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The Social Ecology of Empathy and Helping: A Comparison of Chinese and American University Students

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The Social Ecology of Empathy and Helping: A Comparison of Chinese and American University Students

A thesis submitted in partial fulfillment of the requirement for the degree of Bachelor of Arts in Department of Psychological Science from The College of William and Mary

by

Zihan Yang

Accepted for Honors (Honors, High Honors, Highest Honors)

Dr. Joanna Schleg, Director

Dr. Janice Zeman

Dr. Gul Ozyegin

Williamsburg, VA
May 3, 2019
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Abstract

Much research found that empathy and helping tendencies differ across cultures, but few studies have examined factors that may account for the cultural differences. The current study aimed to determine whether the socioecological factor relational mobility could explain cultural differences in empathy and helping. Survey data were collected from universities in China and the United States. Results showed that relational mobility is higher in the United States than in China. Americans and Chinese did not differ in their levels of empathy toward close friends, but Americans reported higher levels of empathy toward strangers and higher tendency to help others than Chinese. Ingroup bias in empathy was stronger in China than in the United States. Relational mobility negatively moderated the relation between empathy and helping. These findings suggest that in low relational mobility society, helping tendency was driven by empathy, while in high relational mobility society, the tendency to help was driven by the expectation of reciprocity.

*Keywords*: empathy, helping, relational mobility, culture, social ecology, reciprocity
The Social Ecology of Empathy and Helping: A Comparison of American and Chinese University Students

The sage has no concern for himself, but makes the concerns of others his own.

— Tao Te Ching Chapter 49 (Stenudd, 2015)

Let no one seek his own good, but the good of his neighbor.

— 1 Corinthians 10:24 (ESV)

Much research in psychology has focused on prosocial tendencies, and helping behavior in particular. Helping behavior, sometimes also referred to as altruism, refer to actions taken by individuals at some cost to the self to improve the welfare of others (Davis, 1994). Helping behavior is observed in all societies, but the tendency to help varies across cultures (e.g., Aydinli, Bender, & Chasiotis, 2013; Henrich et al., 2005; Levine, Norenzayan, & Philbrick, 2001; Tang et al., 2008). Given that helping behavior plays such an important role in maintaining cooperative societies, understanding how and why helping tendencies vary across cultures is very important.

Culture and Helping

Research comparing helping tendencies across cultures has been relatively mixed. Some studies found that Westerners are more likely to offer help than people from Eastern cultures. For examples, European Americans are more likely to participate in organ donation programs than Asian Americans (Alden & Cheung, 2000) and American college students are more altruistic\(^1\) than mainland Chinese students (Lee, Norasakkunikit, Liu, Zhang, & Zhou, 2008). However, other studies found evidence that suggests the opposite. A cross-cultural experiment examining helping behaviors in 23 metropolitan cities around the globe found that almost 80% of the

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\(^1\) Altruism is measured by asking participants how likely they are to help a person with a chronic disease or HIV/AIDS, a war victim, and a victim of catastrophe.
participants in Shanghai offered help to people in need on the street\(^2\), while only around 40% of the participants in New York offered help (Levine, Norenzayan, & Philbrick, 2001). Indeed, few studies have uncovered what factors may drive cultural differences in helping.

This thesis seeks to examine whether Chinese and American participants differ in their tendencies to help others, as well as identify the factors that might lead to higher or lower levels of helping. Below, I will outline existing theories on helping behavior.

**Evolutionary Theory of Helping**

Much research has attempted to understand helping behavior and altruism from an evolutionary perspective, by examining the degree to which helping others might benefit an individual’s own survival and reproductive success. One cross-cultural study found that both Japanese and Americans are more likely to help people who are biologically related to them (Burnstein, Crandall, & Kitayama, 1994). According to Dawkins’ selfish gene theory (2006), the evolutionary processes selected for adaptive behaviors that help individuals pass on their genes to the next generation. Since family members share a high portion of genes, individuals should spend their resource on helping family members in order to increase the chance of survival of their genes. The preference for genetically related individuals over non-related individuals is called *kin selection*. Even within the kin group, the level of genetic relatedness of the target influences an individual’s tendency to help. Fitzgerald and Colarelli (2009) found that when the cost of helping was high, such as in a life-threatening scenario, participants were more likely to help a sibling over a half-sibling. From a kin selection perspective, helping behavior is driven the evolutionarily instilled desire of protecting one’s lineage.

\(^2\) The experimenter acted as in need of help in front of a pedestrian in three situations: the experimenter dropped a pen while walking by; the experimenter have a visibly limp leg, accidentally dropped a pile of magazine and struggle to pick them up; the experimenter act as a blind person needing help to cross the street.
Similarly, other branches of evolutionary theory focusing on reciprocal altruism suggest that individuals are more motivated to help friends than strangers (Trivers, 1971; Yamagishi & Kiyonari, 2000). Although friends do not share genes with you, they are likely to reciprocate your help in the future, and thereby increase your chance of survival (Tooby & Cosmides, 1996). Research even suggests that people may perceive non-related close friends as kin (Burnstein, Crandall, & Kitayama, 1994). These findings could imply that people make altruistic decisions based on the target’s social identity rather than genetic relatedness. People help their families and friends because they are ingroup members and ingroup members are more likely to reciprocate the favor than outgroup members. From a reciprocal altruism perspective, helping ingroup members is an evolutionary adaptive strategy. In accordance with this theory, studies have found that people are more likely to help ingroup members than outgroup members (Levine, Prosser, Evans, & Reicher, 2005; Sole, Marton, & Hornstein, 1975; Stümer, Snyder, & Omoto, 2005). Thus, helping behavior could be driven by expectations of reciprocity.

**Psychological Theory of Helping**

From a psychological perspective, what motivates helping behavior? Much research has found that trait empathy positively correlates with the willingness to help in both children (e.g., Chapman, Zahn-Waxler, Cooperman, & Iannotti, 1987) and adults (e.g., Mehrabian & Epstein, 1972; Pavey, Greitemeyer, & Sparks, 2012; Penner & Finkelstein, 1998). Research also found that participants’ willingness to help could be increased by inducing participants’ empathy in experimental conditions (e.g., Coke, Batson, McDavis, & Greenwald, 1978; Dovidio, Allen, Schroeder, & Reis, 1990; Pavey, Greitemeyer, & Sparks, 2012). These findings suggest that empathy is a strong psychological motivation for helping people in need.
Empathy

What is empathy? The English word empathy came from the German aesthetics term *Einfühlung*, which refers to the tendency of observers to project themselves *into* what they observe (Davis, 1994). Therefore, early psychologists conceptualized empathy as the cognitive ability of role-taking (Dymond & Shaffer, 1949). In the cognitive approach, empathy is operationally defined as predictive accuracy, i.e., how well you can predict other people’s thoughts and feelings (Mehrabian & Epstein, 1972). Later in the multidimensional approach to empathy, Davis (1983) termed this cognitive aspect of empathy as *perspective taking*, which refers to the tendency to spontaneously adopt the psychological point of view of others. Research has found that the tendency to think from the perspectives of others varies across cultures. For instance, Cohen and Gunz (2002) found that Chinese participants were more likely to report an event from a third-person perspective while Americans were more likely to report from a first-person perspective. Experimental research also found that when playing a communication game, Chinese participants were more tuned in to their partners’ perspectives than were American participants (Wu & Keysar, 2007).

For a long time, empathy was studied only as cognitive intelligence. Stotland and his colleagues were the first to take a solely affective approach to empathy (Davis, 1994). In the affective approach, empathy is conceptualized as an emotional response to the perceived emotional experience of another person (Stotland, 1969). Empathic emotional response should be distinguished from personal distress, which is a self-focused aversive emotional response to others’ distress (Batson, 1987). An individual feeling personal distress in a tense interpersonal situation would help the distressed others based on an egoistic motivation of easing his or her own distress, rather than an altruistic motivation of taking care of the wellbeing of others. In the
multidimensional approach to empathy (Davis, 1983), the emotional aspect of empathy was coined *empathic concern*, which only assessed the *other-oriented* feelings of sympathy and concern for unfortunate others. Unsurprisingly, the other-oriented emotional aspect of empathy has been found to predict helping and altruistic behaviors (Hoffman, 1982; Mehrabian & Epstein, 1972).

Coke and colleagues (1978) theorize that perspective taking leads to an increase in emotional empathy, which in return increases helping behavior. Thus, the current study will consider both cognitive and affective empathy.

**Evolutionary Theory of Empathy**

Evolutionary theory considers empathy as an innate human capacity that aids survival. Empathy is a mechanism for altruism because when individuals are able to identify others’ distress (perspective taking) and feel their distress (empathic concern), they are more likely to offer help (Davis, 1994; Hoffman, 1982). As discussed before, individuals are more likely to help ingroup members. Thus theoretically, individuals would have more empathy for their ingroup members than outgroup members. Indeed, research showed that people feel greater empathy and provide more help toward family and friends than strangers (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997).

However, in our society, we can often observe examples of empathy toward strangers that resulted in helping, such as donating to disaster relief. Previous studies found that people feel empathy for strangers to the degree which they perceive the strangers to be similar to themselves (Batson, Turk, Shaw, & Klein, 1995; Davis, 1994). However, the similarity theory fails to explain empathy toward non-similar strangers (cross-cultural adoption, donations to victims of natural disasters abroad, etc.). Experimental studies also yield little evidence to
support the idea that perceived similarity underlies empathy toward strangers (Batson, Linshner, Cook, & Sawyer, 2005). Instead, Batson and colleagues (2005) found evidence to support the theory that empathy felt for strangers is a spin-off of natural tendencies parents have to protect and care for their offspring. Sober and Wilson (1998) theorize that the generalization of parental instinct drives people to feel empathy for others’ offspring. Since everyone is someone’s child, the parental instinct theory explains why people feel empathetic toward unrelated strangers. Although there is still an ongoing debate about the evolutionary origin of empathy\(^3\), most evolutionary psychologists agree that empathy toward others is an adaptive strategy for survival.

