

日本における留学生の关系的相互依存的自己と文化変容ストレスおよび社会的サポートの研究

Interdependent Self-Construal, Acculturative Stress, and Social Support of International Students in Japan

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ABSTRACT

关系的相互依存的自己 (RISC) とは、自己が身近な他者との関係性の中でどの程度認識されているかを意味する。本研究は、日本人学生の RISC を中国人およびアメリカ人の留学生と比較し、また、RISC およびソーシャルサポートとの関係を検討した。さらに RISC が留学生の文化変容ストレスにどのような影響を与えるかについて考察した。その結果、中国人学生は RISC の得点が、日本人とアメリカ人の学生よりも有意に高いことが見いだされた。女子学生に関しては、RISC の高さは、文化変容ストレスの高さを予測していた。つまり、RISC が高い人は、他の人からより多くのソーシャルサポートを受けられる可能性があるため、文化変容ストレスを受けにくい傾向にある。また、RISC の高い中国人女子学生は、身近な他者に注意を向けすぎることによって、または、より身近な関係にある他者から直接生じるストレス要因によって文化変容ストレスが高くなっていると考えられる。

Relational interdependent self-construal (RISC) refers to the degree to which the self is perceived in relation to close others. This study assessed the RISC of native Japanese students and compared it with those of Chinese and American students studying in Japan. It further investigated the relationship between RISC, acculturative stress, and perceived social support from gender and cultural aspects. Results indicated that Chinese students scored significantly higher on RISC than both Japanese and American students, but American and Japanese students did not differ significantly regarding RISC. For female students, higher RISC predicted higher acculturative stress. Higher RISC international students encounter less acculturative stress because they may receive more social support from close others. In comparison, higher RISC Chinese

students face more acculturative stress can be explained by their over-attention to close others or the stressors directly arising from close others.

1. Introduction

A boost in the population of international students entering higher education institutions in Japan has emerged since the mid-1980s (Murphy-Shigematsu, 2002). According to the Japan Student Services Organization (2023), 231,146 international students were studying in Japan by May 2022. The choice to study abroad in Japan may present various challenges for international students, including difficulties adapting to Japanese society and facing unique stressors through acculturation. This experience often leads to acculturative stress, a specific type of stress stemming from the acculturation process, which is marked by stressors that result in various behaviors, including reduced mental health, feelings of marginalization and alienation, heightened psychosomatic symptoms, and identity confusion (Berry, 2006).

A majority of studies have identified factors that predict acculturation stress, such as language barriers, the duration of stay in the host culture, and gender (Misra et al., 2003; Poyrazli et al., 2004; Ra, 2016; Talwar et al., 2022; Yeh & Inose, 2003). It was also found that acculturative stress has a negative relationship with social support, which can be obtained from people around and society (Duru & Poyrazli, 2007; Poyrazli et al., 2004; Thomas & Choi, 2006; Yeh & Inose, 2003). Since social support is related to individuals' close relationships to a great extent, the researcher wonders if it is also influenced by how individuals think about themselves in relation to intimate families and friends.

Through socialization processes emphasizing attention to and concern for relationships, many women and some men define their self-identity in terms of their close relationships with others,

thereby exhibiting a high degree of relational interdependent self-construal (RISC) (Cross et al., 2002). Many international students, who often regard their family and friends as crucial sources of support during stressful times, might be especially susceptible to experiencing depression (Zhang, 2012). For those residing in a culture that differs from their original one, RISC can significantly impact their adaptation (Cross et al., 2000; Gore et al., 2006).

This research aims to evaluate the RISC, acculturative stress, and social support of international students through study abroad experiences and to examine their associations with a specific focus on how culture and gender influence the relational aspect of interdependence. The interplay of these variables is crucial as they collectively shape the acculturation experience, influencing these students' psychological well-being and adaptation processes. While the broader scope of the research encompasses all international students, this study concentrates on Chinese and American university students in Japan. This choice is informed by the contrasting cultural orientations of these groups: Chinese students, potentially sharing more cultural similarities with Japan such as Confucian beliefs and a collectivistic culture, versus American students, who may embody more individualistic values and consequently face distinct challenges in acculturation. Comparisons among students by gender and cultural backgrounds will be conducted to provide valuable insights into the influence of gender and cultural backgrounds on self-perception and social behaviors. Meanwhile, understanding these differences and the impact of the relational aspect of interdependence on international students' social behaviors and experiences may have practical

implications in areas such as education and counseling in the context of Japanese society.

The following research questions will be addressed in the current study:

- How do Japanese, Chinese, and American students differ in their RISC?
- What are the dynamics among the three constructs: RISC, acculturative stress, and social support in the context of international students in Japan?
- Do gender differences emerge in RISC and the interplay between acculturative stress and social support among these students?

2. Literature review

2.1 Self-Construal

Cultural psychology, which emerged in the 90s, focused on culture as a collective programming of the mind that differentiates groups and guides thinking as well as social behavior (Triandis, 1994). Among the dimensions of culture introduced by Hofstede (1980), the individualism and collectivism dimensions represent the extent to which individual identity is concentrated on personal goals and vested interests. In individualistic cultures, individuals perceive themselves around their interests and individual responsibility, in contrast to collectivist cultures that emphasize the subordination of personal goals to in-group goals (Triandis et al., 1988).

For Markus and Kitayama (1991), self-construal reflects the individualism-collectivism dimension at the level of individual personality. Self-construal refers to the degree to which the self is perceived in relation to others. According to their theory, individuals with a dominant interdependent self-construal tend to focus on connectedness with others and group harmony. In contrast, individuals with a dominant independent self-construal tend to be unique and expressive of self and view

themselves as being separate from social context. Independent self-construal is characteristic of individualistic societies typically found in Western cultures (Singelis, 1994).

