Aggression and emotions: cultural and individual differences
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CHAPTER | 3

VALIDATION OF
THE INDIVIDUALISTIC-COLLECTIVISTIC
VALUE QUESTIONNAIRE FOR YOUTH

ABSTRACT

Individualism and collectivism are the most well-known and most often used cultural dimensions in psychology. Yet, a validated questionnaire measuring individualistic and collectivistic values in children and adolescents does not exist. Instead, differences between youngsters from various cultures are often assumed based on prior cross-national typologies. Therefore, we aimed to develop and validate the Individualistic-Collectivistic Value Questionnaire for Youth (ICQ-Y) in two distinct cultural groups: Dutch and Malaysian adolescents (N= 783; 54% girls; M_{age} = 12.8 years). The findings in both groups confirmed the two-factor structure (individualism, collectivism) and showed good internal consistencies. Additionally, the ICQ-Y showed good concurrent validity: endorsement of individualistic values was associated with higher levels of autonomy and delinquency, whereas endorsement of collectivistic values was associated with higher levels of interpersonal closeness, conformity, collective self-esteem, and prosocial motivation. As such, the scale is suitable to measure individual differences in youngsters' endorsement of individualistic and collectivistic values.

In psychology, individualism and collectivism are the two most popular cultural dimensions that are used to examine and understand differences between cultural groups. This is not without reason; individualism and collectivism are the key concepts of many (cross-) cultural theories (e.g., Hofstede, 1980; Kagîtcįbasiį, 1997; Kashima, Kashima, & Aldridge, 2001; Triandis, 1995) and the distinction is strongly supported by empirical evidence (for reviews see Cross, Hardin, & Gercek-Swing, 2010; Oyserman & Lee, 2008). Where individualism (also labeled idiocentrism or independence) centralizes the concerns of the autonomous individual, collectivism (also labeled allocentrism or interdependence) centralizes the close bond with and the concerns of (members of) the social group (e.g., family, friends, community, country) (Triandis, 1995; Markus & Kitayama, 1992).

In studies with children and young adolescents, researchers typically use participants' geographical location or prior cross-national typologies (e.g., Hofstede, 1980) to distinguish individualistic (i.e., those from Western societies) and collectivistic groups (i.e., those from Asian societies). Children and adolescents' individualistic and collectivistic values are rarely measured at an individual level and validated self-reports suitable for these age groups, to our knowledge, do not exist. A scale measuring youngsters' endorsement of individualistic and collectivistic values would allow researchers to examine the relationships between cultural values and their variables of interest more directly. The present study aims to fill this gap by developing and examining the validity of the Individualistic-Collectivistic Value Questionnaire for Youth in two distinct cultural groups: Dutch and Malaysian adolescents.

Individualism and Collectivism

Individualism and collectivism are constructs that provide a framework to understand differences between cultural groups. Both constructs refer to the relationship between individuals and their social groups. The two constructs differ however in what is emphasized.

Within individualism, the emphasis is on the independent individual. Individuals perceive themselves as being autonomous and separate from others (Markus & Kitayama, 1991). The focus is on concerns, needs, and welfare of the individual (Matsumoto & Juang, 2004). Core individualistic values therefore reflect doing one's own thing, individual freedom, and personal uniqueness, with little concern of what others might think (Triandis, 1995). Within collectivism, the emphasis is on the individual as a group member. Individuals perceive themselves as embedded in and part of the social group. Focus is on the concerns, needs, and welfare of the social group. Core collectivistic values therefore reflect group membership, social harmony, and cohesion (Triandis, 1995).

