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Author(s)	Yuki, Masaki; Schug, Joanna
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Relational Mobility: A Socio-Ecological Approach to Personal Relationships

Masaki Yuki & Joanna Schug

Hokkaido University

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Relational Mobility: A Socio-Ecological Approach to Personal Relationships

In this chapter, we discuss how the nature of our environment, and the *social* environment in particular, can impact relationship processes. We put a special emphasis on the effect of *relational mobility*, a socio-ecological factor reflecting the degree to which a particular society or group provides individuals with opportunities to choose relational partners based on their personal preferences. We will specifically focus on the impact of relational mobility on friendship, a type of relationship that appears to exist in almost all societies but still maintains a high degree of cross-societal variation. First, we will briefly review a meta-theoretical standpoint called the "socio-ecological approach," which analyzes the relationship between psychological processes and behaviors of individuals and the external social environment (e.g. Nisbett & Cohen, 1996; Oishi & Graham, 2010). Second, we will introduce the concept of relational mobility, and discuss how this concept might be useful to explain variation in friendship processes across societies. Third, we will review findings from empirical studies, including our own, that have examined the effect of relational mobility on friendship. The topics of these studies include how individuals conceptualize interpersonal relationships, what kind of attributes lead to success in relationships, the type of relationships that individuals form, and how individuals behave in interpersonal contexts. Finally, we will discuss the implications of the socio-ecological approach for the study of interpersonal relationships, and discuss how this approach can help to bridge various disciplines in the social and biological sciences which seek to understand relationships between individuals.

Socio-Ecological Approach

The main goal of the socio-ecological approach is to delineate how the mind and behavior of individuals are related to their surrounding natural and social habitats, by analyzing connections between the nature of objective social reality (relationships, groups, institutions) and the psychological tendencies and behavioral patterns of people who reside there. The socio-ecological approach has a long history in the social sciences, including psychology (e.g., Berry, 1979), but had been largely overlooked in the past few decades. Fortunately, this approach has been gaining momentum in recent years (see Oishi & Graham, 2010, for a historical review of the use of socio-ecological approaches in psychology) and is seeing a resurgence in modern psychological science (Nisbett & Cohen, 1996; Oishi, 2010; Uskul et al., 2008; Yamagishi & Yamagishi, 1994)

In attempting to explain cultural differences in psychological and behavioral tendencies of individuals, scholars who primarily take psychological perspective have focused on differences in the predominant values or beliefs that are shared in the given societies (e.g., Hofstede, 1980; Markus & Kitayama, 1991; Nisbett, 2003; Triandis, 1995). The socio-ecological approach to culture, in contrast, views these differences as "adaptive strategies" (both conscious and not) tailored toward producing outcomes that are desirable for each individual in a particular social environment. In other words, individuals adapt themselves to their social environments by adopting behavioral tendencies to the social and ecological settings in which they reside.

By emphasizing the role of adaptation to the environment, the socio-ecological approach shares many similarities with fields such as behavioral ecology, which examine behavior as strategies adapted to natural habitats (e.g. Krebs & Davies, 1997; Winterhalder & Smith, 2000). However, the socio-ecological approach goes beyond simply examining behavior in terms of

adaptation to stable environments; it also examines the recursive process in which mind and behavior of individuals affect and create habitats. Furthermore, environments in which humans thrive are generally "social" in nature, meaning that they are environments comprised of the behavior of other individuals. Therefore, in the analysis of behaviors in *social* environments, it is imperative to look at how individuals expect other individuals to react to their behaviors, because those behaviors of others comprise the "environment" to which they must adapt their behaviors. In order to select the most optimal strategy in any social interaction, it is important for individuals to understand not only their own incentives, but also to take into consideration the structure of incentives that other individuals are faced with. By doing so, they can adjust their behaviors according to their expectations of how others will respond. In this sense, the socio-ecological approach views human behavior as not always perfectly aligned with preferences, but rather to the expectations about how others will respond to one's actions (Yamagishi, Hashimoto, & Schug, 2008).