**Culture and Empathy**

There has been plenty of research on empathy in the West, but only a few studies have examined empathy across cultures. By analyzing data from the World Values Survey, Chopik and colleagues (2017) found that empathy predicted prosocial behaviors such as volunteerism and helping. However, as the surveys used in this study were in English and not translated to the participants’ native languages, the degree to which the samples included are typical of their countries is unclear. Other studies conducted cross-culturally have found that children and adolescents from East Asian cultures reported lower levels of empathy and fewer prosocial behaviors than their North American and Western European counterparts (Cassels, Chan, Chung, & Birch, 2010; Trommsdorff, Friedlmeyer, & Mayer, 2007).

Among the few cross-cultural studies, some researchers have used the individualism-collectivism framework (e.g., Triandis, 2018) to explain cultural variances in empathy. This framework characterizes North American and European cultures as individualistic, emphasizing personal autonomy and independence from social relations. In contrast, East Asian cultures are

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\(^3\) For a comprehensive review on the mechanisms of empathy, see Preston & de Waal, 2002.
considered collectivistic, focusing on the importance of relationships and belonging to groups. Theoretically, individuals who consider themselves as an interdependent part of a larger social group should have more empathy, and are more likely to be motivated by other-focused emotions, such as empathy, in order to foster interdependence among individuals (e.g., Markus & Kitayama, 1991).

However, findings regarding collectivism and empathy have been inconsistent. Some found that empathy is higher in collectivistic cultures (e.g., Chopik, Brien, & Konrath, 2017) while others found that individuals in collectivistic cultures reported lower empathy (e.g., Cassel, Chan, Chung, & Birch, 2010). In this study, I will use an alternative framework to explain cultural variances in empathy.

**The Socioecological Framework**

The dominant method in psychology is to study the psychological process within an individual in order to understand human emotion, cognition, and behavior. In other words, most psychologists examine internal factors such as consciousness, personality, and intelligence. However, Oishi (2014) pointed out that this approach neglects the impact of social ecology on one’s thinking and feeling. Social ecology refers to an individual’s natural and social habitats, including physical, interpersonal, economic, and political environment. Oishi (2014) proposed a socioecological framework that examines how social ecology affects one’s thinking, feeling, and behavior, as well as how people’s thinking, feeling, and behavior shape social ecology. Unlike many psychology studies that primarily focus on using the differences in predominant values or shared beliefs in the given societies to explain cross-cultural differences in individuals’ psychological and behavioral tendencies (e.g., Knight, Carlo, Basilio, & Jacobson, 2015; Schwartz, 1992; Zou et al., 2009), the socioecological approach views cultural differences as
Adaptive strategies that produce desirable outcomes for an individual in his or her particular social environment (Yamagishi, Hashimoto, & Schug, 2008). This approach not only takes into account the influence of social environment on individuals but also looks at how individuals expect others to react to their behaviors and thus adapt their behaviors to such environment. For social psychology, both individuals’ own incentives, as well as the social structure that creates the incentives they face, are equally important to study. Therefore, the current study adopts the socioecological framework to investigate the relation between helping behavior and empathic thoughts and feelings.

Relational Mobility

The current study uses the socioecological factor relational mobility to understand cultural differences in empathy and helping tendency. Relational mobility refers to the degree to which a particular society or group provides individuals with opportunities to choose relational partners based on their personal preferences (Thomson et al., 2018; Yuki & Schug, 2012). In high relational mobility societies, individuals have plenty of opportunities to meet new people and form new relationships and freely leave their current social groups and join new groups. Interpersonal relationships in these societies are more likely to be based on personal interest and preferences. On the contrary, in low relational mobility societies, individuals do not have as many opportunities to meet new people. As a result, they are more likely to stay than to leave social groups they do not personally like. In these societies, relationships are less of a personal choice but more of a product of environmental affordance and social networks tend to be stable and resilient to change.
Previous research has measured relational mobility by assessing an individual’s perception of the degree of opportunity others in their immediate societies\(^4\) have to form new relationships, rather than asking about an individual’s current personal mobility. There are two reasons for this. First of all, personal mobility is confounded by other factors such as an individual’s own desirability as a relationship partner (e.g., physical attractiveness and charisma) and social economic resources (e.g., wealth and power). Secondly, measuring individuals perceptions of the relational mobility of people around them provides a better proxy for the nature of a given social ecology (Schug, Yuki, & Maddux, 2010). Indeed, Thomson and colleagues (2018) argue that people’s perceptions of relational mobility are quite accurate. They found that people’s perceptions of relational mobility are highly correlated with macro-level variables that are theoretically related to relational mobility, such as movements of relationships (i.e., divorce and remarriage). For examples, country-level relational mobility was positively correlated with justifiability of divorce \((r = .51)\), cultural looseness \((r = .65)\), individualism \((r = .23)\), and gender egalitarianism \((r = .63)\). Relational mobility reflects the potential for mobility of relationships within a given society with high accuracy.

**Culture and Relational Mobility**

Relational mobility varies across cultures. Thomson and colleagues (2018) found that relational mobility is higher in North America, Latin America, Australia, and some parts of Europe. East and Southeast Asia, the Middle East, and West Africa have comparatively low relational mobility. The cultural differences in relational mobility could in part be explained by the historical development of societies. Societies that historically engaged in rice farming have lower relational mobility, while historically herding societies have higher relational mobility.

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\(^4\) Immediate societies refer to friends and acquaintances, colleagues in the workplace, people in the neighborhood, etc.
Furthermore, societies that have historically faced more ecological threats (e.g., historical prevalence of pathogens and geoclimate harshness), which has been proposed to promote social cohesion as a risk-buffering mechanism (e.g., Gelfand et al., 2011), have lower relational mobility. The adaptive strategy for survival for people in these societies is to work together closely and rely on a stable social network that is resilient to change. Gradually, these societies become more and more close-knit and closed off to outsiders, which reflects low relational mobility.

Research has demonstrated relational mobility as a useful concept for explaining differences in psychological and behavioral tendencies between North Americans and East Asians. For example, relational mobility mediated cultural differences in the level of self-disclosure between Japanese and Americans (Schug, Yuki, & Maddux, 2012). Relational mobility was also found to predict cognition styles (San Martin, Schug, & Maddux, 2019), whereby people in high relational mobility societies (i.e. Spain and Israel) tend to show analytical thinking\(^5\) while people in low relational mobility societies (i.e. Nigeria and Morocco) are more likely to exhibit holistic thinking\(^6\).

**Relational Mobility and Empathy**

Social relationships in high relational mobility societies are more fluid and less restrained in the ingroup. Individuals in high relational mobility societies have high chances of interacting with strangers and forming an ongoing relationship with them. Therefore, in theory, individuals in high relational mobility societies have a weaker sense of ingroup-outgroup distinctions. On the contrary, social relationships in low relational mobility societies are more stable and restrained in

\(^5\) People who think analytically see objects as isolated from each other and detached from their context (Nisbett et al., 2001).

\(^6\) People who think holistically examine the links among objects and their contexts and how each part relates to the whole (Nisbett et al., 2001).
the ingroup. As strangers are not likely to become meaningful interaction partners, there is little need for people in low mobility societies to attend to outgroups (e.g., Yuki, 2003).

Previous research showed that participants had more empathy toward their ingroup members than outgroup members (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Graziano, Habashi, Sheese, Tobin, & Dovidio, 2007). Since individuals in low relational mobility societies pay more attention to ingroup versus outgroup members, they are not likely to show empathy toward strangers. In high relational mobility society, individuals are more likely to interact with strangers (and elicit reciprocity through helping), which should make feeling empathy toward strangers more adaptive. As a result, high relational mobility may increase levels of empathy toward strangers.

**Research Overview**

The current study looks at cross-cultural differences in empathy and helping tendency within a socioecological framework. I hypothesize that relational mobility will explain cross-cultural differences in empathy, and moderate the relation between empathy and helping. Data on empathy toward a friend and a stranger, relational mobility, and attitudes toward helping are collected in the United States and China. Based on the literature, here are six predictions:

**Predictions and Hypotheses**

**Prediction 1.** The United States will have higher levels of relational mobility than China.

Many studies have consistently found that North American countries have higher levels of relational mobility than East Asian countries (e.g., Schug, Yuki, & Maddux, 2010; Thomson et al., 2018). Although there is no relational mobility research done in mainland China, I expect the result of this study to be consistent with the literature.

**Prediction 2.** Empathy toward a friend will be higher in the United States than in China.
In high relational mobility societies, relationships are relatively more fluid and fragile. In these societies, an individual has to actively engage in maintaining the high quality of the relationship in order to retain the current partner (Kito, Yuki, & Thomson, 2017). On the other hand, individuals in low relational mobility societies do not have to worry too much about retaining relationships because relationships tend to be stable over time. Consistent with this hypothesis, previous research found that relational mobility is positively correlated to intimacy with close friends \((r = .64)\) and social support for close friends \((r = .48)\) (Thomson et al., 2018). Previous studies also found that European Americans reported stronger relationship closeness and emotional closeness than Japanese (Uleman, Rhee, Bardoliwalla, Semin, & Toyama, 2000). Based on previous findings, I predict Americans to have higher levels of empathy toward close friends than Chinese.

