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Published online: 29 May 2015.

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Cultural self-construction and identity formation in emerging adulthood: a study on Japanese university students and workers

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Cultural pathways of identity formation have been largely unexplored. In many Asian cultures, youth are expected to concentrate on adaptation to their groups or relationships rather than pursuing their own uniqueness. Then, how do they develop a sense of identity while considering groups or relationships to be important? The purposes of this study were (a) to examine relationships between cultural self-construction (i.e. independence and interdependence) and identity processes (i.e. commitment, in-depth exploration, and reconsideration of commitment) in both societal and relational domains, and (b) to analyze the relationships of self-construction and identity processes with well-being, using a sample of Japanese emerging adults (i.e. university students and workers) aged 18–25 years. The findings indicated that relational identity was related to both independence and interdependence, whereas societal identity was mainly related to independence. Moreover, independence and identity in both societal and relational domains was positively related to well-being. Furthermore, the patterns of relationships among self-construction, identity, and well-being were found to be similar between university students and workers. These findings imply that while Japanese emerging adults have developmental needs to express one's own uniqueness, they are also directed to form a sense of identity emphasizing the maintenance of harmonious relationships with others.

Keywords: identity; cultural self-construction; employment; higher education; emerging adulthood; Japan

Identity formation occurs at the intersection of individual development and culture (Erikson 1950; Phinney and Baldelomar 2011). According to the symbolic interaction theory (Mead 1934), self and identity emerge through the communications with others. Communications imply specific sets of symbols underlying the conversations and gestures, and they convey the meanings of self and identity that fit with the cultural contexts. Thus, identity is not an entity within individual persons. Rather, it is a culturally constructed product which emerges from the interactions between the persons and the contexts in which they participate.

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Models of identity formation in cultural contexts have implied that cultural values direct and constrain the process of identity formation (e.g. Phinney and Baldelomar 2011). It has been suggested that the process of identity formation of Japanese youth is different from the process of Western youth (cf. Sugimura and Mizokami 2012, for review). Specifically, to develop a sense of identity, Japanese youth must carefully deal with others' perspectives and, in some cases, merge themselves into relationships and groups rather than pursuing their own uniqueness (e.g. Sugimura 2007; Tani 1997; Tatara 1974). If so, how do Japanese youth focus on their own needs and interests while considering relationships or groups to be of importance? This question has been largely unexplored. Therefore, the first aim of this study was to address this issue by examining the relationships between cultural self-construction (i.e., independence and interdependence; Markus and Kitayama 1991) and identity formation (Crocetti, Rubini, and Meeus 2008) in Japanese youth.

Moreover, contemporary young people in Japan are required to internalize not only interdependent but also independent cultural values, in addition to developing a sense of identity (Matsumoto 2002). In fact, Japan's educational council has revised the teaching guidelines in schools to more strongly emphasize the development of agency and individuality among children and adolescence in this era of globalization (Central Council for Education 1996). In a sense, contemporary Japanese youth face the tension between traditional and Western values, and engage in the process of developing an integrated sense of identity in which they make their own meanings of both values (Helms 2003). Therefore, it is crucial to address the question of the degree to which self-construction and identity processes are associated with adaptive psychological functioning among Japanese young people. The second aim of the present study was to address this issue by investigating how cultural self-construction and identity are related to well-being.

Identity

A model that is widely used in the identity field is Marcia's (1966) identity status paradigm. Marcia, drawing from Erikson's (1950) theory, identified two core processes involved in the identity formation task: exploration and commitment. Exploration entails the active weighing of various identity alternatives before making decisions about one's values, beliefs, and goals. Commitment entails making a relatively firm choice about an identity domain and engaging in significant activities geared toward the implementation of that choice. Four identity statuses were derived by crossing exploration and commitment: achievement (commitment following exploration), foreclosure (commitment with little or no prior exploration), moratorium (ongoing exploration with no current commitment), and diffusion (lack of commitment and exploration). Research has shown inter-individual differences in psychological outcomes among youth classified into the various identity statuses (Kroger and Marcia 2011, for review). For instance, achievement is linked with high cognitive abilities and with positive interpersonal relationships, whereas diffusion is linked with low well-being and with distant and uninvolved family relationships. Research on identity formation in Japan has generally demonstrated that Marcia's identity status model is suitable for studying identity in Japanese youth (Sugimura and Mizokami 2012).

Marcia's model has inspired a large amount of research (Kroger and Marcia 2011), and various extensions and expansions of this model have been proposed (cf. Meeus 2011, for review). In particular, several European scholars have focused on the multiple

facets of the commitment and exploration dimensions and empirically unraveled identity statuses not encompassed in Marcia's original model (e.g. Crocetti, Schwartz et al. 2012; Luyckx, Schwartz, Berzonsky et al. 2008). Within this line of research, Meeus, Crocetti, and their colleagues (Crocetti, Rubini, and Meeus 2008; Meeus et al. 2010) have expanded the identity status paradigm by proposing a three-factor identity model aimed at capturing the dynamics by which identity is formed and modified over time.

This model takes into account three pivotal identity processes (Crocetti, Rubini, and Meeus 2008): commitment, in-depth exploration, and reconsideration of commitment. Commitment refers to enduring choices that individuals have made with regard to various developmental domains and to the self-confidence they derive from these choices; it serves as an indicator of identity consolidation and of successful identity development. In-depth exploration represents the extent to which individuals actively think about the commitments they have made, by reflecting on their choices, searching for additional information, and talking with others about their commitments; it is associated not only with curiosity but also with confusion. Reconsideration of commitment refers to the comparison of present commitments with possible alternative commitments because the current ones are no longer satisfactory; it is intertwined with disequilibrium and distress, and assumes the character of an identity crisis.

In this model, identity can be studied both at a global level, combining multiple life domains, and/or at a domain-specific level that analyzes identity domains separately. In this study, we adopted this second strategy to understand which domain of identity would be more related to independent/interdependent self-construction. We examined two identity domains that are particularly relevant for young people (Crocetti, Scrignaro et al. 2012): societal identity (i.e. it refers to the domain that represents the role that people have in the society; educational identity for university students and work identity for young workers) and relational identity. Thus, we assessed three identity processes (i.e. commitment, in-depth exploration, and reconsideration of commitment) in both the societal and relational identity domains.

Independent and interdependent self-construction

Markus and Kitayama (1991) proposed two different cultural schemas about the ways in which individuals relate to each other, or self-constructions, namely independence and interdependence. According to them, in many Western cultures, achieving independence from others and expressing one's unique attributes is an imperative goal. This goal requires an individual to be the one who controls his or her own behavior, which is organized by one's own internal thoughts and feelings. Thus, the self is construed as separated from others. Conversely, in many Asian cultures, including Japan, maintaining harmonious relationships among individuals is an imperative goal. This goal requires an individual to be part of social relationships and, hence, to be the one whose behavior is, to a large extent, organized by others' feelings and expectations. Thus, the self is construed as connected and interdependent with others.

Models of identity formation (Kroger and Marcia 2011) mainly fit with the concept of independence, which emphasizes personal goals, individual uniqueness, and independent relationships. However, results from studies using Japanese samples were not consistent with the hypothesized association between independence/interdependence and identity, although there have been few studies on this topic, to date. Two studies, which used Markus and Kitayama's conceptualization, found that (1) independence, not

interdependence, was positively related to identity coherence in adolescence (Mori 2012), and (2) independence and interdependence were both associated with identity coherence in adulthood (Misugi 1998). Since the age groups that were studied were different, this could account for the inconsistency of their findings.