This approach shares much with interdependence theory (Kelley & Thibaut, 1978; Kelley et al., 2003). While conventional psychological theory tends to focus on within-person factors as determinants of behavior, interdependence theory focuses on between-person relations by examining interpersonal behavior and relationships in the context of other relationships and situations. According to interdependence theory, the motives of individuals are inherently dependent on their relationship to other actors to which they are connected. That is, individual actors must coordinate their actions with those of their relationship partners, whose actions are similarly influenced by their actions. The manner in which individuals behave in the context of their interpersonal relationships will depend not only on within-person factors, but also between

person processes such as expectations, power, and dependence, as well as the particular relationship model (e.g., Fiske, this volume) to which the relationship belongs.

In fact, the socio-ecological approach is well suited to the analysis of the impact of culture on behavior and psychological tendencies. Within the socio-ecological approach, culture can be thought of as a socially-shared framework by which individuals predict and form expectations regarding the behaviors of other individuals. In other words, it is the "tried and true strategy of the game," which people in a particular society share and use as guidelines to allow them to thrive and prosper (Zou et al., 2009). Individuals learn cultural strategies and expectations, in part, by observing how others behave, and in turn propagate these beliefs through their own behavior. Cultural systems are thus maintained through a recursive process by which individual behavior shapes beliefs and expectations, which in turn provides incentives for behavior. It is through this equilibrium of expectations and behavior that cultural systems persist over time (Aoki, 2001; Cohen, 2001; Yamagishi & Suzuki, 2009).

Relational mobility

One socio-ecological factor that has recently received extensive focus is the level of interpersonal or intergroup *mobility*—that is, the degree to which personal relationships and group memberships are formed through personal choice or environmental affordance (e.g., Adams, 2005; Chen, Chiu, & Chan, 2009; Falk et al., 2009; Oishi, Lun, & Sherman, 2007; Schug et al., 2009; Yamagishi & Yamagishi, 1994; Yamagishi, 1998; Yuki et al., 2007). While individuals in some societies have many opportunities to choose new partners and thus form and reform relationships as they please, individuals in other societies tend to be firmly embedded in their social network and have few opportunities (and less need) to venture outside of current relationships to select new interaction partners. To discuss such differences in social structure,

we have recently introduced the concept of *relational mobility*, defined as "the amount of opportunities people have to select new relationship partners in a given society or social context" (Yuki, et al., 2007, p.3).

In societies high in relational mobility, there are many opportunities for individuals to find new acquaintances, form new relationships, and to leave groups and relationships which they do not find beneficial. Relationships in these societies tend to reflect personal choice, rather than external constraints. It is important to note that the movement driven by relational mobility is not a random or coerced, such as in the case of a schoolchild ending a relationship with her best friend because her parents moved to a new city. Instead, relational mobility concerns the degree to which it is possible for individuals to form new relationships when they find it beneficial to do so, such as when one encounters a more desirable partner or after one leaves (or is ejected from) a current group or relationship.

In contrast, in societies low in relational mobility, relationships are generally a product of environmental or group affordances, rather than personal choice. In these contexts, relationships tend to be resilient and stable, with partners bound to each other in obligatory networks and social institutions (Wiseman, 1986; Yamagishi, Jin, & Miller, 1998). This stable social network connecting members in this type of society should also be more salient in the minds of individuals (cf. Yuki, 2003), because, as the relationships between individual "nodes" remain solid and unchanging, it is easy to recognize the connections between other individuals in one's social network, as well as how others are connected to oneself.

