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Culture and Social Hierarchy: Self- and Other-Oriented Correlates of Socioeconomic Status across Cultures

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Abstract

Current theorizing on socioeconomic status (SES) focuses on the availability of resources and the freedom they afford as a key determinant of the association between high SES and stronger orientation toward the self and, by implication, weaker orientation toward others. However, this

work relies nearly exclusively on data from Western countries where self-orientation is strongly sanctioned. In the present work, we predicted and found that especially in East Asian countries, where other-orientation is strongly sanctioned, high SES is associated with stronger other-orientation as well as with self-orientation. We first examined both psychological attributes (Study 1, $N = 2,811$) and socialization values (Study 2a, $N = 4,670$) in Japan and the U.S. In line with the existent evidence, SES was associated with greater self-oriented psychological attributes and socialization values in both the U.S. and Japan. Importantly, however, higher SES was associated with greater other orientation in Japan, whereas this association was weaker or even reversed in the U.S. Study 2b ($N = 85,255$) indicated that the positive association between SES and self-orientation is found, overall, across 60 nations. Further, Study 2b showed that the positive association between SES and other-orientation in Japan can be generalized to other Confucian cultures, whereas the negative association between SES and other-orientation in the U.S. can be generalized to other Frontier cultures. Implications of the current findings for modernization and globalization are discussed.

Keywords

Culture; Socioeconomic Status; Self-Orientation; Other-Orientation; Socialization

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> […] to the frontier the American intellect owes its striking characteristics. That coarseness and strength combined with acuteness and acquisitiveness; […] that restless, nervous energy; that dominant individualism, working for good and for evil, and withal that buoyancy and exuberance which comes with freedom — these are traits of the frontier, or traits called out elsewhere because of the existence of the frontier.
>
> (Turner, 1920, p. 37)

> The Master said [explaining five practices necessary to implement humanity]: "Courtesy, tolerance, good faith, diligence, generosity. Courtesy wards off insults; tolerance wins all hearts; good faith inspires the trust of others; diligence ensures success; generosity confers authority upon others."
>
> (Analects 17.6, translated by Leys, 1997)

Social hierarchy is pervasive across societies and cultures (A. P. Fiske, 1992; Rai & Fiske, 2011). One of the most prominent systems of hierarchy is socioeconomic status (SES), through which societies rank individuals based on their access to both symbolic and tangible resources such as wealth, education, and prestige (Durkheim, 1893/1984; Marx, 1977; Weber, 1968). A considerable body of research conducted in the U.S. has shown that high SES is associated with self-centric orientations (S. T. Fiske & Markus, 2012; Kohn, 1969; Kohn & Schooler, 1983; Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012; Kusserow, 1999; Lamont, 2000; Stephens, Markus, & Phillips, 2014). For example, compared to individuals with low SES backgrounds, those with high SES backgrounds show a greater degree of self-confidence and self-expansion (Kohn, 1969; Snibbe & Markus, 2005), while manifesting lower other-orientation, such as reduced prosocial behavior (Piff, Kraus, Côté, Cheng, & Keltner, 2010) and less conformity (Kohn, 1969).

One major shortcoming of the current work on SES is that it draws mostly on Western cultures and societies and has not yet systematically taken into consideration the cultural meaning systems (Markus & Kitayama, 1991; Triandis, 1995). These meaning systems, however, may shape the meaning of SES and its manifestations (Bourdieu, 1990; Miyamoto, 2013; Schooler, 2007; Snibbe & Markus, 2005; Wilson, 2010). A limited number of previous cross-cultural studies on psychological correlates of SES have generated mixed evidence; some found cultural similarities (e.g., Grossmann & Varnum, 2011; Kan et al., 2014; Kohn, Naoi, Schoenbach, Schooler, & Slomczynski, 1990), while others reported cultural differences (e.g., Curhan et al., 2014; Naoi & Schooler, 1985; Park et al., 2013). Thus, we cannot be sure about the extent to which cultural contexts moderate the psychological correlates of SES.

As illustrated by the two opening quotes, the meaning and function of SES may vary substantially across cultures. Whereas historian Fredrick J. Turner pointed that characteristics of the contemporary American culture are related to its frontier past, the second quote from the Confucius suggests that in East Asian cultural traditions, those who occupy higher ranks in the society may have other-orientations, including generosity and benevolence to others below them (Bond & Hwang, 1986; Gardner & Seeley, 2001; Pye, 1985). We might therefore anticipate that there would be cultural differences in how SES affects self-orientation and other-orientation.

In this article, we compare representative samples across national cultures to examine whether cultural contexts delineated by the nation of origin moderate the correlates of SES. Drawing on the literatures on both SES and cultural psychology, we explore how SES is associated with psychological attributes and socialization values by focusing on self-orientation and other-orientation in different cultural contexts.

Self-Orientation and Other-Orientation

The present research focuses on self-orientation and other-orientation as key psychological dimensions. The distinction between self-orientation and other-orientation refers to the degree to which a certain behavior or attribute is likely to promote and support aspects of either the self (self-orientation) or likely to promote and support aspects of others, including relations with others (other-orientation). For example, striving for one's personal goals, and expressing and esteeming the self promotes the self and thus exemplify a self-orientation. Conversely, caring for and helping others, adjusting to others, and valuing one's social responsibility promotes others or relations with them and thus exemplify other-orientation. Self-oriented attributes and behaviors fit and affirm constructs of independent self-view or individualism; conversely, other-oriented attributes and behaviors fit and affirm interdependent self-view or collectivism (Markus & Kitayama, 1991; Triandis, 1995).

It is important to note that, although self-orientation and other-orientation are often seen as opposite poles of a single dimension, the two constructs are conceptually distinct and may coexist (e.g., Batson, 2011; Cialdini, Schaller, Houlihan, Arps, Fultz, & Beaman, 1987). That is, individuals can be high on both self-orientation and other-orientation (e.g., individuals can strive to fulfill their self-interest while helping others) unless the pursuit of

one goal goes against, or impedes the pursuit of the other (e.g., prosocial behavior that requires self-sacrifice), or each is measured in comparison to the other (e.g., a bipolar scale that requires participants to determine the relative importance of self- vs. other-orientation). It is as yet known how cultural and SES contexts work together to shape self-orientations and other-orientations. The present research aims to address this issue by building on two perspectives on SES: resource-based and cultural perspectives on SES.

Resource-Based Perspectives on SES

SES is a system of stratification, in which individuals are ranked based on access to material and social resources (Durkheim, 1893/1984; Marx, 1977; Weber, 1968). SES is typically indexed by objective markers such as education, income, and occupational prestige (Lareau & Conley, 2008; Oakes & Rossi, 2003), and/or subjective status (Adler, Epel, Castellazzo, & Ickovics, 2000). As compared to those with lower SES backgrounds, individuals with higher SES backgrounds tend to be better educated, wealthier, occupy more prestigious jobs, and place themselves higher on the ladder of social status. Access to these resources enables higher SES individuals to act as they wish, whereas limited access forces lower SES individuals to experience more constraints and challenges in their lives (Shah, Mullainathan, & Shafir, 2012; Steele & Sherman, 1999). It is likely then that the resources and freedom available to high SES individuals allow them to promote the self and self-set goals (i.e., self-orientation). Conversely, the constraints and the lack of resources faced by low SES individuals make it more difficult for them to pursue self-oriented tasks (Kohn, 1969; Kraus, Piff, & Keltner, 2011; Kraus et al., 2012).

Extant evidence lends support to these views in both Western and non-Western cultures. A considerable body of work on SES in American cultures has found that compared to lower SES individuals, higher SES individuals show more self-oriented thinking (Kohn & Schooler 1982; Kraus et al., 2012; Stephens et al., 2014). For example, whereas high SES individuals tend to emphasize influencing the environment and realizing one's unique self, low SES individuals tend to focus on adjusting the self to the environment (Kusserow, 1999; Lachman & Weaver, 1998; Lamont, 2000; Markus, Ryff, Barnett, & Palmersheim, 2004; Snibbe & Markus, 2005; Stephens, Fryberg, & Markus, 2011; Stephens, Markus, & Townsend, 2007). Studies conducted in non-Western cultures have found similar results. For example, higher SES is associated with the tendency to influence others among a large group of Chinese adults (Takemura, Hamamura, Guan, & Suzuki, 2016). Also, higher SES is also associated with higher self-esteem among both American and Japanese adults (Kan et al., 2014). Similarly, parental educational attainment is positively correlated with self-esteem among Chinese adolescents (Hamamura, Xu & Du, 2013). Furthermore, individuals with higher SES tend to show higher self-directed orientation in the U.S., Japan, and Poland (Kohn et al., 1990).

SES has also been linked to cognitive processing that reflects self-orientation. Compared to low SES, those with high SES tend to exhibit more context-independent cognitive styles in the U.S. (Kraus, Piff, & Keltner, 2009; Miyamoto & Ji, 2011; Na et al., 2010), which have been linked to self-oriented (vs. other-oriented) thinking (Varnum, Grossmann, Kitayama, & Nisbett, 2010). Similar associations between parental educational attainment and context-

independent thinking were found among both American and Russian undergraduates (Grossmann & Varnum, 2011). Taken together, these findings are consistent with the resource-based perspective on SES in that high SES individuals show higher self-orientation than low SES individuals do across most cultures.

Cultural Perspectives on SES

The effect of resources fostering self-orientation is both potent and apparently pan-cultural, yet researchers have demonstrated a systematic cultural difference in the way in which social hierarchy is viewed and manifested (Curhan et al., 2014; Miyamoto, 2013; Schooler, 2007; Snibbe & Markus, 2005; Zhong, McGee, Maddux, & Galinsky, 2006; Wilson, 2010). Previous cross-cultural studies on social hierarchy suggest that individuals higher in the hierarchy are expected to and tend to show psychological tendencies that are dominant in their cultural contexts (Miyamoto & Wilken, 2010; Rule et al., 2010; Smith, Misumi, Taybe, Peterson, & Bond, 1989; Torelli & Shavitt, 2010). For example, Miyamoto and Wilken (2010) showed that among Americans, those who were assigned to be a leader (vs. follower) showed more context-independent cognitive styles, which are linked to self-orientation (vs. other-orientation; Varnum et al., 2010). In contrast, Japanese who were assigned to be a leader displayed context-dependent cognitive styles, just as those who were assigned to be a follower. In addition, political candidates who appeared to be dominant were more likely to get votes than those who looked less dominant in the U.S., whereas political candidates who appeared warm were more likely to get votes than those who looked less warm in Japan (Rule et al., 2010). Drawing on these findings, we propose that certain correlates of SES are culture-specific.

Specifically, different cultural meaning systems prescribe different views of the self, shaped by historical and ecological factors and accumulated within each culture (A. P. Fiske, Kitayama, Markus & Nisbett, 1998; Markus & Kitayama, 1991; Triandis, 1995). For example, in Western cultures, most notably in Frontier cultures such as the United States (Kitayama, Ishii, Imada, Takemura, & Ramaswamy, 2006; Kitayama, Park, Sevincer, Karasawa, & Uskul, 2009; Turner, 1920), the self is viewed as an independent and unique entity defined by its internal attributes, which is distinct from the surrounding context. In contrast, in East Asian cultures where Confucian teaching has been historically dominant (Hofstede & Bond, 1988), the self is viewed as an interdependent entity fundamentally connected by relationships to others.

Culture symbolically defines the tasks which are considered ideal, true to its traditions or ethos, and thus most prestigious, genuine, and respectable within each culture (Kitayama et al., 2009; Shweder, 2003). We argue that high SES individuals are more likely than their low counterparts to engage in kinds of tasks that fit and reaffirm the dominant view of the self in their own cultural contexts. In particular, in American cultural contexts and in Frontier cultures in general, where the history of voluntary settlement has shaped independent views of the self, high SES individuals may be expected to engage in tasks promoting the self and self-set goals (i.e., self-orientation) that reinforce independence of the self. On the other hand, in East Asian cultural contexts, where Confucian teaching has contributed to interdependent views of the self, high SES individuals are expected to engage in tasks that

promote the relationships or others' benefits (i.e., other-orientation) that support and affirm interdependence of the self. In line with this cultural perspective on SES, research on occupational conditions within organizations showed that in Japanese organizations, people in higher ranks believe that their ideas and opinions mirror those of other people who belong to the same social entities (e.g., relatives, friends, and country) more than those in lower ranks do (Naoi & Schooler, 1985). This association is not as apparent in American organizations (Kohn & Schooler, 1982).