More importantly, the measure of identity that was used assessed a global level of identity (i.e. identity coherence) and, therefore, might not be sensitive for detecting different relationships between the two dimensions of self-construction and identity. Interdependence in Japan develops through the socialization practices to 'fuse' into groups (Tatara 1974) or to adopt roles necessary to maintain the social system rather than to achieve personal purposes (Azuma 2001). Adaptation to an environment, in which individuals experience a sense of belonging and solidarity through close relationships with others, precedes over emphasizing their own uniqueness. This type of self-construction may be associated with the relational identity representing self-definition by choosing one's important relationships, rather than the societal identity representing self-definition by selecting one's own unique societal role. The three-factor identity model (Crocetti, Rubini, and Meeus 2008) is particularly suitable for clarifying this issue since it enables assessment of a domain-specific level of identity considering both societal and relational identity domains.

Thus, in this study, we first examined associations between self-construction and identity. Based on the above considerations, we hypothesized that societal identity processes would be positively related to independence, not to interdependence, since societal identity and independence share conceptualization of the self as one's own uniqueness and differentiation from others (Kroger and Marcia 2011; Markus and Kitayama 1991). Relational identity processes may be positively related to both independence and interdependence, because, similar to societal identity, there is the conceptual affinity between identity in any domain and independence. In addition to this, the feature of relational identity that embraces the volitional choices for constructing stable relationships with others (Crocetti, Rubini, and Meeus 2008) also fits with interdependence that considers relationships or groups to be of importance (Azuma 2001; Tatara 1974).

Well-being

Considering that contemporary Japanese youth are required to develop both independence and interdependence, as well as identity (Matsumoto 2002), it is important to clarify the role of self-construction and identity in well-being among them. We incorporated this issue into the current study by examining the relationship of self-construction and identity with self-esteem and satisfaction with life. Self-esteem represents the emotional dimension of well-being and refers to a sense of confidence in one's self (Rosenberg 1965). Satisfaction with life represents the cognitive dimension of subjective well-being and refers to the global assessment of a person's quality of life according to his or her own chosen criteria (Diener et al. 1985).

In many Western societies, individuals are expected to be self-directed and to find their own way of life during the transition to adulthood (Côté and Levine 2002). Therefore, developing independence and identity has been regarded as the core factor leading to a sense of well-being, and this view has been generally supported by empirical studies (Kan, Karasawa, and Kitayama 2009; Schwartz et al. 2009). This is primary because independence and identity share one's own positive attitudes toward the

individual self with well-being, whereas interdependence emphasizes less on these attitudes (Kitayatna, Duffy, and Uchida 2007). Logically, it is assumed that the same relationship also exists in Japanese samples. In fact, one study found a positive correlation between independence, not interdependence, and self-esteem among Japanese university students (Kiuchi 1996).

With regard to the role of identity in well-being, previous studies focusing on youth from various nations in Europe have found that commitment and in-depth exploration were positively, but reconsideration of commitment was negatively linked to well-being, such as the satisfaction with life and the absence of internal and external symptoms (Karaś et al. 2015; Luyckx et al. 2014). For Japanese youth, since it has been suggested that they tend to struggle with the conflicts between individual desires and loyalty to groups or relationships in identity formation (Sugimura 2007; Tani 1997), relational commitment and in-depth exploration, which represent development and consolidation of relational identity (Crocetti, Rubini, and Meeus 2008), might have positive impact on well-being in Japanese youth. On the other hand, relational reconsideration of commitment, which means relational identity crisis, may undermine youth's well-being.

Emerging adulthood

In this study, we focused on the specific developmental period of emerging adulthood (18–25 years), proposed by Arnett (2004). In identity research inspired by Erikson (1950) and Marcia (1966), the period of adolescence had been traditionally recognized as being important. However, on the basis of his research, Arnett described that identity formation can be recognized as a core task also of the emerging adulthood period. This is because in many developed countries including Japan recent socioeconomic and demographic changes (e.g. longer time in education and late age to enter parenthood) delay the transition to adulthood and provide youth with the opportunity to explore a large array of alternatives before enacting enduring choices in vocational and relational domains (Arnett, Žukauskienė, and Sugimura 2014).

Previous research focusing on emerging adulthood mostly has been done with university students. However, because emerging adulthood is diverse across youth in different phases of transition and circumstances (Arnett 2004), more studies on identity processes are highly needed, especially in a segment of the youth population that is often referred to as a 'forgotten half that remains forgotten' (e.g. Arnett 2000, 476). Thus, the present study did not rely solely on university students but also include emerging adults who had already entered the workforce. In doing so, we expected to shed light, for the first time, on the relationship between self-construction and identity and their effects on well-being in different populations of Japanese emerging adults.

University students

In Japan, approximately half (41.5%) of youth aged 18–24 are students (National Institute of Population and Social Security Research 2011). Of these students, the majority (74.6%) attend university and the rest receive other post secondary education, such as, technical/junior college (Ministry of Education, Culture, Sports, Science and Technology 2012a). This high rate of university students corresponds to the fact that many of the high school graduates (50.8%) attend a university (Ministry of Education, Culture, Sports, Science and Technology 2012a). Japanese university students are not economically independent from their parents. For instance, a comparative study reported that in Japan

73.7% of university students received all of their college fees from their parents, while in the USA only 29.0% did so (Kakino, Hashinaga, and Nishimura 2013). In fact, in the USA, it is more common that students pay their college fees by taking a student loan. Additionally, whereas 58.1% of university students live with their parents in Japan (Benesse Educational Research and Development Center 2009), the majority (75%) of students lived on/off campus, not with their parents, in the USA (Horn and Nevill 2006). Thus, university students in Japan are right in the middle of emerging adulthood, in which they have freedom in social roles and opportunities to explore a wide range of life options, but they may also experience instability. Finding their own lifestyle, as well as their own place in society, is their central identity task (Côté 1997).

Young workers

The other major group of emerging adults consists of young workers. Young Japanese workers account for 48.6% of youth aged 18–24, including high school/university graduates and a small number of the dropouts (National Institute of Population and Social Security Research 2011). Contrary to university students, young workers may experience reductions in instability and transitional stress because they have committed to a career (Luyckx, Schwartz, Goossens et al. 2008). Although the majority of young workers in Japan do not take on adult roles other than work (i.e. marriage and parenthood) until their late twenties or early thirties (Ministry of Health, Labour and Welfare 2010), their lives are structured, in part, by their work roles. This is consistent with the notion that work (or vocational/occupational) identity plays a key role in the overall identity development among youth at least in industrialized countries, leading the process of transition to adulthood (Porfeli et al. 2011). The central theme for workers is putting their identity to the test of work-role demands (Kroger 2007).

Aims and hypotheses

Based on the evidence and reasoning summarized above, the first aim of the present study was to examine the association between independent/interdependent self-construction and identity processes (i.e. commitment, in-depth exploration, and reconsideration of commitment) at a domain-specific level (i.e. societal and relational) in Japanese emerging adults. We hypothesized that (1) societal identity processes would be positively related to independence, and (2) relational identity processes would be positively related to both independence and interdependence.