2.2 Relational Interdependent Self-Construal

Cross et al. (2000) argued that cultural differences affect how member develops a particular form of interdependent self-construal from individualistic or collectivistic cultures. They proposed an individual-based relational form of interdependence, identifying the degree to which individuals include close relationships in their self-construal. Even though many previous studies illustrated that most individuals from Western cultures have a high independent self-construal, there is variation among individuals in these cultures regarding their self-perception in relation to others. This variation is influenced by factors such as ethnicity, religion, and gender, leading to differing degrees of independence within the same cultural context. Thus, the concept of RISC construed by Cross helps capture the self-construal of individuals, such as women in Western cultures considering themselves more interdependent or relational (Cross et al., 2000).

Higher levels of RISC are related to enabling others to open up to the self, higher levels of disclosure, greater fulfillment of friendship functions (e.g., social support, companionship), and higher relationship quality (Cross et al., 2000; Gore et al., 2006; Morry & Kito, 2009). Individuals high in RISC perform behaviors known to promote satisfying relationships: disclosure and social support. These findings imply that individuals may be more likely to become friends, or closer friends, with others with high RISC.

Few previous studies have examined the RISC of Japanese individuals. Bresnahan et al. (2005) examined the validation of several self-construal scales, including the RISC Scale, with data

collected in the U.S., Japan, and Korea. Results indicated that Americans have higher RISC than Japanese and Korean. In addition, a study examining RISC of university students was done by Xiang et al. (2018) in both China and the U.S. Findings showed that U.S. students get higher scores than Chinese students in terms of RISC and U.S. female students get higher scores on RISC than male students.

2.3 Acculturation and Acculturative Stress

International students often experience acculturation, a process that occurs within individuals in cross-cultural situations (Berry, 1992). Acculturation involves a process where individuals or groups from different cultures engage in ongoing interactions, potentially leading to changes in the cultural patterns of either or both groups, as Berry (2006) described. Studies have shown that many international students may face higher risks of encountering challenges while adapting to new social and educational settings. These challenges include adapting to cultural variances, language barriers, different academic approaches, separation from their home country, and the disparities in political, socio-cultural, and economic aspects between their home country and the host country (Mori, 2000; Sandhu & Asrabadi, 1994; Yeh & Inose, 2003).

Acculturative stress arises when individuals face challenges during their acculturation process, as described by Berry (2006). Berry (1987, 2006) characterizes acculturative stress as the psychological impact stemming from efforts to adjust in a cross-cultural environment. This type of stress is a response to the differences between an individual's original culture and the dominant culture of the host country. Acculturative stress is unique compared to general stress, which can occur in everyday situations, as it specifically relates to the challenges of adapting to a new cultural

context. This includes learning a new language, adapting to different social norms and values, and dealing with feelings of isolation or a loss of cultural identity. The distinct nature of acculturative stress lies in its direct connection to the experience of cultural transition and adaptation (Yeh & Inose, 2003).

Sandhu and Asrabadi (1994) identified various aspects of acculturative stress among international students, including perceived discrimination, homesickness, perceived hate, fear, culture shock/stress due to change, and guilt. It has also been noted in previous research that students who feel a lack of family support tend to experience higher acculturative stress than those with strong family support. Moreover, the time students spend in the host country is another key factor affecting acculturative stress. As students spend more time in the host country and get used to their surroundings, this familiarity can reduce acculturative stress (Talwar et al., 2022).

Until now, most research on acculturative stress of international students has been conducted in America since America owns the largest number of international students worldwide (Einar, 2023). Students who demonstrated a higher English language proficiency and a greater tendency to communicate in the dominant language reported experiencing lower levels of acculturative stress (Yeh & Inose, 2003). Poyrazli et al. (2004) researched acculturative stress levels for international students in America. It was found that Asian students encountered more acculturative stress than European students, and researchers argued that this might be because, compared to Asian societies, European and US societies share common cultural values and encourage independence and individual expressions.

2.4 Social Support

Lazarus and Folkman (1984) identified social

support as a crucial coping resource for stress. Social support refers to the experience of being valued, respected, cared about, and loved by others. It can be obtained from various sources such as family, friends, community, or any social group to the person in relation. It is one of the most frequently cited coping factors for dealing with stress in general and specific ones, such as acculturative stress (Adelman, 1988). Sojourners obtain social support from distant family and friends and develop new support systems in the host society (Walton, 1990).

2.5 Gender Differences

Cross and Madson (1997) highlighted that women tend to be more relational-interdependent than men, a gender difference that significantly influences their thoughts, feelings, and behaviors in close relationships. Previous studies have shown that women are more relationship-oriented, while men view themselves as more independent (Cross et al., 2000; Guimond et al., 2006; Kashima et al., 2004).

In past studies, researchers have suggested that women are more likely than men to display emotional reactions to stress and are generally more open to seeking assistance and social support (Tifferet, 2020; Zhou et al., 2017). Regarding acculturative stress, some studies (Poyrazli et al., 2004; Yeh & Inose, 2003) argued that gender differences are not significant. Contrarily, Misra et al. (2003) and Ra (2016) discovered that female international students experienced more general acculturative stress than their male counterparts.

2.6 Significance of This Study

Research on the relationship between RISC and social support remains relatively sparse. Heintzelman and Bacon (2015) identified that RISC influences the link between social support and life satisfaction. Further studies have linked

higher RISC with increased openness, trust, and self-disclosure (Cross et al., 2000; Gore et al., 2006; Morry & Kito, 2009). Building on these findings, our study seeks to investigate deeper into the role of RISC as a potential predictor of social support systems.