**Prediction 3.** Empathy toward a stranger will be higher in the United States than in China.

In highly mobility societies, people are more likely to interact with strangers and not worry about ingroup-outgroup distinctions. In low relational mobility societies, people pay more attention to ingroup members, while outgroups are irrelevant (e.g., Yuki, 2003). As a result, people in high relational mobility societies will show more empathy toward strangers than people in low relational mobility societies. Consistent with this hypothesis, cross-cultural research has found that people in high embeddedness cultures (cultures that focus more on the welfare of the ingroup and less on the wellbeing of outsiders) are less likely to help strangers than people in low embeddedness cultures
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(Knafo, Schwartz, & Levine, 2009). Therefore, I predict that Americans have higher levels of empathy toward strangers than Chinese.

**Prediction 4.** In both countries, empathy toward a friend will be higher than empathy toward a stranger.

Although I predict that both types of empathy are high in the United States, I expect to find a difference between empathies toward the two targets. As discussed before, people show more empathy toward their ingroup members than outgroup members (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Graziano, Habashi, Sheese, Tobin, & Dovidio, 2007). Based on these findings, I predict that empathy toward a friend would be higher than empathy toward a stranger.

**Prediction 5.** Empathy will be positively correlated to helping.

For this prediction, I will use empathy toward a stranger, because the survey measures the tendency to help people in general. As discussed before, many studies have found that empathy is a predictor of helping tendencies (Chopik, Brien, & Konrath, 2017; Mehrabian & Epstein, 1972; Penner & Finkelstein, 1998). I expect the result of this study to be consistent with the literature.

**Prediction 6.** Relational mobility will moderate the relation between empathy toward a stranger and helping.

The association between empathy toward a stranger and helping will be stronger when perceptions of relational mobility are high. When relational mobility is high, I expect that people will show more empathy toward others, and this empathy will be more likely to translate into helping others. When relational mobility is low, helping may be lower, or may be caused by other factors rather than empathy.
**Exploratory analysis.** Previous findings on gender differences in empathy have been inconsistent. Some studies found that women reported higher empathy than men (e.g., Chopik, Brien, & Konrath, 2017; Davis, 1980; Davis & Franzoi, 1991) while other studies found that men provide help more than women, especially toward male targets (e.g., Dovidio, Piliavin, Gaertner, Schroeder, & Clark, 1991). Some studies did not find significant gender differences in empathy (e.g., Levine, Norenzayan, & Philbrick, 2001). Although gender differences in empathy were not the focus of the current study, I conducted an exploratory analysis.

**Method**

**Participants and Procedures**

Demographics are presented in Table 1. In the United States, 247 undergraduate students from the College of William & Mary in Virginia were recruited through the SONA system to fill out the survey on Qualtrics in exchange for course credit. Two-hundred and forty-two students completed all required questions on the survey. There were 57.3% female participants and 42.7% male participants, and their average age was 19.2 years old.

In China, 151 students from Tsinghua University in Beijing were recruited by a researcher to fill out the survey on Wenjuanxing (wjx.cn), a website similar to MTurk. In the sample, fifty-nine students were recruited from the psychology department and received course credit for participation. The rest of the sample was recruited from Tsinghua’s Wechat website, a social media platform similar to Facebook, and were compensated for participation. After removing international students (participants who reported that they are not from China), the final sample of the Chinese data included 133 participants. There were 57.1% female participants and 42.9% male participants, and their average age was 20.8 years old. Ninety-four percent were Han Chinese and the rest were of various minority ethnic groups.
Measures

**Empathy.** The empathy questionnaire is a combination of the Questionnaire of Cognitive and Affective Empathy (QCAE, Reniers, Corcoran, Drake, Shryane, & Völlm, 2011) and two of the four subscales (Empathic Concern and Perspective Taking) from the *Interpersonal Reflective Index* (IRI, Davis, 1980). Seven overlapping items are removed. Among the 37 remaining items, 30 items can be modified to become target specific. These 30 items are duplicated and modified to address a friend or a stranger. Participants are asked to think of a close friend when answering the “empathy toward a friend” items (e.g., “I try to look at my friend’s side of a disagreement before I make a decision”, “my friend has a strong influence on my mood”). Likewise, participants are asked to think of someone they don’t know very well or only met for the first time when answering the “empathy toward a stranger” items (e.g., “I try to look at the other person’s side of a disagreement before I make a decision”, “other people have a strong influence on my mood”). The items are rated on a 1-6 Likert scale (1=Strongly Disagree, 6=Strongly Agree).

**Helping Tendency.** Helping frequency depends on the availability of opportunities to help others, which may be confounded cross-culturally. Furthermore, obtaining a concrete list of helping behaviors that translates well across cultural settings is very difficult (see Levine, 2003). Therefore, this study examines helping attitudes toward general helping behaviors, rather than the frequency of specific helping behaviors. Helping Attitude Scale (HAS, Nickell, 1998) is used to measure participant’s beliefs (e.g., “children should learn about the importance of helping

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7 Due to procedural errors, empathy toward a friend was assessed using a seven point scale in the United States, and a six point scale in China. We rescaled the data to be comparable across cultures. Furthermore, on the Chinese survey, the items for empathy toward a stranger were mistakenly reversed (1= Strongly Agree and 6=Strongly Disagree). We reversed the score of these items, but the results should be interpreted with caution as participants may not have noticed the reversal of scale anchor points.
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others”), feelings (e.g., “volunteering to help someone is very rewarding for me”), and behaviors (e.g., “I rarely contribute money to a charity organization”) associated with helping. The items are rated on a 1-6 Likert scale (1=Strongly Disagree, 6=Strongly Agree).

**Relational Mobility.** The current study uses the Relational Mobility Scale (Thompson et al., 2018; Yuki et al., 2007) to measure participants’ perceptions of the degree of opportunities people around them in their immediate societies have to voluntarily enter and exit from their interpersonal relationships. Six items gauge at the opportunity to meet new people (e.g., “it is common for these people to have a conversation with someone they have never met before”). The other six items examine the freedom to select new social group and leave existing social groups (e.g., “they are able to choose the groups and organizations they belong to”). The items are rated on a 1-6 Likert scale (1=Strongly Disagree, 6=Strongly Agree).

**Translation.** All the measurements are originally in English. Three researchers who are native Mandarin speakers and fluent in English translated the survey into Mandarin, then back-translated it into English.

**Results and Discussion**

I computed the reliabilities and means of each measurement in both countries (see Table 2). Internal reliabilities of each scale were sufficiently high in both countries, with Cronbach’s alphas all greater than (.70). The composite mean scores were used in the following analyses.

**Between-Countries Analyses**

Independent-samples t-test was conducted to examined country differences in empathy, relational mobility, and helping attitudes. Effect sizes for comparisons of means were reported as Cohen’s $d$ calculated using the pooled standard deviations of the groups being compared (Olejnik & Algina, 2000, Box 1 Option B). Supporting Prediction 1, relational mobility was
significantly different between the United States ($M = 4.31, SD = .71$) and China ($M = 4.13, SD = .74$), $t(374) = 5.05, p = .03, d = .24$. The United States has higher relational mobility than China. After examining each subscale, I found that the Meeting subscale was not significantly different between the United States ($M = 4.44, SD = .85$) and China ($M = 4.45, SD = .91$), $t(374) = -.07, p = .95, d = .01$, but the Choosing subscale was significantly different between the United States ($M = 4.21, SD = .74$) and China ($M = 3.91, SD = .82$), $t(374) = 3.67, p < .001, d = .39$. American and Chinese societies offered similar amount of opportunities to meet new people, but American societies offered more freedom to move in and out of social groups based on personal preferences than Chinese societies.

Contrary to Prediction 2, empathy toward a friend was not significantly different between the United States ($M = 4.37, SD = .52$) and China ($M = 4.25, SD = .51$), $t(378) = .94, p = .35, d = .11$. Participants in both countries reported similar levels of empathy toward their friends.

Supporting Prediction 3, empathy toward a stranger was significantly different between the United States ($M = 3.99, SD = .58$) and China ($M = 3.54, SD = .59$), $t(374) = 7.24, p < .001, d = .78$. Americans reported higher levels of empathy toward strangers than Chinese.

Helping attitudes were significantly different between the United States ($M = 4.75, SD = .72$) and China ($M = 4.47, SD = .69$), $t(374) = 3.65, p < .001$. Americans reported higher tendency to help than Chinese.

**Within-Country Analyses**

**Empathy.** To test Prediction 4, I conducted a repeated measures ANOVA to examine the differences between empathy toward a friend and empathy toward a stranger in each country. There was a significant main effect of empathy target, $F(1,374) = 325.47, p < .001, \eta^2 = .47$, indicating that overall empathy toward a friend ($M = 4.31, SD = .64$) was higher than empathy
toward a stranger ($M = 3.76, SD = .62$). Country had a significant effect on empathy overall, $F(1,374) = 31.73, p < .001, \eta^2 = .08$. There was a significant interaction between country and empathy targets, $F(1, 374) = 30.44, p < .001, \eta^2 = .08$, indicating that differences between the two empathy scales differed by country.