From an evolutionary point of view, both individualism and collectivism are considered to be key elements of human culture because they contribute to human survival (Oyserman, Novin, Flinkenflogel, & Krabbendam, 2014). In order to survive, humans need other humans, a stable group, and individual development that

ultimately serves the sustainability of group (Schwartz, 1992). Collectivism facilitates the first two survival needs and individualism the third. As such, theorists argue that human culture includes both individualism and collectivism, which are therefore referred to as being universal elements of culture. Consequently, not only individuals across cultures recognize and understand what individualistic and collectivistic values entail, but also children from a young age (Killen & Wainryb, 2000). That is, by observing and experiencing a broad range of social experiences, young children for example recognize that people have personal goals (related to individualism) as well as duties and loyalties (related to collectivism) (Greenfield, Keller, Fuligni, & Maynard, 2003). Through a process called value socialization, adults use a variety of direct and indirect techniques to communicate values to children (e.g., Grusec & Goodnow, 1994). Children, in turn, internalize these values, especially when they perceive these values accurately and accept rather than reject these values (Grusec & Goodnow, 1994). Research suggests that value similarity between generations is most likely when parents and children are raised in similar geographical and cultural environments (Perez-Brena, Updegraff, Umana-Taylor, 2015). Cultural environments differ however in terms of the degree in which individualistic or collectivistic values are emphasized on a daily basis (e.g., Greenfield et al., 2003).

Ever since Hofstede evaluated countries on an individualism-collectivism dimension (Hofstede, 1980), individuals from Western (European/North American) societies are typically classified as being more individualistic and individuals from Eastern (Asian) societies as being more collectivistic. More recent insights, however, provide a more nuanced view. First, the differentiation between the individualistic West and the collectivistic East appears too much of a generalization. On country-level, some Asian countries for example do not differ in their individualistic-collectivistic score from Western countries, some Asian countries are even less collectivistic than some Western countries, and within countries regions can differ on the individualism-collectivism dimension (Oyserman et al., 2002; Vandello & Cohen, 1999). This shows that using geographical boundaries to distinguish individualistic and collectivistic groups is not sufficient.

Second, using country-level scores or cross-national typologies to classify individuals has two important drawbacks: a) it undermines the heterogeneity of individuals within a society and b) although it is often used to explain between-group differences, the direct relationship with measures of interest cannot be tested (Oyserman & Lee, 2008). Measuring individualistic and collectivistic values on an individual level addresses these drawbacks. That is, by measuring these values, not only individual differences are assessed, but the associations with psychological constructs can also be examined. To date, questionnaires assessing individualistic and collectivistic values are available and validated for adults, but to the best of our knowledge not for children and young adolescents.

Third, increasing evidence from adult samples shows that individualism and collectivism are two separate dimensions on which individuals can score independently,

rather than being the endpoints of the same continuum. Theoretically, individualism and collectivism are both universal constructs that, at least to some extent, are both available within every individual (e.g., Greenfield et al., 2003; Killen & Wainryb, 2000; Oyserman et al., 2014). And indeed, empirical evidence shows that endorsement of individualistic and collectivistic values are not necessarily correlated, or can be even positively correlated (Oyserman et al., 2002; Singelis, 1994; Cross, Bacon, & Morris, 2000). Moreover, these values are often differentially related to psychological functioning as detailed next.

Individualistic and Collectivistic Values Related to Psychological Functioning

Unsurprisingly, studies with adults show that individualistic values are positively related to indices of psychological functioning that reflect thinking of oneself as an independent individual or that facilitate individual development. As such, individualistic values are positively related to autonomy, referring to a person's capacity for independent thinking and behaving (Triandis, 1995; Markus & Kitayama, 1991; Singelis, 1994). Individualism is also positively (and collectivism is negatively) related to delinquency (e.g., Le & Stockdale, 2005; Negy, Ferguson, Galvanovskis, & Smither, 2013). Not only does delinquent behavior such as stealing and joy riding promise personal gains, it may also be a way to explore one's identity by behaving against societal constrains and norms (Le & Stockdale, 2005).

