Chapter #1

TRANSLATION, RELIABILITY, AND CONSTRUCT VALIDITY OF THE JAPANESE VERSION OF THE ATTITUDES TOWARD FORGIVENESS SCALE

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ABSTRACT
Although numerous forgiveness measures have been developed, only a few are useful for assessing the value of forgiveness. This study examined the reliability and construct validity of the Japanese translation (ATF-J) of the six-item Attitudes Toward Forgiveness Scale to assess individuals' value of forgiveness. The participants were 234 Japanese college students (39.3% women; mean age = 20.85 years, *SD* = 1.27) who completed the questionnaire on two occasions separated by four weeks. The one-factor structure of the ATF-J was confirmed through exploratory and confirmatory factor analysis. Internal consistency reliability (Cronbach's αs = .71 and .73) and test–retest reliability over a 4-week period (*r* = .61) were acceptable. Construct validity was supported by the expected correlations with scores for dispositional forgiveness of others, hedonic and eudaimonic well-being, psychological stress, trait empathy, and trait anger. However, contrary to expectations, no significant correlations were found between ATF-J scores and depression and anxiety symptom scores. Overall, these findings provide preliminary support for the reliability and construct validity of the ATF-J. Therefore, the ATF-J is a useful tool for assessing the value of forgiveness in the Japanese population.

Keywords: value of forgiveness, pro-forgiveness attitudes, measure, Japanese version, reliability, construct validity.

1. INTRODUCTION

1.1. Definitions of Forgiveness

Forgiveness has attracted considerable attention from researchers as an unquestionably important socially functional process (Thompson & Snyder, 2019; Tsang & Martin, 2021). Research on forgiveness has progressed over the past few decades. A substantial body of literature supports the relationship between forgiveness, health, and well-being (Gao, Li, & Bai, 2022; Lee & Enright, 2019; Webb & Toussaint, 2020). Although previous studies on forgiveness have yielded many interesting and beneficial results, they have proposed different definitions of forgiveness (McCullough & Root, 2005; Thompson & Snyder, 2019; Worthington, 2020). Moreover, issues with the definition of forgiveness were identified. For instance, is forgiveness primarily intrapersonal or interpersonal, and what changes when a person forgives? (Worthington, 2020) Within this context, most scholars admit that forgiveness refers to intrapersonal and prosocial changes in thoughts, emotions, motivations, or behaviors (McCullough & Root, 2005; Tsang & Martin, 2021; Worthington, 2020). Forgiveness is commonly recognized as being distinct from pardoning, condoning, excusing, denying, forgetting, reconciling, and justifying (Thompson & Snyder, 2019; Tsang & Martin, 2021; Worthington, 2020).

A possible contributor to problems with this definition is the complex and multifaceted nature of forgiveness, as an intrapersonal experience occurring in an interpersonal context (Worthington, 2020). Forgiveness has been understood and researched from various perspectives (Thompson & Snyder, 2019; Tsang & Martin, 2021; Webb & Toussaint, 2020; Worthington, 2020), including stability (i.e., trait or disposition, and state or situation), targets (e.g., self, others, out-group, situation, and the sacred), and methods (e.g., offering, seeking, feeling, and valuing).

1.2. Measures of Forgiveness

Researchers have developed various measures corresponding to different definitions and perspectives of forgiveness. Forgiveness measures have increased in recent years (Fernández-Capo, Fernández, Sanfeliu, Benito, & Worthington, 2017; McElroy-Heltzel, Davis, Ordaz, Griffin, & Hook, 2020; Thompson & Snyder, 2019). Various instruments of forgiveness include non-self-report measures intended to assess behavioral, physiological, and chemical aspects (Thompson & Snyder, 2019; Worthington et al., 2015). Implicit measures have also been developed and are widely used (Thompson & Snyder, 2019). Compared to these types of measures, considerable forgiveness research has used self-report measures (Thompson & Snyder, 2019; Tsang & Martin, 2021). Among the various aspects and perspectives of forgiveness, forgiveness of others has been studied most frequently (Webb & Toussaint, 2020). Most self-report measures are designed to assess an individual's tendency to forgive others (Thompson et al., 2005). Therefore, self-report measures for the dispositional forgiveness of others have been used more frequently in forgiveness research. This type of measure includes the most widely used instrument, the Heartland Forgiveness Scale (Thompson et al., 2005), which has three subscales for assessing dispositional forgivingness toward the self, situation, and others. The Tendency to Forgive Scale (Brown, 2003) is another well-known self-report measure of the dispositional forgiveness of others.