Additionally, the interplay between RISC and acculturative stress is an area yet to be thoroughly explored. Acculturation and self-construal are conceptually interconnected, as acculturation can be understood as various methods through which individuals modify their self-perceptions to adapt to a new culture (Singelis, 1994). This exploration is crucial for understanding the adaptation challenges faced by international students and how individual self-construal impacts the acculturation experience in a new cultural environment.

The role of gender is also pivotal in our study. Gender differences may significantly impact the experience and expression of RISC, the levels of acculturative stress, and perceptions regarding the efficacy and accessibility of social support. By incorporating gender as a key variable, we aim to achieve a more comprehensive understanding of how these factors interact and influence the acculturation process.

This study, by comparing the experiences and RISC scores across different genders and cultural backgrounds, aims to provide valuable insights into how cultural and individual differences shape the experiences of acculturative stress and the strategies employed for international students' adaptation to the Japanese cultural milieu. This approach not only enriches the academic discourse on cultural adaptation but also has practical implications for enhancing the support systems for international students.

2.7 Hypotheses

This study aims to (a) examine the RISC of native Japanese students and compare it with those

of Chinese and American students; (b) explore the relationship between RISC and perceived social support; (c) investigate further if RISC predicts international students' acculturative stress; (d) explore the role of culture and gender in RISC, acculturative stress, and social support.

The following hypotheses were developed based on previous findings and discussions:

1. There will be no significant difference between Japanese and Chinese students regarding RISC. American students will report significantly higher RISC scores than Japanese and Chinese students.
2. A positive relationship is expected between social support and RISC among international students.
3. A higher RISC score will predict a lower acculturative stress score.
4. Among international students studying in Japan, male students will report lower scores on RISC and encounter more acculturative stress than female students.

3. Methodology

3.1 Participants

In the current study, 431 participants were recruited to answer questionnaires. Among them, 159 were Japanese college students (42 males and 117 females, age: $M = 19.84$, $SD = 2.69$), 171 were Chinese students studying in Japan (42 males and 129 females, age: $M = 19.95$, $SD = 3.01$), and 101 were American students studying in Japan (40 males and 61 females, age: $M = 22.72$, $SD = 4.53$). More specifically, in the U.S. sample, 35 (34.65%) respondents reported "White" in ethnic origin, 17 (16.83%) reported "Asian," 9 (8.91%) reported "Hispanic and Latino," 5 (4.95%) reported "Pacific Islander," 5 (4.95%) reported "Black or African American," and the left reported multiple ethnic origins. Among international students ($n = 272$), 26

(9.6%) self-reported "Basic" on their Japanese language proficiency, 36 (13.2%) reported "Elementary," 62 (22.8%) reported "Intermediate," 89 (32.7%) reported "Pre-advanced," and 59 (21.7%) reported "Advanced."

3.2 Materials

3.2.1 Relational Interdependent Self-Construal Scale (RISC)

The Relational Interdependent Self-Construal Scale (Cross et al., 2000) measures how individuals define themselves regarding their intimate relationships. Participants rated the 11 items using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include "My close relationships are an important reflection of who I am" and "My sense of pride comes from knowing who I have as close friends." The Cronbach alpha was .88 for the American sample in this study and .85 for Chinese students (Huang & Bi, 2012).

The Japanese version of the RISC Scale was created by translating the original English version into Japanese and then back into English by two independent bilingual experts. The translations were reviewed and refined to ensure linguistic accuracy. A pilot study involving 59 participants (20 males and 39 females, $M = 20.73$, $SD = 2.13$) was conducted to test the scale's psychometric properties. A confirmatory factor analysis was conducted using AMOS to check the scale's validity. The Chi-square/DF ratio was 2.28, suggesting a reasonable model adaptation. The fit indices were GFI = 0.81, CFI = 0.83, and RMSEA = 0.73, which are below the threshold for a good fit, according to Byrne (2001). However, the small sample size suggests that validity might improve with a larger group, and all items were retained after the pilot study. For reliability, the internal consistency of the Japanese RISC version was measured using SPSS, yielding a Cronbach's alpha

of .76, considered acceptable (Nunnally, 1978). In a larger sample of 159 students, Cronbach's alpha increased to .81.

3.2.2 Acculturative Stress Scale for International Students (ASSIS)

The 36-item Acculturative Stress Scale for International Students (Sandhu & Asrabadi, 1994) was used to measure acculturative stress. American students were asked to rate on a 5-point Likert-type scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Sample questions include "I feel that I receive unequal treatment" and "Homesickness bothers me." In this study, the Cronbach's alpha was .93 for American students and .90 for Chinese students (Zhang et al., 2015).

3.2.3 Index of Sojourner Social Support (ISSS)

A modified version of the Index of Sojourner Social Support (ISSS) (Ong & Ward, 2005) was used to assess sources of social support. The ISSS was developed to measure the social support people living and working abroad receive from others. It consists of 18 items scored on a 5-point Likert-type scale, ranging from *no one would do this* to *many would do this*. Sample item: "Listen and talk with you whenever you feel lonely or depressed." A Cronbach's alpha of .92 was revealed for American students and .96 for Chinese students.