A variety of studies suggest that relational mobility is higher in North American societies, (i.e., United States and Canada), than in many other societies in the world, such as East Asia and West Africa. For instance, Americans tend to view friendships as voluntary relationships

(Wiseman, 1986), tend to belong to more groups with permeable and overlapping boundaries (Triandis, 1995), and have a larger pool of potential partners from whom to choose than do people in Japan (Tsuji, 2002), China (Ho, 1998), and Ghana (Adams, 2005). Also, although Americans tend to benefit from broad networks of weak ties (Granovetter, 1973), Japanese tend to benefit from smaller, closed networks of strong ties (Watanabe, 1991). Finally, relationships between people tend to be more stable and enduring in Eastern than in Western societies. For example, compared to Americans, Japanese move residences less frequently (Long, 1991) and are less likely to end their marriage in divorce.[1]

Recent research has demonstrated that relational mobility (and associated factors) can be a useful concept for explaining many differences in behaviors and psychological tendencies between North American and East Asian peoples, including the determinants of subjective well-being (Sato, Yuki, Takemura, Schug, & Oishi, 2008), tendencies of self-enhancement (Falk, Heine, Yuki, & Takemura, 2009), and the tendency to avoid negative reputation (Yamagishi, Hashimoto & Schug, 2008). In the next section we review research that explores the effect of relational mobility on experience of personal relationships.

Effects of Relational Mobility on Interpersonal Relationships

Our particular focus is on how relational mobility in a particular context can impact personal relationships. Specifically, we examine on how the ways in which individuals form, perceive, and maintain their relationships, differ between societies in which people choose relational partners based on preferences, compared to societies where people are embedded stable relationships that are difficult to change. In this section, we first review findings from previous research that considered cross-cultural differences in personal relationships as a

function of factors related to relational mobility. We then review findings from our own research that directly investigates the effects of relational mobility on friendship processes.

Conceptualization of "friends"

Adams and his colleagues have focused on the ways in which experience of friendship can vary according to the core conceptualization of interpersonal relationships which is pervasive in society (Adams, 2005; Adams, Kurtiş, Salter, & Anderson, this volume; Adams & Plaut, 2003). According to this line of research, both the nature of friendships and the conceptualization of intimacy are culturally-bound phenomena. Most of this work focuses on differences in friendships between Ghana and the United States. While people generally view friendships as personally selected in American settings, in Ghanaian settings people generally conceive of interpersonal relationships as being afforded by the environment and difficult to change. There are a number of consequences of this difference in the nature of people's understanding of friendships. For instance, Americans tend to report a larger number of friends and show more trust toward friends, while Ghanaians tend to report a smaller number of friends, and tend to be wary of enemies in their network of friends (Adams, 2005; Adams & Plaut, 2003).

Similarity between Close Friends

Recently, we conducted a study to examine the impact of relational mobility on the degree of similarity between friends (Schug, Yuki, Horikawa, & Takemura, 2009). Past cross-cultural studies of friendship have revealed that friends from many East Asian societies tend to be less similar to each other than are friends from North America (Heine, Foster, & Spina, 2009; Igarashi et al., 2008; Kashima et al., 1995; Satterwhite, Feldman, Catrambone, & Dai, 2000; Uleman, Rhee, Bardoliwalla, Semin, & Toyama, 2000). At first glance, this pattern seems to suggest that the well-known similarity-attraction effect (Byrne, 1971) may reflect something

specific to North American societies that is not true of East Asian societies. However, this conclusion is based on the notion that friendships are formed out of personal choice (Wiseman, 1986). A socio-ecological approach suggests that differences in the degree of similarity among interaction partners in Japan and the United States might be explained not by differences in preference for similarity, but instead by the difference in relational mobility between the two societies.

Sociologists who study homophily—the tendency for similar people to group together—make the distinction between *choice homophily*, by which similar people choose each other, and *induced homophily*, by which similar individuals are brought together through external forces (McPherson & Smith-Lovin, 1987). We hypothesized that the US-Japan difference in similarity between friends might be explained by societal differences in choice homophily. That is, friends in Japan are may be less similar to each other, not because they do not prefer similar others as friends, but because they have fewer opportunities than people in high-mobility societies to actualize their preferences (via choice) for similar friends. Indeed, a number of studies investigating the similarity attraction effect in Japan have shown that Japanese participants do show a preference for similar others (Byrne et al., 1971; Fujimori, 1980; Okuda, 1996, 2000), suggesting that differences may arise from the ability to choose friends, rather than from differences in preferences.