1.3. Attitudes Toward Forgiveness Scale

Among the measures of various aspects of forgiveness, the Attitudes Toward Forgiveness Scale (ATF; Brown, 2003) is used to assess individuals' values of forgiveness, such as pro-forgiveness attitudes (Brown & Phillips, 2005). The ATF is a brief six-item self-report measure designed to assess the extent to which individuals value forgiveness, independent of whether they practice forgiveness (Brown, 2003). Items composing the ATF measure the attitudinal aspect of forgiveness, not the experiential or behavioral aspects (e.g., "I believe forgiveness is a moral virtue"), and are rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), including three reverse-scored items. Total ATF scores range from 7 to 42, with higher scores reflecting a greater value of forgiveness. There have been several translations of the ATF into various languages, including Polish (Zarzycka, 2019), Chinese (Zheng et al., 2021), Urdu (Javed, Kausar, & Khan, 2014), and Russian (Kononova & Pugovkina, 2018).

The psychometric properties of the ATF were also supported (Brown, 2003; Brown & Phillips, 2005). The internal consistency reliability (Cronbach's αs = .61 to .71: Barnes, Carvallo, Brown, & Osterman, 2010; Brown, 2003; Brown & Phillips, 2005) was not high, but acceptable (DeVellis & Thorpe, 2021; Nunnally & Bernstein, 1994; Streiner, Norman, & Cairney, 2015). Convergent validity was confirmed by significant correlations with scores for dispositional forgiveness of others measured using Brown's (2003) Tendency to Forgive Scale and Berry, Worthington, Parrott, O'Connor, and Wade's (2001) Transgression Narrative Test of Forgivingness, scores for state forgiveness of the offense measured using Brown and Phillips' (2005) State Forgiveness Scale, and scores for vengeance attitudes and

behaviors measured using Stuckless and Goranson's (1992) Vengeance Scale (Brown, 2003; Brown & Phillips, 2005). These correlations also indicate a distinction between the constructs measured by the ATF and others (Brown, 2003). The construct validity was also supported by significant correlations with life satisfaction, self-esteem, depression, and trait anger (Barnes et al., 2010; Brown, 2003; Brown & Phillips, 2005).

1.4. Purpose of the Study

The purpose of this study was to evaluate the preliminary reliability and construct validity of the ATF translated into Japanese (ATF-J) to create a Japanese version of the ATF. The empirical knowledge of forgiveness among Japanese people is currently insufficient. There is a need for a Japanese version of the ATF as a brief and efficient measure of the value of forgiveness, which would contribute to clarifying cross-cultural differences in forgiveness (Hanke & Vauclair, 2016; Ho & Worthington Jr., 2020; Karremans et al., 2011).

The generated ATF-J used a back-translation process, and was examined for dimensionality, internal consistency reliability, and test–retest reliability. A one-factor structure of the ATF was expected because the ATF scores were calculated by summing all items, including the three reverse-scored items (Brown, 2003). The time interval for test–retest reliability was set at four weeks, which was the same as the time interval for test–retest reliability of the Japanese version of the Tendency to Forgive Scale (Sumi, 2022). A higher test–retest reliability over shorter retest intervals was hypothesized because the ATF assesses individuals' valuable attitudes toward forgiving others.

Construct validity was assessed by examining the correlations between scores on the measures of related constructs. The related constructs were selected based on previous results from American samples, because in a Japanese sample, similar to American samples, scores on the Tendency to Forgive Scale (Brown, 2003) were correlated with scores on the related construct measures, including life satisfaction and trait empathy scales (Sumi, 2022). Based on previous findings (Barnes et al., 2010; Brown, 2003; Brown & Phillips, 2005), ATF-J scores would be significantly, but not highly, correlated with scores for dispositional forgiveness of others as a related but distinguishable construct from valuing forgiveness. A related construct is well-being, for which a close relationship with forgiveness has been supported (Tsang & Martin, 2021; Webb & Toussaint, 2020). According to the theoretical traditions (Deci & Ryan 2008; Ryan & Deci 2001), well-being can be divided into two dimensions: hedonic and eudaimonic. Hedonic well-being comprises three components: life satisfaction, positive affect, and negative affect. These dimensions and components of well-being were expected to be weakly but significantly correlated with the value of forgiveness. Furthermore, based on previous studies on the ATF (Barnes et al., 2010; Brown, 2003; Brown & Phillips, 2005), trait forgiveness (Fernández-Capo et al., 2017), and general forgiveness (Riek & Mania, 2012; Tsang & Martin, 2021), ATF-J scores should be weakly and negatively correlated with scores for psychological stress, depression and anxiety symptoms, and trait anger, and weakly and positively correlated with scores for trait empathy. The hypothesized correlations for construct validity indicated the convergence of the ATF-J and other measures. Moreover, the correlations would support discrimination between the ATF-J and other measures because they would not be high enough to show construct redundancy between them.