The associations predicted between SES and self- and other-orientations are likely to be sustained by sociocultural practices, such as socialization practices. In American cultural contexts, self-orientation is highlighted in socialization practices common in high SES contexts than those more common in low SES contexts (Kohn, 1969; Kusserow, 1999, 2012; Snibbe & Markus, 1995; Stephens et al., 2014). For example, parents of high SES backgrounds tend to emphasize self-confidence and uniqueness compared to parents of lower SES backgrounds (Kusserow, 1999, 2012). Being brought up in and constantly exposed to environments that encourage and foster self-orientation renders engagement in self-oriented tasks more habitual and more valuable to high SES individuals than low SES individuals who do not live in such environments. In contrast, in East Asian cultural contexts, other-orientation may be emphasized more in socialization practices of high (rather than low) SES contexts (Borovoy, 2010; Kataoka, 1987; Slater, 2010). For example, in Japan, group cohesion and social responsibilities are highlighted more in high SES schools than in low SES schools (Borovoy, 2010; Slater, 2010). Being brought up in environments that encourage and foster other-orientation renders engagement in other-oriented tasks more habitual and more valuable to individuals with high SES than those with low SES. Through such processes, individuals from high SES backgrounds are likely to engage in culturally sanctioned tasks than those from low SES backgrounds.

Overview of Present Studies

In this article, we examine whether cultural contexts moderate correlates of SES by focusing on self-orientation and other-orientation. The resource-based perspective on SES predicts that higher SES is associated with higher self-orientation across cultures. At the same time, the cultural perspective on SES predicts that culture moderates the link between SES and other-orientation. That is, higher SES would be associated with higher other-orientation in East Asia and Confucian cultures, where culturally sanctioned tasks involve other-orientation, whereas such a link will be attenuated or absent in the U.S. and Frontier cultures, where culturally sanctioned tasks focus on self-orientation and thus other-orientation is considered secondary. Notably, these predictions are not contradictory: cultural similarities are expected for the link between SES and self-orientation according to the resource-based perspective, whereas cultural differences are expected for the link between SES and other-orientation based on the cultural perspective.

To test these predictions, we used large sets of national surveys based on representative adult samples. Although there is mixed evidence on psychological correlates of SES across cultures, there has not been a systematic cross-cultural comparison of self-orientation and other-orientation using representative samples. In Study 1, we used the Midlife in the United

States survey (MIDUS) and its equivalent survey conducted in Japan, called the Midlife in Japan survey (MIDJA). Both MIDUS and MIDJA include a wide array of psychosocial measures, allowing for examination of various types of self-oriented and other-oriented psychological correlates of individuals from divergent SES backgrounds in both cultures. We examined how SES is linked to these self-orientation measures and other-orientation measures among American and Japanese adults.

Further, we explored sociocultural practices associated with SES, in particular, socialization practices. Socialization practices are suggested to play a major role in reproducing social hierarchy and their psychological correlates (Bernstein, 1971; Bourdieu, 1990; Miller & Sperry, 2012; Kohn, 1969). That is, norms and tasks associated with particular SES contexts are transmitted and maintained partly through socialization practices. In Studies 2a and 2b, we explored whether cultural tasks associated with SES are manifest in socialization practices by using data from the World Values Survey (WVS). WVS has been conducted across different nations around the world, and includes measures of self-oriented and other-oriented values emphasized in socialization practices. In Study 2a, we tested whether the patterns found in Study 1 for psychological attributes in Japan and the U.S. are reflected in socialization values in Japan and the U.S. Subsequently, in Study 2b, we explored whether the findings of Study 2a based on two nations generalize to other nations that share similar cultural backgrounds (i.e., Confucian or Frontier).

In terms of the measures of self-orientation and other-orientation, across both studies, we measured them with sets of multiple items to capture different aspects of each. Specifically, striving for one's goals (i.e., hard work), valuing and advancing the self (i.e., self-esteem), and expressing the self (i.e., self-expression) all promote and support aspects of the self and thus are considered facets of self-orientation. Thus, self-orientation was measured with goal-striving, self-esteem, and agency in Study 1, and with hard work, determination/perseverance, independence, imagination, and self-expression in Studies 2a and 2b. On the other hand, being prosocial (e.g., helping others) and adjusting to social expectations and roles (e.g., responsibility) promote and support others' interests and/or one's relationship with others and thus are considered facets of other-orientation. We measured other-orientation with sympathy, agreeableness, and support provided to others in Study 1, and with tolerance and respect for others, unselfishness, obedience, and feeling of responsibility in Studies 2a and 2b. The measures of self- and other-orientation used in Study 1 were based on rating scales. Direct cross-cultural comparisons of means on rating scales are difficult to interpret due to potential cultural differences in response styles and reference-group effects (e.g., Chen, Lee & Stevenson, 1995; Heine, Lehman, Peng, & Greenholtz, 2002). To minimize the influence of response styles (e.g., Chen, Lee & Stevenson, 1995; Heine, Lehman, Peng, & Greenholtz, 2002), we standardized the responses to self- and other-orientation rating scales in Study 1 within each culture, whereas we used the raw data without standardization in Studies 2a and 2b as self- and other-orientation was not measured with the rating scales in these studies.

Study 1

Method

Participants—American data were obtained from the second wave of the Midlife in the United States (MIDUS II) national study, a project funded by the National Institute on Aging. The initial data for MIDUS sampled a national representative cohort of non-institutionalized, English-speaking adults in 1995 through random digit dialing procedures. The second wave of the data was collected in 2004–2005 with 75% longitudinal retention rate, adjusted for mortality. Our analyses are based on 1,805 adults (Male = 818, *M* age = 56.85, *SD* age = 12.62) who completed a phone interview and a self-administered questionnaire of MIDUS II. Japanese data were from Midlife in Japan (MIDJA) study, collected in 2008–2010. MIDJA was also supported by the National Institute on Aging in order to enable comparative analyses between Japan and the US. Therefore, there were many identical measures in MIDUS and MIDJA. The sample included 1,027 adults randomly selected from Tokyo metropolitan area (Male = 505, *M* age = 54.36, *SD* age = 14.15). The two samples were comparable in many demographic variables (see Table 1 for the summary of descriptive statistics). Participants in both samples provided consent before completing any study materials.

Measures—We computed a SES index that included both an objective and a subjective measure of social status. Because Curhan et al. (2014) found that educational attainment (an objective measure) and subjective social status (a subjective measure) work differently across cultures to predict well-being (see also Park et al., 2013), we included both objective and a subjective measures of SES to avoid being biased toward either culture. Highest educational attainment was used as an objective measure of SES (1 = 8th grade/junior high or less; 2 = some high school; 3 = high school graduate/GED; 4 = one or more years of college, no degree; 5 = two-year college degree/vocational school; 6 = four-/five-year college bachelor's degree; 7 = at least some graduate school). Subjective measure of SES was measured by asking participants to think of a 10-rung ladder as representing where people stand in their communities, and place where they would stand in that ladder (1 = lowest, 10 = highest; Adler et al., 2000; i.e., subjective social status). The SES index was computed by averaging the two variables after standardizing them within culture.

Self-orientation was measured with three variables: self-esteem, agency, and persistence in goal striving. Esteeming the self, having agentic traits, and striving to achieve own goals should contribute to advancing personal aspects of the self, such as personal achievement and success. Self-esteem was measured with the Rosenberg Self-Esteem Scale (1965), using a 7-point rating scale (α = .76 for Americans and α = .66 for Japanese). Agency was measured by asking respondents to rate how well each of five items describes them on a 4-point rating scale (Rossi, 2001b; α = .81 for Americans and α = .77 for Japanese). The items included "confident", "forceful," "assertive", "outspoken", and "dominant". Persistence in goal striving was measured by asking how much participants persist in achieving personal goals even when they face obstacles (Wrosch, Heckhausen, & Lachman, 2000; e.g., "When I encounter problems, I don't give up until I solve them") with a 4-point rating scale (α = .82 for Americans and α = .78 for Japanese).

Other-orientation was assessed with five variables linked to good relations with others and cares toward them: sympathy, agreeableness, support given to spouse/partner, family, and friends. Sympathy was measured with four items, including “Even when things are going well for me, I can’t be happy if I have a friend who is in trouble”, using a 7-point rating scale (Uchida & Kitayama, 2001; α = .96 for Americans and α = .51 for Japanese). Agreeableness was measured by asking respondents to rate how well each of five items describes them on a 4-point rating scale. The items included “helpful”, “warm”, “caring”, “softhearted”, and “sympathetic” (Rossi, 2001b; α = .81 for Americans and α = .87 for Japanese). Support given to others included 3 separate measures: support given to spouse/partner, family, and friends (Walen & Lachman, 2000). Number of items included in each measure differed across measures. Support given to family (α = .67 for Americans and α = .78 for Japanese) was assessed by two items; support given to friends (α = .69 for Americans and α = .84 for Japanese) was assessed by four items; support given to spouse/partner (α = .73 for Americans and α = .89 for Japanese) was assessed by six items on a 4-point rating scale. An example item that was included in all measures is “How much can your spouse/partner [family] [friends] rely on you for help if they have a serious problem?”

We conducted confirmatory factor analyses using maximum likelihood to ensure the two-latent factor structure (self-orientation vs. other-orientation) of the eight measures for each cultural group. Full-information maximum likelihood (FIML) was used to deal with missing data. The model fit was satisfactory both for American data, χ^2 (19, N = 1803) = 207.44, p < .001; comparative-fit index (CFI) = .88; root-mean-square error of approximation (RMSEA) = 0.074, 90% confidence interval (CI) = [.065, .083], and Japanese data, χ^2 (19, N = 1027) = 162.66, p < .001; CFI = .90; RMSEA = .086, CI = [.074, .098], suggesting that these measures cohere as two different factors in both cultures. Overall indices of self-orientation and other-orientation were computed by averaging the within-culture z scores of the variables, respectively. Standardized factor loadings for the measures of self-orientation and other-orientation for both countries are presented in Table 2.

Results

To test the hypotheses, we conducted regressions for self-orientation (or other-orientation) using the composite SES index as a predictor, followed by the analysis for each SES variable. Culture, the pertinent SES variable, and the interaction term between the two were entered as predictors of self- or other-orientation separately. Age and gender were controlled for throughout the analyses. The regression coefficients of SES variables (i.e., composite SES index, education, and subjective social status) predicting self-orientation and other-orientation are shown separately for Americans and Japanese in Figures 1 and 2.

As predicted by the resource-based perspective, SES positively predicted self-orientation, β = .397, t(2806) = 21.79, p < .001. Furthermore, the association between SES and self-orientation was not moderated by culture, β = −.028, t(2806) = 1.524, p = .128, suggesting that the association between SES and self-orientation exists in both cultures and the strength of the association did not differ across cultures.

SES positively predicted other-orientation, β = .189, t(2783) = 10.07, p < .001, but importantly, this effect was moderated by culture, β = −.118, t(2783) = 6.35, p < .001.

Supporting the cultural perspective, SES positively predicted other-orientation more strongly in Japan, $\beta = .307$, $t(2783) = 10.37$, $p < .001$, than in the U.S., $\beta = .071$, $t(2783) = 3.12$, $p = .002$.

Exploration of specific SES variables—We next explored whether the above findings differed across the two measures of SES. We conducted the same regression analysis for self-orientation or other-orientation, while using either educational attainment or subjective social status as a predictor.

For self-orientation, both education and subjective social status positively predicted self-orientation, $\beta = .176$, $t(2795) = 8.80$, $p < .001$ and $\beta = .443$, $t(2746) = 25.15$, $p < .001$, respectively. The association between self-orientation and subjective social status was not moderated by culture, $\beta = .031$, $t(2746) = 1.39$, $p = .166$, but the association between self-orientation and education was moderated by culture, $\beta = -.040$, $t(2795) = 2.08$, $p = .038$. Education predicted higher self-orientation more strongly in Japan, $\beta = .217$, $t(2795) = 6.83$, $p < .001$, than in the U.S., $\beta = .136$, $t(2795) = 5.76$, $p < .001$.