To test this hypothesis, we had American and Japanese students rate the degree of similarity between themselves and their closest friend, as well as the extent to which they would prefer to interact with a similar or dissimilar other (Schug et al., 2009, Study 1). Results revealed that ratings of self-friend similarity were higher for Americans than for Japanese, despite that no differences were found in the degree to which Japanese and North Americans expressed

preferences for similarity in an interaction partner. In a subsequent study (Schug et al., 2009, Study 2), we replicated these results and examined whether cultural differences in perceptions of relational mobility could account for this difference. Consistent with our theory, once we controlled for differences in the level of perceived relational mobility in each society, the difference in reported self-friend similarity between Japanese and Americans completely disappeared. This result strongly supports our hypothesis that differences in the level of similarity between friends in Japan and the United States are due to differences in the opportunities afforded to individuals in each society to meet and choose interaction partners who are similar to themselves.

A large scale social survey conducted by Japanese sociologist Itaru Ishiguro, provides additional support to this idea. He examined the impact of several social and ecological variables on the degree of similarity in attitudes of friends among a representative sample of adults in Japan (Ishiguro, 2010). He found that the level of similarity between the responses of friends was higher among individuals who met a greater number of new acquaintances in their daily lives, supporting the idea that more choices in potential interaction partners can lead to increased levels of similarity (i.e., choice homophily). Similarly, a recent study by Bahns and her colleagues (Bahns, Pickett, & Crandal, in press) found that dyads on large college campuses tended to be more similar to each other in terms of their attitudes and beliefs than dyads on smaller college campuses, suggesting that the ability to move in and out of relationships can facilitate similarity. Similar results are evident in the impact of extra-group marriage on homogamy, or the degree of similarity between spouses--people who venture outside of local communities to search among a broader pool of potential partners are more likely to pair with individuals with similar

psychological traits than individuals who choose partners from within the constraints of group boundaries (Bekkers, Van Aken, & Denissen, 2006; Guttman et al., 1988).

Thus, the relationships of individuals in a particular society are heavily influenced by the nature of the society in which they reside. In societies such as the United States where relational mobility is high, individuals are able select the people with whom they become friends with, and friendships are likely the product of individual choice (e.g., Fisher, 1982). As such, people can choose relationship partners based on their own personal preferences, such as the preference for similarity. In contrast, choosing a friend based on one's personal preferences may be less common in many other parts of the world. In societies low in relational mobility, such as Japan, one's friends are more likely to be determined by environmental and social constraints, rather than by personal choice. This should result in a lesser degree of similarity between friends, even if individuals personally prefer similar others as friendship partners.

Self-Disclosure between Close Friends

Relational mobility can also impact the ways in which individuals behave in the context of their close relationships by creating incentives guiding behaviors to maintain or strengthen their relationships. A number of past studies have demonstrated that Asians and Asian Americans are less likely than European Americans to engage in self-disclosure by sharing their intimate personal information with their close peers. For example, Americans are more likely to engage in self-disclosure for a wider variety of topics, and to a deeper level than are East Asians (Asai & Barnlund, 1998; Barnlund, 1975; Barnlund, 1989; Chen, 1995; Ting-Toomy, 1991).

Although empirical studies in the psychological literature have demonstrated that self-disclosure increases liking and closeness in relationships (Altman & Taylor, 1973; Collins & Miller, 1994; Laurenceau, Barrett, & Pietromonaco, 1998), these studies do not generally address

why this is the case. The socio-ecological approach suggests a possible explanation which also helps to explain societal differences in self-disclosure. Thomas Schelling, an economist and a Nobel laureate, suggested that the bilateral presentation of sensitive information can serve as "hostages," which provide collateral to assure one's partner of one's sincerity (Schelling, 1960). In this sense, voluntarily presenting one's partner with sensitive information about oneself can serve as a signal of trust toward the partner (Mayer, Davis & Schoorman, 1995), and therefore signal one's commitment to the relationship. The more damaging the information, the stronger a signal it would serve.

