Cultural Specificity of Socioemotional Selectivity: Age Differences in Social Network Composition Among Germans and Hong Kong Chinese

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We examined age differences in social network composition among 330 Germans and 330 Hong Kong Chinese, aged 20 to 91 years. We measured social network composition with the Social Convoy Questionnaire. In both cultures, older age was associated with the same number of close social partners and fewer peripheral social partners than was younger age. However, the patterns of age differences in specific relationships differed across cultures: Age was negatively associated with the proportion of nuclear family members among Germans but the association was positive among Hong Kong Chinese. Age was positively associated with the proportion of acquaintances among Germans but the association was negative among Hong Kong Chinese. We discuss the findings in terms of whether the socioemotional selectivity theory holds in both cultures.

Key Words: Age differences—Social network composition—Socioemotional selectivity theory.
(Fredrickson & Carstensen, 1990) and Hong Kong Chinese (Fung, Carstensen, & Lutz, 1999), as well as in field studies that examined naturalistic events that primed endings (Fung & Carstensen; Fung et al., 1999) among Hong Kong Chinese. Taken together, these studies revealed that a more limited future time perspective, either measured or manipulated, successfully increased preferences for emotionally close social partners in similar ways across cultures. Given that age is negatively related to future time perspective, and a more limited future time perspective predicts a preference for emotionally close social partners, across cultures, we do not expect to find cultural differences in age-related SNC in terms of closeness.

**Possible cultural specificity.**—Although we do not expect to find cultural differences in age-related SNC in terms of closeness, we do expect to find such differences in terms of types of relationships. To the extent that what people seek under future time limitations is emotionally meaningful social relationships (Fung & Carstensen, 2004), then cultural differences in what is considered to be emotionally meaningful may lead to different patterns of social relationships across adulthood.

In terms of types of relationship, studies conducted in the United States generally found that age was associated with a higher proportion of family members in social networks (Carstensen, 1992; Cumming & Henry, 1961; Field & Minkler, 1988). For example, Ajrouch, Antonucci, and Janevic (2001), in a representative sample of European Americans and African Americans aged between 20 and 93 years, found that older age was associated with a smaller network size but a higher proportion of family members in the networks. There are reasons to believe this age-related increase in the proportion of family members in social networks may be even stronger in East Asian cultures that are more collectivistic, which is defined as placing greater emphasis on interpersonal relatedness and harmony (Markus & Kitayama, 1991; Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 1995). In particular, East Asians are expected to care for their family members and relatives, and to fulfill their social and family obligations, to a greater extent than are their Western counterparts (Bards, 1959; Szalay, Strohl, Fu, & Lao, 1994; Takahashi, Ohara, Antonucci, & Akiyama, 2002; Yeung, Fung, & Lang, 2007).

These cultural differences are magnified with age. Fung and Ng (2006) found that whereas young and older Canadians did not differ in their emphasis on interpersonal relatedness, older Hong Kong Chinese emphasized interpersonal relatedness to a greater extent than did younger Hong Kong Chinese. This occurred even after the researchers statistically controlled for extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. This greater emphasis on collectivism may make East Asians more likely than their Western counterparts to increase the proportion of nuclear and extended family members in their social networks with age. Moreover, collectivism involves an in-group bias (Brewer & Chen, 2007). With age, East Asians may focus on their families and be more likely than their Western counterparts to drop nonfamily members such as friends and acquaintances from their social networks.

**The Present Study**

To our knowledge, almost all prior studies on age-related changes in SNC have been conducted in Western cultures such as the United States and Germany (e.g., Fung et al., 2001; Lang & Carstensen, 1994). The only two exceptions are a study that compared SNC among older adults aged 70 to 90 years in France, Germany, the United States, and Japan (Antonucci et al., 2001) and a study that examined SNC among people aged 8 to 93 years in the United States and Japan (Antonucci et al., 2004). These studies found few cultural differences in age-related SNC. However, critics may argue that the cultures examined in these prior studies may not be sufficiently different for cultural differences in age-related SNC to emerge. Several literature reviews (Matsumoto, Kudoh, & Takeuchi, 1996; Takano & Osaka, 1999), including a meta-analysis (Oyserman et al., 2002), have revealed that, at least among college samples, Japanese are not more collectivistic than Europeans or European Americans. In this study, we aimed at testing the cross-cultural generalizability of the socioemotional selectivity process further by (a) examining age differences in SNC and (b) testing whether time perspective accounted for these age differences, but this time among Germans and Hong Kong Chinese—two cultures that have been found to differ in collectivism (Oyserman et al.).