For other-orientation, both education and subjective social status positively predicted other-orientation, $\beta = .061$, $t(2772) = 3.11$, $p = .002$ and $\beta = .240$, $t(2722) = 12.99$, $p < .001$, respectively. Importantly, both of these relationships were moderated by culture, for education, $\beta = -.127$, $t(2772) = 6.70$, $p < .001$, and for subjective social status, $\beta = -.044$, $t(2722) = 2.43$, $p = .015$. Simple effect analyses showed that subjective social status predicted higher other-orientation more strongly in Japan, $\beta = .284$, $t(2722) = 10.23$, $p < .001$, than in the U.S., $\beta = .196$, $t(2722) = 8.15$, $p < .001$. Furthermore, whereas education was positively associated with other-orientation in Japan, $\beta = .188$, $t(2772) = 6.11$, $p < .001$, education was negatively associated with other-orientation in the U.S., $\beta = -.067$, $t(2772) = 2.87$, $p = .004$.[1, 2]

Discussion

Taken together, these findings are in keeping with both resource-based and cultural perspectives on SES. Concurring with the resource-based perspective, the findings from the U.S. and Japan showed that higher SES, in terms of higher educational attainment and higher subjective social status, was associated with higher self-orientation across both cultures. At the same time, the magnitude of these associations differed somewhat across

[1]Because Curhan et al. (2014) found that an objective measure of SES correlates more strongly with well-being measures in Japan than in the U.S., while a subjective measure of SES correlates more strongly with well-being measures in the U.S. than in Japan, we compared the relative importance of objective vs. subjective measures of SES. In line with Curhan et al. (2014), the association between the objective measure of SES (i.e., education) and self-orientation was stronger in Japan than in the U.S, whereas the opposite pattern was found for the subjective measure of SES (i.e., subjective social status), though the latter was not significant. On the other hand, for other-orientation, the associations between SES and other-orientation was stronger in Japan than in the U.S. regardless of the measures of SES. It is possible that cultural differences in the relative importance of subjective and objective measures of SES are more evident for the type of dependent variables that are linked to SES in both cultures, such as self-orientation.

[2]Because respondents in Japan were selected from Tokyo metropolitan area, whereas respondents in the U.S. were selected across the nation, there is a possibility that rural Americans might be driving the cultural differences that we observed. To test this alternative explanation, we repeated the same set of analyses by including only those Americans who live in urban areas (the population density among the top 50% of the entire MIDUS II sample, which is higher than 1733 per square mile; Fuller-Rowell et al., 2016). All the results remained the same, except for the main effect of education on other-orientation, which became non-significant when only urban Americans were included, $t(1757) = 1.83$, $p = .068$. This suggests that rural Americans are not driving the cultural differences we found.

cultures depending on the measures of social class. Specifically, the association between education and self-orientation was stronger in Japan than in the U.S., whereas there were no significant cultural differences in the association between subjective social status and self-orientation. We will return to this finding in the discussion of Study 2a.

Moreover, the findings also supported the cultural moderation of the link between SES and other-orientation. The associations between SES and other-orientation were stronger in Japan than in the U.S. regardless of which measure of SES (objective or subjective) was used. Specifically, in Japan, individuals with higher SES backgrounds reported higher levels of other-orientation than those with lower SES backgrounds. In contrast, such associations were much weaker or even reversed in the U.S.

Study 2a

Study 1 demonstrated cultural similarities and differences in psychological correlates of SES. In Study 2a, we explored socialization practices that likely play an important role in shaping individuals' psychological processes associated with one's SES contexts (Bernstein, 1971; Kohn, 1969; Miller & Sperry, 2012), specifically focusing on parental styles. In fact, studies conducted in American cultures have shown that parents of high SES backgrounds tend to emphasize self-confidence and uniqueness more than parents of lower SES backgrounds do (Kusserow, 1999, 2012). On the other hand, qualitative studies in Japan (Borovoy, 2010; Slater, 2010) suggested that, compared to low SES schools, both formal and informal educational systems of high SES schools are more likely to highlight other-oriented values, such as group cohesion and the responsibilities that come with it. In addition, a survey conducted with Japanese high school students found that those students coming from higher SES backgrounds report that their parents emphasize both self-orientation and other-orientation values, including achievement, adherence to social norms, and role obligations compared to students coming from lower SES backgrounds (Kataoka, 1987). These findings suggest that cultural tasks associated with socioeconomic positions are manifested in socialization practices, though no studies have directly compared them across cultures. The resource-based perspective would predict that when socializing their children, individuals with higher SES backgrounds should emphasize self-orientation values, such as hard work and self-expression, compared to individuals with lower SES backgrounds across cultures. On the other hand, the cultural perspective would predict that Japanese with higher SES should emphasize other-orientation values, such as feelings of responsibility and respect, more than lower SES individuals when socializing their children, whereas such a pattern would be attenuated for Americans.

In Study 2a, we extended our analyses to use a wider array of indices of SES. In Study 1, we used educational attainment and subjective social status as indices of SES because those were the only indices of SES available for both MIDUS and MIDJA.[3] However, SES can be indexed by a wide range of variables, including material wealth and occupational conditions. Because World Values Survey (WVS) offered these SES indices, we explored how the

[3]Although MIDUS has a measure of income, MIDJA did not include it.

patterns of the results might differ across different indices of SES by testing multiple facets of SES in Study 2a.

Method

Participants—Data were from the latest wave of World Values Survey (WVS: 2010–2014). We used the data collected from national representative samples of the U.S. and Japan. The U.S. sample consists of 2,232 participants (Male = 1,084; *M* age = 48.91, *SD* age = 16.91; 69.6% had parental experiences), and the Japanese sample included 2,443 participants (Male = 1,177; *M* age = 50.74, *SD* age = 16.30; 73.4% had parental experiences). All surveys meet the ethical guidelines and requirements of the respective country.

Measures—Five measures were used as indices of SES: education, income, and subjective class identification, job characteristics, and supervising experience. Participants reported the highest education attainment (1 = no formal education to 9 = university education with degree), household income (1 = below the lowest decile to 10 = above the highest decile) [4], and their subjective class identification (1 = lower class, 2 = working class [lower middle class, in Japanese], 3 = lower middle class [middle class, in Japanese], 4 = upper middle class, and 5 = upper class). Also, SES-related job characteristics were measured by three scales (manual vs. intelligent, routine vs. creative, and no independence vs. complete independence) with 10-point rating ranging from 1 (mostly manual, routine, or no independence at all) to 10 (mostly intelligent, creative, or complete independence). The average of the ratings on these three dimensions was used as a job characteristic variable (α = .63 for Americans and α = .56 for Japanese). Lastly, as another measure of job characteristics (Kohn, 1969), a supervising experience was measured by a question asking whether a person supervises or did supervise other people at work (yes = 1, no = 0). The composite SES index was computed by averaging the five measures after standardizing them within culture.

Self-orientation and other-orientation socialization values were measured with the following survey question: “Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?” Participants were asked to choose “up to five” qualities that they consider especially important from a list of 11 qualities. Among them, 5 qualities described self-orientation (i.e., independence, imagination, self-expression, hard work, and determination/perseverance); that is, these qualities pertain to the promotion and advancement of the self and its unique attributes. Also, 4 qualities described other-orientation (i.e., obedience, feeling of responsibility, tolerance and respect for other people, and unselfishness); these qualities pertain to the promotion and advancement of others’ benefits or one’s relation to others. The remaining 2 qualities (i.e., thrift and religious faith) were ambiguous in terms of their orientation, and thus were not included in either self-orientation or other-orientation.[5] If a quality was chosen as important, its value was coded as 1, and if it was not selected, the value was coded as 0.

[4]Household income was based on relatively ranks in the U.S. (1 = lowest to 10 = highest) and on monetary values in Japan (1 = less than 3,000,000 yen to 10 = more than 12,000,000 yen).

We computed the self-orientation and other-orientation by aggregating the values of the corresponding qualities. Summaries of descriptive statistics for key variables were presented in Table 3.

Results

To test the main hypotheses, self-oriented or other-oriented socialization values were regressed on culture, SES, and the interaction term (Culture x SES) controlling for age and gender. We first report analyses using the composite SES index as a predictor, followed by analyses conducted separately for each SES measure. The regression coefficients of SES variables predicting self-oriented and other-oriented socialization values are shown separately for Americans and Japanese in Figures 3 and 4.

A significant main effect of culture on self-orientation revealed that Japanese chose a larger number of self-orientation items than Americans did, $\beta = -.202$, $t(4665) = 14.20$, $p < .001$. Self-orientation values, such as hard work and perseverance in achievement domains, are likely to be valued more in East Asian culture in general (Bond & Hwang, 1986). More importantly, in line with the resource-based perspective on SES, SES positively predicted the self-oriented socialization values, $\beta = .107$, $t(4665) = 7.446$, $p < .001$. The association between SES and self-oriented socialization values was not moderated by culture, $\beta = .013$, $t(4665) = 0.915$, $p = .360$, suggesting that the association between SES and self-orientation exists in both cultures and the strength of the association did not differ across cultures.

For other-orientation, SES did not predict the other-oriented socialization values, $\beta = .021$, $t(4665) = 1.43$, $p = .153$. However, supporting the cultural perspective on SES, culture moderated this association, $\beta = -.072$, $t(4665) = 4.90$, $p < .001$. Simple slope analyses showed that higher SES predicted higher other-oriented socialization values in Japan, $\beta = .094$, $t(4665) = 4.505$, $p < .001$, whereas higher SES predicted lower other-oriented socialization values in the U.S., $\beta = -.051$, $t(4665) = 2.45$, $p = .014$.

Exploration of specific SES variables—We further explored whether the results obtained with the overall SES index differ across specific measures of SES. In addition to the effect of culture found in the above analysis,[6] all SES indices positively predicted self-orientation; a) education, $\beta = .127$, $t(4615) = 7.81$, $p < .001$, b) income, $\beta = .067$, $t(4114) = 4.09$, $p < .001$, c) subjective class identification, $\beta = .079$, $t(4428) = 5.36$, $p < .001$, d) job characteristics, $\beta = .049$, $t(4461) = 3.23$, $p < .001$, and e) supervising experience, $\beta = .044$, $t(4578) = 2.89$, $p = .004$. Only education interacted with culture to predict self-orientation, $\beta = .064$, $t(4615) = 4.18$, $p < .001$, in that the positive association between education level and self-orientation was stronger in the U.S., $\beta = .194$, $t(4615) = 7.345$, $p < .001$, than in Japan, $\beta = .059$, $t(4615) = 3.14$, $p < .001$.

[5]Previous research has suggested that whether religion is associated with other-orientation depends on the nature of religious beliefs (for a review see Preston, Ritter, & Hernandez, 2010) and cultural contexts (Cohen & Hill, 2007; Sasaki & Kim, 2011) and thus religious faith was not included in the analyses. Thrift (saving money and things) was not included either because thrift can be associated with either self-orientation (e.g., materialism) or other-orientation (e.g., being responsible).

[6]The coefficient for culture in each model: in a model using education as a social class index, $\beta = -.229$, $t(4615) = 15.16$, $p < .001$; a model using income, $\beta = -.208$, $t(4115) = 13.28$, $p < .001$; a model using subjective class identification, $\beta = -.205$, $t(4438) = 13.93$, $p < .001$; a model using job characteristics, $\beta = -.200$, $t(4467) = 13.29$, $p < .001$; a model using supervising experience, $\beta = -.191$, $t(4575) = 13.18$, $p < .001$.

For other-orientation, supervising experience predicted higher other-orientation, $\beta = .039$, $t(4578) = 2.49$, $p = .013$. There were no main effects of other SES indices (all ps > .1). More importantly, supporting the cultural perspective, there were significant interactions of culture and SES indices on other-orientation, except when subjective class identification was used as an index of SES: a) education, $\beta = -.077$, $t(4615) = 4.84$, $p < .001$; b) income, $\beta = -.041$, $t(4114) = 2.52$, $p = .012$; c) job characteristics, $\beta = -.036$, $t(4461) = 2.43$, $p = .015$; d) supervising experience, $\beta = -.041$, $t(4578) = 2.78$, $p = .005$. Simple slope analyses showed that education was positively associated with other-orientation for Japanese, $\beta = .087$, $t(4615) = 4.51$, $p < .001$, whereas the association was negative for American, $\beta = -.075$, $t(4615) = 2.73$, $p = .006$. Income was also negatively associated with other-orientation for American, $\beta = -.063$, $t(4114) = 2.32$, $p = .020$, for Americans but the association was not significant for Japanese, $\beta = .022$, $t(4114) = 1.106$, $p = .269$=. Both job characteristics and supervising experience were positively associated with other-orientation among Japanese, $\beta = .055$, $t(4461) = 2.59$, $p = .010$; $\beta = .080$, $t(4578) = 3.72$, $p < .001$, respectively, but not among Americans, $\beta = -.02$, $t(4461) = .89$, $p = .372$; $\beta = .003$, $t(4578) = .12$, $p = .903$, respectively.

Additional analyses—We also explored whether the same associations stayed significant when we limited our samples to those who were parents and thus who actually had child-rearing experience. All results remained significant, except for job characteristics, for which the interaction between culture and job characteristics to predict other-orientation was reduced to non-significance, $\beta = -.104$, $t(3211) = 1.93$, $p = .054$.