To break down the interaction, two paired samples t-tests were used to make post hoc comparisons between friend and stranger scales. In both countries, there was a significant difference between empathy toward a friend ($M = 4.37, SD = .52$ in the U.S. and $M = 4.25, SD = .51$ in China) and empathy toward a stranger ($M = 3.99, SD = .58$ in the U.S. and $M = 3.54, SD = .58$ in China), $t(242) = 12.27, p < .001, d = .69$ and $t(132) = 12.03, p < .001, d = 1.3$ in the United States and China, respectively. These results indicate that both Americans and Chinese are more empathetic toward their close friends than strangers. However, as shown in Figure 1, the difference between the two empathy scales was larger in China than in the United States. While both American and Chinese participants reported similar levels of empathy toward their close friends, Americans participants reported higher levels of empathy toward strangers than Chinese participants.

**Relational Mobility.** I conducted another repeated measures ANOVA to examine the differences between the degree of opportunities to meet new people (the meeting subscale) and the degree of freedom to choose social groups based on personal preferences (the choosing subscale). There was a significant main effect of subscales, $F(1,374) = 88.87, p < .001, \eta^2 = .19$, indicating that overall participants scored higher on the meeting scale ($M = 4.44, SD = .87$) than the choosing scale ($M = 4.11, SD = .78$). Country had a marginally significant effect on relational mobility overall, $F(1,374) = 3.6, p = .06, \eta^2 = .01$. There was a significant interaction between
country and subscales, $F(1, 374) = 14.73, p < .001, \eta^2 = .04$, indicating that differences between
the relational mobility subscales differed by country.

A paired samples t-tests was used to make post hoc comparisons between the meeting
and choosing subscales. In the United States, there was a significant difference between the
meeting scale ($M = 4.44, SD = .85$) and the choosing scale ($M = 4.22, SD = .74$), $t(243) = 5.19, p < .001, d = .28$. Similarly in China, there was a significant difference between the meeting scale ($M = 4.45, SD = .91$) and the choosing scale ($M = 3.91, SD = .82$), $t(132) = 7.15, p < .001, d = .62$. These results indicate that in both Chinese and American societies, there are more
opportunities to meet new people than there is freedom to choose one’s interaction partners.

However, as shown in Figure 2, the difference between the two relational mobility
subscales was larger in China than in the United States. While both American and Chinese
participants reported similar opportunities to meet new people, American were more likely than
Chinese to report that people in their society have more freedom in choosing their relationships
and social groups.

**Correlations.** Pearson correlations between all variables, by country, are presented in Table 3. In the United States, relational mobility was significantly correlated with empathy
toward a friend, $r(242) = .28, p < .001$, empathy toward a stranger, $r(242) = .24, p < .001$, and
helping, $r(242) = .39, p < .001$. Americans who perceived higher relational mobility were more
likely to offer help and were more empathetic toward both close friends and strangers. Empathy
toward a stranger was significantly correlated with helping, $r(242) = .58, p < .001$. Americans
who were more empathetic toward strangers were more likely to offer help.

In China, relational mobility was significantly correlated with helping $r(132) = .22, p = .01$. Chinese who perceived higher relational mobility were more likely to offer help. However,
relational mobility was not significantly correlated with empathy toward a friend, $r(132) = .09, p = .29$, nor empathy toward a stranger, $r(132) = .12, p = .17$. Empathy toward a stranger was significantly correlated with helping, $r(132) = .36, p < .001$. Chinese who were more empathetic toward strangers were more likely to offer help.

**Moderation Analyses.** I used PROCESS Model 1\(^8\) to examine relational mobility as a moderator of the relation between empathy toward strangers and helping attitudes. Six variables were entered into the model: empathy\(^9\), relational mobility, and the interaction term between empathy and relational mobility, with country, gender, and age as control variables. To avoid potentially problematic high multicollinearity with the interaction term, the variables were mean-centered prior to the analyses (Aiken & West, 1991).

The overall model (see Table 4 and Figure 3) was significant, $R = .36, F(6, 366) = 33.83, p < .001$. Empathy and relational mobility had significant effects on helping ($b = .55, t(366) = 10.01, p < .001$, and $b = .23, t(366) = 5.29, p < .001$, respectively). There was a significant interaction effect between empathy and relational mobility on helping, $b = -.13, t(234) = -1.98, p = .05$, indicating that the effect of empathy on helping depended on relational mobility. As shown in Figure 4, when relational mobility was high\(^10\), the effect of empathy on helping was low. People who perceived high relational mobility reported high tendency to help regardless of their empathy level. When relational mobility was low, the effect of empathy on helping was high. Among people who perceived low relational mobility, only those high in empathy reported

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8 See Hayes (2017) chapter 8 for a discussion on why it is better to use PROCESS than to conduct a hierarchical regression or 2 x 2 ANOVA for moderation analysis.

9 For this analysis only empathy toward a stranger was used, because the helping attitude scale asked the tendency to help people in general.

10 The cut off line is the mean score. Scores above the mean is considered to reflect high relational mobility and scores below the mean are considered to reflect low relational mobility. I did not use one standard deviation as the cutoff line because there weren’t enough participants above and below one standard deviation to conduct the analyses.
higher tendency to help. In other words, people high in empathy were more likely to help regardless of their perception of relational mobility, but people low in empathy were more likely to help only when they perceived high relational mobility.

For control variables, country did not have a significant effect on helping attitudes, $b = -.05$, $t(366) = -.72$, $p = .47$. However, gender had a significant effect on helping, $b = -.12$, $t(366) = -1.97$, $p = .05$, indicating that women were more likely to offer help than men. Age had a marginally significant effect on helping, $b = .03$, $t(366) = 1.94$, $p = .05$.

I repeated the model analyses separately by country. The model was significant in the United States (see Table 5 and Figure 5), $R = .43$, $F(5, 234) = 35.86$, $p < .001$. Empathy and relational mobility had significant effects on helping ($b = .63$, $t(234) = 9.52$, $p < .001$, and $b = .25$, $t(234) = 4.69$, $p < .001$, respectively). There was also a significant interaction effect between empathy and relational mobility on helping, $b = -.19$, $t(366) = -2.32$, $p = .02$, indicating that the effect of empathy on helping depended on relational mobility. As shown in Figure 6, when relational mobility was high, the effect of empathy on helping was low. Americans who perceived high relational mobility reported high tendency to help regardless of their empathy level. When relational mobility was low, the effect of empathy on helping was high. Among Americans who perceived low relational mobility, only those high in empathy reported higher tendency to help. In other words, Americans high in empathy were more likely to help regardless of their perception of relational mobility, but Americans low in empathy were more likely to help only when they perceived high relational mobility.

For control variables, gender had a marginally significant effect on helping, $b = -.13$, $t(234) = -1.67$, $p = .10$, indicating that American women were more likely to offer help than American men. Age had no significant effect on helping $b = .02$, $t(234) = 1.07$, $p = .29$. 
The Chinese model was also significant (see Table 6 and Figure 7), $R = .18$, $F(5, 127) = 5.67$, $p < .001$. Empathy and relational mobility had significant effects on helping ($b = .41$, $t(127) = 4.25$, $p < .001$, and $b = .18$, $t(127) = 2.25$, $p = .03$, respectively). However, the interaction effect between empathy and relational mobility on helping was not statistically significant, $b = -.17$, $t(127) = -1.36$, $p = .18$. As shown in Figure 8, when relational mobility was high, the effect of empathy on helping was low. Chinese who perceived high relational mobility reported high tendency to help regardless of their empathy level. When relational mobility was low, the effect of empathy on helping was high. Among Chinese who perceived low relational mobility, only those high in empathy reported higher tendency to help. In other words, Chinese high in empathy were more likely to help regardless of their perception of relational mobility, but Chinese low in empathy were more likely to help only when they perceived high relational mobility. However, this interaction was not statistically significant, probably due to a lack of statistical power.

For control variables, gender and age did not have significant effects on helping attitude, $b = -.09$, $t(127) = -.77$, $p = .44$, and $b = .02$, $t(127) = 1.05$, $p = .29$, respectively.

Although the interaction was not statistically significant in China, the direction of the interaction was similar to that in the United States. Therefore, I decided to conduct further analysis. Since there was a significant difference between the two subscales of relational mobility in China, I decided to test the model with the two subscales, meeting and choosing\textsuperscript{11}. For the meeting subscale, which as reported above did not significantly differ between China and the United States, the model was significant, $R = 0.41$, $F(5, 127) = 5.25$, $p < .001$. However, there was no significant interaction effect between meeting and empathy, $b = .11$, $t(127) = 1.15$.

\textsuperscript{11} The subscales as moderator does not change the result for combined data and the U.S. data. Therefore, I only reported the results for the Chinese data.
p = .25, indicating that the effect of empathy on helping did not depend on the opportunity to meet new people.

For the choosing subscale however, the model was significant (see Table 7 and Figure 9), \(R = .46, F(5, 127) = 6.77, p < .001\). Empathy had a significant effect on helping, \(b = .43, t(127) = 4.53, p < .001\). The choosing subscale did not have a significant effect on helping, \(b = .11, t(127) = 1.61, p = .11\). There was a significant interaction effect between empathy and choosing on helping, \(b = -.30, t(127) = -2.82, p = .01\), indicating that the effect of empathy on helping depended on the freedom to choose relationships and social groups based on personal preferences. As shown in Figure 10, when there was more freedom in making relationship choices, the effect of empathy on helping was low. Chinese who perceived more freedom reported high tendency to help regardless of their empathy level. When there was a lack of freedom in making relationship choices, the effect of empathy on helping was high. Among Chinese who perceived a lack of freedom, only those high in empathy reported higher tendency to help. In other words, Chinese high in empathy were more likely to help regardless of their perception of freedom in making relationship choices, but Chinese low in empathy were more likely to help only when they perceived more freedom.