In contrast, collectivistic values are related to indices of psychological functioning that reflect thinking of oneself as part of a social group. Indeed, collectivism is positively related to interpersonal closeness; individuals who highly endorse collectivistic values perceive themselves closer to important others than those with low levels of collectivistic values (Cross et al, 2000; Holland, Roeder, van Baaren, Brandt, & Hannover, 2004). Collectivism is also positively related to collective self-esteem, the positive view of the self as part of a social group (Cross et al., 2000; Luthanen & Crocker, 1992). Additionally, collectivism is related to indices of psychological functioning that promote and facilitate cohesion and harmony in the social group. Between-country comparisons indicate that people living in collectivistic-oriented societies (vs. individualistic-oriented societies) show higher conformity to preferences and norms of the social group (Bond & Smith, 1996; Han & Shavitt, 1994). Correlational studies support these findings by showing that collectivistic values are positively (and individualistic values are negatively) related to higher conformity (e.g., Oishi, Schimmack, Diener, & Suh, 1998). Further, collectivism is positively related to pro-social tendencies such as helping and giving, especially when an in-group member is in need (Kemmelmeier, Jambor, Letner, 2006; Mullen & Skitka, 2009).

Current Study

Already from a young age, children are able to think about themselves (Starmans, 2017) and are able to reflect on their beliefs, norms, and values (e.g., Döring, 2010;

Huesmann & Guerra, 1997; Giles & Heymans). Yet, the development of a self-report questionnaire for children requires specific considerations. In order to avoid confusion and misunderstanding 1) simple language and short sentences should be used, 2) negative worded items should be avoided, and 3) items should be concrete rather than abstract. In addition, related to the specific topic of our questionnaire, a natural dependency of children and adolescents on family should be taken into account.

With this in mind, the aim of the current study was to develop and examine the validity of the Individualistic-Collectivistic Value Questionnaire for Youth (ICQ-Y) in two culturally distinct groups: Dutch and Malaysian. The rationale for including these groups is that the Netherlands and Malaysia highly differ in their individualistic-ratings (80 vs 26, respectively) according to Hofstede's typology (2019). We developed the ICQ-Y by adjusting most items from adult scales that are widely used in the literature and already validated (see Table S1 in the Supplements for detailed information regarding the adjustment of the items). We first examined the construct validity. We assessed the predicted two-factor structure (i.e., individualism and collectivism) across both groups and assessed the reliability of the two scales for each group separately. If measurement invariance was established, we compared endorsement levels of individualistic and collectivistic values between the Dutch and the Malaysian group. Based on Hofstede's typology, we predicted that compared to the Dutch sample, the Malaysian participants would report to endorse individualistic values less and collectivistic values more.

Second, we examined the concurrent validity by assessing the associations between individualistic and collectivistic values on the one hand and self-reported autonomy, delinquency, interpersonal closeness, conformity, collective self-esteem, and prosocial motivation on the other hand. We predicted that more endorsement of individualistic values would be associated with higher levels of autonomy and delinquency. In contrast, we predicted that more endorsement of collectivistic values would be associated with higher levels of interpersonal closeness, conformity, collective self-esteem, and prosocial motivation. We did not expect these relationships to differ between the Dutch and Malaysian youngsters.

METHOD

Participants and procedure

Participants consisted of 509 Dutch and 300 Malaysian participants. Seventeen Dutch (3.3%) and nine Malaysian (3%) participants had incomplete data. Given that this amount of missing cases is negligible and missing values were missing completely at random (Little's MCAR test: p = .147) deleting incomplete cases will not result in bias. The deletion of incomplete data resulted in a final sample of 492 Dutch (54% girls, M_{age}= 12.65, SD= 1.76; 97% born in the Netherlands; self-reported religion: 72% no religion, 19% Christian, 4% Islam, 5% other) and 291 Malaysian (54% girls, M_{age}= 13.10, SD= 0.58; self-reported race: 78% Malay, 4% Chinese, 18% other; self-reported religion: 77% Islam, 7% Christian, 2% Buddhism, 14% other) participants for analyses.

The Dutch participants consisted of two samples that completed different measurements in addition to the measurements that all Dutch participants completed (i.e., ICQ-Y and the Inclusion of Other in the Self). Sample 1 (n=207; 54% girls, M_{age}= 10.98, SD= 1.00) completed the Sociotropy-Autonomy Scale, the Conformity Scale, and the Collective Self-Esteem Scale. Sample 2 (n=291; 54% girls, M_{age}= 14.12, SD= 0.68) completed the Delinquency Questionnaire and the Prosocial Motivation subscale of the Empathy Questionnaire.[1] The Malaysian participants completed all measurements, except the Collective Self-Esteem Scale.