2. METHOD

2.1. Participants

The study participants were 234 students from two colleges in Japan, comprising 92 women and 142 men, with a mean age of 20.75 years (*SD* = 1.27, range = 19 to 28 years). A total of 243 students were initially invited to participate. No data were missing. After clarifying the purpose of this study, anonymity and confidentiality were explained, and all participants agreed to voluntarily participate in two test sessions with a 4-week interval between the sessions (Times 1 and 2) and complete the measures. Participants responded to all questionnaires at Time 1 and completed only the ATF-J at Time 2. Ethical approval for this study was obtained from the relevant ethics committee.

2.2. Measures

(1) Japanese translation of the ATF

The original English version of the ATF was translated into Japanese after obtaining permission from Dr. Ryan P. Brown (personal communication, March 30, 2022) who developed the ATF. The translation process was in accordance with the translation and back-translation procedures based on several guidelines (e.g., Beaton, Bombardier, Guillemin, & Ferraz, 2000; Brislin, 1986; Sousa & Rojjanasrirat, 2011). The original ATF was translated into Japanese by a bilingual professor, and back-translated into English by another bilingual professor. Subsequently, two researchers compared the translation with the back-translation in detail. This procedure was repeated until acceptable consistency was achieved between the translation and back-translation. The translation was slightly modified and confirmed by the two professors based on comments on the final translation of this procedure from five graduate and undergraduate students. The items of the Japanese translation were rated using the same 7-point scale as the original ATF.

(2) Dispositional forgiveness of others

Dispositional forgiveness of others was measured using the Japanese version of the Tendency to Forgive Scale (Brown, 2003; Sumi, 2022). The scale consists of four items (e.g., “I tend to get over it quickly when someone hurts my feelings”) that tap into the tendency to forgive others’ offenses. While the ATF is composed of items that refer to pro-forgiveness attitudes, the Tendency to Forgive Scale assesses the experiential or behavioral aspects of forgiveness. The response scale is a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate greater dispositional forgiveness of others. The Japanese version exhibited adequate internal consistency reliability (Cronbach’s αs = .73 and .75), test–retest reliability over a 4-week period (r = .76), factorial validity of the single-factor structure, and construct validity evidenced by correlations with scores on measures of well-being, self-esteem, depression and anxiety symptoms, trait empathy, and trait anger (Sumi, 2022).

(3) Life satisfaction

Life satisfaction, a component of hedonic well-being, was assessed using the Japanese version of the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; Sumi, 2020). This scale consists of five items (e.g., “I am satisfied with my life”) rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores indicate greater life satisfaction. The Japanese version showed good internal consistency reliability (Cronbach’s αs = .78 and .82), test–retest reliability over a 4-week interval (r = .73), factorial validity of the single factor structure, and construct validity through expected correlations with scores on positive affect, negative affect, and eudaimonic well-being measures (Sumi, 2020).

(4) Positive affect and negative affect

The Japanese version of the Scale of Positive and Negative Experience (Diener et al., 2010; Sumi, 2013, 2014) was used to measure recent experiences of positive and negative affect. This scale contains 2 six-item subscales, the positive and negative affect scales, which are formed by a list of six adjectives (e.g., happy and sad, respectively). Responses to the items were given on a 5-point Likert scale ranging from 1 (*very rarely or never*) to 5 (*very often or always*). Higher scores on the subscales reflect more frequent experiences of positive and negative affect. The Japanese versions of the subscales had good internal consistency reliability (Cronbach's αs = .86 to .93), test–retest reliability over a 1-month interval (*r*s = .60 and .57), factorial validity of the separate factor structure, and construct validity supported by correlations with scores for positive and negative feelings, life satisfaction, subjective happiness, dispositional optimism and pessimism, perceived stress, and depression and anxiety symptoms (Sumi, 2013, 2014).