The second aim of the study was to examine the association of independent/interdependent self-construction and societal and relational identity with well-being in Japanese emerging adults. We expected that (1) independence would be positively related to well-being, and (2) relational identity would be related to well-being. Specifically, relational commitment and in-depth exploration would be positively related to well-being, whereas relational reconsideration of commitment would be negatively related to well-being.

We examined whether these associations applied to the whole sample, as well as to the student and worker subsamples.

Method

Participants and procedure

Participants were 787 Japanese emerging adults (588 university students and 199 young workers) between 18 and 25 years old (M_{age} = 20.87, SD_{age} = 1.68). The sample was gender balanced (50.57% men).

The participants were recruited by a convenience sampling approach in public and private universities and organizations. In order to obtain a diverse sample both for students and workers, we contacted participants in a variety of university faculties (e.g. education, business, and engineering) and of work contexts (e.g. factories, offices, and schools). We also collected the data in different sized cities; main university and work sites included one metropolitan city (i.e. Nagoya) and a number of medium- and small-sized cities located mainly in the Center-West of Japan (e.g. Hiroshima, Fukuoka, and Yamaguchi). By doing so, we obtained heterogeneous student and worker subsamples including participants with various demographic characteristics, although this is not a national representative Japanese sample. Students and workers were contacted by a researcher, who provided them with information about the research aims, and asked if they would participate in the study. They completed the study measures as an anonymous self-report questionnaire.

The detailed information about the demographic characteristics for the student and worker subsamples is reported in Table 1. The worker sample had a slightly higher rate of men than the student sample ($\chi^2(1)$ = 4.11, $p < .05$, φ = .07). Also, the workers were significantly older than the students ($t(270.56)$ = 8.46, $p < .005$, Cohen's d = .55). With respect to living status, there were no significant differences between the student and worker samples. The distribution of paternal and maternal education slightly differed between the social groups ($\chi^2(2)$ = 21.46, $p < .005$, Cramer's V = .17 for fathers; and $\chi^2(2)$ = 9.09, $p < .05$, Cramer's V = .11 for mothers); the worker sample had a higher rate of fathers/mothers with high school diploma and a lower rate of those with a bachelor or master university degree than the student sample. This distribution of paternal/maternal education in our sample was generally mirrored in the distribution that can be found in the young population in Japan (see Table 1). Since we found these differences in the demographic characteristics (i.e. gender, age, and parental education) of the student and worker samples, we controlled for them in all the subsequent analyses.

Measures

In the present study, we used four scales. Items for each scale are shown in the Appendix.

Identity

Identity commitment, in-depth exploration, and reconsideration of commitment were measured using the Utrecht-Management of Identity Commitments Scale (U-MICS; Crocetti, Rubini, and Meeus 2008). The U-MICS consists of 26 items: 13 items index the target processes in one societal domain (i.e. education for students and work for workers) and 13 items index the target processes in one relational domain (i.e. participants could choose which person – e.g. partner, father, and mother – to think about when completing the items about relational identity). Specifically, participants rated 5 items for commitment, 5 items for in-depth exploration, and 3 items for reconsideration of commitment, for both the societal and relational domains, using a response format from 1 (completely untrue) to 5 (completely true). For construct and convergent validity, see Crocetti, Rubini,

Table 1. Demographic characteristics of the sample.

| | Current samples | | |
	Students (*n* = 588)	Workers (*n* = 199)	Census data
Gender (% male)	**48.5**	**56.8**	58.1/50.0[a/b]
Mean age (*SD*)	**20.54** (1.43)	**21.83** (1.99)	–
Living status (%)			
Living with parents	46.9	40.2	58.1/65.4[c/d]
Living independently or semi-independently (*e.g.* with roommates/a romantic partner)	52.9	59.8	41.9/34.6[c/d]
Paternal education (%)			
Junior high school	3.2	4.5	–/9.7[c/d]
High school diploma	**43.4**	**58.8**	41.9/46.9[c/d]
Bachelor or master university degree	**50.7**	**30.7**	51.8/36.4[c/d]
Maternal education (%)			
Junior high school	2.2	1.5	–/5.8[e/f]
High school diploma	**73.1**	**80.4**	68.2/73.2[e/f]
Bachelor or master university degree	**23.5**	**13.1**	26.0/14.8[e/f]
Occupational status			
Students			
Area of study (%)			
Social sciences	82.3	–	61.0[g]
Engineer and technical sciences	12.8	–	18.4[g]
Life sciences	3.9	–	14.0[g]
Workers			
Type of contract (%)			
Permanent job	–	82.4	67.7[h]
Temporary job	–	16.1	32.3[h]
Job classification (%)			
Professional and engineering	–	29.1	14.3[d]
Clerical	–	20.1	13.7[d]
Manufacture	–	37.7	20.0[d]
Sales or service	–	6.0	36.1[d]
Net incomes per year (¥)			Mean = 2,009,000[i] (approx. *US*$18,600)
~ 2,000,000	–	18.1	–
~ 4,000,000	–	59.8	–
~ 6,000,000	–	6.0	–
Education (%)			
Junior high school	–	0.5	2.7[j]
High school diploma	–	70.4	46.3[j]
Bachelor or master degree	–	29.1	40.7[j]

Note: The rates of unknown are not reported. For maternal and paternal education, the rate of persons who had high school diploma includes the rate of those who had technical/junior college education. Significant differences between students and workers were noted in bold.
Source of census data: [a]Ministry of Education, Culture, Sports, Science and Technology (2012b) for university students; [b]Ministry of Internal Affaires and Communications (2012a) for workers aged 20–24; [c]Benesse Educational Research and Development Center (2009) for university students aged 18–24; [d]Ministry of Internal Affaires and Communications (2012b) for workers aged 20–24; [e]Center for University Management and Policy, University of Tokyo (2008) for university students (M_{age} = 20.38); [f]JGSS (Japanese General Social Survey) Research Center, Osaka University of Commerce (2010) for youth aged 20-25; [g]Ministry of Education, Culture, Sports, Science and Technology (2012c); [h]Ministry of Internal Affaires and Communications (2014) for workers aged 15–24: [i]Ministry of Health, Labour and Welfare (2013) for regular staff aged 20–24; [j]National Institution of Population and Social Security Research (2012) for youth aged 20–24.

and Meeus (2008) for the original U-MICS version, and Crocetti et al. (2015) and Hatano and Sugimura (2014) for the Japanese one. In particular, Confirmatory Factor Analyses highlighted the three-factor structure of the Japanese version of the U-MICS fit the data very well and was invariant across gender groups. In the current study, Cronbach's alphas for the student sample were .83 and .79 for commitment, .80 and .82 for in-depth exploration, and .84 and .82 for reconsideration of commitment in the societal and relational domains, respectively; and for the worker sample .84 and .82 for commitment, .81 and .85 for in-depth exploration, and .81 and .84 for reconsideration of commitment in the societal and relational domains, respectively.

Independent/interdependent self-construction

Independent and interdependent self-construction was measured using the Independence/ Interdependence Scale (Kato and Markus 1992). This scale consists of 31 items (i.e. 15 items for independence and 16 items for interdependence) that are rated from 0 (doesn't describe me at all) to 9 (describes me very much). Reliability and validity data for the Japanese version are provided by Kato and Markus (1993). In the current study, Cronbach's alphas were .79 and 77 for independence and .86 and 87 for interdependence for the student and worker samples, respectively.