Specifically, in this study, we examined age differences in SNC among Germans and Hong Kong Chinese, across the entire range of adulthood. Following the prior literature just described, we measured age-related SNC in terms of the proportion of types of relationships (nuclear family members, extended family members, friends, and acquaintances) as well as the number of emotionally close and peripheral social partners in social networks.

Given that collectivism involves a family in-group bias, as we just discussed, we predicted that Hong Kong Chinese would exhibit a more positive association between age and the proportion of nuclear family members and extended family members, and a more negative association between age and the proportion of nonfamily members, in our case, friends and acquaintances, than would Germans. In addition, we examined whether these age differences in types of relationships represented a prioritization of emotionally close social partners in the face of a more limited future time perspective, as predicted by socioemotional selectivity theory (e.g., Carstensen et al., 1999). On the basis of the theory, we did not expect this mechanism to differ across cultures. We predicted that although the two cultural groups might show different age-related patterns in types of relationships, older adults in both cultures would have fewer peripheral social partners and the same number of emotionally close social partners in their social networks than would younger adults. Moreover, we predicted that future time perspective would at least partially mediate age differences in SNC in both cultures.

It should be noted that we did not focus on examining **mean differences** in SNC between the two cultures, as such differences could have been attributable to historical and cultural factors that are beyond the scope of this study. Rather, we focused on examining the **differences in strength of association** between age and SNC across cultures. Regardless of baseline differences in SNC, such differences in strength of association (i.e., slope differences) might shed light on the process of socioemotional development across cultures. This approach of examining slope instead of mean differences is consistent with recent theoretical advances in cross-cultural psychology (Smith,
Bonds, & Kagitsibasi, 2006). Moreover, to further control for sociocultural factors that might differ across cultures, we obtained the results reported here after matching the German and Hong Kong Chinese samples on age, gender, family status, and education level, as well as statistically controlling for gender, physical health, education level, and number of children in all analyses.

**Methods**

**Participants**

The sample consisted of two cultural groups: Germans from Berlin, Germany and Hong Kong Chinese from Hong Kong, China. Each cultural group included 330 participants (130 men and 200 women). We matched the two cultural groups by age, gender, family status (married or not, with or without children), and education level. We selected the sample, on the basis of the aforementioned matching criteria, from larger samples of Germans and Hong Kong Chinese originally recruited for other studies. The mean age of the German group was 51.7 years ($SD = 20.4$) and that of the Hong Kong group was 47.9 years ($SD = 18.6$), both ranging from 20 to 91 years. Of the Germans, 37% received an education that was below secondary level (i.e., high school level), 40% received secondary education, and 23% received tertiary education. The corresponding percentages for Hong Kong Chinese were 36%, 49%, and 15%. Table 1 summarizes the background characteristics of each cultural group.

The associations between age and background characteristics were generally similar across the two cultures. In Germany, age was significantly correlated with sex (female), $r = .266$; marital status (married), $r = .117$; number of children, $r = .364$; education level, $r = -.493$; physical health, $r = .341$; and living arrangement (live alone), $r = .201$; all $p < .05$. The corresponding correlation coefficients for the Hong Kong sample were $.270$, $.210$, $.612$, $-.607$, $-.336$, and $.335$; all $p < .01$. The two cultural groups are roughly representative of their respective populations, except that participants in both samples had a higher education level (United Nations Statistics Division, 2007b), and were more likely to be single and less likely to be divorced or widowed, than did the general populations in Germany and Hong Kong (United Nations Statistics Division, 2007c).