(5) Eudaimonic well-being

Eudaimonic well-being was assessed using the Japanese version of the Flourishing Scale (Diener et al., 2010; Sumi, 2013, 2014). This scale consists of eight items about broad and important aspects of psychological functioning (e.g., "I am a good person and live a good life"). A 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) was used to rate each item. Higher scores indicate greater eudaimonic well-being. The Japanese version had good internal consistency reliability (Cronbach's αs = .94 to .95) and test–retest reliability over a 1-month interval (*r* = .87), unidimensionality, and construct validity based on correlations with scores on measures of positive and negative feelings, life satisfaction, subjective happiness, dispositional optimism and pessimism, perceived stress, and depression and anxiety symptoms (Sumi, 2013, 2014).

(6) Psychological stress

To assess psychological stress, the present study was used the Japanese version of the 10-item form of the Perceived Stress Scale (Cohen, Kamarack, & Mermelstein, 1983; Cohen & Williamson, 1988; Sumi, 2007). This scale consists of items that measure the perception of psychological stress over the past month (e.g., "In the last month, how often have you felt that you were on top of things?"). Four negatively worded items are reverse scored, while the remaining items are positively worded. All items are rated on a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*). Higher scores indicate greater psychological stress. Similar the original measure, the Japanese version showed a two-factor solution in which positively worded items loaded on one factor and negatively worded items loaded on the other factor (Sumi, 2007). In addition, this version had acceptable internal consistency reliability (Cronbach's α = .71) and test–retest reliability over a 3-week interval (*r* = .72). The discriminant and predictive validity of this version was supported through expected correlations with scores on measures of daily hassles, depression, anxiety, and psychosomatic symptoms using longitudinal data over a 3-week period (Sumi, 2007).

(7) Depression and anxiety symptoms

Depression and anxiety symptoms were assessed using the Japanese versions of the two subscales of the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974; Sumi, 1997). The depression and anxiety subscales comprise 11 items (e.g., "Feeling no interest in things") and seven items (e.g., "Feeling tense or keyed up"), respectively. Both subscales assess the frequency of symptoms during the past seven days on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*extremely*). Higher scores indicate more severe symptoms. The Japanese version of the depression and anxiety subscales showed adequate internal consistency reliability (Cronbach's α = .84 for both), test–retest reliability over a 4-week interval (*r*s = .83 and .75, respectively), factorial validity of the separate factor

structure, and positive and moderate correlations with scores for perceived stress supporting construct validity (Sumi, 1997, 2007, 2022).

(8) Trait empathy

Because personality disposition is closely related to forgiveness, trait empathy was measured using a Japanese scale to assess dispositional affective empathy (Hatanaka, 2003). This scale comprises 10 items (e.g., "I sympathize easily with others" in Japanese) that were scored on a 5-point Likert scale ranging from 1 (*disagree*) to 5 (*agree*), with eight reverse-scored items. Higher scores indicated greater trait empathy. Good internal consistency reliability (Cronbach's $\alpha = .83$) and unidimensionality were observed (Hatanaka, 2003).

(9) Trait anger

Trait anger was measured using the Japanese version of the Trait Anger Scale (Spielberger, 1996; Suzuki & Haruki, 1994). This 10-item scale assesses the dispositional tendency to experience anger (e.g., "I am a hotheaded person"). The items in the Japanese version are scored on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Higher scores indicate greater trait anger. The Japanese version showed good internal consistency reliability (Cronbach's $\alpha = .84$) and unidimensionality for construct validity (Suzuki & Haruki, 1994).

2.3. Data Analysis

First, the unidimensionality of the ATF-J was examined using a factor analysis of the data at Times 1 and 2. For the analysis, participants were randomly and equally divided into two subsamples. After an exploratory factor analysis using principal axis factoring was conducted on the data from one sample, a confirmatory factor analysis was performed on the data from the other sample. Second, to evaluate reliability, Cronbach's α and test–retest correlations were calculated. Finally, construct validity was assessed by examining the correlations between scores on the ATF-J and other measures.

