structures in their society. However, due to the studies' cross-section nature, they cannot speak specifically to the question of societal change due to SNS use. Without long term longitudinal studies, the question of the affordances of SNS towards individualized fame-seeking and any possible effects that affordance may have on the structure of interpersonal relationships offline cannot be reliably answered.

In particular, the quasi-SNS platform Twitter may be a worthwhile platform to investigate this issue. Not only is Japanese one of the top most represented language on the site after English (Seshagiri, 2014), but Twitter is known within Japan to be a particularly *yurui* (loose-normed) online space (Tsuda, 2009), where there is relative freedom in the following and un-following of contacts – a form of high relational mobility, so to speak. Could the use of such platforms, especially by younger users, impact the way that interpersonal relationships operate offline, changing relational mobility within face-to-face social networks? This would be a worthwhile future line of research, as it would help extend not only research into the cross-societal dynamics in Internet behavior and psychology, but it would also contribute to larger-picture theory about social and cultural change. That is, it would speak to the question of whether characteristics of societies really "persistent, uniform, and consistent across nations" (Leidner & Kayworth, 2006, p. 373).

Sample representativeness and generalizability. Finally, mention must be made regarding the representativeness of samples used in the current work and the generalizability of the findings. My discussion of this point will revolve around two related issues: the use of crowd-sourced samples, and the use of dual- rather than multi-country studies.

First, let us consider the question of crowd-sourced samples. As indicated in the separate studies, participants to the web-based questionnaires were recruited via leading crowd-sourcing sites in Japan and the US. In the US, the popular site Amazon Mechanical Turk (AMT) was used. In regards to AMT, previous research that administered demographic surveys to users of AMT have demonstrated that in general, AMT respondents represent the average Internet user in the United States, and responses to psychological scales are reliable and mirror the quality attained through student samples (Buhrmester, Kwang, & Gosling, 2011). More recent work has surfaced, however, that questions the reliability of responses on popular psychological scales and economic games completed by workers on AMT (Marder & Fritz, 2015). Concerns here take the form of the issue of nonnaïveté among AMT workers: there is a growing number of interconnected workers on AMT – i.e., workers who share and follow information on AMT forums about lucrative studies in topics they are familiar with – who frequently complete similar questionnaires, which leads to familiarity with how to respond in the most lucrative ways (in the case of behavioral games). This may also lead to less reflection when responding to familiar psychological scales (Chandler, Mueller, & Paolacci, 2014).

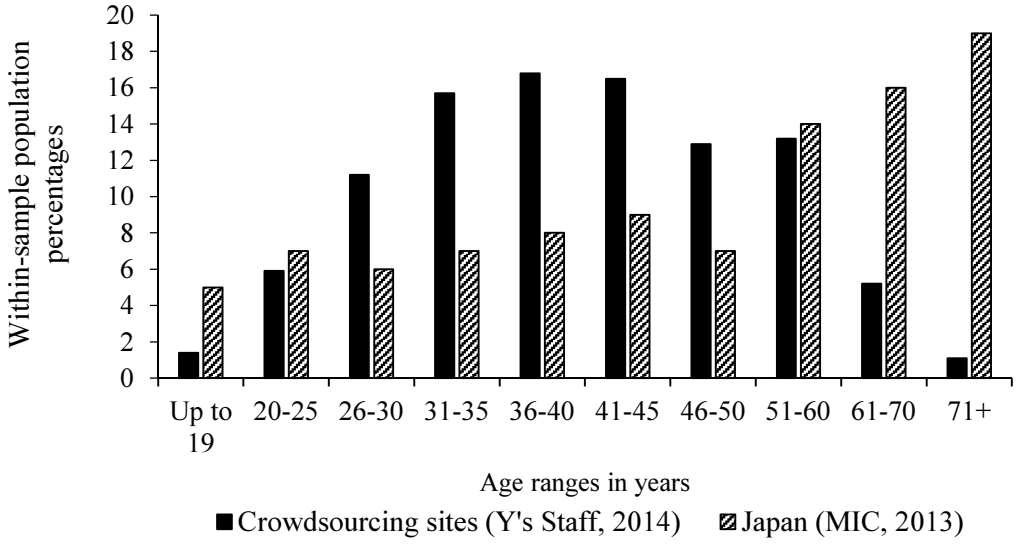

Figure 6-1. Percent of crowdsourcing site workers in Japan per age bracket compared with general population age percentages.

In regards to the nature of crowdsourcing respondents in Japan, there does not exist as much academic inquiry into the nature of users on popular sites such as Lancers and Crowdworks. In one report by Japan-based recruiting agency Y's Staff, hosted on the website for the Japan Ministry of Economy, Trade, and Industry, of the over 4,500 people who responded to their survey, a total of 56% were from the three major metropolitan areas of Japan, 47.7% were female, and ages were distributed as indicated by the black bars in Figure 1 (Y's Staff, 2014). Compared with Japan population statistics (Ministry of Internal Affairs and Communications, 2015a), these numbers indicate that the three major metropolitan areas are slightly over represented (56% on crowdsourcing sites versus 51% in all of Japan), however male and female distribution is very similar (47.7% females on crowdsourcing sites versus 48.6% females in all of Japan). In terms of age distribution, however,

using the same age range categories as the Y's Staff report (Y's Staff, 2014), ratios of the 26 to 50 year old brackets on crowdsourcing sites (black bars in Figure 5-1) appear to be much higher than in the general population (hashed bars in Figure 5-1). I shall refrain from a more thorough exposition of the contents of the report, as little more of substantive value can be gleaned from the report, which unfortunately does not include a detailed breakdown of activity on crowdsourcing sites, in particular time spent on academic surveys.