All participants were recruited from their school (13 Dutch and 3 Malaysian schools). They completed the questionnaires in their native language (Dutch and Malay respectively) during regular school hours. Data collection took approximately 45 minutes. In the Netherlands, parental consent was obtained for all participants. In Malaysia, consents were obtained from the Ministry of Education through the Economic Planning Unit under Prime Minister's Department.[2]

Measures

Table 2 presents the psychometric properties including internal consistencies and means (SDs) of all measures as a function of group.

The 12-item *Individualistic-Collectivistic Value Questionnaire for Youth* (ICQ-Y; 6 items individualism, 6 items collectivism; see Table 1) is a compilation of statements derived from various validated questionnaires for adults (i.e., Cross et al., 2000; Oyserman, 1993; Realo, Koido, Ceulemans, & Allik, 2002; Singelis, 1994). We simplified the statements for our age group (e.g., from "My happiness depends on the happiness of those around me" to "I feel happy when my friends and family feel happy") and excluded abstract statements (e.g., "If you know the group I belong to, you'll know who I really am", see Table S1 in the Supplements for detailed information on all items). Participants were asked to rate how much they agreed with each statement on a five-point scale (1= *totally disagree*, 5= *totally agree*).

The *Inclusion of Other in the Self* (IOS) scale (Aron, Aron, & Smollan, 1992) measures interpersonal closeness and consists of seven Venn diagrams of two same-size circles. One circle represents the self and the other circle represents another person. In the first picture, the two circles are right next to each other. In the last, seventh picture, the two circles almost completely overlap. In this study we included two items: "which picture represents the relationship between you and your friends/ family best?" (1= *circles next to each other*, 7= *circles almost completely overlapping*).

To measure autonomy, we slightly adjusted and translated the eight items from the independent goal-attainment scale of the *Sociotropy-Autonomy Scale* (SAS)

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[1] The reason of having two Dutch samples is a practical one: after collecting data from the first sample, we decided to include the delinquency questionnaire and the prosocial motivation scale.

[2] Given that Malaysia has actively applied the *in loco parentis* doctrine in its educational system, no active parental consent was needed. Instead, we obtained permission from the school principals or their deputies to collect data at their schools.

(Bieling, Beck, & Brown, 2000) to make them suitable for children and adolescents (e.g., "It is more important to do what I think is important, than to do what others expect of me"). Participants were asked to rate how much they agreed with each statement on a five-point scale (1= *totally disagree*, 5= *totally agree*).

The *Conformity Scale* (Mehrabian, & Stefl, 1995) consists of 11 statements that measure conformity (e.g., "I often rely upon and act upon the advice of others"). We reworded some of the items to make it suitable for our age group and excluded one item that was not appropriate for children ("I tend to follow family tradition in making political decisions"), resulting in a 10-item scale. Participants were asked to rate how much they agree with each statement on a five-point scale (1= *totally disagree*, 5= *totally agree*). As can be seen in Table 2, the internal consistency of the scale in the Malaysian group was unacceptably low (α = .16). Therefore, we did not use this scale in the Malaysian group in the below analyses.

The *Delinquency Questionnaire* (Theunissen et al., 2014) consists of 10 items that describe minor delinquent offences (e.g., stealing parents' money or destroying public stuffs). Participants were asked to report their engagement in these behaviors in the past year using a three-point scale (1= (*almost*) *never*, 2 = *once or twice*, 3 = *three times or more*).

The Prosocial Motivation scale was derived from the *Empathy Questionnaire for Children and Adolescents* (Overgaauw, Rieffe, Broekhof, Crone, & Güroglu, 2017). The scale consists of six statements that measure the tendency to support a distressed other (e.g., "If a friend is sad, I like to comfort him"). Participants were asked how true each statement is for them (1= *not true*, 2= *somewhat true*, 3= *true*).