3.3 Procedure

In this study, informed consent was obtained from all participants, who were assured of confidentiality and anonymity for their responses. The surveys for Chinese and American students were created using Google Forms and included three psychological measures: the RISC Scale, the ASSIS, and the ISSS, as well as demographic questions. These demographic questions encompassed age, gender, country of origin, duration of stay in Japan, study abroad experience, and language skills. The survey items

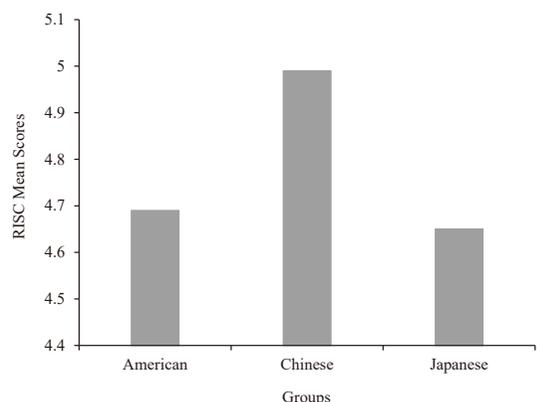
and instructions were provided in English for American students and in Chinese for Chinese students. Participants, recruited from Japanese universities and social networking platforms, took approximately 10 minutes to complete the survey. For native Japanese students, the questionnaire comprised only the translated RISC Scale and basic demographic questions. These were distributed in printed form to university students. Participation was entirely voluntary, with snacks offered as a small token of appreciation.

4. Results

4.1 Descriptive Statistics of the Whole Sample

RISC of native Japanese students, Chinese students, and American students studying in Japan was examined first. The mean scores of RISC of the three groups were unequal as determined by one-way ANOVA, $F(2, 428) = 6.56, p = .002$. A Tukey post hoc test showed that Chinese students ($M = 4.99, SD = 0.94$) were significantly higher on RISC than American students ($M = 4.69, SD = 0.88, p = .022$) and Japanese students ($M = 4.65, SD = 0.9, p = .003$), but there was no significant difference between American and Japanese students on RISC (See Figure 1).

Figure 1
RISC Mean Scores of American, Chinese, and Japanese Students



To further investigate the degree to which gender difference can be explained in the construct of relational self-construal, an independent-sample *t*-test of the three student groups by gender was conducted. Table 1 revealed that for American students, there was a significant difference in RISC scores for females and males, $t(99) = -2.37$, $p = .02$. The means of RISC for females ($M = 4.85$, $SD = 0.85$) are significantly higher than the means of RISC for males ($M = 4.43$, $SD = 0.88$). For Chinese and Japanese students, there was no significant difference between genders, despite females attaining higher scores than males.

For international students, acculturative stress and social support were additionally tested by performing independent-sample *t*-tests. In terms of acculturative stress, there was no significant difference between American students ($M = 80.47$, $SD = 19.16$) and Chinese students ($M = 80.58$, $SD = 20.24$); $t(270) = -.05$, $p = .96$ (*n.s.*). However, there was a significant difference between American and Chinese students for social support,

$t(270) = 5.08$, $p < .001$. American students ($M = 61.98$, $SD = 14.14$) attained much higher scores than Chinese students ($M = 52.53$, $SD = 15.24$).

Independent-sample *t*-tests were also conducted to compare acculturative stress and social support by gender. Female students ($M = 82.56$, $SD = 19.11$) reported significantly higher scores on acculturative stress than male students ($M = 75.85$, $SD = 20.7$) on acculturative stress, $t(270) = 2.59$, $p = .005$. However, there was no significant difference between female ($M = 56.44$, $SD = 16.19$) and male students ($M = 55.1$, $SD = 13.83$) for social support ($t(270) = .66$, $p = .51$ (*n.s.*)).

4.2 Correlations

In order to verify Hypothesis 2, Pearson correlations of RISC, social support, and acculturative stress of the whole sample were computed. Results revealed that there was a very weak but statistically significant positive correlation between RISC and perceived social support ($r = .24$, $p < .001$). Similarly, acculturative

Table 1
Means and Standard Deviations of Relational Interdependent Self-Construal of American Students, Chinese Students, and Japanese Students by Gender

Gender	RISC of American students				RISC of Chinese students				RISC of Japanese students			
	n	M	SD	t	n	M	SD	t	n	M	SD	t
Male	40	4.43	.88	-2.37*	42	4.90	.90	-.72	42	4.58	1.03	-.62
Female	61	4.85	.85		129	5.02	.96		117	4.68	.85	

Note: * $p < .05$

Table 2
Pearson Correlations of the Whole Sample, (n = 272)

	1	2	3
1. RISC	1	.07	.24**
2. Acculturative stress		1	-.16**
3. Perceived social support			1

Note: RISC = Relational Interdependent Self-construal Scale. ** $p < .01$

stress was found to have a weak yet significant negative correlation with perceived social support ($r = -.16, p = .008$). However, as shown in Table 2, there was no significant correlation between RISC and acculturative stress.

4.3 Predictors of Acculturative Stress for Chinese Female Students, Chinese Male Students, American Female Students, and American Male Students

Multiple regression analysis of students from the two countries by gender was conducted for further interpretation. There was a significant regression equation of acculturative stress for American female students ($F(4, 56) = 8.75, p < .001$), with an R^2 of .38. More social support ($\beta = -.38, p = .003$) predicted less acculturative stress, and higher Japanese language proficiency level ($\beta = -.30, p = .023$) predicted less acculturative stress as well (See Table 3).

Table 4 shows predictors of acculturative stress

for American male students. A significant relationship was found for American male students ($F(4, 35) = 3.13, p = .027$), with an R^2 of .26. Perceived social support ($\beta = -.45, p = .017$) was the only predictor in this model. It showed a significant negative relationship with acculturative stress, indicating that American male students who obtained more social support encountered less acculturative stress in Japan. However, unlike female students, Japanese language proficiency did not significantly predict acculturative stress.

Multiple regression analysis was conducted for Chinese female students. A significant regression equation was found ($F(4, 124) = 4.1, p = .004$), with an R^2 of .12. It is noteworthy that, unlike other groups, RISC positively predicted the acculturative stress of Chinese female students ($\beta = .23, p = .008$). In other words, those who got higher scores on RISC encountered more acculturative stress in Japan (See Table 5).