**Measures**

**Background characteristics.**—Participants reported their age, gender (1 = male, 2 = female), marital status (1 = single, 2 = married, 3 = divorced or separated, and 4 = widowed), number of children, education level, and living arrangement (1 = live alone, 2 = live with spouse or partner, 3 = live in long-term-care facilities, 4 = live with kin, and 5 = live with nonkin). When matching samples from the two cultures, we combined the measures of marital status and number of children into a composite index of family status (1 = not married and no children, 2 = married without children, 3 = not married with children, and 4 = married with children) for easier matching. We measured physical health in terms of the frequency of somatic complaints with the Somatization subscale of the 90-item Symptom Check List Scale (Derogatis, 1992). Participants indicated how often they had suffered from each of 12 somatic complaints during the week before the study, with answers ranging from 1 (never) to 5 (very often). The reliability of the scale, as indexed by Cronbach’s alpha, was .82 for Germans and .81 for Hong Kong Chinese. The mean score was 1.85 ($SD = 0.59$) for Germans and 1.60 ($SD = 0.54$) for Hong Kong Chinese. We included these background characteristics as potential covariates because they were found in prior studies (e.g., Antonucci et al., 2001, 2004) to influence age-related SNC.

| Table 1. Differences in Background Characteristics Between Germans and Hong Kong Chinese |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                | Germans         | Hong Kong Chinese |
|----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|
| 1. Age (years) | 51.664 (20.392) | 47.945 (18.616)  |
| 2. Gender, female (%) | 60.6 | 60.6 |
| 3. Education | 1.87 (.77) | 1.80 (.67) |
| 4. Family status (%) |                   |                   |                   |                   |                   |                   |
| Not married, no children | 30.6 | 33.7 |
| Married, no children | 10.6 | 15.5 |
| Not married, with children | 23.6 | 17.9 |
| Married, with children | 35.2 | 32.8 |
| 5. No. of children | 1.08 (1.111) | 1.58 (1.829) |
| 6. Physical health | 1.598 (0.540) | 1.853 (0.592) |
| 7. Living arrangement (%) |                   |                   |                   |                   |                   |                   |
| Live alone | 31.6 | 11.0 |
| Live with spouse or partner | 36.5 | 40.2 |
| Live in long-term-care facilities | 3.0 | 3.4 |
| Live with kin | 25.2 | 45.4 |
| Live with nonkin | 3.6 | 0 |
| 8. Future time perspective | 2.823 (0.940) | 3.041 (0.763) |
| 10. No. of close social partners | 3.930 (3.205) | 5.109 (3.189) |
| 11. No. of peripheral social partners | 8.821 (6.176) | 8.121 (5.571) |
| 12. Proportion of nuclear family members | 0.318 (0.208) | 0.436 (0.250) |
| 13. Proportion of extended family members | 0.196 (0.184) | 0.225 (0.235) |
| 14. Proportion of acquaintances | 0.137 (0.182) | 0.050 (0.121) |
| 15. Proportion of friends | 0.277 (0.218) | 0.279 (0.257) |

Notes: The variables that were matched across cultures are as follows: age, gender, education, and family status. $SD$ = standard deviation.

***$p < .001$.  

SNC.—Participants completed the Social Convoy Questionnaire (Kahn & Antonucci, 1980). Participants nominated social partners who were important to them into one of three circles that surrounded the word I. The inner circle, being closest to the word I, indicated emotionally close social partners, “so close that you [the participant] cannot imagine life without them.” The middle circle indicated rather close social partners, and the outer circle indicated less close social partners. We calculated total network size by counting the number of social partners reported in all three circles. The mean total network size was $12.75 (SD = 7.95$; range $= 0–57$) for Germans and $13.23 (SD = 6.94$; range $= 1–41$) for Hong Kong Chinese; $t = .825$, ns.