The *Collective Self-Esteem Scale* (CSES) (Luthanen, & Crocker, 1992) measures the positivity of a person's group-derived, or social identity. We selected and reworded 10 items to make it suitable for our age group (e.g., "I feel good about the group of friends I belong to"). This scale included items from all the four original subscales (i.e., membership, private, public, identity). Participants were asked to rate how much they agreed with each statement using a five-point scale (from 1= *strongly agree* to 5= *strongly disagree*).

Regarding the translation of the measures, one native Dutch (Malay) speaker with fluent command of the English language translated the English items into Dutch (Malay). These Dutch (Malay) items were subsequently back-translated into English by another native Dutch (Malay) speaker with fluent command of the English language. After back-translations, items that showed inconsistencies were resolved through discussion. Tables S1-S4 and Figure S1 in the Supplements present all the measures in English, Dutch, and Malay.

Statistical Analyses

We tested the construct validity of the individualistic and collectivistic subscales by fitting a two-factor model conducting multi-group confirmatory factor analyses (CFA) in R version 3.2.1 using packages lavaan (Rosseel, 2012) and semTools (semTools

Contributors, 2015). Mardia's normalized coefficients for the Dutch (38.33) and Malaysian (26.28) sample both indicated multivariate kurtosis, therefore all analyses are based on the robust Satorra-Bentler χ^2 statistic. To test for measurement invariance of the ICQ-Y across both groups, we assessed *configural* (i.e., same structure across groups; Jöreskog, 1971), *metric* (i.e, same factor loadings across groups), and *scalar* invariance (i.e., same item intercepts across groups; Byrne, 2006, 2008; Milfont & Fischer, 2010; Vandenberg & Lance, 2000). We evaluated the goodness of fit of the CFA's using $\chi^2/df < 5.0$, Comparative Fit Indices (CFI) >.90, the Standardized Root Mean Square Residual (SRMR) ≤.08, and the Root Mean Square Error of Approximation (RMSEA) <.08 (Hu & Bentler, 1999; Hooper, Coughlan, & Mullen, 2008; Marsh, Hau, & Wen, 2004). We evaluated the measurement invariance by comparing the nested models using ΔCFI with a cutoff point of < 0.01 (Cheung & Rensvold, 2002).

Third, we conducted Cronbach's alpha to assess the internal consistencies of the subscales using IBM SPSS version 23. Additionally, we calculated inter-item correlations, which on average should fall within .15 to .50 (Clark & Watson, 1995). Fourth, we used an ANOVA to test between-group differences (i.e., between the Dutch and Malaysian group) in endorsement levels of individualistic and collectivistic values and within-group differences (i.e., between endorsement levels of individualistic and collectivistic values in both groups).

Fifth, we conducted partial correlations (controlling for the variance between individualistic and collectivistic values) to test the concurrent validity of the Individualistic and Collectivistic subscales with Interpersonal Closeness, Autonomy, Conformity, Collective Self-Esteem, Delinquency, and Prosocial Motivation. In addition, we conducted Fisher r-to-z transformations to test whether the correlations differed in strength between the Dutch and Malaysian group.

RESULTS
Construct validity
The hypothesized two-factor model yielded inadequate fit to the data in both Dutch, $^{SB}\chi^2(53) = 183.76$, $^{SB}\chi^2/df = 3.47$, CFI = .838, RMSEA = .071, SRMR = .068, and Malaysian participants, $^{SB}\chi^2(53) = 173.57$, $^{SB}\chi^2/df = 3.27$, CFI = .894, RMSEA = .088, and SRMR = .091. LMtest statistics revealed a cross-loading of one item ("If I really want something, I go for it, even when my friends wouldn't do that themselves") in both groups, suggesting that this item does not differentiate between Individualistic and Collectivistic Values. We therefore removed this item from the model.