Instead, a significant regression equation was not

Table 3
Results of Multiple Regression Analysis of Acculturative Stress for American Female Students

	R^2	β	B	SE
Model	.38***			
RISC score		.06	1.43	3.05
Social Support score		-.38**	-.55	.17
JP Language Proficiency		-.30*	-5.23	2.23
Length of stay in JP		-.14	-2.07	1.93

Note: Statistical significance: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4
Results of Multiple Regression Analysis of Acculturative Stress for American Male Students

	R^2	β	B	SE
Model	.26*			
RISC score		.24	4.10	3.24
Social Support score		-.45*	-.57	.23
JP Language Proficiency		-.40	-5.07	2.57
Length of stay in JP		.24	2.83	2.26

Note: Statistical significance: * $p < .05$

Table 5
Results of Multiple Regression Analysis of Acculturative Stress for Chinese Female Students

	R^2	β	B	SE
Model	.12**			
RISC score		.23**	4.44	1.66
Social Support score		-.16	-.19	.11
JP Language Proficiency		-.20	-3.44	1.71
Length of stay in JP		.10	1.68	1.61

Note: Statistical significance: * $p < .05$, ** $p < .01$

found for Chinese male students ($F(4, 37) = 1.19$, $p = .33$ (n.s.)), with an R^2 of .11. None of the predictors significantly predicted acculturative stress.

4.4 Predictors of Social Support for Chinese Female Students, Chinese Male Students, American Female Students, and American Male Students

Pearson correlation of the general sample revealed that social support is positively correlated

with RISC and negatively correlated with acculturative stress. Multiple regression analyses were carried out to investigate whether the variables could significantly predict social support for students from two countries by gender.

Significant relationships were found for American female students ($F(4, 56) = 8.14$, $p < .001$), with an R^2 of .37, and American male students ($F(4, 35) = 7.38$, $p < .001$), with an R^2 of .46. In both models, RISC positively predicted social support and acculturative stress negatively

Table 6
Results of Multiple Regression Analysis of Social Support for American Female Students

	R^2	β	B	SE
Model	.37***			
RISC score		.39**	6.66	1.97
Acculturative stress score		-.39**	-.28	.09
JP Language Proficiency		.04	.49	1.66
Length of stay in JP		0.11	1.15	1.38

Note: Statistical significance: ** $p < .01$, *** $p < .001$

Table 7
Results of Multiple Regression Analysis of Social Support for American Male Students

	R^2	β	B	SE
Model	.46***			
RISC score		.55***	7.58	1.87
Acculturative stress score		-.33*	-.27	.11
JP Language Proficiency		-.08	-.39	1.85
Length of stay in JP		.10	.96	1.57

Note: Statistical significance: * $p < .05$, *** $p < .001$

predicted social support (see Table 6).

More specifically, American female students with higher RISC scores ($\beta = .39, p = .002$) obtained more social support, and those who encountered less acculturative stress ($\beta = -.39, p = .003$) obtained more social support. Table 7 shows the exact condition of predictors RISC ($\beta = .55, p < .001$) and acculturative stress ($\beta = -.33, p = .017$) for American male students.

Results of Table 8 indicated that there was a significant regression equation of social support for Chinese female students ($F(4, 124) = 4.33, p = .003$), with an R^2 of .12. Students who got higher scores on RISC ($\beta = .24, p = .007$) obtained more social support. Those with higher Japanese language proficiency levels ($\beta = .22, p = .03$) got more social support.

A significant regression equation was also found for Chinese male students ($F(4, 37) = 3.47, p = .017$), with an R^2 of .27. RISC ($\beta = .36, p = .02$) positively predicted social support. However,

Japanese language proficiency did not show any significance in this model (See Table 9).

4.5 The Relationship Between RISC and Social Support on Acculturative Stress

Participants were divided into two halves at each median score regarding RISC (with a median of 5) and social support (with a median of 55). Those getting RISC scores higher than the median were categorized into RISC high group, and those getting RISC scores lower than the median were categorized into RISC low group. Accordingly, students with ISSS scores higher than the median were categorized into the social support high group, and those with ISSS scores lower than the median were categorized into the social support low group.

Two-way ANOVA of RISC and Social support on Acculturative Stress by gender were performed separately.

A significant interaction between RISC and social support on acculturative stress was not found

Table 8
Results of Multiple Regression Analysis of Social Support for Chinese Female Students

	R^2	β	B	SE
Model	.12**			
RISC score		.24**	3.79	1.39
Acculturative stress score		-.16	-.13	.07
JP Language Proficiency		.22**	3.13	1.43
Length of stay in JP		.04	.55	1.35

Note: Statistical significance: ** $p < .01$

Table 9
Results of Multiple Regression Analysis of Social Support for Chinese Male Students

	R^2	β	B	SE
Model	.27*			
RISC score		.36*	5.95	2.45
Acculturative stress score		.23	.14	.09
JP Language Proficiency		.08	.94	1.78
Length of stay in JP		.22	2.83	2.01

Note: Statistical significance: * $p < .05$

for female students ($F(1, 186) = 1.25, p = .27$ (*n.s.*), $\eta^2 = .007$). There was a significant main effect of RISC on acculturative stress ($F(1, 186) = 4.31, p = .039, \eta^2 = .023$). Female students with higher RISC scores reported higher scores on acculturative stress than those with lower RISC scores. In addition, there was a significant main effect of social support on acculturative stress ($F(1, 186) = 6.43, p = .012, \eta^2 = .033$). Female students in high social support group encountered less acculturative stress than those in low social support group (see Figure 2).