Discussion

Supporting the resource-based perspective on SES, we found that all indices of SES (i.e., education, income, subjective class identification, job characteristics, and supervising experience) predicted self-oriented socialization values across cultures. At the same time, in keeping with the cultural perspective on SES, culture moderated the association between other-oriented socialization values and all the indices of SES, except for subjective class identification. Specifically, in Japan, SES indices (i.e., education, job characteristics, and supervising experience) positively predicted other-oriented socialization values. In the U.S., in contrast, SES indices either did not predict (i.e., job characteristics and supervising experience) or *negatively* predicted (i.e., education and income) other-oriented socialization values.

In addition, the type of SES indices mattered too. While an association between SES and self-orientation was found across all SES indices, culture moderated this association when education was examined as an index of SES. Also, although the cultural moderation of the association between SES and other-orientation was found across all indices of SES (except for subjective class identification), the moderation was strongest for education. It is possible that education is especially powerful in instilling culturally expected tasks in socialization values, consistent with the arguments that education serves as an important gateway context (Ridgeway & Fiske, 2012; Stephens et al., 2014).

It is noteworthy that some of the findings differed across studies. First, in the U.S., the associations between SES and other-orientation were *positive* in Study 1, but either *negative* or absent in Study 2a. In line with the findings of Study 2a, previous studies conducted in the U.S. found that higher SES individuals show less other-orientation than lower SES individuals (Kraus, Côté, & Keltner, 2010; Piff et al., 2010; Stellar, Manzo, Kraus, & Keltner, 2012). It is possible that the discrepancy between Studies 1 and 2a reflects how other-orientation is conceptualized and measured. When the type of other-orientation examined impedes self-orientation (e.g., obedience, unselfishness) as the measures we used in Study 2a, it is likely that higher SES would be associated with less other-orientation in the U.S. because of the strong association between SES and self-orientation, which may be reflected in the findings of Study 2a and previous studies. On the other hand, when the type of other-orientation examined does not go against self-orientation, SES may not influence other-orientation much in the U.S., which might be the case in the findings of Study 1. Second, culture moderated the association between education (but not the other measures of SES) and self-orientation in both Studies 1 and 2a, but the direction of the cultural moderation differed across studies. The association between education and self-orientation was stronger in Japan than in the U.S. in Study 1, but was stronger in the U.S. than in Japan in Study 2a. It might be the case that self-expressive aspects of self-orientation measured in Study 2a but not in Study 1 (i.e., self-expression, imagination) are instilled more through education systems in the U.S. than in Japan.

Study 2b

Study 2a showed that the positive association between SES and self-oriented socialization values is found in both Japan and the U.S., whereas the association between SES and other-oriented socialization values differs between two cultures. In Study 2b, we had two aims. First, we explored whether the association between SES and self-oriented socialization values found across two cultures generalizes across 60 nations. According to the resource-based perspective, we expect higher SES to predict higher self-oriented socialization values across 60 nations.

Second, we examined whether the cultural moderation of the association between SES and other-oriented socialization values found in Japan and the U.S. extends to other cultures that share socio-cultural backgrounds, namely Confucian and Frontier cultures. If Confucian teaching contributes to the positive association between SES and other-oriented socialization values in Japan as theorized by the cultural perspective of the SES, we would expect to see a similar positive association in other Confucian cultures, such as China and South Korea. In Study 2a, various indices of SES were employed to explore potential variations across indices. Although similar patterns were observed across all the indices of SES, cultural differences were largest for education. Among indices of SES, educational attainment has often been suggested to be the best indicator because it predicts future job characteristics and income and is most closely associated with values and psychological tendencies (Stephens, Fryberg, & Markus, 2012). Education likely plays the key role in instilling culturally sanctioned tasks associated with SES. In Study 2b, we thus focused on education as a single index of SES.

Methods

Participants—The study included representative samples of 60 nations from the last wave of World Values Survey for which the variables of interest were available. The summary of participant characteristics is presented in Table 4.

Measures—For self-orientation, other-orientation, education, age, and gender, we used the same measures as in Study 2a. For culture, 60 nations were categorized into 8 cultural regions based on geographical locations and historical/political/philosophical traditions: Confucian (China, Hong Kong, Japan, Singapore, South Korea, and Taiwan), Frontier (Australia, New Zealand, and United States), Africa (Algeria, Ghana, Morocco, Nigeria, Rwanda, South Africa, Tunisia, and Zimbabwe), Ex-Communist (Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Poland, Romania, Russia, Slovenia, Ukraine, and Uzbekistan), Latin America (Argentina, Brazil, Chile, Columbia, Ecuador, Mexico, Peru, Trinidad and Tobago, and Uruguay), Middle East (Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Palestine, Qatar, Turkey, and Yemen), Southeast/South Asia (India, Malaysia, Pakistan, Philippines, and Thailand), and Europe (Cyprus, Germany, Netherlands, Spain, and Sweden).

Results

Hierarchical linear modeling (HLM) was used to test how self- and other-orientation vary as a function of individual-level factors (i.e., SES, age and gender) and nation-level factors (i.e., cultural regions) in the dataset. We employed a two-level hierarchical linear model with individuals on the first level nested within nations on the second level. For all the HLM analyses, we used restricted maximum likelihood estimation (see Supplementary Material for detailed analytic strategies).

First, we fit random coefficient-models to examine the associations between SES and self- and other-orientation across different regions while taking into account random effects across nations. SES, age and gender were entered at the individual level and centered at each nation's mean level.

Supporting the resource-based perspective on SES, the association between SES and self-oriented socialization values was significant, $B = .039$, $S.E. = .004$, $t(59) = 8.672$, $p < .001$, suggesting that, overall, higher SES is associated with higher self-oriented socialization values across 60 nations. In contrast, there was no association between SES and other-oriented socialization values, $B = -.002$, $S.E. = .003$, $t(59) = .839$, $p = .405$ (see Table S2 in Supplementary Material for other fixed effects and random effects estimates).

Next, we fit intercept and slopes-as-outcomes models to examine whether associations between SES and self- and other-oriented socialization values are moderated by cultural regions. Dummy variables were created for cultural regions, with Confucian culture serving as the reference group. The models included SES, age, and gender as individual-level predictors and cultural regions as nation-level predictor in conjunction with two-way interaction between SES and cultural regions.

Consistent with the findings of Study 2a, the association between SES and self-oriented socialization values varied between Confucian and Frontier cultures, $B = .065$, *S.E.* = .032, $t(52) = 2.056$, $p = .045$. The simple slope for SES was positive in both Confucian cultures, $B = .028$, *S.E.* = .011, $t(52) = 2.595$, $p = .012$, and Frontier cultures, $B = .093$, *S.E.* = .030, $t(52) = 3.150$, $p = .003$, though the association was stronger in Frontier than in Confucian cultures.

In keeping with the cultural perspective on SES, and replicating Study 2a on two nations (Japan vs. the U.S.), the association between SES and other-oriented socialization values was significantly different between Confucian and Frontier cultures, $B = -.081$, *S.E.* = .007, $t(52) = 11.57$, $p < .001$. For Confucian cultures, SES positively predicted other-oriented socialization values, $B = .036$, *S.E.* = .007, $t(52) = 5.102$, $p < .001$. For Frontier cultures, SES negatively predicted other-oriented socialization values, $B = -.045$, *S.E.* = .011, $t(52) = 32.20$, $p < .001$.

Other cultural regions—In addition to the hypothesized contrasts between Confucian and Frontier cultures, additional cultural region contrasts were also significant. The association between SES and self-oriented socialization values was significantly different between Confucian and European cultures, $B = .053$, *S.E.* = 013, $t(52) = 4.189$, $p < .001$, and South/Southeast Asian cultures, $B = -.030$, *S.E.* = 014, $t(52) = 2.254$, $p = .028$. The simple slope for SES was $B = .028$, *S.E.* = .011, $t(52) = 2.595$, $p = .012$, for Confucian culture and $B = .081$, *S.E.* = .006, $t(52) = 13.402$, $p < .001$, for European cultures, and non-significant for South/Southeast Asian cultures.

On the other hand, the association between SES and other-oriented socialization values was significantly different between Confucian and all the other cultural regions [African cultures: $B = -.044$, *S.E.* = .009, $t(52) = 5.667$, $p < .001$; Ex-communist cultures: $B = -.039$, *S.E.* = .008, $t(52) = 4.507$, $p < .001$; Latin American cultures: $B = -.034$, *S.E.* = .009, $t(52) = 3.893$, $p < .001$; Middle Eastern cultures: $B = -.045$, *S.E.* = .008, $t(52) = 5.160$, $p < .001$; South Asian cultures: $B = -.036$, *S.E.* = .011, $t(52) = 3.894$, $p < .001$; European cultures: $B = -.041$, *S.E.* = .010, $t(52) = 3.714$, $p < .001$]. Simple slopes for SES were non-significant in these other regions (see Table S3 in Supplementary Material for other fixed effects and random effects estimates and Table S4 for simple slopes for SES predicting self-orientation and other-orientation within each region).

Additional analyses—Because the analyses of Study 2b overlap with Study 2a for the U.S. and Japan, we also ran the same set of HLM analyses while excluding the U.S. and Japan. None of the results changed, suggesting that the observed differences between Frontier and Confucian regions are not being driven solely by the U.S. and Japan.

Discussion

Study 2b demonstrated that the positive association between SES and self-orientation is quite pervasive and found, in general, across 60 nations. It also found, however, that the positive association between SES and other-orientation initially observed in Japan extends to other cultures with a Confucian influence, whereas the negative association between SES and other-orientation initially observed in the U.S. generalized to other Frontier cultures.

These findings suggest that a Confucian cultural background contributes to the positive association between SES and other-orientation, whereas Frontier cultural backgrounds likely contribute to the negative association between SES and other-orientation.

Confucian teaching has been historically influential in East Asian cultures. Confucius considered hierarchical relationships, such as those between father and son and ruler and subject, as the foundational basis of society. Within the hierarchical relationship, those with lower rank are expected to respect and be loyal to those with higher rank, whereas those with higher rank are expected to protect and be considerate to those with lower rank (Hofstede & Bond, 1988). Thus, as the opening quote from Confucius suggests, those with higher rank in the society are assumed to have responsibilities and obligations to be benevolent, which is a central, if not the most central, virtue (Fu, Wu, Yang, & Ye, 2008), in addition to having self-oriented qualities, such as competence and goal-striving (Bond & Hwang, 1986). This emphasis on both other-orientation and self-orientation for high-ranking individuals likely contributes to the dual tasks of high SES individuals in East Asian cultural contexts.

On the other hand, frontier cultures were strongly influenced by immigrants and settlers, who came to new lands to pursue better opportunities and resources (Turner, 1920). The frontier mentality and arduous challenges of living in such settings promoted the spirit of individualism (Kitayama et al., 2006; Kitayama et al., 2009; Turner, 1920). This outlook is characterized by goal-striving, freedom, and antipathy against control or constraints imposed by social hierarchy of the Old World order, as illustrated in the opening quotation by Turner (1920). Even long after frontier lands had disappeared and the opportunity for expansion became limited, the individualistic spirit persisted. For example, it is reflected in the American Dream – a belief that, with hard work and talent, anyone has a chance to succeed (Hochschild, 1995; Spence, 1985). Such a focus on self-orientation aimed at achieving higher status likely contributes to the present pattern found among Frontier cultures.

It is notable that analyses of other cultural regions showed that the positive association between SES and other-orientation found in Confucian cultures is weaker in other interdependent cultures that lack Confucian influences, such as Latin America. Similarly, the negative association between SES and other-orientation found in Frontier cultures is not evident in other independent cultures, such as Europe, where different historical factors have shaped the meaning of hierarchy (e.g., Roman Empire and Catholicism; Hofstede, 2001). In addition, although there was an overall positive association between SES and self-orientation across 60 nations, the degree of association differed across some cultural regions and it was not significant in one cultural region (i.e., South/Southeast Asia). It is possible that in India, where the historical caste system exists, education may play less of a central role in social stratification. Thus, although social hierarchy is a fundamental aspect of human relationship across cultures (A. P. Fiske, 1992; Rai & Fiske, 2011), the specific system of stratification may depend on a cultural context. Future research needs to examine whether other systems of social stratification predict self-orientation in South/Southeast Asia.

General Discussion

In three studies, we found both cultural similarities and differences in the correlates of SES. Higher SES is associated with self-oriented psychological attributes and socialization values across cultures. On the other hand, higher SES is associated with other-oriented psychological attributes and socialization values in Japan and other Confucian cultures, but the associations tend to be smaller or absent in other cultures and even reversed in the U.S. and other Frontier cultures. Overall, these findings suggest that the resource-based perspective and cultural perspective are both necessary to understand the nature of SES across cultures. Because high SES tends to come with greater resources and freedom, those who occupy such positions tend to be more self-oriented across cultures. However, due to the cultural imperative of interdependence in Confucian cultures, high SES is further associated with other-orientation in Confucian cultures. This association is weaker, absent, or reversed in Frontier cultures, in which other-orientation is less relevant to the cultural imperative.