Drawing upon these ideas, we propose that societal differences in the degree of self-disclosure between close friends might reflect differences in the costs and benefits of disclosing sensitive, potentially damaging information about the self in societies with differing levels of relational mobility. In societies low in relational mobility, disclosing sensitive, potentially damaging information about the self can bring about serious negative outcomes--burdening one's friend with one's problems might cause strain to the friendship. Also, disclosing negative information about one's self could cause one to incur negative reputation, which is extremely harmful in low mobility societies (Yamagishi, Hashimoto & Schug, 2008). Indeed, a number of studies have identified the motivation to maintain relational harmony as a crucial factor to understand behaviors of East Asians (e.g. Kim, Mojaverian, & Sherman, this volume; Kwan, Bond, & Singelis, 1997). For instance, Kim and her colleagues (this volume) have suggested that one reason why Asian Americans are less likely than European Americans to seek social support from their friends is because Asians are more concerned about causing damage to their personal relationships than European Americans (Kim, Sherman, & Taylor, 2008; Taylor et al., 2004). Because one cannot easily replace damaged or lost relationships in

low mobility societies, one should avoid behavior which might potentially damage relationships or incur a negative reputation.

On the contrary, engaging in self-disclosure toward one' close friends may have greater benefits in societies high in relational mobility. In these societies, while it is generally easier to meet and form relationships with new others, there is always the possibility that either oneself or one's partner will find a better, more attractive alternative. In this sense, relationships in high mobility societies are highly unstable, and have the potential to dissolve at any time if not properly maintained and committed to. In these societies, it makes sense for individuals to devote time and energy toward the explicit maintenance of one's relationships. Thus, self-disclosure, which is known to increase liking and intimacy in relationships, is one such relationship strengthening strategy that is particularly useful in societies high in relational mobility.

We conducted two studies to determine if relational mobility might explain the degree to which individuals self-disclose to their close friends (Schug, Yuki, & Maddux, 2010). In Study 1, we asked participants from Japan and the United States to report the degree to which they would be willing to disclose sensitive personal information, such as their deepest secret or most embarrassing experience, to two targets: their closest friend and their closest family member. We predicted that because relationships between friends in societies higher in relational mobility require more fortification, relational mobility would be positively related to self-disclosure to a friend in both Japan and the United States. However, because relationships with family members (with the possible exception of spousal relationships) are not personally chosen and cannot be easily replaced, relational mobility should not affect the stability of these relationships very much. Thus, increases in relational mobility should impact self-disclosure to a close friend, but not to a family member.

The results of Study 1 were in line with our predictions. First, as found in previous studies (Asai & Barnlund, 1998; Barnlund, 1975; Barnlund, 1989), the willingness to engage in self-disclosure was higher in the United States than in Japan. Second, in both Japan and in the United States, relational mobility was positively correlated with self-disclosure to a friend, but not to a family member. Furthermore, the level of relational mobility within participants' local society, as assessed by the Relational Mobility Scale (Yuki, et al., 2007), mediated the between-country difference in the willingness to engage in self-disclosure with one's closest friends. These results are consistent with the idea that people in settings high in relational mobility use self-disclosure as a strategy to strengthen and fortify otherwise unstable relationships.

We investigated this idea further in a second study. We asked Japanese participants to rate the degree to which they would be willing to disclose to their friends, as well as the extent to which they thought that engaging in self-disclosure was a good strategy to strengthen their relationship and signal their commitment. Finally, we measured relational mobility using two different methods: the relational mobility scale and the self-reported number of new acquaintances the participant had personally formed in the past month. We expected that this index would complement the relational mobility scale, which assesses subjective perceptions of relational mobility in a society, by providing a more concrete measure reflecting participant's personal history of relationship formation opportunities.