For male students, a significant interaction between RISC and social support on acculturative stress was not found ($F(1, 78) = 3.57, p = .06$ (*n.s.*), $\eta^2 = .044$). There was only a significant main effect of RISC on acculturative stress ($F(1, 78) = 6.93, p = .01, \eta^2 = .08$). Highly RISC male participants reported lower scores on acculturative stress than lowly RISC male participants (See Figure 3).

Two-way ANOVA of RISC and social support on acculturative stress of American male students was conducted first. For American male students, a significant interaction between RISC and social

support on acculturative stress was not found ($F(1, 36) = 0.82, p = .37$ (*n.s.*), $\eta^2 = .02$). Significant main effects and simple main effects were also not found for American male students.

Two-way ANOVA for American female students revealed that a significant interaction between RISC and social support on acculturative stress was not found ($F(1, 57) = 2.06, p = .06$ (*n.s.*), $\eta^2 = .04$).

A significant main effect of social support on acculturative stress was found for American female students ($F(1, 57) = 13.76, p < .001, \eta^2 = .19$). As shown in Figure 6, American students who had lower social support reported higher scores on acculturative stress than those who had more social support. A significant main effect of RISC was not found on acculturative stress in American female students ($F(1, 57) = 2.41, p = 0.13$ (*n.s.*), $\eta^2 = .04$) (See Figure 4).

Two-way ANOVA of RISC and Social support on Acculturative Stress of Chinese male students was conducted. A significant interaction between RISC and social support on acculturative stress was not found in this group ($F(1, 38) = 2.37, p = .14$ (*n.s.*), $\eta^2 = .06$).

Figure 2
Acculturative Stress Scores of Social Support Low and Social Support High Groups for Female Students with Low RISC Scores and High RISC Scores Chinese Female Students

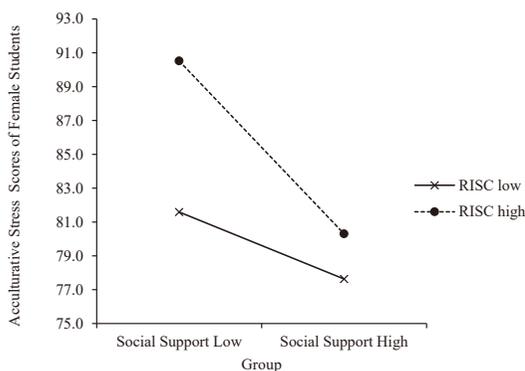
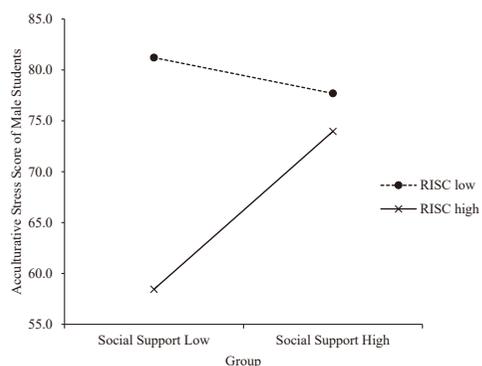


Figure 3
Acculturative Stress Scores of Social Support Low and Social Support High Groups for Male Students with Low RISC Scores and High RISC Scores



For male students, there was a significant main effect of RISC on acculturative stress ($F(1, 38) = 4.98, p = .04, \eta^2 = .17$). Highly RISC Chinese male participants reported lower scores on acculturative stress than lowly RISC Chinese male participants. (See Figure 5)

Two-way ANOVA of RISC and social support on

acculturative stress for the last group, Chinese female students, was conducted. There was no significant interaction between RISC and social support on acculturative stress in this group ($F(1, 125) = 0.75, p = .39 (n.s.), \eta^2 = .01$). (See Figure 6)

A significant main effect of RISC on acculturative stress was found for Chinese female

Figure 4

Acculturative Stress Scores of Social Support Low and Social Support High Groups for American Female Students with Low RISC Scores and High RISC Scores

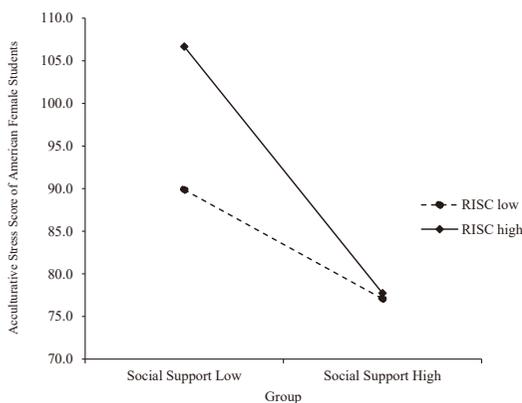


Figure 5

Acculturative Stress Scores of Social Support Low and Social Support High Groups for Chinese Male Students with Low RISC Scores and High RISC Scores

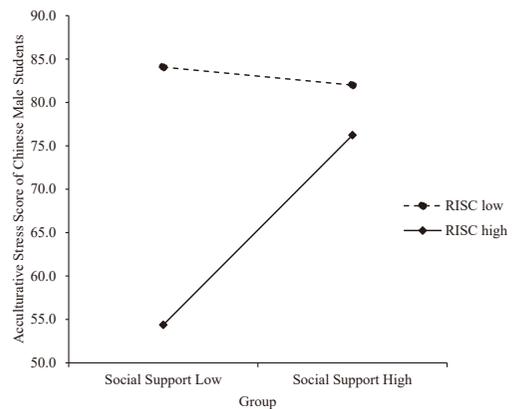
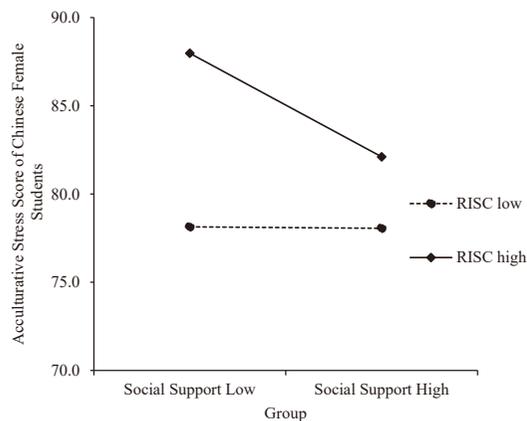