For control variables, gender and age did not have significant effects on helping attitude, \(b = -.06, t(127) = -.57, p = .57\), and \(b = .02, t(127) = .89, p = .37\), respectively.

**Gender.** To find out whether gender had an effect on the variables, I conducted an independent t-test for each country (see Table 8). Empathy toward a friend was significantly different between American women \((M = 4.49, SD = .50)\) and American men \((M = 4.21, SD = .50)\), \(t(239) = 4.26, p < .001, d = .56\). Likewise, empathy toward a friend was significantly different between Chinese women \((M = 4.41, SD = .47)\) and Chinese men \((M = 4.04, SD = .48)\),
Empathy and Relational Mobility

$t(131) = 4.45, p < .001, d = .78$. In both countries, women reported higher empathy toward friends than men.

Empathy toward a stranger was significantly different between American women ($M = 4.12, SD = .56$) and American men ($M = 3.81, SD = .55$), $t(239) = 4.32, p < .001, d = .56$. American women reported higher empathy toward strangers than American men. However, empathy toward a stranger was not significantly different between Chinese women ($M = 3.60, SD = .59$) and Chinese men ($M = 3.45, SD = .58$), $t(131) = 1.44, p = .15, d = .26$. Relational mobility did not vary by gender in either country.

Helping attitudes were significantly different between American women ($M = 4.90, SD = .66$) and American men ($M = 4.55, SD = .76$), $t(239) = 3.86, p < .001, d = .49$. American women were more likely to offer help than American men. However, helping attitudes were not significantly different between Chinese women ($M = 4.53, SD = .64$) and Chinese men ($M = 4.39, SD = .76$), $t(131) = 1.16, p = .25, d = .20$.

**General Discussion**

**Review of Results**

Overall, the findings of this study suggest that relational mobility can help explain cross-cultural differences and within-culture individual differences in empathy and helping tendency. The current study found that the United States is a high relational mobility society and in comparison, China is a low relational mobility society. That means the American society provides more opportunities for individuals to choose their relational partners based on their personal preferences while the Chinese society provides less opportunities for individuals to choose their relational partners based on their personal preferences. In the current study, compared to the low relational mobility society (i.e., China), the high relational mobility society
(i.e., the United States) had higher levels of empathy toward strangers and tendency to help. Therefore, a country’s relational mobility could probably predict its people’s level of empathy to strangers and tendency to help. However, the current study only collected data in two countries, which is not sufficient for cross-cultural correlation analyses. Further research is needed in order to determine country-level correlations between relational mobility and empathy.

**Cultural differences in Relational Mobility.** The difference in relational mobility between the two countries was not as large as expected, based on previous work comparing relational mobility in Japan and the United States (Schug, Yuki, & Maddux, 2010). In both countries, participants perceived high chances of meeting new people, which may be influenced by the social nature of university campuses. In most countries, universities tend to have higher relational mobility than other social environments, since a large part of student life on campus is to attend social events and interact with people from various backgrounds. Data collected from non-student samples outside of a university environment would probably show cultural differences in the amount of opportunities to meet new people.

Although Chinese participants perceived individuals in their society to have many opportunities to meet new people (i.e., the ‘meeting’ component of the relational mobility scale), they thought that individuals are more likely to stay in the current social groups and relationships than to join new groups or start new relationships, regardless of their preferences (i.e., the ‘choosing’ component of the relational mobility scale). This finding suggests that people in China have many opportunities to meet and interact with strangers, but they are less likely to start a relationship with strangers. Social networks in China are relatively stable and unthreatened by newly met outgroup members. This is consistent with the theory that individuals in East Asian are more sensitive to people in their ingroups than outgroups (Yuki, 2003).
Relational mobility and Empathy Toward Friends. The current study found that both countries had high empathy toward close friends, which was inconsistent with the previous finding that relational mobility positively predicts emotional closeness within friendships (Schug, Yuki, & Maddux, 2010). Findings in the United States support the theory that empathy is an emotional investment that helps to maintain interpersonal relationships. Americans who perceived higher relational mobility reported more empathy toward their close friends. When relational mobility is high, your friend has a higher chance to meet new people and leave you if he or she is dissatisfied with the current relationship. Showing empathy to your friend increases the quality of the relationship and motivates your friend to stay with you. When relational mobility is low, your friend is less likely to leave you for other people, and thereby decreases the need for empathy.

However, findings in China suggest that empathy toward close friends is motivated by factors other than relational mobility. Theoretically, in a low relational mobility society like China, there is less need for empathy in a friendship because social relationships tend to be stable and not based on personal preferences. Individuals are motivated to stay in their friendships not because they enjoy the high quality of the relationship or their friends are desirable partners, but because their society offers little freedom to choose with whom they can interact and form relationships. Contrary to the hypothesis, our study showed that empathy toward a friend was not correlated with relational mobility in China and Chinese participants’ level of empathy toward a friend was as high as that of American participants.

Empathy in China could be motivated by reasons other than retaining social relationships. For instance, high levels of empathy toward a friend may be a result of ingroup preference. Low relational mobility societies may motivate individuals to be empathetic toward their friends as a
way to psychologically distinguish ingroup members from outgroup members (for more on group cognition, see Yuki, 2003) and increase the cohesiveness of the ingroup. In fact, the current study found that Chinese showed higher ingroup bias in empathy than Americans, which is consistent with the theory that low relational mobility societies are more sensitive to ingroup-outgroup distinctions and thereby show higher ingroup preferences than high relational mobility societies. However, further research is needed to determine what factors motivate empathy toward friends in low relational mobility societies.

**Relational Mobility and Empathy Toward Strangers.** The perception of relational mobility also varied within each country and was found to influence empathy and helping tendency. Americans who perceived higher relational mobility reported more empathy toward close friends, more empathy toward strangers, and higher tendency to help. In a high relational mobility society such as the United States, strangers are more likely to become ingroup members. From an evolutionary perspective, showing empathy toward strangers who are likely to become ingroup members is evolutionarily adaptive because they are more likely to reciprocate and benefit your own survival. This thinking is consistent with previous findings that in-group preference is largely driven by reciprocity, even when the reciprocity is indirect. Many studies have shown that people show ingroup favoritism only when they expected that ingroup members would be able to return the favor (Balliet, Wu, & De Dreu, 2014; Karp, Jin, Yamagishi, & Shinotsuka, 1993; Stroebe, Lodewijks, & Spears, 2005; Yamagishi, Jin, & Kiyonari, 1999). Experimental studies manipulating the source of reciprocity have even found that participants showed more favoritism to outgroup members when outgroup members, not ingroup members, determined the amount of benefits participants can get (Rabbie, Schot, & Visser, 1989).
Therefore, high empathy toward strangers is adaptive in high relational mobility societies where likelihood of reciprocity is high.

Similarly to Americans, Chinese who perceived higher relational mobility reported higher tendency to help. However, unlike in the United States, relational mobility was not correlated with empathy in China. As discussed before, empathy in China may be driven by factors other than relational mobility. Gender did not have an effect on empathy toward strangers, which means that both Chinese men and Chinese women have low empathy toward strangers. Yuki (2003) found that people in East Asian cultures pay more attention to ingroup members and tend to not think about outgroup members at all, which may explain why empathy toward strangers was low in China. The effect of ingroup preference on empathy is probably stronger than the effect of gender and relational mobility. As a result, empathy toward strangers is low regardless of relational mobility and gender.

**Predictors of Helping Tendency.** The current study found that several factors contributed to individual differences in helping tendency. Findings suggest that gender has an effect on one’s tendency to help. In both countries, women were more likely to help than men. Empathy also has an effect on one’s tendency to help. In both countries, people higher in empathy are more likely to help. Previous meta-analysis showed that the degree of association between empathy and prosocial behavior varied from .10 to .36 (Eisenberg & Miller, 1987). Compared to previous findings, the current study found a very strong correlation between empathy and helping tendency ($r = .58$, in the United States, and $r = .36$, in China).

Empathy toward a stranger was a strong predictor of helping especially when relational mobility was low. In a low relational mobility society, social relations are perceived as stable and less likely to be influenced by outgroup members. There is little extrinsic motivation to help
strangers since strangers are less likely to reciprocate the help or become an ingroup member. The tendency to help is much depended on an individual’s intrinsic motivation, i.e., empathy felt toward strangers. Previous research on organizational behavior found that people in America and Taiwan offered help based on intrinsic motives (e.g., concern for people) but not extrinsic motives (e.g., social exchange) (Tang et al., 2007). Therefore, helping behavior in low relational mobility societies is largely driven by empathy.

High relational mobility is also a strong predictor of high tendency to help. The current study found that people who perceived high relational mobility reported high tendency to help regardless of their empathy levels. This finding suggests that when social relations are flexible and strangers are more likely to reciprocate or become an ingroup member, even individuals with lower levels of empathy have high tendency to help. This creates a ceiling effect, whereby empathy may increase the tendency to help to a lesser extent. Therefore, helping behavior in high relational mobility societies is driven not by empathy but rather the expectation of reciprocity.

The correlational design of the current study cannot tell us the direction of causality. That is, the results cannot determine whether relational mobility is causing the change in the relation between empathy and helping tendency, or if empathy is actually mediating the relation between relational mobility and helping tendency. However, Oishi (2014) argues that from a socioecological point of view, it is more logical for causality to flow from social structures to psychological traits than the other way around. Therefore, I can conclude that relational mobility is the mediator.