In addition, LMtest statistics indicated error covariance between two items ("If one of my friends does not perform well in school, I believe I should help him/her" and "When my friends need something, I try to help"). Given that the content between these items overlap (i.e., both involve helping a friend) we allowed error covariance between these two items (see Figure 1 for the final model). These alternations resulted in a fairly good model fit in both Dutch, $^{SB}\chi^2(42) = 112.73$, $^{SB}\chi^2/df = 2.68$, CFI = .903, RMSEA = .059, SRMR = .060 and Malaysian participants, $^{SB}\chi^2(42) = 106.39$, $^{SB}\chi^2/df = 2.53$, CFI

= .936, RMSEA = .073, and SRMR = .073. Standardized factor loadings ranged from .390 to .820 (see Table 1). The correlation between the Individualistic and Collectivistic scales was $r(492)$ = -.03, p = .450, 95% CI [-.12, .06] in Dutch youth, and $r(291)$ = .28, $p < .001$, 95% CI [.17, .38] in Malaysian youth.

The multigroup configural model fits well, $^{SB}\chi^2(84)$ = 219.01, $^{SB}\chi^2/df$ = 2.61, CFI = .921, RMSEA = .064, SRMR = .067. This indicates that configural invariance was achieved. Metric invariance was examined next by constraining factor loadings. This did not result in a decrement in model fit, $^{SB}\chi^2(93)$ = 244.34, $^{SB}\chi^2/df$ = 2.63, CFI = .912, RMSEA = .065, SRMR = .076, ΔCFI = .009. In addition, constraining intercepts also did not result in a substantial change in ΔCFI ($^{SB}\chi^2(104)$ = 532.72, $^{SB}\chi^2/df$ = 5.12, CFI = .915, RMSEA = .079, SRMR = .163, ΔCFI = .003), meaning that scalar invariance was established.

Table 1. Items from the ICQ-Y and CFA Factor Loadings as a Function of Group

Item Wording	Factor Loading	
	Dutch n= 493	Malaysian n= 291
Individualistic Values		
1. I believe that it is better to follow my own ideas than to take suggestions from my friends	.390	.563
3. *If I really want something, I go for it, even when my friends wouldn't do that themselves*	--	--
5. I can make my own decisions. I do not need friends and family for that	.518	.553
7. I feel happier when I make my own choices rather than using my friends' and family's suggestions	.784	.664
9. My own opinion is more important than those of my friends and family	.573	.596
11. I think it's better to have my own opinion than to use the opinion of my friends or family	.411	.599
Collectivistic Values		
2. I feel happy when my friends and family are happy	.678	.771
4. I always do my best to make my family and friends happy	.658	.798
6. If one of my friends does not perform well in school, I believe I should help him/her	.470	.695
8. When I think about myself, I also think about my friends and family	.528	.653
10. Friends and family are an important part of who I am	.530	.810
12. When my friends need something, I try to help	.511	.699

Note. The italicized item was removed due to poor model fit. The Dutch and Malay questionnaires and the full rotation matrix for each sample are available on request.

Reliability

Table 2 presents the psychometric properties of the ICQ-Y. The Individualistic and Collectivistic scales showed good internal consistencies with Cronbach's alpha's ranging from .67 to .88. The interitem correlations were good, ranging from .29 to .55.

Group differences

Table 2 presents the means and standard deviations of the ICQ-Y. Levels of endorsement of individualistic and collectivistic values were compared between the Dutch and the Malaysian group with a mixed 2 (Value: Individualistic, Collectivistic) X 2 (Group: Dutch, Malaysian) ANOVA. Results show that the main effects of Value, $F(1, 781) = 377.37$, $p <.001$, Cohen's $d = 1.39$, and Group, $F(1, 781) = 232.62$, $p <.001$, Cohen's $d = 1.09$, were qualified by a Value X Group interaction effect, $F(1, 781) = 13.94$, $p <.001$, Cohen's $d = 0.27$. Post-hoc tests reveal that the Dutch group reported higher levels of individualistic and collectivistic values than the Malaysian group, $F(1, 781) = 208.73$, $p <.001$, Cohen's $d = 1.03$ and $F(1, 781) = 80.22$, $p <.001$, Cohen's $d = 0.64$, respectively. Furthermore, both the Dutch and Malaysian group reported higher levels of collectivistic than individualistic values, $t(491) = 14.49$,