Figure 6

Acculturative Stress Scores of Social Support Low and Social Support High Groups for Chinese Female Students with Low RISC scores and High RISC Scores



students ($F(1, 125) = 4.35, p = .039, \eta^2 = .03$). Highly RISC Chinese female participants reported higher scores on acculturative stress than lowly RISC participants. This result has revealed a different result from that of Chinese male students.

5. Discussion

5.1 Relational Interdependent Self-Construal

Relational interdependent self-construal (RISC) is a key concept in this study and was assessed first for native Japanese students, Chinese students studying in Japan, and American students studying in Japan. The general sample revealed that Chinese students scored significantly higher on RISC than Japanese and American students. However, American and Japanese students did not differ significantly regarding RISC. The result contradicts my hypothesis that there is no difference between Japanese and Chinese students. This result is also inconsistent with empirical findings, several of which have found that Americans have higher RISC than Asians (Brenahan et al., 2005; Xiang et al., 2018).

After Cross (2000) proposed the concept of RISC, many studies have been conducted in Western countries. However, the number of research assessing RISC of East Asians is limited. Although RISC emphasizes the importance of the relational aspect to the self, the impact of culture still cannot be neglected. Backing to the problem of cultural dimension, how are Chinese, Japanese, and American society different culturally? The conventional view that Japanese and Chinese society are collectivistic, while American society is individualistic, has been doubted in recent years. For instance, Takano and Sogon (2008) demonstrated no consistency between Japanese and Americans in terms of conformity; thus, this common view needed to be reflected compared to reality. The classic framework of individualism and

collectivism may not be as pivotal in understanding relational interdependence. This notion is supported by the possibility that Chinese individuals might exhibit a more relational orientation, with Chinese collectivism extending beyond group emphasis to underscore the importance of close relationships.

In exploring these cultural nuances, Takahashi et al. (2020) investigated how Chinese and Japanese young adults form mental representations of their intimate relationships influenced by Confucian cultural values. Their findings indicated that Chinese participants typically experienced a deeper connection with their fathers. This variation can be partly attributed to the persistent patriarchal values embedded in Chinese cultural norms. These cultural norms, mirroring the deeply ingrained cultural beliefs within the society, can influence individuals' beliefs and perceptions of their close relationships, thereby contributing to the variations in RISC.

In addition, gender difference was found regarding RISC between American male and American female students. This result supported previous findings that American females scored higher on RISC than males and regarded intimate relationships more importantly (Cross et al., 2000). For Japanese and Chinese students, there was no significant difference by gender. The findings may suggest that the difference in terms of RISC between genders could be more notable in individualistic cultures. However, further investigation is required to examine and compare the relational dimensions of males and females across diverse cultural contexts to provide supportive evidence. Nevertheless, Table 1 indicated that females scored higher than males to some degree in all three student groups.

5.2 Acculturative Stress and Social Support

The assessment of acculturative stress revealed that American and Chinese students encountered

similar levels of acculturative stress. The overall level of acculturative stress exhibited by females was much higher than that of males. Hypothesis 4 predicted that males get lower scores on RISC and encounter more acculturative stress than females. Still, results indicated that this hypothesis was only partially supported since females experienced more acculturative stress. The difference between genders for acculturative stress contradicts the findings of Duru and Poyrazli (2007), showing that gender differences did not emerge in the acculturative stress of Turkish international students in America. Regarding social support, it was found that American students attained much higher scores than Chinese students, whereas male and female students obtained a similar amount of social support.

5.3 Correlations

Pearson Correlations revealed that RISC was positively related to perceived social support. This result supported Hypothesis 2 and suggested that highly relational individuals perceive relationships with close others as essential and seek more help from family, friends, and society. Additionally, the result aligns with prior research (Thomas & Choi, 2006; Yeh & Inose, 2003), indicating that social support is negatively associated with acculturative stress.

5.4 Predictors of Acculturative Stress

Multiple regression analyses revealed that Japanese language competence negatively predicted acculturative stress for American female students. The finding that language proficiency in the host country is a significant predictor of acculturative stress has been found in many previous studies. For instance, English proficiency was a significant predictor of acculturative stress in the context of international students in America (Bai, 2016; Duru & Poyrazli, 2007; Yeh & Inose, 2003). A higher

level of Japanese language proficiency may help international students adjust to a society with a different culture. They are more likely to be able to communicate with local people, ask questions, and seek help. This process benefits their acculturation experience and thus may reduce their acculturative stress. However, Japanese language proficiency did not predict acculturative stress in the Chinese students group. One possible explanation for the insignificance of Japanese language proficiency is that compared to American students, Chinese students encounter less acculturative stress because they have higher reading abilities in Kanji. In this case, Chinese students are quicker and easier to adjust to the new environment, even with poor language proficiency.