**Implications**

Identifying cultural factors that influence empathy and helping tendency is important for social development. Results of the current study suggest that increasing empathy in low
relational mobility societies is critical for increasing the tendency to help. Empathy deficit for strangers, especially outgroup members, can lead to negative social outcomes, such as racism and intolerance. Fortunately, empathy toward strangers can be learned. Research found that having positive interactions with strangers, such as receiving help from an outgroup member, increases participants’ empathy for outgroup members (Hein, Engelmann, Vollberg, & Tobler, 2016). Research also found that reducing in-group bias among Chinese participants can help increase empathy toward outgroup members (Wang, Wu, Liu, Wu, & Han, 2015). Countries with low relational mobility can adopt these strategies to increase empathy toward strangers and thereby increase prosocial tendencies.

**Limitations**

Although the sample had adequate power and a balanced gender ratio, it does not well represent the general population of the two countries. Students’ perception of relational mobility and helping tendencies may be influenced by the university environment. Universities provide space for students to make new friends and choose their social group based on personal preference. Students may perceive higher relational mobility than an average person in the society. Universities also provide many opportunities for students to volunteer in community service during their free time. Many student organizations on campus are dedicated to hosting charity events and organize volunteer events. Students may value helping and participate in helping more than an average person in society. Secondly, the university we surveyed in China is located in Beijing, one of the most populated metropolitan cities in the world, while the university we surveyed in the United States is located in a small town. Our Chinese participants would probably have a higher perception of relational mobility than the country’s average and our American participants may have a lower perception of relational mobility compared to
students in big cities. Age could also be an important factor that influences relational mobility. Young single students are likely to have more freedom in choosing social relationships than older married adults.

Due to the limited time and resource for this study, self-report measurements were used to examine empathy and helping, which may not be an accurate reflection of actual empathy and helping behavior. Self-report results can be influenced by social desirability and one’s ability to reflect on his or her thought and behavior. However, the advantage of using self-report in the current study is it that it allows us to measure target specific empathy.

As noted in the footnote, there were mistakes on the Chinese questionnaire. The “empathy toward a stranger” items were unintentionally labeled in reverse (1= Strongly Agree and 6=Strongly Disagree). The scores in the data were reversed before conducting the analyses, but it unclear whether all participants noticed the reversed label and answered accordingly. Therefore, the data on empathy toward a stranger in China may be invalid. As such, the results of this study should be interpreted with caution and should be confirmed with additional data collection.

Future Directions

The current study measured empathy by asking participants to reflect on their own thoughts and feeling, which may not capture the multiple dimensions of empathy. Future research can adopt a more holistic measurement of empathy by including self-compassion, peer-rated empathy level, and physiological measurements such as neuroimaging (e.g., Hein, Engelmann, Vollberg, & Tobler, 2016; Wang, Wu, Liu, Wu, & Han, 2015). Future cross-cultural research on empathy can also look at differences in perception and expression of empathy across cultures (e.g., Geng, Xia, & Qin, 2012). The expression of empathy can be measured by
physiological changes such as facial electromyographic activity (EMG) and startle blink reflexes (Neumann & Westbury, 2011). A combination of these methods can broaden our understanding of empathy.

The result of the current study suggests that people in China are motivated to show empathy toward close friends by reasons other than maintaining social relationships. Future research on empathy across cultures can look at whether each culture have different intrinsic and extrinsic factors that motivate people to have empathy.

Future research on helping tendency could include behavioral measurement that can more objectively reflect the tendency to help. For instance, at the end the study, researchers can ask participants to donate a percentage of their compensation money to donate to a charity of their choice. The percentage of donation may be a more accurate reflection of an individual’s tendency to help strangers.

Much research on empathy has focused on the developmental process of empathy in children (e.g., Roth-Hanania, Davidov, & Zahn-Waxler, 2011; Volbrecht, Lemery-Chalfant, Aksan, Zahn-Waxler, & Goldsmith, 2007). The empathy development in children differs across cultures (Borke, 1973). Previous studies found that attachment to parents during childhood is related to the ability to experience empathy and engage in helping behavior in adulthood (Kim & Kochanska, 2017; Weyment, 2006). Future research can look at how relational mobility influences how children learn empathy and how parents socialize empathy in their children.

As discussed before, the difference in relational mobility between China and the United States was not as large as expected. Chinese participants reported having similar amounts of opportunity to meet people as American participants. Previous studies found that acculturation to Canadian culture leads to expansion of relational mobility for Asian Canadians (Zhang & Li,
Future cross-cultural research on relational mobility can look at how globalization and western cultural importation modify the level of perceived relational mobility in non-Western countries. Research on relational mobility in the United States can also look at how immigrants’ perceptions of relational mobility change over time.

**Conclusion**

Overall, the current study found evidence that relational mobility is an important socioecological factor that explains differences in empathy and helping tendency in China and the United States. Relational mobility and empathy toward a stranger were positively correlated with the tendency to help. In the United States, but not in China, relational mobility was positively correlated with empathy toward a friend and a stranger. Relational mobility moderated the strength of correlation between empathy and helping. When relational mobility was low, the tendency to help was driven by intrinsic psychological factors (i.e., empathy). When relational mobility was high, the tendency to help was driven by extrinsic social factors (i.e., reciprocity).
References


Table 1

*Demographics*

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<th>United States</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>n</td>
<td>241</td>
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</tr>
<tr>
<td>Male</td>
<td>103 (42.7%)</td>
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<td>Female</td>
<td>138 (57.3%)</td>
<td>76 (57.1%)</td>
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<tr>
<td>Age</td>
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<tr>
<td>n</td>
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<td>18 and below</td>
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<td>19 - 20</td>
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### Table 2

*Alphas, Means, and Standard Deviations*

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<td>Empathy Toward a Friend</td>
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<td>Relational Mobility</td>
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<tr>
<td>Relational Mobility - Choosing</td>
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<td>4.21(0.74)</td>
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<tr>
<td>Helping Tendency</td>
<td>0.90</td>
<td>4.75(0.72)</td>
</tr>
</tbody>
</table>

*Note:* $^* p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$, $^? p < 0.10$. 
Table 3

Correlations

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<td>1. Relational Mobility</td>
<td></td>
<td>0.83***</td>
<td>0.18*</td>
<td>0.09</td>
<td>0.12</td>
<td>0.22*</td>
</tr>
<tr>
<td>2. Relational Mobility - Meeting</td>
<td>0.89***</td>
<td></td>
<td>0.50***</td>
<td>0.11</td>
<td>0.0015†</td>
<td>0.20*</td>
</tr>
<tr>
<td>3. Relational Mobility - Choosing</td>
<td>0.93***</td>
<td>0.64***</td>
<td></td>
<td>0.06</td>
<td>0.07</td>
<td>0.18*</td>
</tr>
<tr>
<td>4. Empathy Toward a Friend</td>
<td>0.28***</td>
<td>0.29***</td>
<td>0.23***</td>
<td></td>
<td>0.23**</td>
<td>0.50***</td>
</tr>
<tr>
<td>5. Empathy Toward a Stranger</td>
<td>0.24***</td>
<td>0.24***</td>
<td>0.19***</td>
<td>0.61***</td>
<td></td>
<td>0.36***</td>
</tr>
<tr>
<td>6. Helping Tendency</td>
<td>0.39***</td>
<td>0.33***</td>
<td>0.38***</td>
<td>0.50***</td>
<td>0.58***</td>
<td></td>
</tr>
</tbody>
</table>

Note: The numbers are correlation coefficients. Coefficients on the left of the diagonal are for the U.S. data, coefficients on the right of the diagonal are for the Chinese data.

* p < 0.05, **p < 0.01, ***p < 0.001, †p < 0.10.
Table 4

*PROCESS Model 1 Testing Moderation – Combined Data*

<table>
<thead>
<tr>
<th></th>
<th>Coefficient (b)</th>
<th>95% Confidence Interval</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Mobility</td>
<td>0.23***</td>
<td>0.14 — 0.32</td>
<td>5.29</td>
</tr>
<tr>
<td>Empathy (Stranger)</td>
<td>0.55***</td>
<td>0.44 — 0.65</td>
<td>10.01</td>
</tr>
<tr>
<td>Relational Mobility x Empathy</td>
<td>−0.13*</td>
<td>−0.27 — 0</td>
<td>−1.99</td>
</tr>
<tr>
<td>Age</td>
<td>0.03†</td>
<td>0 — 0.06</td>
<td>1.94</td>
</tr>
<tr>
<td>Gender</td>
<td>−0.12*</td>
<td>−0.25 — 0</td>
<td>−1.97</td>
</tr>
<tr>
<td>Country</td>
<td>−0.05</td>
<td>−0.19 — 0.09</td>
<td>−0.72</td>
</tr>
</tbody>
</table>

*Note:* *p < 0.05, **p < 0.01, ***p < 0.001, †p < 0.10.
Table 5

**PROCESS Model 1 Testing Moderation – U.S. Data**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient (b)</th>
<th>95% Confidence Interval</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Mobility</td>
<td>0.25***</td>
<td>0.14 — 0.35</td>
<td>4.69</td>
</tr>
<tr>
<td>Empathy (Stranger)</td>
<td>0.63***</td>
<td>0.50 — 0.75</td>
<td>9.52</td>
</tr>
<tr>
<td>Relational Mobility x Empathy</td>
<td>−0.19*</td>
<td>−0.36 — −0.03</td>
<td>−2.32</td>
</tr>
<tr>
<td>Age</td>
<td>0.02</td>
<td>−0.02 — 0.66</td>
<td>1.07</td>
</tr>
<tr>
<td>Gender</td>
<td>−0.13†</td>
<td>−0.27 — 0.02</td>
<td>−1.67</td>
</tr>
</tbody>
</table>