Table 2. Psychometric Properties of the Measurements by Sample

	Range	No. of Items	Dutch Total Sample (n= 492)		Dutch Sample 1 (n= 200)		Dutch Sample 2 (n= 292)		Malaysian Sample (n=291)	
			α	M (SD)	α	M (SD)	α	M (SD)	α	M (SD)
Individualistic-Collectivistic Value Questionnaire										
Individualistic Values	1-5	5	.67	3.45[a1] (0.64)	-	-	-	-	.73	2.67[b1] (0.86)
Collectivistic Values	1-5	6	.74	4.01[a2] (0.56)	-	-	-	-	.88	3.50[b2] (1.03)
Interpersonal Closeness	1-7	2	.40	5.63[b] (1.04)	-	-	-	-	.59	5.89[a] (1.27)
Autonomy	1-5	8	-	-	.69	3.79[a] (0.57)	-	-	.82	3.20[b] (0.78)
Conformity	1-5	10	-	-	.62	2.81 (0.46)	-	-	.17	-
Collective Self-Esteem	1-5	10	-	-	.85	4.01 (0.59)	-	-	-	-
Delinquency	1-3	10	-	-	-	-	.81	1.11[b] (0.22)	.88	1.23[a] (0.36)
Prosocial Motivation	1-3	5	-	-	-	-	.74	2.62[a] (0.38)	.71	2.30[b] (0.47)

Note. Differences in letter superscripts indicate significant differences (*p*<.01) between the Dutch and the Malaysian group. Differences in number superscripts indicate significant differences (*p*<.01) between individualistic and collectivistic values within the Dutch and the Malaysian group.

$p < .001$, Cohen's $d = 1.54$, and $t(290) = 12.54$, $p < .001$, Cohen's $d = 1.47$, respectively. Group differences regarding the other variables are presented in Table 2.

Concurrent validity

Table 3 presents the partial correlations of Individualistic and Collectivistic Values with the other constructs. Our rationale for conducting partial correlations by controlling for either Individualistic and Collectivistic Values was the significant positive correlation between the two cultural values in the Malaysian sample. Subsequently, we performed Fisher r-to-z transformations that provided a z value score to indicate whether the correlation coefficients differed between the Dutch and the Malaysian group.

As expected, when Collectivistic Values were controlled for, Individualistic Values were uniquely related to higher levels of Autonomy in both groups, with a stronger association in the Dutch group, $z = 4.20$, $p < .001$. Furthermore, Individualistic Values were related to more Delinquency in both the Dutch and the Malaysian group, with a stronger association in the Malaysian group, $z = 1.99$, $p = .047$.

When Individualistic Values were controlled for, Collectivistic Values were related to higher levels of Interpersonal Closeness and Prosocial Motivation in both groups. The associations with Interpersonal Closeness was stronger in the Dutch than the Malaysian group, $z = 2.99$, $p = .003$. Additionally, Collectivistic Values were uniquely related to lower levels of Delinquency in both groups, with a stronger association in the Malaysian group, $z = 2.02$, $p = .043$. Furthermore, Collectivistic

Table 3. Partial Correlations [95% CI] (Controlling for the Variance between Individualistic and Collectivistic Values) Between the ICQ-Y and the Other Measures

	Dutch Total Sample (n= 492)		Dutch Sample 1 (n= 200)		Dutch Sample 2 (n= 292)		Malaysian Sample (n=291)	
	IND	COLL	IND	COLL	IND	COLL	IND	COLL
IOS	-.03 [-.12, .06]	.33** [.25, .41]	-	-	-	-	.03 [-.09, .14]	.12* [.01, .23]
Autonomy	-	-	.50*** [.39, .60]	.26*** [.13, .38]	-	-	.16*** [.05, .27]	.27*** [.16, .37]
Conformity	-	-	-.43*** [-.54, -.31]	.22** [.08, .35]	-	-	-	-
Collective Self-Esteem	-	-	.11 [-.03, .25]	.39*** [.27, .50]	-	-	-	-
Delinquency	-	-	-	-	.10+ [-.02, .21]	-.14* [-.25, -.03]	.26*** [.15, .36]	-.30*** [-.40, -.19]
Prosocial Motivation	-	-	-	-	-.02 [-.13, .10]	.54*** [.45, .62]	.01 [-.11, .12]	.48*** [.39, .56]

p<.10, *p<.05, **p<.01, *** p<.001

Values were related to higher levels Collective Self-Esteem and Conformity, which were only (reliably) assessed in the Dutch group.