Importantly, previous work has overlooked the important contribution of culture because, in the American context, both culturally sanctioned tasks and the resources associated with higher SES align with self-orientation. Thus, the prior research generated in the U.S. did not allow the investigators to discern, let alone identify, the independent effects of cultural contexts in shaping the manifestation of SES, controlling for the effects of resources. By locating SES in a larger cultural meaning system and comparing it to another cultural system where different kinds of cultural tasks (i.e., other-orientation) are sanctioned, the current analyses elucidated the role cultural contexts play in shaping the manifestation of SES. In addition, large sets of nationally representative data used in the present research provided a unique opportunity to investigate the nature of SES across a wider range of cultures, thereby notably extending previous cross-cultural work based on college students.

Our research provides a framework to explain the mixed evidence across studies on the role that culture plays in shaping psychological correlates of SES. Some have reported similarities in the correlates of SES across cultures (e.g., Kan et al., 2014; Kohn et al., 1990), whereas the others found cultural differences (e.g., Naoi & Schooler, 1985; Park et al., 2013). Similarities in the correlates of SES are expected across cultures for self-orientation, as freedom and material resources associated with higher SES afford more self-orientation across cultures. At the same time, cultural differences in correlates of SES are expected for other-orientation because the extent to which culturally sanctioned tasks pertain to other-orientation differs across cultures. In a culture where culturally sanctioned tasks include other-orientation (e.g., Japan), SES will be associated with more other-orientation. In contrast, in a culture where other-orientation is less relevant to cultural tasks (e.g., the U.S.), SES will be less or inversely associated with other-orientation.

Importantly, the present research demonstrates not only cultural similarities and differences in psychological correlates of SES, but also a potential route through which the socio-cultural patterning of psychological correlates is created and sustained. That is, we found cultural similarities and differences in socialization values associated with SES in a way that corresponds to psychological correlates of SES. Across cultures, higher SES individuals

endorse more self-oriented socialization values than lower SES individuals do, which likely contributes to their children's level of self-orientation, thus contributing to maintaining and reproducing SES differences in the level of self-orientation. At the same time, in Japan and other Confucian cultures, higher SES individuals also endorse other-oriented socialization values more than lower SES individuals do, while the association between SES and other-orientation is in the opposite direction in Frontier cultures. Again, such differential emphasis on other-orientation likely results in their children's level of other-orientation. Thus, these similarities and differences in socialization values may serve as a route through which cultural tasks are passed onto and shape individuals' psychological processes within each culture.

Furthermore, the multinational analyses of Study 2b suggest that particular historical, religious, and ecological background likely contributed to the associations between SES and self- and other-orientations. Although higher SES was found to be associated with higher self-orientation in general across 60 nations, the association is stronger in Frontier cultures than in Confucian cultures. It is likely that independent views of the self are more dominant in Frontier cultures and reinforce the association between SES and self-orientation. Furthermore, cultural differences in the association between SES and other-orientation found in Japan and the U.S. generalize to Confucian cultures and Frontiers cultures. These findings suggest that Confucian teaching in Asian countries and a history of voluntary settlement in Frontier countries have likely impacted the nature of the selves and cultural tasks that underlie the associations between SES and other-orientation.

Mutual Constitution among Culture, SES, and Psychology

Based on the present findings, as depicted in Figure 5, we argue that (i) a historically accumulated cultural meaning system, (ii) SES contexts and associated resources, and (iii) psychological processes of individuals who participate in such contexts act in a synergistic manner. First, as the resource-based perspective suggests, across cultures, resources and freedom associated with high SES contexts encourage and afford individuals embedded in such contexts to pursue and strive for their goals. Such goal-pursuit in turn likely facilitates further attainment of resources and status. At the same time, to attain and maintain a higher status, individuals also need to engage in culturally sanctioned tasks that fit and reaffirm values and views dominant in their own cultural meaning system. Further, sociocultural practices, such as socialization practices, of high SES contexts, together with associated resources, function in such a way that culturally sanctioned tasks seem ideal, genuine, and respectable (Kitayama et al., 2009; Shweder, 2003), while sociocultural practices of low SES contexts, coupled with limited resources, function in a way that makes them seem less so (Ridgeway & Fiske, 2012; Stephens et al., 2014). As such, this mutually constituted system can contribute to legitimizing and perpetuating the hierarchy or uneven distribution of resources (Bourdieu, 1990).

The present research focused on socialization practices and values as routes through which cultural and socioeconomic patterning of psychological correlates are shaped and sustained. Importantly, multiple routes and processes are likely involved in producing and perpetuating the mutually constituted system. For example, the fit (or not) of individuals with dominant

cultural values can influence their position in social hierarchy. Political candidates who have traits that fit dominant values in their own cultural contexts are thus more likely to get votes (Chen, Jing, Lee, & Bai, 2016; Rule et al., 2010), suggesting that fit with culturally dominant values can foster attainment of higher resources and status. Furthermore, over time the values held by high SES individuals may become dominant values in the larger society because high SES individuals have more resources and occupy more powerful institutional positions compared to low SES individuals (Bourdieu, 1990; Ridgeway & Fiske, 2012; Stephens et al., 2014). Future research needs to elucidate these multiple processes that are involved in creating and sustaining the mutually constituted system.

Links to Other Relevant Studies

The present findings suggest that, across cultures, those from lower SES backgrounds are less likely to engage in and value cultural tasks compared to those from higher SES backgrounds. More in depth analyses of lives of lower SES individuals are helpful to understand predicaments and sociocultural contexts surrounding them (Steele & Sherman, 1999). For example, it is an open question whether lower SES individuals are less likely to engage in all kinds of cultural tasks, or if they are engaging in cultural tasks in ways that differ from higher SES individuals pursuing them. In fact, it has been reported that lower SES individuals in the U.S. value toughness and self-integration, such as relying on oneself, resisting social influences, and disciplining themselves (Kusserow, 1999; Lamont, 2014; Snibbe & Markus, 2005), which may be their way to pursue self-orientation, albeit in a limited manner. Also, lower SES parents in Japan have been shown to value conformity, such as in family roles when socializing their daughters, but not as much for their sons (Kataoka, 1987), which may be a specific and local form of other-orientation. In addition, although we suggest that high SES contexts tend to reflect dominant cultural values, there is also a possibility that certain values of low SES contexts play as strong a role in society, but researchers have not identified them because most respondents in psychological studies tend to be college students (Henrich, Heine, & Norenzayan, 2010; Sears, 1986). The future research may explore a wider array of self-orientation and other-orientation to explore the possibilities.

It is of note that previous cross-cultural studies have shown that higher rank (i.e., higher status or higher educational attainment) is associated with more dominant behavior in East Asian culture than in American culture (Kuwabara, Yu, Lee, & Galinsky, 2016; Park et al., 2013). For example, when assigned to be in a position of high status, Chinese participants were more likely to punish group members who were not cooperative, whereas the opposite was the case for American participants (Kuwabara et al., 2016). On surface, the dominant behaviors expressed by higher ranked individuals in China may seem to contradict other-orientation shown by higher SES individuals in Japan in the present studies. It is possible that the dominant behaviors displayed by higher ranked individuals in China reflect social responsibility, rather than mere self-interest. In fact, punishment – the dominant behavior demonstrated by higher status individuals in China (Kuwabara et al., 2016) – has been shown to be associated with prosocial behaviors across cultures (Henrich et al., 2006). It is important for future research to distinguish other-oriented dominance from self-oriented dominance to elucidate this possibility.

In the present paper, we argue that self-orientation primarily fits and affirms independent views of the self, whereas other-orientation is more congruent with interdependent views of the self. However, it is important to note that self-orientation (other-orientation) can sometimes affirm interdependent (independent) views of the self, depending on the nature of contexts and the kinds of self-orientation and other-orientation. For example, when the goal-pursuit is grounded in social relationships, pursuit and promotion of one's own goals seem to fit interdependent views of the self (Fu & Markus, 2014; Iyengar & Lepper, 2000; Tao & Hong, 2013). Also, freely choosing to engage in other-oriented behavior when there is no strong external social expectations to do so seems to highlight independence of the self (Miller, Das, & Chakravarthy, 2011). This points to a possibility that, in such contexts, other-orientation may be positively associated with SES even in American cultural contexts. In addition, the nature of other-orientation may matter. For example, charitable donation and volunteerism, which benefit strangers or the community in general, are the kinds of other-oriented behaviors known to be associated with independence (Kemmelmeier, Jambor, & Letner, 2006). It is thus possible that such forms of other-orientation may be associated with high SES more strongly in American cultural contexts than in Japanese cultural contexts, which should be explored in the future work by including such measures. In fact, when social responsibility to the family was examined separately from social responsibility to the community, SES was negatively associated with the former but positively associated with the latter in the U.S. (Rossi, 2001), suggesting that there may be a particular form of other-orientation associated with higher SES in the U.S. (though see Piff et al., 2010, for counter-evidence).

The present findings on self- and other-orientation have implications for the cross-cultural studies based on college students, who tend to have higher SES backgrounds than those who do not attend college. Previous studies have shown cultural differences in other-orientation (Miller, Das, & Chakravarthy, 2011; Savani, Morris, Naidu, Kumar, & Berlia, 2011). For example, Japanese college students tend to adjust themselves to others more than American college students do (Morling, Kitayama, & Miyamoto, 2002). Given that high SES is positively associated with other-orientation in Japan, while the association tends to be weaker or even in the opposite direction in the U.S., there is a possibility that cultural differences in adjustment may be weaker or even reversed if individuals with low SES are compared across cultures. Future research needs to employ more behavioral or objective measures, which allow direct cross-cultural comparisons of means, to examine these possibilities.

Potentially due to the heterogeneity of our representative samples, the effect sizes for the main effect of SES and for the interaction between culture and SES tended to be generally small, except for SES differences in self-oriented psychological attributes in Study 1, where medium to larger effect sizes were observed (which were driven mainly by subjective social status measure of SES). It is important to note that even though the effects were generally small in magnitude, these effects of SES accumulate through individuals' daily lives and thus can lead to larger effects in the long run (Abelson, 1985). In addition, the effects found in the U.S. and Japan in Study 2a were also observed across many other cultures in Study 2b. Thus, although the magnitude of the effects was small, the effects can be observed consistently across societies.

It is noteworthy that the associations between SES and self-orientation tended to be larger than the associations between SES and other-orientation even in Japan (though not always in Study 2a). If the association between SES and self-orientation is driven only by the resources associated with SES, such patterns may indicate that the resources exert a larger influence on psychological processes than do cultural meaning systems on psychological processes. However, it is possible that the associations between SES and self-orientation are facilitated not only by the resources but also by cultural emphasis on self-orientation. That is, both Frontier and Confucian cultural meaning systems emphasize self-orientation (while Confucian cultural meaning systems also emphasize other-orientation). Such cultural emphasis on self-orientation coupled with the available resources could be leading high SES individuals in both cultures to pursue self-orientation, thereby contributing to the strong associations between SES and self-orientation.

Limitations

There are some limitations to the present analyses that should be acknowledged. First, our measures of self-orientation and other-orientation have limitations. The present study is based on self-reported measures of self-orientation and other-orientation, which are susceptible to response biases (e.g., Chen et al., 1995). [7] In addition, some of the measures used in Study 1 had low reliability (e.g., sympathy scale for Japanese). Although people's self-reports do provide valuable insights into their psychological tendencies and can be at least as accurate as the reports of close others (Vazire & Mehl, 2008), it will be useful for future research to employ behavioral measures of self-orientation and other-orientation to test the same hypotheses. Studies conducted in American culture that used behavioral measures of other-orientation (e.g., accurate perception of others' emotions, altruistic behavior in economic games) found that higher SES individuals show less other-oriented behaviors compared to lower SES individuals do (Kraus, Côté, & Keltner, 2010; Piff et al., 2010; Stellar, Manzo, Kraus, & Keltner, 2012), a pattern consistent with the results of American respondents in the present Study 2a. In addition, the operationalization of self- and other-orientation differed across studies. However, due to the nature of the socialization value measures used in Studies 2a and 2b, a confirmatory factor analysis which provided evidence for the two-factor model of self- and other-orientation in Study 1 could not be performed in Studies 2a and 2b. Future research should incorporate different measures to verify the delineation of self- and other-orientation. Moreover, in the present research, we did not focus on the distinction between the actual (e.g., behaviors and traits) and the ideal (e.g., values). While psychological attributes measured in Study 1 are likely capturing (at least perceived) *actual* behaviors and characteristics, socialization values measured in

[7]There is evidence for cultural moderation of the association between SES and other-orientation even when other-orientation is measured with a dichotomous format (i.e., whether one provided any financial support to their parents during the past year or not), which is less susceptible to extreme response styles (Paulhus & Vazire, 2007). Based on a survey conducted by National Institute of Population and Social Security Research in Japan in 2012 (Survey on Life and Mutual Support), among household heads with at least one living parents (n = 4,955), those with a family income *higher* than the median were more likely to have provided financial support to their parents (23.53%) than those with a family income lower than the median (17.81%), *Chi-square* (df=1) = 12.91, p = .0003. On the other hand, analyses of the survey conducted by Pew Research Center in the U.S. in 2012 (Gender and Generations Survey) showed that among adults with at least one living parents (n = 1,415), those with family income *under* the median were more likely to have provided financial support to their parents (37.62%) than those with family income higher than the median (23.86%), *Chi-square* (df=1) = 30.02, p < .001. Caution is needed in comparing these surveys across cultures given differences in the nature of the samples and measures, but the reversal of the association between SES and financial support to parents between cultures is in line with the present findings.