Participants also indicated their relationship with each social partner. We grouped these relationships into four types: nuclear family members (e.g., parents, spouse or significant other, and
children), extended family members (all relatives other than nuclear family members), friends (all kinds of friends), and acquaintances (e.g., doctors, dentists, colleagues, and teachers). This classification is roughly consistent with prior literature on social networks (e.g., Fingerling, Hay, & Birditt, 2004; Lang & Carstensen, 2002). To take network size into account, we computed the proportion of each type of social partner by dividing the number of each type of social partner by the total network size. Then, to create an index of socioemotional selectivity, we operationally defined the number of partners nominated to the inner circle as “emotionally close social partners” and the number of partners nominated to the middle and outer circles as “peripheral social partners,” following the practice of Lang and Carstensen (1994) and Fung, Carstensen, and Lang (2001).

Future time perspective.—To assess future time perspective, we had participants complete the 10-item Future Time Perspective Scale (Carstensen & Lang, 1996), which was a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). We tested for factorial invariance of the scale across cultures by means of structural equation modeling calculated with AMOS 4.0 (Arbuckle & Wothke, 1999), following the test procedure described by Byrne (2001, p. 173). The model with constrained factor loadings and factor variance across cultures fit the data the best after we dropped 2 items ($\chi^2 = 12.75$, $df = 7$, comparative fit index $= .99$, goodness-of-fit index $= .99$, and root mean square error of approximation $= .036$). The 2 items were “I have the sense that time is running out” and “As I get older, I begin to experience time as limited.” We thus used the remaining 8 items for our data analysis. For Germans, the mean was 2.82 ($SD = 0.94$) and Cronbach’s alpha was .92. For Hong Kong Chinese, the mean was 3.04 ($SD = 0.76$) and Cronbach’s alpha was .85.

Procedure

Participants completed the aforementioned measures in individual verbal interviews. The Hong Kong Chinese and German participants completed the measures in Chinese and German, respectively. The Future Time Perspective Scale was available in both German and Chinese. The Social Convoy Questionnaire and the Somatization scale were available in German but not Chinese. They were translated from English (the language in which they were originally developed) to Chinese through the backtranslation procedure: One Chinese–English bilingual speaker translated the English version into Chinese; another bilingual speaker translated the Chinese version back into English; and a third bilingual speaker compared the original English version with the backtranslated English version to look for discrepancies. All discrepancies were resolved by discussion.

RESULTS

We examined whether Germans and Hong Kong Chinese differed in the association between age and the proportion of different types of social partners in the networks. We conducted a moderated regression analysis for the proportion of each type of social partner: We entered gender, education level, physical health, and number of children in Block 1 as covariates, and we entered age (as a continuous variable), culture, and their interaction in Block 2 as predictors. We computed the interaction term after standardizing each predictor around the sample mean to avoid inflating the product term (Frazier, Tix, & Barron, 2004). Except for friends, we found an Age $\times$ Culture interaction for the proportion of every type of social partner: nuclear family members, standardized beta ($\beta = .102$, $p < .05$); extended family members, $\beta = -1.59$, $p < .001$; and acquaintances, $\beta = -2.21$, $p < .001$ (see Table 2). We then conducted regression analyses for each culture to further explore these interactions, with the four covariates in Block 1 and age in Block 2.

Germany. Age was negatively associated with the proportion of nuclear family members ($\beta = -2.84$, $p < .001$) and the proportion of friends ($\beta = -2.71$, $p < .001$). However, it was positively associated with the proportion of extended family members ($\beta = .285$, $p < .001$) and the proportion of acquaintances ($\beta = .242$, $p < .001$).

Hong Kong.—In contrast to the Germans, age was positively associated with the proportion of nuclear family members ($\beta = .162$, $p < .05$) and negatively associated with the proportion of acquaintances ($\beta = -5.34$, $p < .001$) among Hong Kong Chinese. However, similar to the Germans, Hong Kong Chinese exhibited a positive association between age and the proportion of extended family members ($\beta = .455$) and a negative association between age and the proportion of friends ($\beta = -3.92$), $ps < .001$. The aforementioned significant Age $\times$ Culture interactions suggested that the strength of these associations was stronger among the Hong Kong group than among the German group. Figure 1 shows the different patterns of age differences in the proportion of nuclear family members and acquaintances among Germans and Hong Kong Chinese. Figure 2 shows the similar patterns of age differences in the proportion of extended family members and friends among the two cultural groups.