The results of Study 2 showed that, as expected, relational mobility, measured both by the relational mobility scale and the number of new acquaintances, was positively correlated with the willingness to self-disclosure to a close friend. Moreover, the motivation to strengthen one's relationships through self-disclosure perfectly mediated the relationships between both measures

of relational mobility and self-disclosure to a friend. Thus, results suggest that, even within Japan, participants in socio-ecological contexts higher in relational mobility—that is, those who perceived interpersonal relationships in their society to be more mobile or who had met more new acquaintances in the recent past—were more willing to engage in self-disclosure with their friends, and they did so to strengthen their close relationships.

Importance of Physical Attractiveness

The nature of personal relationships in a society can also impact what kind of personal attributes lead to success in romantic relationships. Past research conducted in North America has indicated that physical attractiveness has strong positive impacts on life outcomes. However, this could be true only in social settings where people tend to construe relationships as being voluntary and personally chosen. It is because, although individuals with higher physical attractiveness are more likely to be selected and approached by more desirable partners than those with lower attractiveness in such a society, chances should be scarcer in societies low in relational mobility. In fact, a study conducted in Ghana, where people tend to view relationships as ascribed rather than chosen, found that individuals with high physical attractiveness were not happier than those who were not attractive. Moreover, those people were rather anxious about instilling envy in others (Anderson, Adams & Plaut, 2009). Similarly, as the importance (and payoff) of physical attractiveness is more important in densely populated cities, where there are abundance of choice in romantic partners, than in rural areas, where such options are scarce. As a result, attractive individuals are more likely than unattractive individuals to move to the city to search for potential mates (Gautier, Svarer & Teulings, 2005). In line with this reasoning, even within the United States the link between physical attractiveness and positive life outcomes is stronger in urban than in rural areas (Plaut, Adams, & Anderson, 2009).

Conclusion

When looking for the driving causes of individual behavior, people tend to focus on internal factors, such as attitudes, preferences, values, and abilities, while overlooking the power of the surrounding environment. This phenomenon is known to in social psychology as "fundamental attribution error" (Jones & Harris, 1967). However, as a social species, humans actually do not behave as fully independent agents in a social vacuum. Rather, their behaviors are influenced by the incentives provided by other individuals around them, and their behaviors simultaneously influence the behaviors of others. The social world consists of multiple actors who interact with each other, and whose behaviors are fundamentally interdependent.

This is the central theme of research conducted from the perspective of interdependence theory (Kelley & Thibaut, 1978), which seeks to understand behavior as interpersonal, rather than intrapersonal, phenomena. The socio-ecological approach builds on this framework, by taking social and ecological contexts into consideration when thinking about the incentives that individuals face in the context of their relationships. In order to understand and predict accurately how individuals think and behave, it is necessary to take into account the nature of environments in which they are embedded. This exactly is what socio-ecological approach aims to accomplish (Oishi & Graham, 2010). In this chapter, we have reviewed the findings from the empirical studies that showed that relational mobility and related factors at the societal level affects friendship and interpersonal processes.

The application of a socio-ecological approach provides an example of the ways in which relationship research serves as an important site for theoretical integration. In particular, a social ecological approach helps to bridge the knowledge of social psychology 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 adapted to social and natural environments. For example, research on relational mobility and its impact on interpersonal similarity (Schug et al., 2009), as well as research on the importance of physical attractiveness in high mobility and urban contexts (Adams et al., 2009; Plaut et al., 2009), shares much with the literature on mate selection in fields such as decision science, evolutionary biology, and sociology (see Maner, this volume). This widely studied topic examines both the physical characteristics of organisms (e.g., mate value) and ecological settings (e.g., mate density), and examines how these factors interact to impact mate choice outcomes and effective mate choice strategies (e.g., Venner et al., 2010), and assortative mating (e.g., Mare, 1991). Future research might investigate how relational mobility in mating markets can moderate the association between personal preferences (for example, actualization of the preference for individuals with dissimilar major histocompatibility immune system).