Studies 2 and 3 are probably capturing values that people *ideally* want to pass down to children. However, direct comparisons across two studies are difficult because of differences in the nature of the questions and the specific items used. Future research can measure actual and ideal orientations to explore whether cultural and SES differences are larger for one than the other.

Second, because the majority of respondents in our studies in the U.S. were Americans of European family backgrounds, it did not allow us to test whether the present findings hold across other racial groups within the U.S. It would be informative for the future research to explore whether the generally weaker positive or even negative association between SES and other-orientations found among Americans are specific to European Americans, or if it generalizes to African Americans or other racial and ethnic minority groups in the U.S. Given that African Americans have both interdependent and independent views of the self (Brannon, Markus, & Taylor, 2015), it is possible that SES positively correlates with other-orientations among African Americans.

Broader Implications

The present findings may also have broader implications for societal issues that are relevant to SES, such as modernization. The previous studies on modernization examined societal changes in values over time within and across cultures (e.g., Inglehart & Baker, 2000; Hamamura, 2012). The changes in values have been attributed to modernization (Greenfield, 2013), such as changes in economic wealth (Inglehart & Baker, 2000; Welzel, 2013) and occupational status (Grossmann & Varnum, 2015), which are associated with greater resources and freedom. Because both modernization and SES involve increased resources and freedom, it is possible that modernization and SES have similar effects on psychological processes; cultural similarities may be observed in the association between modernization and self-orientation, while cultural differences may be observed in the association between modernization and other-orientation. In fact, interestingly, paralleling our findings on the link between SES and psychological correlates, the previous studies on modernization found cultural similarities and differences. Whereas studies have shown that self-oriented values, such as uniqueness, self-esteem, and hard work, have increased over time within both Western culture (Greenfield, 2013; Grossmann & Varnum, 2015; Hamamura, 2012; Inglehart & Baker, 2000; Twenge, Abebe, & Campbell, 2010; Twenge & Campbell, 2001; Twenge, Campbell, & Gentile, 2012) and Eastern culture (Hamamura, 2012; Inglehart & Baker, 2000; Ogihara et al., 2015; Sun & Ryder, 2016), other-oriented values, such as social obligations and contribution, remained the same or even increased over time in Eastern culture (i.e., Japan) but not in Western culture (i.e., U.S.; Hamamura, 2012).

Conclusions

Although the resources and freedom associated with high SES contexts afford similar ways of thinking and acting across cultures, SES is also located in a particular cultural context. Culture accords meaning to SES by prescribing how higher SES individuals are expected to behave and what they are likely to pursue. In the American and other Frontier cultural contexts that have been shaped by a history of voluntary settlement and independent views of the self, higher SES individuals are expected to and likely to strive for self-oriented tasks.

This perspective is reflected in the first opening quote. On the other hand, in Eastern cultural context, where Confucian ideas have been historically influential and characterized by interdependent views of the self, higher SES individuals are expected to and likely to engage in other-oriented tasks as well as self-oriented tasks. This perspective is reflected in the second quote from Analects identifying 5 ways to engender personal and societal harmony. The present research provides substantial evidence supporting the importance of considering psychological correlates of social hierarchy within a cultural context. These findings not only provide a broader framework to understand SES but also have implications for the interactive effects of cultural and structural factors in shaping psychological processes.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

References

Abelson RP. A variance explanation paradox: When a little is a lot. Psychological Bulletin. 1985; 97(1):129–133.

Adler NE, Epel ES, Castellazzo G, Ickovics JR. Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. Health Psychology. 2000; 19(6):586–592. [PubMed: 11129362]

Batson CD. Altruism in humans. New York: Oxford University Press; 2011.

Bernstein B. Class, codes, and control, Vol. 1: Theoretical studies towards a sociology of language. London, UK: Routledge & Kegan Paul; 1971.

Bond MH, Hwang KK. The social psychology of Chinese people. In: Bond MH, editorThe Psychology of the Chinese People. New York: Oxford University Press; 1986. 213–266.

Borovoy A. What color is your parachute? The post-degree society. In: Ishida H, Slater DH, editorsSocial class in contemporary Japan: structures, sorting and strategies. New York: Routledge; 2010. 170–194.

Bourdieu P. The logic of practice. Stanford, CA: Stanford University Press; 1990.

Brannon TN, Markus HR, Taylor VJ. 'Two souls, two thoughts,' two self-schemas: Double consciousness can have positive academic consequences for African Americans. Journal of Personality and Social Psychology. 2015; 108(4):586–609. [PubMed: 25844575]

Chen FF, Jing Y, Lee JM, Bai L. Culture matters: the looks of a leader are not all the same. Social Psychological and Personality Science. 2016; 7(6):570–578.

Chen C, Lee SY, Stevenson HW. Response style and cross-cultural comparisons of rating scales among East Asian and North American students. Psychological Science. 1995; 6(3):170–175.

Cialdini RB, Schaller M, Houlihan D, Arps K, Fultz J, Beaman AL. Empathy-based helping: is it selflessly or selfishly motivated? Journal of Personality and Social Psychology. 1987; 52(4):749–758. [PubMed: 3572736]

Cohen AB, Hill PC. Religion as culture: Religious individualism and collectivism among American Catholics, Jews, and Protestants. Journal of Personality. 2007; 75(4):709–742. [PubMed: 17576356]

Curhan KB, Levine CS, Markus HR, Kitayama S, Park J, Karasawa M, Ryff CD, et al. Subjective and objective hierarchies and their relations to psychological well-being: A US/Japan comparison. Social Psychological and Personality Science. 2014; 5:855–864. [PubMed: 25530829]

Durkheim E. The division of labor in society. New York: Free Press; 1893/1984.

Fiske AP. The four elementary forms of sociality: framework for a unified theory of social relations. Psychological Review. 1992; 99(4):689–723. [PubMed: 1454904]

Fiske AP, Kitayama S, Markus HR, Nisbett RE. The cultural matrix of social psychology. In: Gilbert DT, Fiske ST, Lindzey G, editorsThe Handbook of Social Psychology. 4. New York: McGraw-Hill; 1998. 915–981.

Fiske ST, Markus HR, editorsFacing social class: How societal rank influences interaction. New York: Russell Sage Foundation; 2012.

Fu AS, Markus HR. My mother and me: Why Tiger Mothers motivate Asian Americans but not European Americans. Personality and Social Psychology Bulletin. 2014; 40(6):739–749. [PubMed: 24727812]

Fu P, Wu R, Yang Y, Ye J. Chinese culture and leadership. In: Chhokar JS, Brodbeck FC, House RJ, editorsCulture and leadership across the world: The GLOBE book of in-depth studies of 25 societies. New York: Lawrence Erlbaum Associates; 2008. 877–907.

Fuller-Rowell TE, Curtis DS, El-Sheikh M, Chae DH, Boylan JM, Ryff CD. Racial disparities in sleep: the role of neighborhood disadvantage. Sleep medicine. 2016; 27:1–8. [PubMed: 27938909]

Gardner WL, Seeley EA. Confucius, “Jen,” and the benevolent use of power: The interdependent self as a psychological contract preventing exploitation. In: Lee-Chai AY, Bargh JA, editorsThe use and abuse of power: Multiple perspectives on the causes of corruption. New York: Psychology Press; 2001. 263–280.

Greenfield PM. The changing psychology of culture from 1800 through 2000. Psychological Science. 2013; 24(9):1722–1731. [PubMed: 23925305]

Grossmann I, Varnum MW. Social class, culture, and cognition. Social Psychological and Personality Science. 2011; 2:81–89.

Grossmann I, Varnum ME. Social structure, infectious diseases, disasters, secularism, and cultural change in America. Personality Science. 2015; 26:311–324.

Hamamura T. Are cultures becoming individualistic? A cross-temporal comparison of individualism–collectivism in the United States and Japan. Personality and Social Psychology Review. 2012; 16(1):3–24. [PubMed: 21700795]

Hamamura T, Xu Q, Du Y. Culture, social class, and independence–interdependence: The case of Chinese adolescents. International Journal of Psychology. 2013; 48(3):344–351. [PubMed: 22376230]

Haushofer J, Fehr E. On the psychology of poverty. Science. 2014; 344(6186):862–867. [PubMed: 24855262]

Heine SJ, Kitayama S, Lehman DR, Takata T, Ide E, Leung C, Matsumoto H. Divergent consequences of success and failure in japan and North America: An investigation of self-improving motivations and malleable selves. Journal of Personality and Social Psychology. 2001; 81(4):599–615. [PubMed: 11642348]

Heine SJ, Lehman DR, Markus HR, Kitayama S. Is there a universal need for positive self-regard? Psychological Review. 1999; 106(4):766–794. [PubMed: 10560328]

Heine SJ, Lehman DR, Peng K, Greenholtz J. What’s wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. Journal of Personality and Social Psychology. 2002; 82(6):903–918. [PubMed: 12051579]

Henrich J, Heine SJ, Norenzayan A. The weirdest people in the world? Behavioral and Brain Sciences. 2010; 33(2–3):61–8.3. [PubMed: 20550733]

Henrich J, McElreath R, Barr A, Ensminger J, Barrett C, Bolyanatz A, … Lesorogol C. Costly punishment across human societies. Science. 2006; 312(5781):1767–1770. [PubMed: 16794075]

Hochschild JL. Facing up to the American dream: Race, class, and the soul of the nation. Princeton, NJ: Princeton University Press; 1995.

Hofstede GH. Culture’s consequences: Comparing values, behaviors, institutions and organizations across nations. Thousand Oaks, CA: Sage; 2001.

Hofstede G, Bond MH. The Confucius connection: From cultural roots to economic growth. Organizational Dynamics. 1988; 16(4):5–21.

Inglehart R, Baker WE. American Sociological Review. 2000. Modernization, cultural change, and the persistence of traditional values; 19–51.

Iyengar SS, Lepper MR. Rethinking the value of choice: A cultural perspective on intrinsic motivation. Journal of Personality and Social Psychology. 1999; 76:349–366. [PubMed: 10101874]

Kan C, Kawakami N, Karasawa M, Love GD, Coe CL, Miyamoto Y, Markus HR, et al. Psychological resources as mediators of the association between social class and health: Comparative findings from Japan and the U.S. International Journal of Behavioral Medicine. 2014; 21:53–65. [PubMed: 23242835]

Kataoka E. Social class differences in child rearing in Japan. Departmental Bulletin Paper of the Faculty of Human Sciences at Osaka University. 1987; 13:23–51.

Kemmelmeier M, Jambor EE, Letner J. Individualism and good works cultural variation in giving and volunteering across the United States. Journal of Cross-Cultural Psychology. 2006; 37(3):327–344.

Kitayama S, Ishii K, Imada T, Takemura K, Ramaswamy J. Voluntary settlement and the spirit of independence: Evidence from Japan's "northern frontier. Journal of Personality and Social Psychology. 2006; 91(3):369–384. [PubMed: 16938025]

Kitayama S, Markus HR, Matsumoto H, Norasakkunkit V. Individual and collective processes in the construction of the self: self-enhancement in the United States and self-criticism in Japan. Journal of Personality and Social Psychology. 1997; 72(6):1245–1267. [PubMed: 9177018]

Kitayama S, Park H, Sevincer AT, Karasawa M, Uskul AK. A cultural task analysis of implicit independence: comparing North America, Western Europe, and East Asia. Journal of Personality and Social Psychology. 2009; 97(2):236–255. [PubMed: 19634973]

Kohn ML. Class and conformity: A study in values. Homewood, IL: Dorsey Press; 1969.