The most noteworthy finding in this study is that higher RISC predicted higher acculturative stress for female students. This result contradicted Hypothesis 4, expecting that RISC negatively predicts acculturative stress. In particular, the finding is notable for Chinese female students. Commonly we believe that those who perceive intimate relationships important are more likely to seek support from these close others if stressors arise from acculturation. They tend to easily obtain more social support resulting in less acculturative stress. However, this explanation is only plausible for some females, especially Chinese females. This result may imply that Chinese females who are high relational may attach more importance to close relationships, and the over-attention may lead to acculturative stress relating to people around them. Moreover, since most participants in the Chinese sample are only-child of their families, it is understandable that these participants concern more about their families. Constantine et al. (2005) argued that Chinese international students who leave their homes and stay in the host country for a long period might feel guilty since they do not fulfill their responsibilities of taking care of

families. This argument may support the result to some extent.

5.5 Predictors of Social Support

Overall, RISC positively predicted social support. This is understandable as the researcher has just explained that individuals who perceive intimate relationships as important are more likely to seek and receive support from these close others.

The remarkable point is that for Chinese female students, Japanese language proficiency significantly correlated with social support. Those with higher levels of Japanese language proficiency are more likely to obtain more social support. Social support can be obtained from family and friends in distance as well as in the host society (Walton, 1990). One possible explanation is that Chinese female students with better Japanese language skills obtain more social support from local people and society. The use of the Japanese language is comfortable and competent enough to get support from the host society.

5.6 Further Relationships Among RISC, Social Support, and Acculturative Stress

Two-way ANOVA was done for different groups to further investigate the relationships of the three concepts, and remarkable results are discussed below.

It was found for female students that those with higher RISC scores reported higher scores on acculturative stress than those with lower RISC scores; this can be explained by that those who scored highly on RISC considered close others vital to themselves, leading to more acculturative stress if the stressors come from their family or close friends. Regarding gender differences, research indicated that females exhibited more attentiveness and sensitivity towards their friends than males, as Verkuyten (1996) noted. Furthermore, Madson and Trafimow (2001) observed that women's identities

were more strongly characterized by collective and allocentric elements than men's. Specifically, women were more inclined to consider themselves in the context of their relationships with others than men were.

For Chinese students, highly RISC males reported lower scores on acculturative stress than lowly RISC males, whereas highly RISC females reported higher scores than lowly RISC females. This gender difference may imply that Chinese male students with higher RISC encounter less acculturative stress because they obtain more social support from close others. In comparison, Chinese female students with higher RISC encounter more acculturative stress because of their over-attention to close others, or the stressors are directly arising from close others.

6. Limitation

Several limitations must be noted in this research. First, this research targets international students studying in Japan, but only Chinese and American students were selected as participants. There are generalizations that Western cultures are often characterized as more individualistic, while Asian cultures are often characterized as more collectivistic, but every culture encompasses both collectivist and individualist traits. Engaging diverse groups of individuals will be beneficial to gain a more accurate understanding based on cultures. The second limitation involves unequal gender distribution of Chinese and Japanese samples. In both samples, female participants were far more than male participants. This leads to the underrepresentation of males, and findings might be more reflective of gender-based aspects. Therefore, gender-balanced samples are suggested for future studies. A third limitation is that Japanese language proficiency was self-reported for international students. As a significant variable in

this study, host country language competence would be better measured continuously rather than self-reported ordinally.

Methodologically, the Japanese version of the RISC scale was translated with reasonable reliability, but it did not meet all the ideal standards for fit indices. Its validity still needs to be tested with other established scales, and there may be issues with how well it fits the Japanese cultural context. Also, the survey was distributed differently: Japanese students got printed copies, while international students filled it out online. This variation in distribution methods could lead to minor differences in the level of attention and response styles of participants, although these differences are not anticipated to influence the overall outcomes significantly. Nevertheless, this aspect should be considered when analyzing the study's results. Another challenge is ensuring that the English, Japanese, and Chinese versions of the scales are consistent in language and concept. There might be slight differences in understanding due to language and cultural nuances.

7. Implication and Future Directions

Social and cultural psychologists now view independent, interdependent, and relational self-construal as three dimensions of the self, which all individuals construct to some degree. This study emphasized the relational form of self-construal only due to limited time and resources. More comprehensive research involving universal dimensions is suggested to understand better the self-construal of Japanese people and those international students choosing to study abroad in Japan.

Findings demonstrated the importance of host country language competence to acculturative stress and social support, especially for female students. Universities in Japan may provide language training

programs to enhance international students' language abilities and encourage communication with native speakers. Again, gender differences in the findings may suggest that male and female students vary in ways.

Furthermore, as noted previously, more consideration is needed to select scales. So far, ASSIS is the only scale for assessing international students' acculturative stress; however, items in terms of interpersonal or academic aspects still need to be included. Qualitative studies investigating specific acculturative stress international students might encounter in Japan are suggested. Meanwhile, although the length of stay did not show significance in predicting international students' acculturative stress and social support, a longitudinal design might provide more information on how international students acculturate and obtain social support in Japan. As Menjívar (2000) has argued, individuals' needs for social support might differ over time, and the initiation of support might change at different points.

Finally, the results of this study may imply the counseling practice of higher education institutions in Japan. It might be helpful for counselors to prepare measures for assessing specific acculturative stressors. Meanwhile, institutions can offer more opportunities for international students to increase interactions with native students and provide social support.

8. Conclusion

Regarding RISC, Chinese students scored significantly higher than Japanese and American students, contradicting the hypothesis that there is no difference between Japanese and Chinese students. As a significant predictor of acculturative stress for American female students, Japanese language competence benefits their adjustment to a society with a different culture. However, the

significance did not appear in Chinese students.

Participants who scored highly on RISC encountered less acculturative stress can be explained by the likelihood of receiving more social support from close others. In contrast, participants who scored highly on RISC encountered more acculturative stress, potentially due to their over-attention to close others, or the stressors directly arising from close others.

Despite certain limitations, this study profoundly explored cultural and gender differences in the relationships among RISC, social support, and acculturative stress for Chinese and American students.

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