Self-esteem

This construct was measured by the Rosenberg Self-Esteem Scale (Rosenberg 1965). This scale comprises 10 items that are rated from 1 (completely disagree) to 5 (completely agree). Reliability and validity data for the Japanese version are provided by Yamamoto, Matsui, and Yamanari (1982). In the present study, Cronbach's alphas were .87 and .82 in the student and worker samples, respectively.

Satisfaction with life

This construct was measured using the Satisfaction with Life Scale (Diener et al. 1985). This scale consists of 5 items that are rated from 1 (completely disagree) to 5 (completely agree). Reliability and validity data for the Japanese version are provided by Sumino (1994). In the current study, Cronbach's alpha was .83 both in the student and in the worker samples.

Results

Preliminary analyses

Multivariate analyses of covariance were conducted to examine whether the social groups (i.e. students and workers) varied on any of the study variables. We conducted three analyses: one on self-construction (with independent and interdependent self-construction as the dependent variables), one on identity (with societal and relational identity processes as the dependent variables), and one on well-being (with self-esteem and satisfaction with life as the dependent variables). In each analysis, the social group (students vs. workers) was the independent variables, and age, gender (dummy coded: 0 males, 1 females), and parental education (obtained summing up paternal and maternal education) variables were entered in the analyses as covariates.

Results indicated a significant overall main effect of group on self-construction (Wilks' lambda = .99, F (2, 747) = 4.23, $p < .05$, $\eta^2 = .01$), on identity (Wilks' lambda = .94, F (6, 743) = 7.46, $p < .001$, $\eta^2 = .06$), and also on well-being (Wilks' lambda = .99, F (2, 747) = 3.40, $p < .05$, $\eta^2 = .01$) variables. Estimated marginal means (obtained controlling for gender, age, and parental education) are displayed in Table 2, along with results of pairwise contrasts conducted with the Bonferroni correction for multiple comparisons. As can be seen, students scored significantly higher than workers on independence, relational reconsideration of commitment, and self-esteem, whereas workers scored significantly higher than students on societal in-depth exploration and relational commitment. It is important to note that, even when findings were statistically significant, all the percentages of variance explained by group differences were very low ($\leq 1\%$), suggesting that group differences were small.

Associations between self-construction and identity

The first purpose of this study was to examine the association between independent/interdependent self-construction and societal and relational identity processes. First, we computed correlations on the entire sample. As can be seen in Table 3, we found that, in the societal domain, commitment and in-depth exploration were positively correlated with independence, whereas only in-depth exploration was positively correlated with interdependence. In the relational domain, the three identity processes were positively correlated with both independence and interdependence. Ancillary analyses indicated that these correlations remained significant after controlling for gender, age, and parental education.

Next, we computed partial correlations that controlled for gender, age, and parental education on the student sample and then repeated this for the worker sample. Using Fisher r-to-z transformations, we tested the statistical significance ($p < .05$) of the difference between correlation coefficients. Pairwise comparison of the 24 pairs of correlations revealed that none of them were significantly different between the social groups. Thus, the patterns of correlations were found to be similar between the student and worker samples.

Links between self-construction, Identity, and well-being

The second purpose of this study was to examine the association of independent/interdependent self-construction and societal and relational identity with well-being. In order to address this aim, we conducted structural equation modeling (SEM) analyses in Mplus 7.2 (Muthén and Muthén 1998–2012). We tested a model in which self-

construction dimensions (i.e. independent and interdependent) and relational and societal identity processes (i.e. commitment, in-depth exploration, and reconsideration of commitment) predicted well-being (i.e. self-esteem and satisfaction with life). Additionally, we included as control variables gender, age, and parental education. Since the covariates (i.e. gender, age, and parental education) were mainly unrelated to both well-being facets (see Table 3), we tested the final model with covariates predicting only independent variables (i.e. self-construction dimensions and identity processes).

The model was tested with the Maximum Likelihood estimation. We examined the model fit through multiple indices. The Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) higher than .90 are indicative of an acceptable fit with values higher than .95 suggesting an excellent fit; the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR) below .05 indicate a very good fit with values less than .08 representing an acceptable fit (Byrne 2012).

Findings indicated that the model fit the data very well, $\chi^2 = 8.106$, $df = 6$, $p = .230$, CFI = .998, TLI = .980, RMSEA = .022 [.000–.055], and SRMR = .010. Significant paths are reported in Figure 1. As can be seen, both self-esteem and satisfaction with life were positively associated with independence, societal and relational commitment. Additionally, self-esteem was negatively related to relational reconsideration of commitment, while satisfaction with life was negatively related to societal reconsideration of commitment. Identity processes and self-construction dimensions explained 18% of the variance in self-esteem and 14% of the variance in satisfaction with life.

We conducted multi-group analyses to test whether any of the paths from identity processes and self-construction dimensions to well-being were significantly different in students and workers. We compared a total of 16 paths (i.e. all the paths from identity and self-construction to self-esteem and satisfaction with life) by means of the Wald test, and we found that only one of them (the path from relational commitment to self-esteem) was statistically significant ($p = .016$). More specifically, the association between relational

Table 2. Estimated mean scores of self-construction, identity dimensions, and well-being.

	Students ($n = 588$)	Workers ($n = 199$)	$F (1, 748)$	η^2
Self-construction				
Independence	4.79	4.52	8.44**	.01
Interdependence	6.21	6.27	0.35	.00
Societal identity (educational/work identity)				
Commitment	2.90	2.80	1.73	.00
In-depth exploration	3.24	3.48	10.84***	.01
Reconsideration of commitment	2.84	2.73	1.53	.00
Relational identity				
Commitment	3.54	3.74	7.69**	.01
In-depth exploration	3.22	3.24	0.03	.00
Reconsideration of commitment	3.11	2.90	5.68*	.01
Well-being				
Self-esteem	3.09	2.95	6.80**	.01
Satisfaction with life	2.69	2.57	2.24	.00

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

Table 3. Correlations among all study variables for the entire sample.

| Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
l. Gender (female)	—	−.04	.10**	−.12**	.06	−.01	.03	−.07*	.17***	.19***	−.09*	.01	.07*
2. Age		—	.06	.07	.00	−.07*	.07*	.00	−.08*	−.09*	.02	.07	.05
3. Parental education			—	.01	−.01	.01	−.06	−.10**	−.02	−.07	−.05	.01	.01
4. Independence				—	−.15***	.24***	.21***	.06	.15***	.17***	.10**	.38***	.24***
5. Interdependence					—	.05	.16***	.03	.17***	.11**	.10**	−.04	−.02
6. Societal commitment						—	.48**	−.02	.26***	.22***	.13***	.23***	.28***
7. Societal in-depth exploration							—	.18***	.25***	.24***	.18***	.12**	.14***
8. Societal reconsideration of commitment								—	.10**	.19***	.24***	−.04	−.07
9. Relational commitment									—	.48***	.07	.19***	.22***
10. Relational in-depth exploration										—	.18***	.09**	.15***
11. Relational reconsideration of commitment											—	−.05	−.01
12. Self-esteem												—	.57***
13. Satisfaction with life													—