Kohn ML, Naoi A, Schoenbach C, Schooler C, Slomczynski K. Position in the class structure and psychological functioning in the United States, Japan, and Poland. American Journal of Sociology. 1990; 95:964–1008.

Kohn ML, Schooler C. Job conditions and personality: A longitudinal assessment of their reciprocal effects. American Journal of Sociology. 1982; 87:1257–1286.

Kohn ML, Schooler C. Work and personality: An inquiry into the impact of social stratification. Norwood, NJ: Ablex; 1983.

Kraus MW, Côté S, Keltner D. Social class, contextualism, and empathic accuracy. Psychological Science. 2010; 21(11):1716–1723. [PubMed: 20974714]

Kraus MW, Piff PK, Keltner D. Social class, sense of control, and social explanation. Journal of Personality and Social Psychology. 2009; 97(6):992–1004. [PubMed: 19968415]

Kraus MW, Piff PK, Keltner D. Social class as culture the convergence of resources and rank in the social realm. Current Directions in Psychological Science. 2011; 20(4):246–250.

Kraus MW, Piff PK, Mendoza-Denton R, Rheinschmidt ML, Keltner D. Social class, solipsism, and contextualism: How the rich are different from the poor. Psychological Review. 2012; 119(3):546–572. [PubMed: 22775498]

Kusserow AS. De-Homogenizing American Individualism: Socializing Hard and Soft Individualism in Manhattan and Queens. Ethos. 1999; 27(2):210–234.

Kusserow AS. When hard and soft clash: Class-based individualisms in Manhattan and Queens. In: Fiske ST, Markus HR, editorsFacing social class: How societal rank influences interaction. New York: Russell Sage Foundation; 2012. 195–215.

Kuwabara K, Yu S, Lee AJ, Galinsky AD. Status decreases dominance in the West but increases dominance in the East. Psychological Science. 2016; 27:127–137. [PubMed: 26656156]

Lachman ME, Weaver SL. The sense of control as a moderator of social class differences in health and well-being. Journal of Personality and Social Psychology. 1998; 74:763–773. [PubMed: 9523418]

Lamont M. The dignity of working men: Morality and the boundaries of race, class, and immigration. Cambridge, MA: Harvard University Press; 2000.

Lareau A, Conley D, editorsSocial class: How does it work?. New York: Russell Sage Foundation; 2008.

Leys S. The analects of Confucius. New York: WW Norton & Company; 1997.

Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review. 1991; 98:224–253.

Markus HR, Ryff CD, Barnett KL, Palmersheim KA. In their own words: Well-being at midlife among high school and college educated adults. In: Brim OG, Ryff CD, Kessler RC, editorsHow healthy

are we?: A national study of well-being at midlife. Chicago: University of Chicago Press; 2004. 273–319.

Marx K. Karl Marx: Selected writings. McLellan D, editorNew York: Oxford University Press; 1977.

Miller JG, Das R, Chakravarthy S. Culture and the role of choice in agency. Journal of Personality and Social Psychology. 2011; 101(1):46–61. [PubMed: 21480735]

Miller PJ, Sperry DE. Déjà vu: The continuing misrecognition of low-income children's verbal abilities. In: Fiske ST, Markus HR, editorsFacing social class: How societal rank influences interaction. New York: Russell Sage Foundation; 2012. 109–130.

Miyamoto Y. Culture and analytic versus holistic cognition: Toward multilevel analyses of cultural influences. Advances in Experimental Social Psychology. 2013; 47:131–188.

Miyamoto Y, Ji LJ. Power fosters context-independent, analytic cognition. Personality and Social Psychology Bulletin. 2011; 37:1449–1458. [PubMed: 21653580]

Miyamoto Y, Wilken B. Culturally contingent situated cognition: Influencing others fosters analytic perception in the U.S. but not in Japan. Psychological Science. 2010; 21:1616–1622. [PubMed: 20943937]

Na J, Grossman I, Varnum MEW, Kitayama S, Gonzalez &, Nisbett RE. Cultural differences are not always reducible to individual differences. Proceedings of the National Academy of Sciences of the United States of America. 2010; 107:6192–6197. [PubMed: 20308553]

National Institute of Population and Social Security Research. Survey on life and mutual support. 2012. [http://www.ipss.go.jp] (In Japanese)

Naoi A, Schooler C. Occupational conditions and psychological functioning in Japan. American Journal of Sociology. 1985; 90:729–752.

Oakes JM, Rossi PH. The measurement of SES in health research: current practice and steps toward a new approach. Social Science & Medicine. 2003; 56(4):769–784. [PubMed: 12560010]

Ogihara Y, Fujita H, Tominaga H, Ishigaki S, Kashimoto T, Takahashi A, … Uchida Y. Are common names becoming less common? The rise in uniqueness and individualism in Japan. Frontiers in Psychology. 2015; 6:1490. [PubMed: 26557100]

Paulhus DL, Vazire S. The self-report method. In: Robins RW, Fraley RC, Krueger RF, editorsHandbook of Research Methods in Personality Psychology. New York: Guilford Press; 2007. 224–239.

Park J, Kitayama S, Markus HR, Coe CL, Miyamoto Y, Karasawa M, Ryff CD, et al. Social status and anger expression: The cultural moderation hypothesis. Emotion. 2013; 13:1122–1131. [PubMed: 24098926]

Pew Research Center. Gender and Generations Survey. 2012. [http://www.pewsocialtrends.org]

Piff PK, Kraus MW, Côté S, Cheng BH, Keltner D. Having less, giving more: the influence of social class on prosocial behavior. Journal of Personality and Social Psychology. 2010; 99(5):771–784. [PubMed: 20649364]

Preston JL, Ritter RS, Ivan Hernandez J. Principles of religious prosociality: A review and reformulation. Social and Personality Psychology Compass. 2010; 4(8):574–590.

Pye LW. Asian power and politics: The cultural dimensions of authority. Cambridge, MA: Harvard University Press; 1985.

Rai TS, Fiske AP. Moral psychology is relationship regulation: moral motives for unity, hierarchy, equality, and proportionality. Psychological Review. 2011; 118(1):57–75. [PubMed: 21244187]

Ridgeway CL, Fiske ST. Class rules, status dynamics, and "gateway" interactions. In: Fiske ST, Markus HR, editorsFacing social class: How societal rank influences interaction. New York: Russell Sage Foundation; 2012. 131–151.

Rosenberg M. Society and the adolescent self-image. Princeton, NJ: Princeton University Press; 1965.

Rossi AS. Domains and dimensions of social responsibility: A sociodemographic profile. In: Rossi AS, editorCaring and doing for others: Social responsibility in the domains of family, work, and community. Chicago, IL: University of Chicago Press; 2001a. 97–134.

Rossi AS. Developmental roots of adult social responsibility. In: Rossi AS, editorCaring and doing for others: Social responsibility in the domains of family, work, and community. Chicago, IL: University of Chicago Press; 2001b. 227–320.

Rule NO, Ambady N, Adams R, Ozono H, Nakashima S, Yoshikawa S, Watabe M. Polling the face: Prediction and consensus across cultures. Journal of Personality and Social Psychology. 2010; 98:1–15. [PubMed: 20053027]

Sasaki JY, Kim HS. At the intersection of culture and religion: a cultural analysis of religion's implications for secondary control and social affiliation. Journal of Personality and Social Psychology. 2011; 101(2):401–414. [PubMed: 21186934]

Schooler C. Culture and social structure: The relevance of social structure to cultural psychology. In: Kitayama S, Cohen D, editorsHandbook of cultural psychology. New York: Guilford Press; 2007. 370–388.

Sears DO. College sophomores in the laboratory: Influences of a narrow data base on social psychology's view of human nature. Journal of Personality and Social Psychology. 1986; 51(3): 515–530.

Shah AK, Mullainathan S, Shafir E. Some consequences of having too little. Science. 2012; 338(6107):682–685. [PubMed: 23118192]

Shweder RA. Why do men barbecue? Recipes for cultural psychology. Cambridge, MA: Harvard University Press; 2003.

Slater DH. The "new working class" of urban Japan: Socialization and contradiction from middle school to the labor market. In: Ishida H, Slater DH, editorsSocial class in contemporary Japan: structures, sorting and strategies. New York: Routledge; 2010. 137–169.

Smith PB, Misumi J, Tayeb M, Peterson M. On the generality of leadership style measures across cultures. Journal of Occupational Psychology. 1989; 62:97–109.

Snibbe A, Markus H. You can't always get what you want: Educational attainment, agency, and choice. Journal of Personality and Social Psychology. 2005; 88:703–720. [PubMed: 15796669]

Spence JT. Achievement American style: The rewards and costs of individualism. American Psychologist. 1985; 40(12):1285–1295.

Steele CM, Sherman DA. The psychological predicament of women on welfare. In: Prentice D, Miller D, editorsCultural divides: Understanding and overcoming group conflict. New York: Russell Sage Foundation; 1999. 393–428.

Stellar JE, Manzo VM, Kraus MW, Keltner D. Class and compassion: socioeconomic factors predict responses to suffering. Emotion. 2012; 12(3):449–459. [PubMed: 22148992]

Stephens NM, Fryberg SA, Markus HR. When choice does not equal freedom: A sociocultural analysis of agency in working-class American contexts. Social Psychological and Personality Science. 2011; 2(1):33–41.

Stephens NM, Fryberg SA, Markus HR. It's your choice: How the middle-class model of independence disadvantages working-class Americans. In: Fiske ST, Markus HR, editorsFacing social class: How societal rank influences interaction. New York: Russell Sage Foundation; 2012. 87–1.

Stephens NM, Markus HR, Townsend SS. Choice as an act of meaning: the case of social class. Journal of Personality and Social Psychology. 2007; 93(5):814–830. [PubMed: 17983302]

Stephens NM, Markus HR, Phillips LT. Social class culture cycles: How three gateway contexts shape selves and fuel inequality. Annual Review of Psychology. 2014; 65:611–634.

Stevenson H, Stigler JW. Learning gap: Why our schools are failing and what we can learn from Japanese and Chinese educ. New York: Simon and Schuster; 1994.

Sun J, Ryder AG. The Chinese experience of rapid modernization: sociocultural changes, psychological consequences? Frontiers in Psychology. 2016; 7:477. [PubMed: 27092093]

Takemura K, Hamamura T, Guan Y, Suzuki S. Contextual effect of wealth on independence: An examination through regional differences in China. Frontiers in Psychology. 2016; 7 Article 384.

Tao VY, Hong YY. When academic achievement is an obligation: Perspectives from social-oriented achievement motivation. Journal of Cross-Cultural Psychology. 2013; 45:110–136.

Torelli CJ, Shavitt S. Culture and concepts of power. Journal of Personality and Social Psychology y. 2010; 99(4):703–723.

Triandis HC. Individualism and collectivism. Boulder, CO: Westview; 1995.

Turner FJ. The frontier in American history. New York: Holt, Rinehart and Winston; 1920.

Twenge JM, Abebe EM, Campbell WK. Fitting in or standing Out: Trends in American parents' choices for children's names, 1880–2007. Social Psychological and Personality Science. 2010; 1(1):19–25.

Twenge JM, Campbell WK. Age and birth cohort differences in self-esteem: A cross-temporal meta-analysis. Personality and Social Psychology Review. 2001; 5(4):321–344.

Twenge JM, Campbell WK, Gentile B. Generational increases in agentic self-evaluations among American college students, 1966–2009. Self and Identity. 2012; 11(4):409–427.

Uchida Y, Kitayama S. Development and validation of a sympathy scale. Japanese Journal of Psychology. 2001; 72:275–282. [PubMed: 11797327]

Varnum MW, Grossmann I, Kitayama S, Nisbett RE. The origin of cultural differences in cognition: The social orientation hypothesis. Current Directions in Psychological Science. 2010; 19:9–13. [PubMed: 20234850]

Walen HR, Lachman ME. Social support and strain from partner, family, and friends: Costs and benefits for men and women in adulthood. Journal of Social and Personal Relationships. 2000; 17(1):5–30.

Weber M. Economy and society: An outline of interpretive sociology. New York: Bedminster Press; 1968.

Welzel C. Freedom rising: Human empowerment and the quest for emancipation. New York: Cambridge University Press; 2013.

Westwood R. Harmony and patriarchy: The cultural basis for 'paternalistic headship' among the overseas Chinese. Organization studies. 1997; 18(3):445–480.

Wilson WJ. Why both social structure and culture matter in a holistic analysis of inner-city poverty. The Annals of the American Academy of Political and Social Science. 2010; 629(1):200–219.

Wrosch C, Heckhausen J, Lachman ME. Primary and secondary control strategies for managing health and financial stress across adulthood. Psychology and Aging. 2000; 3:1–13.