3. RESULTS

3.1. Factor Structure

To perform factor analysis of the ATF-J, participants were randomly and equally divided into two groups (*n*s = 117): Samples A and B. There was no significant difference between the groups with respect to sex, $\chi^2(1, N = 234) = 1.05$, *ns*, and age, $t(232) = .15$, *ns*. Exploratory factor analysis using principal component analysis was conducted on Sample A at Times 1 and 2. Bartlett's tests of sphericity were 180.74 and 318.42 (*p*s < .001), and the Kaiser-Meyer-Olkin measures of sampling adequacy were .68 and .77 for Times 1 and 2, respectively. These findings indicated that the collected data were appropriate for factor analysis.

As expected, exploratory factor analysis extracted one factor with an eigenvalue greater than 1.00 at both Times 1 and 2. The eigenvalues of the first two factors were 2.78 and 0.89 at Time 1, and 2.98 and 0.91 at Time 2. The one-factor solution accounted for 46.83% and 49.60% of the total variance at Times 1 and 2, respectively. The absolute values of the factor loadings were more than .41 for all items (Table 1).

To confirm the one-factor solution of the ATF-J, confirmatory factor analyses were performed on Sample 2 at Times 1 and 2. The goodness-of-fit indices indicated a satisfactory fit between the one-factor model and the data (Table 2). Table 1 shows the standardized factor loadings from the confirmatory factor analysis. Absolute values of the factor loadings were all significant (*p*s < .01) and greater than .32.

3.2. Reliability

The means, standard deviations, range of scores, Cronbach's αs, and test–retest correlations for the ATF-J at Times 1 and 2 are presented in Table 3. A small statistical difference was observed between Times 1 and 2. There was acceptable Cronbach's αs (.71 and .73) and a high test–retest correlation (r = .61).

Table 1.
Factor Loadings for Exploratory and Confirmatory Factor Analysis.

Item	Exploratory Factor Analysis of Sample A		Confirmatory Factor Analysis of Sample B	
	Time 1	Time 2	Time 1	Time 2
1	.77	.80	.84	.52
2	-.44	-.65	-.32	-.86
3	.80	.73	.87	.61
4	-.41	-.69	-.32	-.54
5	-.48	-.49	-.40	-.72
6	.54	.69	.48	.54

Note. Items 2, 4, and 5 are reverse-scored items. Standardized factor loadings are shown for confirmatory factor analyses. All standardized factor loadings are significant at $p < .001$.

Table 2.
Goodness-of-Fit Indices for Sample 2 at Times 1 and 2.

	χ^2	df	GFI	AGFI	NFI	CFI	RMSEA	SRMR
Time 1	7.42	9	.98	.93	.96	.99	.05	.03
Time 2	8.64	9	.98	.93	.96	.99	.05	.04

Table 3.
Means, Standard Deviations, Ranges, Cronbach's αs, and Test–Retest Correlations.

	M	*SD*	Range	Cronbach's α	Test-retest *r*	95% CI
Time 1	27.51	4.91	9–41	.71	.61**	[.52, .68]
Time 2	28.05	5.37	8–42	.73		

** $p < .01$.

3.3. Construct Validity

Table 4 shows the correlations between scores on the ATF-J and other measures at Time 1. Most correlations were in the expected direction and magnitude, supporting construct validity. The ATF-J scores showed a weak but significant correlation with scores on the Tendency to Forgive Scale (r = .24). There were also weak correlations between scores on the ATF-J and measures of hedonic and eudaimonic well-being: the Satisfaction with Life Scale (r = .23), Positive Affect Scale (r = .25), Negative Affect Scale (r = -.17), and Flourishing Scale (r = .28). Although scores on the Perceived Stress Scale were significantly correlated with ATF-J scores, scores on the Depression and Anxiety Scales did not show significant correlations with ATF-J scores. In addition, ATF-J scores were moderately correlated with scores on the Trait Empathy Scale (r = .41) and weakly correlated with scores on the Trait Anger Scale (r = -.22). Therefore, the scores on the Depression and Anxiety Scales did not show the expected correlations.

Table 4.
Correlations between Scores on the TTF-J and Other Measures at Time 1.