*p < .05; **p < .01; ***p < .001.
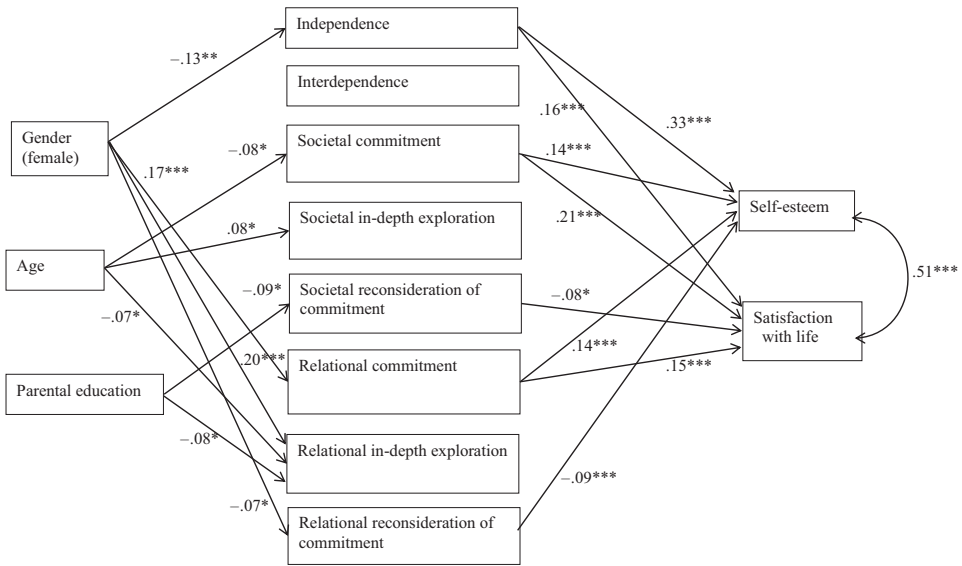
Figure 1. Standardized estimates of the structural model for the entire sample. For sake of clarity, correlations between identity processes and self-constructions are not reported.
*p < .05; **p < .01; ***p < .001.

commitment and self-esteem was stronger in students (β = .20, p < .001) than in workers (β = −.02, p = .759).

Discussion

The present study shed light on (1) the relationship of the self-construction dimensions with identity in societal and relational domains, and (2) the relationship of self-construction and societal and relational identity with well-being, in two major populations of Japanese emerging adults: university students and young workers. The results added new insights into the cultural pathways of identity formation, especially providing an important contribution as to if and how cultural values are interwoven with the process of identity formation.

Associations between self-construction and identity

The patterns of associations between self-construction and identity were found to be similar between the student and worker samples. In the societal domain, identity processes were linked mainly to independence. These results are generally aligned with our expectations and indicate that Japanese emerging adults concentrate on pursuing one's own uniqueness more than adapting to an environment at least when they engage in the task of development and consolidate their societal identity. Since societal identity and independence share the concept of the self as one's own uniqueness and differentiation from others (Kroger and Marcia 2011; Markus and Kitayama 1991), the independent self-construction may tend to be interwoven with societal identity formation.

In the relational domain, identity processes were linked to both independence and interdependence. These results are in line with our expectations and indicate that Japanese emerging adults are likely to consider relational issues (e.g. group goals, others' feelings, expectations, etc.), particularly when they engage in the task of relational identity formation. Thus, relational identity formation can be endorsed by the recognition of the self as connected with others (Crocetti, Rubini, and Meeus 2008; Tatara 1974), as well as of the self as separated from others (Kroger and Marcia 2011; Markus and Kitayama 1991). In the relational identity domain, these emerging adults may strike a balance between a typical way of identity formation in Western cultures and a traditional pathway of identity formation in Asian cultures.

Overall, these results indicate that identity processes are related not only to independent self-construction but also to interdependent self-construction among emerging adults in Japan. This point is particularly evident in the relational identity domain. This suggests that the quality of the balance between the emphasis on the pursuit of one's uniqueness and the emphasis on adaptation to groups or relationships can vary across different identity domains.

Links between self-construction, identity, and well-being

The results of the SEM analyses showed that independence rather than interdependence predicted well-being in both populations. These results are consistent with our expectations and with the theoretical notion that independence shares with well-being the positive attitudes toward pursuing one's personal goals and fully realizing one's own potential (Kitayama, Duffy, and Uchida 2007).

Moving to identity, we discovered that associations between identity and well-being were found to differ from our expectations that relational identity would be more important than societal identity in Japanese emerging adults. We found that higher relational commitment and lower reconsideration of commitment predicted higher well-being; in addition to this, surprisingly, higher societal commitment and lower reconsideration of commitment also predicted higher well-being. These findings suggest that not only relational identity but also societal identity have positive impact on well-being in Japanese emerging adults. Thus, likewise Western youth (Karaś et al. 2015; Luyckx et al. 2014), developing both the societal and relational domains of identity is associated with their positive psychological functioning in Japanese counterparts, even though they are living within a culture that emphasizes harmonious relationships with theirs (Azuma 2001; Markus and Kitayama 1991; Tatara 1974).

Additionally, we compared findings from the student sample with the worker sample. One difference we found was that the association between relational commitment and self-esteem was stronger in students than in workers. This suggests that Japanese university students may feel confident about their own self when they develop and consolidate relational identity. A likely explanation for this result may lie in the specific emphasis on constructing interpersonal relationships of university students in Japan. For instance, one survey documented that many university students in Japan put particular emphasis on social activities (e.g. club activities and other informal exchanges) with their friends both on and off campus (Benesse Educational Research and Development Center 2009). Furthermore, such social activities predict their successful transition to adulthood in Japan (Shirai et al. 2009). Therefore, relational commitment may be especially of importance to enhance students' self-confidence.

Taken together, these findings show that independence and identity commitment in both societal and relational domains are important to well-being emerging adults in Japan. This implies that if youth lack a sense of independence and their own commitments to important life choices, emerging adulthood may take the form of an unstructured and uncertain period for them (Arnett 2004). In addition, the observed differences between students and workers imply that the determinants of well-being are slightly different among social groups, in accordance with the expectations provided by the social contexts where each of the groups lives.

Limitations and suggestions for future research

The results of the present study must be viewed with some caution. First, although the sample of the present study was highly heterogeneous, it was not a nationally representative sample. For instance, the rates of young workers with temporary contract and the rates of unemployed youth have been gradually increasing in Japan since the economy went into the long-term recession in the 1990s. Therefore, future studies are needed to test whether our results apply also to other segments of emerging adults in Japan, such as youth who are unemployed.

Second, we relied only on self-report quantitative data. Cultural views of self are constructed by integrating the cultural system in which an individual participates (Markus and Kitayama 1991). This process may be implicit to a larger extent because it is profoundly embedded in practices of socialization and social acts in everyday life (Mead 1934). Similarly, identity formation occurs within a context in which an individual interacts in real time (Lichtwarck-Aschoff et al. 2008). Therefore, it may be valuable to integrate quantitative with qualitative data, such as narratives, to gain a better understanding of how self-construction and identity are interwoven with each other.

Third, we adopted a domain-level approach to identity processes, focusing on societal (i.e. education and work) and relational domains, since they are the most important realms for most emerging adults. Nevertheless, it would be interesting to study additional domains. For instance, previous studies have found the domain of life philosophy is particularly important in Japan (e.g. Takahashi 1988). Thus, a broader picture of relationships between self-construction, identity, and well-being can be further illustrated by investigating additional domains.