Suffice it to say, however, that despite some indications that using AMT may lead to recruitment of a certain number of nonnaïve participants in the general sense, and the naivety of crowdsourcing site users in Japan being unknown, I would argue that the nature of the scales used in the studies in the current work should be relatively immune from problems stemming from nonnaivety; the relational mobility scale is not yet a widely used scale, and this can arguably be said for the very domain-specific dependent variable scales used in the studies such as privacy concern, self-promotion, and conflict avoidance. This does not negate the necessity of more rigorous testing of crowdsourcing site users in Japan vis-à-vis their familiarity with psychological scales in general. Work is sorely needed in this area, and is a necessary future avenue of research.

Finally, I shall end this section with a brief mention of the need for future work to incorporate a larger number of countries into the empirical process. That is, future work will need to address the question of whether the same effects that I have found between Japan and the United States so far also be found in other parts of the world. Indeed, the studies contained in the

current work are an inroads into understanding the global dynamics of behavior online, but struggle to speak to whether the processes involved can be generalized to other societies. Only by conducting studies beyond the US and Japan will answering this question become possible. Also, by conducting multi-country work, it should become possible to delineate the role of social contextual factors (i.e., relational mobility) and individual-level factors that impact behavior online. For example, an extensive body of previous research has demonstrated that individual-level factors such as personality (e.g., Winter et al., 2014), gender (Haferkamp et al., 2011), and Internet experience (Phelps et al., 2000) have a significant effect on a variety of Internet behaviors; to what degree do societal context factors contribute to how individuals behave online, over and above (or in conjunction with) these individual factors? For these reasons, I believe multi-country, multi-level work is required to fully explore the theoretical link between the level-2 societal factor relational mobility, level-1 individual factors, and behavior on SNS.

The preceding does not, of course, nullify the validity of the current work. The reason for this, I believe, lies in a distinction between population and process inference (Hayes, 2005, p. 41). That is, while questions surrounding the representativeness of samples and the degree to which findings can be generalized to other populations brings into question the *population inference* value of the studies, such questions do not invalidate the *process inference* value of the work. That is to say, the current work provides an answer to an empirical question as to whether or not a process exists in a population. For example, does a process exist, out there, somewhere, whereby

relational mobility impacts the degree to which individuals in difference societies will self-promote on Facebook? The current work provides one answer to this empirical question: within my sample of US and Japanese Facebook users, recruited via crowdsourcing sites in their respective countries in late 2012, yes, this process exists. One is able to infer that a process exists. The question of whether or not this process exists in other populations of users is strictly a separate empirical question, which, as described above, requires further work, in particular multi-country work, to answer.

Concluding remarks. How are we to account for societal differences in behavior and psychology on SNS, despite uniformity in platform design? The studies contained within the current work are the first to suggest that characteristics of the very offline social networks upon which online social networks are based, are a source of that variation. In particular they suggest that the degree to which individuals have opportunities and the freedom to select interpersonal relationships in their offline social context – i.e., relational mobility – impact what behaviors and psychology will be selected online, on SNS. This explanation pushes back on a media deterministic view of information communication technologies, and suggests that ICTs may be appropriated by users in ways that reflect affordances of their offline social environments, over and above the technological affordances of the online environment. This framework certainly warrants further exploration in future work.

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APPENDIX A

Relational mobility scale items (Yuki et al., 2007)

How much do you feel the following statements accurately describe people in the immediate society in which you live (friends and acquaintances in your school, colleagues in your workplace, and residents in your town etc.)? Regarding those people around you, please indicate to what extent you agree or disagree with the following statements. NOTE: The term "groups" in some items refers to collections of people who know each other or who share the same goals, such as friendship groups, hobby groups, sports teams, and companies.		
Item name	**Item wording**	**Factor**
RMob1	They (the people around you) have many chances to get to know other people.	Meeting
RMob2	It is common for these people to have a conversation with someone they have never met before.	Meeting
RMob3	They are able to choose, according to their own preferences, the people whom they interact with in their daily life.	Choosing
RMob4	There are few opportunities for these people to form new friendships (reversed).	Meeting
RMob5	It is uncommon for these people to have a conversation with people they have never met before (reversed).	Meeting
RMob6	If they did not like their current groups, they could leave for better ones.	Choosing
RMob7	It is often the case that they cannot freely choose who they associate with (reversed).	Choosing
RMob8	It is easy for them to meet new people.	Meeting
RMob9	Even if these people were not completely satisfied with the group they belonged to, they would usually stay with it anyway (reversed).	Choosing
RMob10	They are able to choose the groups and organizations they belong to.	Choosing
RMob11	Even if these people were not satisfied with their current relationships, they would often have no choice but to stay with them (reversed).	Choosing
RMob12	Even though they might rather leave, these people often have no choice but to stay in groups they don't like (reversed).	Choosing