Zhong C, McGee JC, Maddux WW, Galinsky AD. Power, culture, and action: Considerations in the expression and enactment of power in East Asian and Western societies. In: Mannix EA, Neale MA, Chen Y, editorsResearch on Managing in Teams and Groups. Vol. 9. Greenwich, CT: Elsevier Science Press; 2006. 53–73.

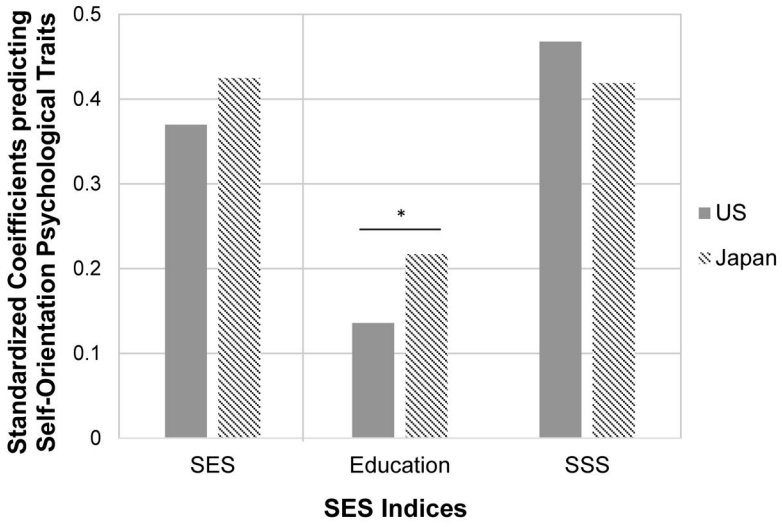

Figure 1.

Standardized regression coefficients of SES index predicting self-orientation in the U.S. and Japan, controlling for age and gender in Study 1. SSS = Subjective Social Status. A p-value indicates significance of the interaction between culture and social class index. *$p < .05$.

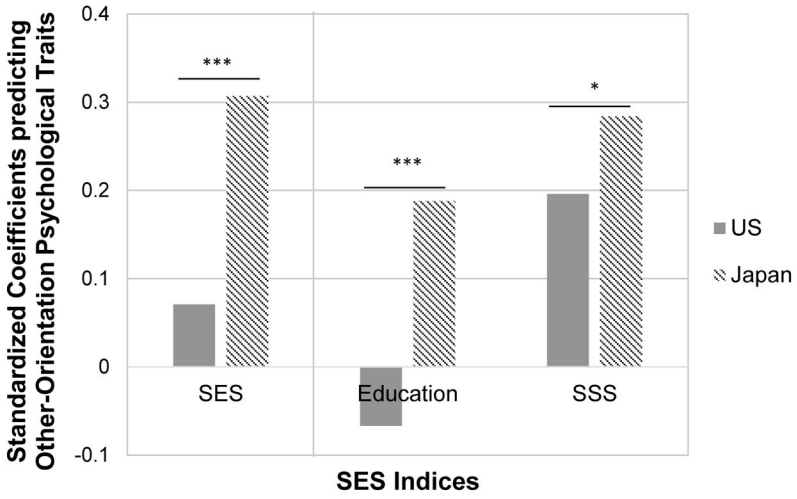

Figure 2.

Standardized regression coefficients of SES index predicting other orientation in the U.S. and Japan, controlling for age and gender in Study 1. SSS = Subjective Social Status. A p-value indicates significance of the interaction between culture and social class index. *$p < .05$, ***$p < .001$.

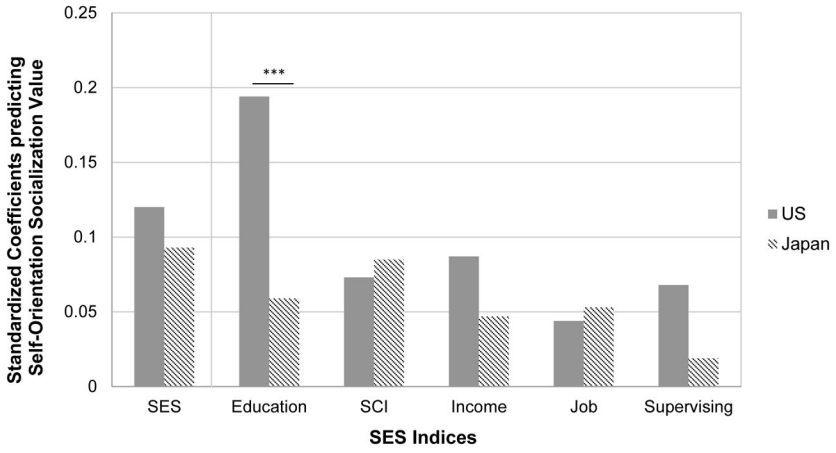

Figure 3.

Standardized regression coefficients of SES indices (education, subjective class identification, income, job characteristics, and supervising experience) predicting self-orientation socialization values in the U.S. and Japan in Study 2a.

Note. SCI = Subjective Class Identification, Job = Job Characteristics, Supervising = Supervising Experiences. A p-value indicates significance of the interaction between culture and SES indices. ***$p < .001$.

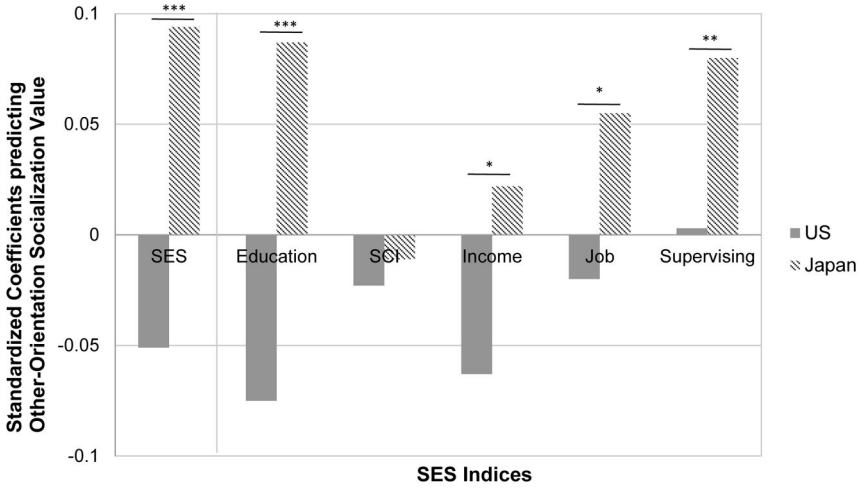

Figure 4.

Standardized regression coefficients of SES indices (education, subjective class identification, income, job characteristics, and supervising experience) predicting other-orientation socialization values in the U.S. and Japan in Study 2a.

Note. SCI = Subjective Class Identification, Job = Job Characteristics, Supervising = Supervising Experiences. A p-value indicates significance of the interaction between culture and SES indices. *$p < .05$, **$p < .01$, ***$p < .001$

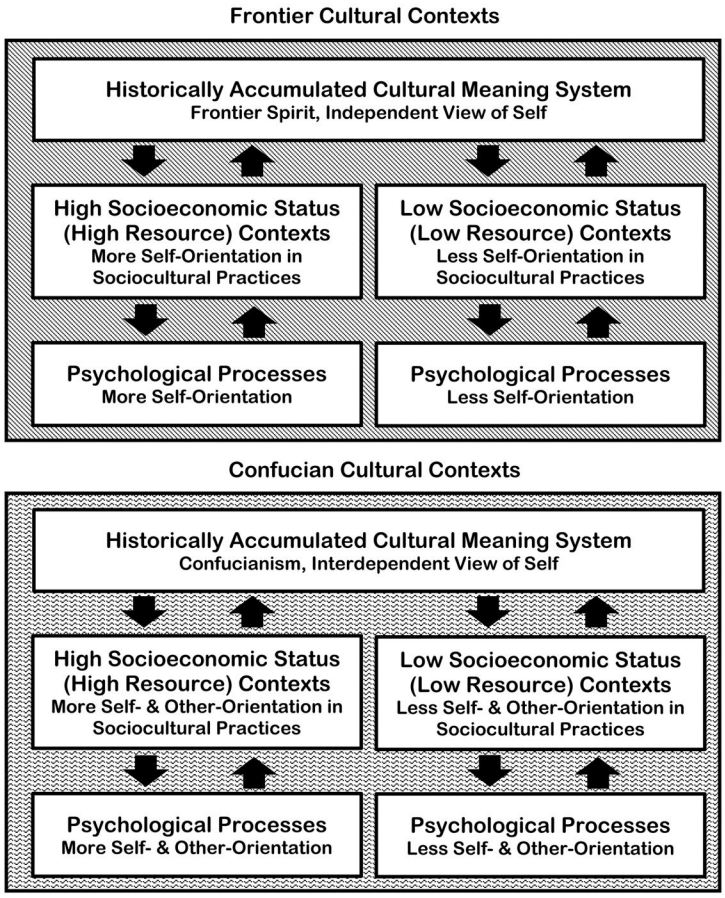

Figure 5.

A model of mutual constitution among cultural meaning system, sociocultural status contexts, and psychological processes

Table 1

Descriptive statistics of key variables (Study 1)

	Japanese			Americans		
Variable	**N**	**M**	**SD**	**N**	**M**	**SD**
Age	1027	54.36	14.15	1805	56.85	12.62
Gender (% of female)	1027	50.8%		1805	54.7%	
SES						
Subjective social status	989	6.03	2.12	1769	6.50	1.86
Education	1015	4.24	1.69	1803	4.57	1.67
Self-orientation						
Self-esteem	1021	31.02	5.58	1791	37.49	7.38
Agency	1023	1.83	0.60	1786	2.64	0.67
Goal striving	1019	2.60	0.65	1790	3.20	0.56
Other-orientation						
Sympathy	1022	4.72	0.72	1788	4.73	0.94
Agreeableness	1024	2.63	0.63	1788	3.44	0.51
Support to friends	1018	2.50	0.56	638	3.64	0.45
Support to spouse/partner	761	2.87	0.62	461	3.85	0.27
Support to family	715	2.32	0.72	638	3.77	0.45

Table 2

Standardized factor loadings for self-orientation and other-orientation in the U.S. and Japan (Study 1)

	Standardized factor loading	
	Japan	**US**
Self-orientation		
Self-esteem	0.543	0.552
Agency	0.519	0.530
Goal Striving	0.780	0.760
Other-orientation		
Sympathy	0.457	0.447
Agreeableness	0.772	0.671
Support to friends	0.548	0.656
Support to spouse/partner	0.420	0.407
Support to family	0.334	0.472

Table 3

Descriptive statistics of key variables (Study 2a)

	Japanese			Americans		
Variable	**N**	**M**	**SD**	**N**	**M**	**SD**
Age	2443	50.74	16.3	2232	48.91	16.91
Gender (% of female)	2443	51.8%		2232	51.4%	
SES						
Education	2389	6.68	1.83	2232	7.77	1.30
Income	1952	3.98	2.76	2168	5.17	1.91
Subjective class identification	2263	2.65	0.86	2181	2.96	0.94
Job characteristics	2280	5.23	2.05	2187	6.21	1.98
Supervising experience (% of yes)	2397	41.4%		2184	48.6%	
Self-orientation	2443	2.36	0.89	2232	2.01	0.94
Other-orientation	2443	2.02	0.78	2232	1.98	0.85

Table 4

Descriptive statistics of key variables (Study 2b)

	Confucian (n = 10,033)		**Frontier (n = 4,076)**		**Africa (n = 13,442)**		**Ex-communist (n = 18,368)**	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Age	45.32	16.3	49.99	16.79	35.01	13.81	44.75	17.29
Gender (% of female)	52.3%		53.7%		50.2%		56.8%	
Education	6.27	2.3	7.42	1.72	4.88	2.38	6.54	1.88
Self-orientation	2.17	0.96	2.17	1.01	1.97	0.88	2.2	1.06
Other-orientation	1.80	0.86	2.06	0.89	1.96	0.86	2.04	0.9
	Latin America (n = 11,410)		Middle East (n = 14,291)		South Asia (n = 6,354)		Europe (n = 7,281)	
	M	SD	M	SD	M	SD	M	SD
Age	41.46	16.70	38.15	14.09	40.39	14.12	48.72	18.06
Gender (% of female)	52.8%		50.6%		45.9%		52%	
Education	5.25	2.26	5.47	2.7	4.65	2.36	5.74	2.30
Self-orientation	1.66	1.12	1.53	0.96	2.12	1.05	1.96	0.94
Other-orientation	2.45	0.93	2.1	0.95	2.11	0.89	2.08	0.81