Conclusions

This article provides empirical evidence derived from two samples, university students and young workers in Japan, about the relationships among independent/interdependent self-construction, identity, and well-being. The results indicated that while Japanese emerging adults have developmental needs to express one's own uniqueness and agency, they are also directed to form a sense of identity emphasizing the construction and maintenance of harmonious relationships with others, fitting with the cultural demands. This pattern is more evident in the relational identity domain and can be generalizable, to large extent, across two different populations among emerging adults in Japan. Consequently, the present study demonstrates the importance of studying relationships between self-construction and identity in specific domains, and paying attention to the characteristics of different populations. By taking these factors into account, we can see

how the process of identity formation depends on the values provided by cultural as well as social contexts.

References

Arnett, J. J. 2000. "Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties." *American Psychologist* 55: 469–480.

Arnett, J. J. 2004. *Emerging Adulthood: The Winding Road from the Late Teens through the Twenties*. New York: Oxford University Press.

Arnett, J. J., R. Žukauskienė, and K. Sugimura. 2014. "The New Life Stage of Emerging Adulthood, Ages 18–29: Implications for Mental Health." *Lancet Psychiatry* 1: 569–576. doi:/10.1016/S2215-0366(14)00080-7.

Azuma, H. 2001. "Moral Scripts: A U.S.-Japan Comparison." In *Japanese Frames of Mind: Cultural Perspectives on Human Development*, edited by H. Shimizu and R. A. LeVine, 29–50. New York: Cambridge University Press.

Benesse Educational Research and Development Center. 2009. *Daigakusei no gakushu-seikatsu jittai chosa houkokusho 2008* [Report of university student learning and life survey 2008]. Accessed October 7. http://berd.benesse.jp/berd/center/open/report/daigaku_jittai/hon/pdf/data_06.pdf; and from, http://berd.benesse.jp/berd/center/open/report/daigaku_jittai/hon/pdf/data_07.pdf.

Byrne, B. M. 2012. *Structural Equation Modeling with Mplus: Basic Concepts, Applications, and Programming*. New York: Taylor & Francis.

Center for University Management and Policy, University of Tokyo. 2008. *Zenkoku daigakusei chousa* [National survey of university students]. Accessed September 21. http://ump.p.u-tokyo.ac.jp/crump/resource/kiso2008_01.pdf.

Central Council for Education. 1996. *21seiki wo tenbou shita wagakuni no kyouiku no arikata ni tsuite (Dai ichiji toushin)* [The model for Japanese education in the perspective of the 21st Century (The 15th session of the Central Council for Education published its first report)]. Accessed January 31. www.mext.go.jp/b_menu/shingi/chuuou/toushin/960701.htm.

Côté, J. E. 1997. "An Empirical Test of the Identity Capital Model." *Journal of Adolescence* 20: 577–597.

Côté, J. E., and C. G. Levine 2002. *Identity Formation, Agency, and Culture: A Social Psychological Synthesis*. Mahwah, NJ: Lawrence Erlbaum.

Crocetti, E., J. Cieciuch, C. H. Gao, T. Klimstra, C. L. Lin, P. M. Matos, Ü. Morsünbül, O. Negru, K. Sugimura, G. Zimmermann, and W. Meeus. 2015. "National and Gender Measurement Invariance of the Utrecht-Management of Identity Commitments Scale (U-MICS): A Ten-nation Cross-cultural Study." *Assessment*. doi:10.1177/1073191115584969.

Crocetti, E., M. Rubini, and W. Meeus. 2008. "Capturing the Dynamics of Identity Formation in Various Ethnic Groups: Development and Validation of a Three-dimensional Model." *Journal of Adolescence* 31: 207–222.

Crocetti, E., S. Schwartz, A. Fermani, T. Klimstra, and W. Meeus. 2012. "A Cross-national Study of Identity Statuses in Dutch and Italian Adolescents: Status Distributions and Correlates." *European Psychologist* 17: 171–181.

Crocetti, E., M. Scrignaro, L. S. Sica, and M. E. Magrin. 2012. "Correlates of Identity Configurations: Three Studies with Adolescent and Emerging Adult Cohorts." *Journal of Youth and Adolescence* 41: 732–748.

Diener, E., R. A. Emmons, R. J. Larsen, and S. Griffin. 1985. "The Satisfaction with Life Scale." *Journal of Personality Assessment* 49: 71–75.

Erikson, E. H. 1950. *Childhood and Society.* New York, NY: Norton.

Hatano, K., and K. Sugimura. 2014. "Nihonjin daigakusei ni okeru nihonban identity commitment management scale no inshi kouzou, shinraisei, heizon teki datousei no kentou" [Japanese Version of the Utrecht-Management of Identity Commitments Scale (U-MICSJ): Factor Structure, Reliability, and Concurrent Validity in Japanese University Students]. *Japanese Journal of Adolescent Psychology* 25: 125–136.

Horn, L., and S. Nevill. 2006. *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 2003–04: With a Special Analysis of Community College Students (NCES 2006–184). U.S. Department of Education*. Washington, DC: National Center for Education Statistics.

Helms, J. E. 2003. "Racial Identity and Racial Socialization as Aspects of Adolescents' Identity Development." In *Handbook of Applied Developmental Science: Promoting Positive Child, Adolescent and Family Development through Research, Policies, and Programs*, Vol. 1, edited by R. Lerner, F. Jacobs, and D. Wertlief, 143–163. Thousand Oaks, CA: Sage.

JGSS (Japanese General Social Survey Research Center), Osaka University of Commerce. 2010. *Eighth International Comparative Survey on Values and Behavioral Patterns*. Accessed September 22. http://jgss.daishodai.ac.jp/english/surveys/sur_jgss2010.html.

Kakino, S., M. Hashinaga, and T. Nishimura. 2013. "Nihon no daigakusei ni motomerareru kinyu kyouiku no kadai: Nichibei chousa no bunseki wo chushin ni" [A Study of Financial Education for College Students: Comparative Study in Japan and the United States]. *Journal of Japan Academy of Consumer Education* 33: 49–58.

Kan, C., M. Karasawa, and S. Kitayama. 2009. "Minimalist in Style: Self, Identity, and Well-being in Japan." *Self and Identity* 8: 300–317.

Karaś, D., J. Cieciuch, O. Negru, and E. Crocetti. 2015. "Relationships between Identity and Well-being in Italian, Polish, and Romanian Emerging Adults." *Social Indicators Research* 121: 727–743. doi:10.1007/s11205–014–0668–9.

Kato, K., and H. Markus. 1992. "The Interdependence/Independence Scale." As Quote. In *Emotional Contagion*, edited by E. Hatfield, J. T. Caccioppo, and R. L. Rapson, 153. Cambridge: Cambridge University Press.

Kato, K., and H. R. Markus. 1993. "Development of the Interdependence/Independence Scale: Using American and Japanese Samples." Paper presented at the 5th conference of American Psychological Society, Washington, DC.

Kitayama, S., S. Duffy, and Y. Uchida. 2007. "Self as Cultural Mode of Being." In *Handbook of Cultural Psychology*, edited by S. Kitayama and D. Cohen, 136–174. New York: Guilford Press.