Measure	*r*	95% CI	*M*	*SD*	Cronbach's α
Tendency to Forgive Scale	.24**	[.11, .36]	14.44	4.25	.72
Satisfaction with Life Scale	.23**	[.10, .34]	18.99	5.94	.81
Positive Affect Scale	.25**	[.13, .37]	21.12	4.06	.93
Negative Affect Scale	-.17**	[-.29, -.04]	17.64	4.84	.83
Flourishing Scale	.28*	[.16, .40]	35.67	5.82	.80
Perceived Stress Scale	-.16*	[-.26, -.01]	22.13	5.13	.74
Depression Scale	-.10	[-.22, .03]	26.19	8.19	.89
Anxiety Scale	-.13	[-.27, -.02]	13.98	4.94	.82
Trait Empathy Scale	.41**	[.30, .51]	33.96	6.52	.81
Trait Anger Scale	-.22**	[-.34, -.09]	22.14	5.42	.85

* $p < .05$. ** $p < .01$.

4. DISCUSSION

This study aimed to develop a Japanese version of the ATF, a self-report measure for assessing individuals' value of forgiveness. Accordingly, in this study, the original ATF was translated into Japanese, and the translation was tested for reliability and construct validity using data from Japanese college students. The results support the preliminary reliability and construct validity of the ATF-J.

The data supported the hypothesized one-factor structure. Exploratory factor analysis revealed that all items loaded on one factor accounted for a substantial portion of the total variance. A confirmatory factor analysis confirmed this one-factor solution. Moreover, the one-factor structure of the ATF-J was maintained even after four weeks. These results led to the conclusion that the ATF-J is a single-factor measure.

Internal consistency reliability of the ATF-J was acceptable based on Cronbach's αs (DeVellis & Thorpe, 2021; Nunnally & Bernstein, 1994). The Cronbach's αs of the ATF-J seem to be slightly better than those of the original ATF (Barnes et al., 2010; Brown, 2003; Brown & Phillips, 2005). The test–retest correlation between the ATF-J scores at Times 1 and 2 was high. This correlation was lower ($p < .01$) than the test–retest correlation during the 4-week period ($r = .76$; Sumi, 2022) of the Japanese version of the Tendency to Forgive Scale (Brown, 2003; Sumi, 2022), which measures dispositional forgiveness. The measure of the value of forgiveness may have weaker temporal stability than the dispositional forgiveness measure.

The weak correlation with scores on the Tendency to Forgive Scale confirmed the hypothesis that pro-forgiveness attitudes are related to but distinct from the dispositional forgiveness of others. Furthermore, correlations with scores for hedonic well-being, eudaimonic well-being, psychological stress, and trait anger supported the construct validity of the ATF-J.

However, no significant correlations were found between scores on the ATF-J, Depression Scale, and Anxiety Scale, contrary to the hypotheses based on previous studies. A previous study reported no significant correlation between scores on the ATF and depression symptoms measure (Brown, 2003). It was also reported that scores for depression symptoms were more weakly correlated with the ATF scores ($r = -.15$) than scores for dispositional forgiveness (Brown & Phillips, 2005). Considering these findings, compared with the experiential or behavioral aspects of forgiveness, pro-forgiveness attitudes might only be weakly related to mental symptoms. Moreover, the correlation between scores on the

ATF-J and the Trait Empathy Scale seems to be slightly greater than the correlation hypothesized based on the results of previous studies on the forgiveness of others (Riek & Mania, 2012). The value of forgiveness might be more strongly related to trait empathy than the forgiveness of others. Moreover, the relationships between valuing forgiveness, depression symptoms, anxiety symptoms, and trait empathy might characterize Japanese people. However, this hypothesis needs to be tested in future studies.

Although this study provided a new Japanese version of a useful instrument for assessing pro-forgiveness attitudes, several limitations should be noted. The first limitation is the use of a college sample. Therefore, caution should be exercised when generalizing the present findings to other populations. Future studies should use other populations such as workers and older adults. Second, the time interval to assess test–retest reliability was only four weeks. Therefore, it is necessary to confirm the temporal stability of the ATF-J at longer intervals. The third limitation is the assessment of construct validity through the expected relationships with other constructs. Future studies should examine other types of validity, including predictive and concurrent validity. Despite these limitations, this study provides a useful measure for assessing the value of forgiveness with adequate reliability and construct validity for Japanese speakers. The ATF-J is expected to contribute to future research on forgiveness in the Japanese population.

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