*Note: *p < 0.05, **p < 0.01, ***p < 0.001, †p < 0.10.
Table 6

*PROCESS Model 1 Testing Moderation – Chinese Data*

<table>
<thead>
<tr>
<th></th>
<th>Coefficient (b)</th>
<th>95% Confidence Interval</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Mobility</td>
<td>0.18*</td>
<td>0.02 — 0.33</td>
<td>2.25</td>
</tr>
<tr>
<td>Empathy (Stranger)</td>
<td>0.41***</td>
<td>0.22 — 0.60</td>
<td>4.25</td>
</tr>
<tr>
<td>Relational Mobility x Empathy</td>
<td>-0.17</td>
<td>-0.42 — 0.08</td>
<td>-1.36</td>
</tr>
<tr>
<td>Age</td>
<td>0.02</td>
<td>-0.02 — 0.07</td>
<td>1.05</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.09</td>
<td>-0.31 — 0.14</td>
<td>-0.77</td>
</tr>
</tbody>
</table>

*Note: *p < 0.05, **p < 0.01, ***p < 0.001, *p < 0.10.*
Table 7

**PROCESS Model 1 Testing Subscale Moderation – Chinese Data**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Coefficient ($b$)</th>
<th>95% Confidence Interval</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choosing</td>
<td>0.11</td>
<td>−0.03 — 0.25</td>
<td>1.61</td>
</tr>
<tr>
<td>Empathy (Stranger)</td>
<td>0.43***</td>
<td>0.24 — 0.61</td>
<td>4.53</td>
</tr>
<tr>
<td>Choosing x Empathy</td>
<td>−0.30**</td>
<td>−0.50 — 0.09</td>
<td>−2.82</td>
</tr>
<tr>
<td>Age</td>
<td>0.02</td>
<td>−0.02 — 0.06</td>
<td>0.89</td>
</tr>
<tr>
<td>Gender</td>
<td>−0.06</td>
<td>−0.28 — 0.16</td>
<td>−0.57</td>
</tr>
</tbody>
</table>

Note: Choosing is a subscale of relational mobility. It reflects the degree of freedom an individual have to choose their social group based on personal preference.

* $p < 0.05$, **$p < 0.01$, ***$p < 0.001$, †$p < 0.10$. 
Table 8

*Means and Standard Deviations by Country and Gender*

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th></th>
<th>China</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>$t$</td>
<td>Female</td>
</tr>
<tr>
<td>Empathy Toward a Friend</td>
<td>4.49(0.50)</td>
<td>4.21(0.50)</td>
<td>4.26***</td>
<td>4.41(0.47)</td>
</tr>
<tr>
<td>Empathy Toward a Stranger</td>
<td>4.12(0.56)</td>
<td>3.81(0.55)</td>
<td>4.32***</td>
<td>3.60(0.59)</td>
</tr>
<tr>
<td>Relational Mobility</td>
<td>4.37(0.65)</td>
<td>4.23(0.79)</td>
<td>1.57</td>
<td>4.16(0.78)</td>
</tr>
<tr>
<td>Relational Mobility - Meeting</td>
<td>4.48(0.79)</td>
<td>4.38(0.92)</td>
<td>0.86</td>
<td>4.43(0.99)</td>
</tr>
<tr>
<td>Relational Mobility - Choosing</td>
<td>4.30(0.68)</td>
<td>4.11(0.82)</td>
<td>1.90†</td>
<td>3.96(0.84)</td>
</tr>
<tr>
<td>Helping Tendency</td>
<td>4.90(0.66)</td>
<td>4.55(0.76)</td>
<td>3.86***</td>
<td>4.53(0.64)</td>
</tr>
</tbody>
</table>

*Note: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$, †$p < 0.10$.***
Figure 1. Empathy level by country.
Figure 2. Relational mobility level by country.
Figure 3. Relational Mobility moderates the relation between empathy and helping, combined data.

Note: For gender, female was labeled 0 and male was labeled 1. For country, US was labeled 0 and China was labeled 1. *p < 0.05, **p < 0.01, ***p < 0.001, †p < 0.10.
Figure 4. The Interaction effect of empathy and relational mobility on helping tendency, combined data.
Figure 5. Relational Mobility moderates the relation between empathy and helping, U.S. data. Note: For gender, female was labeled 0 and male was labeled 1.
* $p < 0.05$, **$p < 0.01$, ***$p < 0.001$, †$p < 0.10$. 
Figure 6. The Interaction effect of empathy and relational mobility on helping tendency, U.S. data.
Figure 7. Relational Mobility moderates the relation between empathy and helping, Chinese data.

Note: The interaction effect was not statistically significant, $p = .18$. For gender, female was labeled 0 and male was labeled 1.

* $p < 0.05$, **$p < 0.01$, ***$p < 0.001$, †$p < 0.10$. 
Figure 8. The Interaction effect of empathy and relational mobility on helping tendency, Chinese data.

Note: The interaction effect was not statistically significant, p = .18.
Figure 9. Relational Mobility - Choosing moderates the relation between empathy and helping, Chinese data.

Note: For gender, female was labeled 0 and male was labeled 1.

* $p < 0.05$, **$p < 0.01$, ***$p < 0.001$, †$p < 0.10$. 
Figure 10. The Interaction effect of empathy and relational mobility – choosing subscale on helping tendency, Chinese data.
Appendix

Empathy Toward a Friend Scale: English Version

Please answer the following questions about your feelings about your friend.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I often have tender, concerned feelings for my friend when something unfortunate happened to him/her.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I sometimes find it difficult to see things from my friend’s point of view.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sometimes I don't feel very sorry for my friend when he/she is having problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I try to look at my friend’s side of a disagreement before I make a decision.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. When I see my friend being taken advantage of, I feel kind of protective towards my friend.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I sometimes try to understand my friend better by imagining how things look from his/her perspective.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. My friend’s misfortunes do not usually disturb me a great deal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. If I'm sure I'm right about something, I don't waste much time listening to my friend’s arguments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. When I see my friend being treated unfairly, I sometimes don't feel very much pity for them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. When I'm upset at my friend, I usually try to &quot;put myself in his/her shoes&quot; for a while.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Before criticizing my friend, I try to imagine how I would feel if I were in their place.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I often worry about my friends’ problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I am inclined to get nervous when my friends around me seem to be nervous.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. My friends have a strong influence on my mood.
15. It affects me very much when my friend seems upset.
16. I get very upset when I see my friend cry.
17. It worries me when my friends are worrying and panicky.
18. It is hard for me to see why some things upset my friend so much.
19. I find it easy to put myself in my friend’s shoes.
20. I am good at predicting how my friend will feel.
21. I am quick to spot when my friend is feeling awkward or uncomfortable in a group of people.
22. My friend tells me I am good at understanding how he/she is feeling and thinking.
23. I can easily tell if my friend is interested or bored with what I am saying.
24. My friend talks to me about his/her problems as he/she says that I am very understanding.
25. I can sense if I am intruding, even if my friend does not tell me.
26. I can easily work out what my friend might want to talk about.
27. I can tell if my friend is masking their true emotion.
28. I can usually appreciate my friend’s viewpoint, even if I do not agree with it.
29. I always try to consider my friend’s feelings before I do something.
30. Before I do something I try to consider how my friend will react to it.
Empathy Toward a Friend Scale: Mandarine Version

请根据你对你朋友的感受作答以下问题：

<table>
<thead>
<tr>
<th>强烈不赞同</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>强烈赞同</th>
<th>6</th>
</tr>
</thead>
</table>

1. 当我朋友遇到不幸的事情时，我常会关心他/她。
2. 有的时候，我觉得很难从朋友的角度看待事情。
3. 当我朋友遇到问题时，有时我不怎么为他们感到难过。
4. 在有争议的时候，我会尽量先从我朋友的角度去看，再做决定。
5. 当我看到我朋友被利用时，我会有种想保护他/她的感觉。
6. 我有时通过想象我朋友看待事情的角度来试图理解他/她。
7. 我朋友的不幸很少会是我感到很困扰。
8. 如果我确定我是对的，我不会浪费很多时间来听我朋友的争论。
9. 当我看到我朋友受到不公平对待时，我有时候感到不怎么同情他/她。
10. 当我朋友使我感到不爽时，我常常会站在他/她的角度考虑一下。
11. 在批评我朋友之前，我会试图想象如果他是他/她会有什么感受。
12. 我经常对我朋友的问题感到担忧。
13. 当我身边的朋友看上去紧张时，我倾向于变得紧张。
14. 我朋友对我的情绪有很强的影响。
15. 当我朋友看上去心烦意乱时，我会非常受影响。
16. 当我看到我朋友哭，我感到非常心烦意乱。
17. 我朋友优心和慌张时，我会因此感到忧虑。
18. 我很难明白为什么有些事让我朋友如此心烦意乱。
19. 我觉得站在我朋友的角度换位思考很容易。
20. 我能很好地预测我朋友的感受。
21. 当我朋友在群体中感到尴尬或不适时，我会很快发现。
22. 我朋友告诉我，我擅长理解他/她的感受和想法。

<table>
<thead>
<tr>
<th>强烈不赞同</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>强烈赞同</th>
<th>6</th>
</tr>
</thead>
</table>

23. 我很容易看出我朋友对我说的话感兴趣还是感到无聊。
24. 我朋友说我善解人意，所以跟我聊他/她面临的问题。
25. 我能感觉到自己有没有侵扰到我朋友，即便他/她没有告诉我。
26. 我很容易猜出我朋友可能想谈论什么。
27. 我可以看出我朋友是否在掩藏他/她真实的情绪。
28. 我通常很理解并重视我朋友的观点，即便我与他/她意见不合。
29. 在做事之前，我总是试图考虑我朋友的感受，
30. 在我做事前，我试图考虑我朋友会怎么反应。
Empathy Toward a Stranger Scale: English Version

Please answer the following questions about your feelings about someone you don’t know or have only met for the first time. In other words, the following questions refer to people you don’t know very well.