Kiuchi, A. 1996. "Dokuritsu-sougo izonteki jikorikai: Bunkateki eikyo, oyobi personality tokusei tono kanren" [Independent and Interdependent Construal of the Self: The Cultural Influence and the Relations to Personality Traits]. *Japanese Journal of Psychology* 67: 308–313.

Kroger, J. 2007. *Identity Development: Adolescence through Adulthood*. 2nd ed. Thousand Oaks, CA: Sage.

Kroger, J., and J. E. Marcia. 2011. "The Identity Statuses: Origins, Meanings, and Interpretations." In *Handbook of Identity Theory and Research*, edited by S. J. Schwartz, K. Luyckx, and V. L. Vignoles, 31–53. New York: Springer Science + Business Media.

Lichtwarck-Aschoff, A., P. van Geert, H. Bosma, and S. Kunnen. 2008. "Time and Identity: A Framework for Research and Theory Formation." *Developmental Review* 28: 370–400.

Luyckx, K., S. Schwartz, M. Berzonsky, B. Soenens, M. Vansteenkiste, I. Smits, and L. Goossens, 2008. "Capturing Ruminative Exploration: Extending the Four Dimensional Model of Identity Formation in Late Adolescence." *Journal of Research in Personality* 42: 58–82.

Luyckx, K., S. Schwartz, L. Goossens, and S. Pollock. 2008. "Employment, Sense of Coherence, and Identity Formation: Contextual and Psychological Processes on the Pathway to Sense of Adulthood." *Journal of Adolescent Research* 23: 566–591.

Luyckx, K., I. Seiffge-Krenke, S. J. Schwartz, E. Crocetti, and T. A. Klimstra. 2014. "Identity Configurations across Love and Work in Emerging Adults in Romantic Relationships." *Journal of Applied Developmental Psychology* 35: 192–203.

Marcia, J. E. 1966. "Development and Validation of Ego-identity Status." *Journal of Personality and Social Psychology* 3: 551–558.

Markus, H. R., and S. Kitayama. 1991. "Culture and the Self: Implications for Cognition, Emotion, and Motivation." *Psychological Review* 98: 224–253.

Matsumoto, D. 2002. *The New Japan: Debunking Seven Cultural Stereotypes*. Yarmouth, ME: Intercultural Press.

Mead, G. H. 1934. *Mind, Self and Society: From the Standpoint of a Social Behaviorist*. Chicago: University of Chicago Press.

Meeus, W. 2011. "The Study of Adolescent Identity Formation 2000–2010: A Review of Longitudinal Research." *Journal of Research on Adolescence* 21: 75–94.

Meeus, W., R. van de Schoot, L. Keijsers, S. J. Schwartz, and S. Branje. 2010. "On the Progression and Stability of Adolescent Identity Formation: A Five-wave Longitudinal Study in Early-to-middle and Middle-to-late Adolescence." *Child Development* 81: 1565–1581.

Ministry of Education, Culture, Sports, Science and Technology. 2012a. *Statistics: 1. Overview; Students*. Accessed February 7. http://www.mext.go.jp/english/statistics/index.htm.

Ministry of Education, Culture, Sports, Science and Technology. 2012b. *Statistical Abstract 2012 edition: 1.1 School Education (Summary Tables); Schools, Students, Teachers and Non-teaching Staff, 2012 (Total)*. Accessed February 7. http://www.mext.go.jp/component/english/__icsFiles/afieldfile/2013/08/09/1302872_01.pdf.

Ministry of Education, Culture, Sports, Science and Technology. 2012c. *Statistical Abstract 2012 edition: 1.9 Universities and Junior Colleges; Students by Field of Study (University)*. Accessed October 7. http://www.mext.go.jp/component/english/__icsFiles/afieldfile/2013/08/13/1302968_05.pdf.

Ministry of Health, Labour and Welfare. 2010. *Specified Report of Vital Statistics in FY2010*. Accessed August 4. http://www.mhlw.go.jp/english/database/db-hw/FY2010/live_births.html.

Ministry of Health, Labour and Welfare. 2013. *Heisei 25 nen Chingin kouzou kihon toukei chosa (zenkoku) kekkano gakyo; Koyou keitai betsu* [Basic Survey on Wage Structure 2013]. Accessed October 7. http://www.mhlw.go.jp/toukei/itiran/roudou/chingin/kouzou/z2013/dl/06.pdf.

Ministry of Internal Affaires and Communications. 2012a. *Heisei 22 nen Kokusei chousa: Shokugyou tou kihon shukei; Table 1* [*Population Census*]. Accessed February 7 http://www.e-stat.go.jp/SG1/estat/List.do?bid=000001043961&cycode=0.

Ministry of Internal Affaires and Communications. 2012b. *Heisei 22 nen Kokusei chousa: Shokugyou tou kihon shukei; Table 32 [Population Census]*. Accessed August 23. http://www.e-stat.go.jp/SG1/estat/List.do?bid=000001043961&cycode=0.

Ministry of Internal Affaires and Communications. 2014. Heisei 25 nen Roudouryoku chousa nenpou: Heisei 24 nen heikin kekka no gaiyo; Toukei hyou, II-A-Dai 2 hyou [Annual Report on the Labour Force Survey 2013]. Accessed October 18. http://www.stat.go.jp/data/roudou/report/2013/index.htm#shosai.

Misugi, N. 1998. "Seijin jyosei ni okeru jiga douitsusei kankaku ni tsuite: Sougo kyouchouteki-sougo dokuritsuteki jikokan tono kanren kara" [A Study on Sense of Ego Identity in Adult Women: From the Viewpoint of Relationship with Interdependent–independent Construal of the Self]. *Japanese Journal of Educational Psychology* 46: 229–239.

Mori, I. 2012. "Nichibei seinen no jiga douitsusei: Sougo dokutitsu – sougo kyouchousei oyobi oya heno aichaku tono kanren ni oite" [Comparison of Ego Identity between Young Japanese and American People]. *Japanese Journal of Adolescent Psychology* 24: 31–43.

Muthén, L. K., and B. O. Muthén. 1998–2012. *Mplus User's Guide* .7th ed. Los Angeles, CA: Muthén & Muthén.

National Institute of Population and Social Security Research. 2011. *The Fourteenth Japanese National Fertility Survey in 2010: Attitudes toward Marriage and Family among Japanese Singles; Highlights of the Survey Results on Singles, Appendix 8*. Accessed February 7. http://www.ipss.go.jp/site-ad/index_english/nfs14/Nfs14_Singles_Eng.pdf.

National Institution of Population and Social Security Research. 2012. *Dai 6 kai Setai doutai chousa no kekka no gaiyo ni tsuite; Kojin tan-i no shukei hyou, K5 [Overview of the Results of*

the Sixth National Survey on Household Changes in Japan (2009)]. Accessed August 24. http://www.ipss.go.jp/ps-dotai/j/DOTAI6/NSHC06_top.asp.

Phinney, J. S., and O. A. Baldelomar. 2011. "Identity Development in Multiple Cultural Contexts." In *Bridging Cultural and Developmental Approaches to Psychology: New Syntheses in Theory, Research, and Policy*, edited by L. A. Jensen, 161–186. New York: Oxford University Press.