Similarly, theories from economics and evolutionary biology on costly signal and hostage posting can inform research on self-disclosure and relational mobility (Schug et al., 2010). We have suggested that disclosing potentially damaging information about the self can serve as a signal of one's commitment to one's relationship (Schug, et al., 2010). Indeed, evolutionary biologists have provided a great deal of evidence which suggests that for a signal to be useful, or trustworthy, at all, it must incur some cost to produce (e.g., Zahavi & Zahavi, 1997). Thus, disclosing particularly *negative* information about one's self as a signal of commitment may serve as a more reliable signal of commitment to a relationship than disclosing positive information. Furthermore, the bilateral disclosure of potentially damaging information can also serve as a type of hostage posting (Schelling, 1960), which can assure cooperation in a

relationship. This type of assurance would be particularly necessary when relationships are unstable and there is a chance for betrayal, such as in social contexts high in relational mobility.

Implications and Future Issues.

There are a few remaining issues related to relational mobility and personal relationships. First, future studies should examine the effect of changes in relational mobility in a society over time. When societies which are traditionally low in relational mobility become increasingly mobile, will relationships in the society change to reflect those of high mobility societies? Our current theory and findings suggest that this should be the case. However, Nisbett and Cohen's (1996) argument on the maintenance of the culture of honor in the U.S. Southern States suggests that in some cases cultural beliefs and behaviors adapted to particular ecological settings in the past can be maintained over time, even when the original environment to which individuals are adapted has ceased to exist. Future studies should examine how behaviors adapted to particular socio-ecological settings will change to adapt to changing environment, and how they may persist over time once a particular equilibrium is formed, regardless of changes to the original environment.

Second, related to the first point, it will be important to understand the role of culturally-shared beliefs about relational mobility, in addition to the actual levels of mobility. Beliefs about relational mobility in a society and the nature of relationships can play a strong role in influencing one's expectations about others' reactions to their behaviors; constituting *perceived* structure of incentives. These expectations are shaped both by individuals' past experiences within the given society, as well as by cultural beliefs which are shared among members of a society. Understanding how participants subjectively construe their environment is

another factor which should be taken into account in future studies of socio-ecological approaches.

Finally, future research should examine what types of factors that can impact the level of relational mobility in a society. Avner Greif's (1994; 2006) work on historical institutional economics suggests that the types of systems implemented by a society to reduce uncertainty in exchange relationships can have a profound impact on the ability for individuals to form new exchange relationships. His research examined two groups of medieval traders, the Maghribi and the Genoese. Both groups faced the same basic problem, which was how to deal with uncertainty in economic exchanges, but took completely different approaches to address the problem. The Maghribi traders formed a closed system of trading, where one could only trade with other members of the same closed society. By doing so, they could be assured that no one would behave in an untrustworthy manner, as those who did so would be promptly excluded from the closed trading network. The Genoese traders, on the other hand, approached this problem by investing in a centralized legal system that relied on third parties, such as courts, for contract enforcement, enabling those who broke contract to be subject to litigation. Centralized legal systems, such as police and courts of law, greatly reduce the costs of seeking out new exchange relationships, and likely led to the increase of mobility of trading relationships in many Western societies.

In conclusion, we believe that the socio-ecological approach has strong implications for the science of personal relationships. Human societies are composed of complex social systems and organizations in which relationships are inter-related and embedded in context. In order to understand how these relationships work, we must look at the nature of the socio-ecological context (other agents, other relationships, and other groups) that surrounds the individuals and

relationships. Using the socio-ecological approach to examine the dynamics in relationships between individuals, groups, and society will enrich not only contemporary research on personal relationships, but the science of human sociality in general.

Footnotes

[1] Up until the early 1900's, however, Japan had the highest divorce rate in the entire world (Fuess, 2004). The stability of marital relationships in Japan appears to be a relatively recent development of the past century, driven by changes in legal institutions which increased penalties on divorce. Behavioral change brought about by formal legal institutions is another example of how individuals adjust their behavior to their social ecology.

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