1. I often have tender, concerned feelings for people (i.e., people I don’t know personally or do not know well) less fortunate than me.
2. I sometimes find it difficult to see things from the "other guy's" point of view.
3. Sometimes I don't feel very sorry for someone when he/she is having problems.
4. I try to look at the other person’s side of a disagreement before I make a decision.
5. When I see people being taken advantage of, I feel kind of protective towards them.
6. I sometimes try to understand people better by imagining how things look from their perspective.
7. Other people's misfortunes do not usually disturb me a great deal.
8. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
9. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
10. When I'm upset at someone, I usually try to "put myself in their shoes" for a while.
11. Before criticizing someone, I try to imagine how I would feel if I were in their place.
12. I often worry about other people’s problems.
13. I am inclined to get nervous when others around me seem to be nervous.
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Strongly Agree</th>
<th>6</th>
</tr>
</thead>
</table>
14. Other people have a strong influence on my mood.  
15. It affects me very much when someone seems upset.  
16. I get very upset when I see someone cry.  
17. It worries me when someone is worrying and panicky.  
18. It is hard for me to see why some things upset other people so much.  
19. I find it easy to put myself in someone else’s shoes.  
20. I am good at predicting how someone will feel.  
21. I am quick to spot when someone in a group is feeling awkward or uncomfortable.  
22. Other people tell me I am good at understanding how they are feeling and what they are thinking.  
23. I can easily tell if someone else is interested or bored with what I am saying.  
24. Other people talk to me about their problems as they say that I am very understanding.  
25. I can sense if I am intruding, even if other people do not tell me.  
26. I can easily work out what other people might want to talk about.  
27. I can tell if someone is masking their true emotion.  
28. I can usually appreciate other people’s viewpoint, even if I do not agree with it.  
29. I always try to consider other people’s feelings before I do something.  
30. Before I do something I try to consider how other people will react to it.
Empathy Toward a Stranger: Mandarine Version

请根据你对不认识或初次见面的人的感受回答以下问题。换句话说，以下问题是针对你不熟悉的人。

1. 我常会关心那些比我不幸的人（我不认识或不熟的人）。
2. 有的时候，我觉得很难从别人的角度看待事情。
3. 当别人遇到问题时，有时我不怎么为他们感到难过。
4. 在有争议的时候，我会尽量先从他人的角度去看，再做决定。
5. 当看到别人被利用时，我会有种想保护他们的感觉。
6. 我有时通过想象别人看待事物的角度来试图理解他/她。
7. 别人的不幸很少会是我感到很困扰。
8. 如果我确定我是对的，我不会浪费很多时间来听别人的争论。
9. 当我看到有人受到不公平对待时，我有时候感到不怎么同情他们。
10. 当别人使我感到不爽时，我常常会站在他/她的角度考虑一下。
11. 在批评别人之前，我会试图想象如果我是他们会有何感受。
12. 我经常为他人的问题感到担忧。
13. 当我身边的人看上去紧张时，我倾向于变得紧张。
14. 他人对我的情绪有很强的影响。
15. 当别人看上去失落时，我会非常受影响。
16. 当我看到别人哭，我感到非常心烦意乱。
17. 别人忧心和慌张时，我会因此感到忧虑。
18. 我很难明白为什么有些事让别人如此失落。
19. 我觉得站在他人的角度换位思考很容易。
20. 我能很好地预测别人的想法。
21. 当群体中的某个人感到尴尬或不适时，我会很快发现。
22. 别人告诉我，我擅长理解别人的感受和想法。
23. 我很容易看出别人对我说的话感兴趣还是感到无聊。
24. 朋友们说我善解人意，跟我聊他们面临的问题。

强烈不赞同 1 2 3 4 5 6 强烈赞同
25. 我能感觉都自己有没有侵扰他人，即便哪个人没有告诉我。
26. 我很容易猜出另一个人可能想谈论什么。
27. 我可以看出别人是否在掩饰真实情绪。
28. 即便我不同意，我通常很欣赏别人的观点。
29. 在做事之前，我总是试图考虑其他人的感受。
30. 在我做事前，我试图考虑其他人会如何对此作出反应。
Relational Mobility Scale: English Version

First, how much do you feel the following statements accurately describe people in the immediate society in which you live (such as your friends and acquaintances, colleagues in your workplace, and people in your neighborhood 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.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

1. They (the people around you) have many chances to get to know other people.
2. It is common for these people to have a conversation with someone they have never met before.
3. They are able to choose, according to their own preferences, the people whom they interact with in their daily life.
4. There are few opportunities for these people to form new friendships.
5. It is uncommon for these people to have a conversation with people they have never met before.
6. If they did not like their current groups, they could leave for better ones.
7. It is often the case that they cannot freely choose who they associate with.
8. It is easy for them to meet new people.
9. Even if these people were not completely satisfied with the group they belonged to, they would usually stay with it anyway.
10. They are able to choose the groups and organizations they belong to.
11. Even if these people were not satisfied with their current relationships, they would often have no choice but to stay with them.
12. Even though they might rather leave, these people often have no choice but to stay in groups they don’t like.
Relational Mobility Scale: Mandarine Version

首先，你觉得以下的陈述有多准确地描述了你圈子内的人（例如你的朋友和有点交情的人，你的同事，邻居等）？请选在什么程度上你同意或不同意以下有关你圈子内的人的陈述。

注意：在一些题目中出现的“群组”一词，指的是群彼此认识或拥有共同目标的人，例如一群朋友，兴趣组，运动队和公司。

1. 他们（你周围的人）有很多机会认识其他人。
2. 对他们来说，和一个未曾谋面的人交谈是一件平常的事。
3. 他们可以根据自己的喜好，选择在日常生活中和谁交往。
4. 他们很少机会结交新朋友。
5. 对他们来说，和一个未曾谋面的人交谈是一件不平常的事。
6. 如果他们不喜欢现在身处的群组，他们可以离开，加入更好的群组。
7. 他们时常不能自由选择和谁交往。
8. 他们很容易可以遇到新相识。
9. 即使这些人对他们所属的群组并不完全满意，他们通常仍会留下。
10. 他们能够选择他们所属的群组和组织。

强烈不赞同 1 2 3 4 5 6 强烈赞同
11. 即使这些人对他们现时的人际关系不满意，他们时常会别无选择只能留下。
12. 即使他们宁愿离开，他们通常会别无选择地留在他们不喜欢的群组里。
Helping Attitude Scale (HAS): English Version

Please indicate to what extent you agree or disagree with the following statements. It is not a test, so there are no right or wrong answers. Please answer the questions as honestly as possible.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Strongly Agree</th>
<th>6</th>
</tr>
</thead>
</table>
1. Helping others is usually a waste of time.
2. When given the opportunity, I enjoy aiding others who are in need.
3. If possible, I would return lost money/items to the rightful owner.
4. Helping other people is one of the great joys in life.
5. I would avoid aiding someone in a medical emergency if I could.
6. It feels wonderful to assist others in need.
7. Volunteering to help someone is very rewarding for me.
8. I dislike giving directions to strangers who are lost.
9. Doing volunteer work makes me feel happy.
10. I donate time or money to charities every month.
11. Unless they are part of my family, helping the elderly isn’t my responsibility.
12. Children should learn about the importance of helping others.
13. I try to offer my help with any activities my community or school groups are carrying out.
14. I feel at peace with myself when I have helped others.
15. I feel proud when I know that my generosity has benefited a needy person.
16. Helping people does more harm than good because they come to rely on others and not themselves.
17. I rarely contribute money to a charity organization.
18. Giving aid to the poor is the right thing to do.
Helping Attitude Scale (HAS): Mandarin Version

请选择在什么程度上你同意或不同意以下陈述。这不是一个测试，所以没有正确或错误的答案。请尽可能诚实地回答。

<table>
<thead>
<tr>
<th>强烈不赞同</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>强烈赞同</th>
</tr>
</thead>
</table>

1. 帮助他人通常是一种浪费时间。
2. 当有人需要帮助时，我很乐于帮助他们。
3. 如果可以，我会把丢失的财物物归原主。
4. 帮助他人是人生最大的乐趣之一。
5. 如果可以的话，我会避免援助需要医疗急救的人。
6. 帮助有需要的人感觉极好。
7. 自愿帮助他人对我来说是非常有意义的。
8. 我不喜欢给迷路的陌生人指路。
9. 做志愿者工作让我很开心。
10. 我每个月向慈善机构投入时间和金钱。
11. 除非是自己家的人，帮助老人并不是我的义务。
12. 小孩应该学习帮助他人的重要性。
13. 我尝试帮助社区或学校正在组织的一切活动。
14. 帮助他人后，我感到平和。
15. 当我得知我的慷慨使需要帮助的人得益，我感到自豪。
16. 帮助他人害处大于益处，因为这使他们依靠别人而不是自己。
17. 我几乎从不给慈善机构捐款。
18. 给予穷人帮助是一种正确的做法。