Porfeli, E. J., B. Lee, F. W. Vondracek, and I. K. Weigold. 2011. "A Multi-dimensional Measure of Vocational Identity Status." *Journal of Adolescence* 34: 853–871.

Rosenberg, M. 1965. *Society and the Adolescent Self-image*. Princeton: Princeton University Press.

Schwartz, S. J., B. L. Zamboanga, W. Wang, and J. V. Olthuis. 2009. "Measuring Identity from an Eriksonian Perspective: Two Sides of the Same Coin?" *Journal of Personality Assessment* 91: 143–154.

Shirai, T., T. Adachi, Y. Wakamatsu, H. Simomura, and T. Kawasaki, 2009. "Seinenki kara seijinki ni kaketeno shakai heno ikou ni okeru shakaiteki shinrai no kouka: Citizenship no kantenkara" [The Effects of Social Trust on the Transition to Society between Adolescence and Adulthood, in Terms of Citizenship]. *Japanese Journal of Developmental Psychology* 20: 224–233.

Sugimura, K. 2007. "Transitions in the Process of Identity Formation among Japanese Female Adolescents: A Relational Viewpoint." In *The Meaning of others: Narrative Studies of Relationships*, edited by R. Josselson, A. Lieblich, and D. P. McAdams, 117–142. Washington, DC: American Psychological Association.

Sugimura, K., and S. Mizokami. 2012. "Personal Identity in Japan." *New Directions for Child and Adolescent Development* 138: 123–143.

Sumino, Z. 1994. "Jinsei ni taisuru manzoku shakudo nihongoban sakusei no kokoromi" [Construction of the Japanese Version of the Satisfaction with Life Scale (SWLS)]. Proceedings of the 36th Annual Meetings of the Japanese Association of Educational Psychology, 192. Kyoto: Kyoto University.

Takahashi, H. 1988. "Douitsusei to shinmitsusei no kiki no kaiketsu ni okeru seisa: Jiga douitsusei chii no Rasmussen no EIS ni yoru heizonteki datousei no kentou" [Sex differences in the resolution of identity and intimacy crisis: An examination of the concurrent validity on ego identity status by Rasmussen's EIS.] *Japanese Journal of Educational Psychology* 36: 210–219.

Tani, F. 1997. "Seinenki ni okeru jiga douitsusei to taijin kyoufuteki shinsei" [Ego Identity and Anthropophobic Tendency in Adolescence.] *Japanese Journal of Educational Psychology* 45: 254–262.

Tatara, M. 1974. "Problem of Separation and Dependency: Some Personality Characteristics Met in Psychotherapy in Japan and Some Technical Considerations." *Journal of American Academy of Psychoanalysis* 2: 231–241.

Yamamoto, M., Y. Matsui, and Y. Yamanari. 1982. "Ninchi sareta jiko no shosokumen no kouzou" [The Structure of Perceived Aspects of the Self.] *Japanese Journal of Educational Psychology* 30: 64–68.

Appendix

Utrecht-Management of Commitments Scale (U-MICS)

Societal domain (Education for students/Work for workers)

Commitment:

(1) My education/work gives me security in life.
(2) My education/work gives me self-confidence.
(3) My education/work makes me feel sure of myself.
(4) My education/work gives me security for the future.
(5) My education/work allows me to face the future with optimism.

In-depth exploration:

(1) I try to find out a lot about my education/work.
(2) I often reflect on my education/work.
(3) I make a lot of effort to keep finding out new things about my education/work.
(4) I often try to find out what other people think about my education/work.
(5) I often talk with other people about my education/work.

Reconsideration of commitment:
  (1) I often think it would be better to try to find a different education/work.
  (2) I often think that a different education/work would make my life more interesting.
  (3) In fact, I'm looking for a different education/work.

Relational domain
Who is in this moment the most important person in your life that represents for you a reference point? Please choose an option: Father, Mother, Brother/Sister, Best friend, Romantic Partner, Other (please specify). Please indicate your level of agreement with the following statements thinking to the person we have indicated in the previous question.

Commitment:
  (1) This person gives me security in life.
  (2) This person gives me self-confidence.
  (3) This person makes me feel sure of myself.
  (4) This person gives me security for the future.
  (5) This person allows me to face the future with optimism.

In-depth exploration:
  (1) I try to find out a lot about this person.
  (2) I often reflect on this person.
  (3) I make a lot of effort to keep finding out new things about this person.
  (4) I often try to find out what other people think about this person.
  (5) I often talk with other people about this person.

Reconsideration of commitment:
  (1) I often think it would be better to try to find a new person that could be my reference point.
  (2) I often think that a new person that could be my reference point would make my life more interesting.
  (3) In fact, I'm looking for a new person that could be my reference point.

Independence/Interdependence Scale ([*]Reversed items)
Independence:
  (1) I am special.
  (2) Nothing can keep me from doing something if I want to do it.
  (3) It is better to follow tradition or authority than to try to do something in my way.*
  (4) I would rather not insist on it, if what I believe is right hurts other people's feelings.*
  (5) I am always myself. I do not act like other people.
  (6) If other people do not like my idea, I tend to change it, even though I like it.*
  (7) I do not care what other people would think of my idea, if I like it.
  (8) Even though people around me may hold a different opinion, I stick to what I believe in.
  (9) No matter what is the situation or setting, I am always true to myself.
  (10) I can take care of myself.
  (11) I have planned my future.
  (12) I know my weaknesses and strengths.
  (13) I usually make my own decisions.
  (14) I always know what I want.
  (15) I am unique –different from others in many respects.
Interdependence:
  (1) When making a decision, I first consider how it will affect others before considering how it will affect me.
  (2) How I behave depends upon the people around/the situation/the people around in the situation.
  (3) I feel guilty when I say 'No' when someone asks me for help.
  (4) It is important to maintain harmony in the group.
  (5) If someone helps me, I feel strong obligation to return the favor sometime later.
  (6) It is important to me that I remain in a group if the group needs me even though I am not happy with the group.
  (7) It is important to me that I am liked by many others.

(8) It is important to me that I am a cooperative participant in group activities.
(9) I have difficulty saying 'No' when someone asks me for help.
(10) I automatically tune myself into other people's expectation of me.
(11) Since other people's business is not mine, I might feel bad but not guilty when I need to say 'No' when I am asked for help.*
(12) It is important to me that I make a favorable impression on others.
(13) The most important thing to me is to have a sense of belonging to my own group(s).
(14) It is important to me to maintain a good relationship with everybody.
(15) I always care about what other people think of me.
(16) Before making a decision, I always consult with others.

Self-Esteem Scale (*Reversed items)
(1) I feel that I am a person of worth, at least on an equal plane with others.
(2) I feel that I have a number of good qualities.
(3) All in all, I am inclined to feel that I am a failure.*
(4) I am able to do things as well as most other people.
(5) I feel I do not have much to be proud of.*
(6) I take a positive attitude toward myself.
(7) On the whole, I am satisfied with myself.
(8) I wish I could have more respect for myself.*
(9) I certainly feel useless at times.*
(10) At times I think I am no good at all.*

Satisfaction with Life Scale
(1) In most ways my life is close to my ideal.
(2) The conditions of my life are excellent.
(3) I am satisfied with my life.
(4) So far I have gotten the important things I want in life.
(5) If I could live my life over, I would change almost nothing.