Next, we assessed whether the aforementioned age differences in the proportion of different types of social partners in networks reflected an age-related increase in the number of close and peripheral social partners in both cultures. By controlling for the four covariates, we regressed the number of close and peripheral social partners on age (as a continuous variable), culture, and their interaction. The Age $\times$ Culture interaction was not significant on the number of close social partners, $\beta = .055$, $ns$, or the number of peripheral social partners, $\beta = -0.56$, $ns$. Our follow-up regression analyses revealed that age was negatively associated with the number of peripheral social partners among Germans ($\beta = -1.10$, $p < .05$) and Hong Kong Chinese ($\beta = -1.25$, $p < .001$). We found no age difference in the number of close social partners in both cultures (Germany, $\beta = -0.062$; Hong Kong, $\beta = -0.074$; $ns$).

Finally, we examined whether age differences in SNC in both cultures could be accounted for by future time perspective. In order to test for mediation (Baron & Kenny, 1986), we conducted a series of multiple regressions to test whether (a) age, the independent variable, was related to future time perspective, the mediator; (b) age was related to SNC, the outcome variable; (c) future time perspective was related to SNC; (d) the effect of age on SNC was reduced or eliminated after we statistically controlled for future time perspective; and (e) the mediation effect was significant according to the Sobel
Germany. — Age was predictive of future time perspective ($\beta = -.68, p < .001$). As stated in the previous section, age was a significant predictor of all SNC types except the number of close social partners. Future time perspective was significantly predictive of the proportion of extended family members ($\beta = -.23, p < .001$), acquaintances ($\beta = -.17, p < .01$), and friends ($\beta = .37, p < .001$), and the number of peripheral social partners ($\beta = -.19, p = .001$). Future time perspective did not mediate age differences in the proportion of nuclear family members ($z = 1.35, ns$) or extended family members ($z = -.86, ns$), but it fully mediated age differences in the proportion of acquaintances (reducing the value of the age effect to $\beta = .12, ns$) and the number of peripheral social partners (reducing the value of the age effect to $\beta = -.13, ns$). It also partially mediated age differences in the proportion of friends (reducing the value of the age effect to $\beta = -.32, p < .001, z = -.21, p < .05$).

Hong Kong. — Age was predictive of future time perspective ($\beta = -.53, p < .001$). As stated in the previous section, age was a significant predictor of all SNC types except the number of close social partners. Future time perspective was significantly predictive of the proportion of extended family members ($\beta = -.29, p < .001$), acquaintances ($r = .23, p < .001$), and friends ($\beta = .19, p = .001$), and the number of peripheral social partners ($\beta = .15, p < .01$). Future time perspective partially mediated age differences in the proportion of friends (reducing the value of the age effect to $\beta = -.60, p < .001, z = 2.32, p < .05$), but it did not mediate age differences in the proportions of nuclear family members ($z = -.057, ns$), extended family members ($z = -.93, ns$), or acquaintances ($z = -1.39, ns$), or the number of peripheral social partners ($z = -.99, ns$).

**DISCUSSION**

This study tested the cross-cultural generalizability of socio-emotional selectivity theory (e.g., Carstensen et al., 1999) by examining age differences in SNC among Germans and Hong Kong Chinese. The theory argues that, as people age, they prioritize emotionally meaningful social goals. But we add an important qualifier: To the extent that cultures differ in what they consider to be emotionally meaningful, the specific types of social relationships they prioritize with age may differ. Given the stronger collectivism among Hong Kong Chinese than among Germans (Oyserman et al., 2002) and the family ingroup bias typically associated with collectivism (Bardis, 1959; Brewer & Chen, 2007), we predicted that Hong Kong Chinese would show a more positive association between age and the proportion of nuclear and extended family members, and a more negative association between age and the proportion of friends and acquaintances, than did Germans.

However, we hypothesize that the basic mechanism of socio-emotional selectivity is generalizable across cultures despite

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**Table 2. Moderated Regression Analyses on Social Network Composition**

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<th>Covariates</th>
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Notes: $B =$ unstandardized beta; $\beta =$ standardized beta; $SE =$ standard error.

* $p < .05; ^* p < .01; ^{*} p < .001; ^{{*}*} p < .0001$. 

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The Sobel (1982) test. We used a Web-based Sobel test program developed by Preacher and Leonardelli (2001) to conduct the Sobel tests. We computed unstandardized regression coefficients ($B$) and standard errors ($SE$) of age on future time perspective and of future time perspective on each SNC from simple regression analyses, and we entered them into the Web-based program.
cultural differences in the associations between age and specific types of social relationships. We thus predicted that older adults would include fewer peripheral social partners but the same number of emotionally close social partners in their social networks than did younger adults, and future time perspective would at least partially mediate age differences in SNC, in both cultures. Findings generally confirmed both of our hypotheses.

**Age Differences in SNC**

As we predicted, we found the age differences in SNC in terms of types of social relationships to be different between Germans and Hong Kong Chinese. The cross-sectional findings revealed that older Germans had fewer nuclear family members in their social networks than did younger Germans, but older Hong Kong Chinese had more nuclear family members than did their younger counterparts. Both cultural groups had more extended family members with age, but Hong Kong Chinese did so to a much greater extent than did Germans. We found a reverse cross-cultural pattern for age differences in the proportion of nonfamily members. Age was positively associated with the proportion of acquaintances among Germans but the association was negative among Hong Kong Chinese. Taken together, these findings confirmed our prediction that Hong Kong Chinese were more likely than their German counterparts to show a family in-group bias in their SNC with age, favoring both nuclear and extended family members and dropping acquaintances. Prior studies on age-related SNC have generally found a greater focus on relationships with family members with age among Americans as well (Ajrouch et al., 2001; Carstensen, 1992; Cumming & Henry, 1961; Field & Minkler, 1988). Our findings extend this literature by suggesting that cultures may show this general focus to different extents, and in

**Notes.** * p < .05; ** p < .01; *** p < .001.

Figure 1. Relationship between age and the proportion of nuclear family members and acquaintances in Germany and Hong Kong (*p < .05; **p < .01; ***p < .001).

Figure 2. Relationship between age and the proportion of extended family members and friends in Germany and Hong Kong (*p < .05; **p < .01; ***p < .001).
different ways, when they consider different social relationships as important and relevant.

Indeed, the cultural differences in age-related SNC we found between Germans and Hong Kong Chinese seem to reflect the same mechanism of social selection. Although the two cultural groups showed different age-related patterns of specific types of relationships, they seemed to have achieved the same objective: Older adults in both cultural groups had fewer peripheral social partners but the same number of emotionally close social partners in their networks than did younger adults. These findings suggest that both cultural groups prioritize emotionally close social partners with age, although they may not necessarily do so by prioritizing the same types of social relationships. Such findings are consistent with prior findings on age-related SNC in the West (African Americans and European Americans: Fung et al., 2001; Germans: Lang & Carstensen, 1994; Lang et al., 1998) and in Japan (Antonucci et al., 2001, 2004), suggesting that the socioemotional selectivity phenomenon may be universal.

Is Future Time Perspective the Mediator?

However, future time perspective may not be a universal predictor of the socioemotional selectivity phenomenon. Although age was negatively associated with future time perspective among both Germans and Hong Kong Chinese in our study, future time perspective was a mediator only for some age-related SNC types. In particular, future time perspective was a partial mediator for age differences in the proportion of friends among Hong Kong Chinese, and was at least a partial mediator for age differences in the proportion of friends and acquaintances among the Germans. Among neither cultural group was future time perspective a mediator for age differences in the proportion of nuclear family members or extended family members. Even the mediating role of future time perspective in the number of peripheral social partners, which was typically found in prior research (Lang, 2000; Lang & Carstensen, 2002), was only found to be significant among Germans but not Hong Kong Chinese. These findings suggest that whether or not future time perspective drives age differences in social goals may depend on the particular types of social relationships and the cultural contexts under study.

Although these findings might be attributable to the limitations of assessing future time perspective with a self-report measure, other explanations should be considered. Cultural differences in sociostructural factors, such as fertility rate, family size, and living arrangement, might be possible explanations. To the extent that Germans have a lower fertility rate, have fewer nuclear family members, and are more likely to live alone than Hong Kong Chinese, they may be less likely to show a pro-family bias in their age-related SNC regardless of their future time perspective. These explanations are not very likely, because the fertility rate is actually lower in Hong Kong (0.93) than in Germany (1.34; see Census and Statistics Department, 2005; United Nations Statistics Division, 2007a). Moreover, although Germans are indeed more likely to live alone than are Hong Kong Chinese in the general population (Census and Statistics Department, 2002; Gaymu et al., 2006), living arrangement did not differ across cultures in our sample (see Table 1) and thus could not account for the cultural differences in age-related SNC we observed. We also controlled for family size by matching the cultural groups on family status and statistically controlling for number of children in our analyses. Nevertheless, despite these efforts, we acknowledge that Germans and Hong Kong Chinese may differ on other socio-cultural factors, such as the rate in which fertility rate has decreased over the last few cohorts. Further studies should examine whether these factors may influence age differences in SNC across cultures.

Another explanation that is worth exploring is that people may internalize social-cultural demands with age. In other words, social development across adulthood may be part of the lifelong socialization process: People in each culture learn to be better members of their culture as they grow older. In a prior study (Fung & Ng, 2006), we found that older Hong Kong Chinese endorsed a personality trait—interpersonal relatedness—more than did younger Hong Kong Chinese, whereas while Canadians did not show such age differences. SNC may be another manifestation of this same process. Hong Kong Chinese may be more likely than Germans to include family members, both nuclear and extended, with age simply because they have increasingly internalized the cultural focus on collectivism after living in the culture for many years. By proposing this argument, we agree with the basic premise of life-span developmental theories (e.g., Baltes & Baltes, 1990; Brandstädter & Greve, 1994; Carstensen et al., 1999; Heckhausen & Schulz, 1995) that, as people age, they shape their world in ways that maximize their well-being. However, we add that people do so within the confines and definitions of their respective culture. Future studies should further explore this hypothesis.

Conclusions

In closing, we acknowledge several limitations of the study. First, ours is a cross-sectional study, so the age differences in SNC we found might simply reflect cohort differences. Although studying the same age-related phenomenon across an Eastern and a Western culture allows us to rule out certain cohort differences, future studies should attempt to replicate our findings longitudinally across diverse cultures. Moreover, we attempted to examine the mediating role of future time perspective on age-related SNC with cross-sectional data. Critics might argue that such data only allowed us to test whether future time perspective had shared effects with age, not necessarily mediation (Lindenberger & Pütter, 1998). Longitudinal data will be needed to further address this question. Finally, we did not directly measure familism or individualism–collectivism in this study. As a result, the explanations we gave for cultural differences in age-related SNC, though grounded in the relevant cross-cultural literature (e.g., Oyserman et al., 2002), remain speculative. In another study, we found that interdependent self-construal moderated age differences in SNC among Hong Kong Chinese (Yeung, Fung, & Lang, 2008). Such an analysis was not possible in the present study because we did not measure self-construal or any other theoretically relevant cultural variable among the Germans. Future studies should measure such variables in all cultures examined to directly test for their moderating effects.

Despite these limitations, our study contributes to the literature in two major ways. First, our study directly compared SNC across two cultures that had been found to differ in collectivism. On the basis of carefully matched samples from both
cultural differences, we observed differences in age-related SNC, in terms of types of social relationships, across cultures. Second, we found that future time perspective only accounted for some age differences in SNC across cultures, and more so for Germans than for Hong Kong Chinese. It may be fruitful to study socioemotional aging with particular attention to sociocultural demands.

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