Unexpectedly, Collectivistic Values were related to higher levels of Autonomy in both the Dutch and the Malaysian group, no significant group differences in the strength of associations. We also found that Individualistic Values were related to less Conformity in the Dutch group.

DISCUSSION

To date, the majority of the studies with children and adolescents do not consider individual differences in cultural values. Yet, as research on adults informs us, being able to measure cultural values on an individual level can provide valuable empirical and societal insight, especially given the ongoing immigration and increasing cultural diversity in many (Western) societies. The aim of the present study was to develop and validate an individualistic-collectivistic value questionnaire that would be appropriate and comprehensible for young teenagers. We tested the questionnaire's factor structure, psychometric properties, and relationships to other relevant constructs. The results confirmed the expected two-factor model with individualism and collectivism as separate value constructs in both our Dutch and Malaysian groups. Moreover, the two scales had good reliabilities and were predictably related to some relevant constructs. That is, more endorsement of individualistic values was related to higher levels of autonomy, more delinquency, and to lower levels of conformity. More endorsement of collectivistic values, in turn, was related to more interpersonal closeness, pro-social motivation, higher levels of conformity, and collective self-esteem. Taken together, the ICQ-Y provides the opportunity to measure individualistic and collectivistic values on an individual level in teenagers in a valid and easy-to-use way.

In the present study we included Dutch and Malaysian adolescents that according to Hofstede's cultural typology represent youngsters from a typical individualistic and a typical collectivistic society, respectively. Quite notably, on an individual level, this distinction was not reflected in our data. Dutch youngsters reported higher endorsement of both individualistic and collectivistic values compared to their Malaysian counterparts, which cannot be explained by a structural difference in response style. Malaysian adolescents for example reported higher levels of interpersonal closeness and delinquency than their Dutch peers. Does this pose a problem for the validity of the questionnaire? We believe it does not. Although societies are typically represented as more individualistic or collectivistic, this does not necessarily have to be reflected in individuals' values. Indeed, a recent review on studies assessing individualistic and collectivistic values in the United States (typically referred to as individualistic) and Japan (typically referred to as collectivistic) found that only 16% of the studies indicated that Americans were more individualistic-oriented and Japanese were more collectivistic-oriented (Takano & Osaka, 2018). These results highlight the importance of assessing cultural values

on an individual level, rather than assuming that cultural groups differ on cultural dimensions based on prior cross-national typologies. Moreover, while comparing cultural groups on their raw individualistic and collectivistic scores might be useful, it is more interesting and insightful to examine the behaviors and emotions that are associated with the cultural values, and to compare these associations. The ICQ-Y provides a tool to do so.

Analyses within the Netherlands and Malaysia showed that both groups reported to endorse higher levels of collectivistic than individualistic values. Given that in general, individuals are increasingly individualized (Santos, Varnum, Grossmann, 2017), our finding is probably due to the age of our participants. While adolescence is characterized as a universal phase in life in which youngsters become more independent, autonomous, and self-reliant, their needs for being part of a peer group, their concerns for how others may evaluate them, and their social identity increases at the same time (LaGreca & Lopez, 1998; Steinberg & Morris, 2001; Tanti, Stukas, Halloran, & Foddy, 2010). In fact, individualistic and collectivistic values were significantly positively related in the Malaysian sample. The developmental trajectories of cultural values such as individualistic and collectivistic values are largely unexplored. Future (longitudinal) studies which include socialization practices and intergenerational transmission would provide valuable insight into cultural values across a lifespan.

There is also a need for future studies to examine the implications of individualistic and collectivistic values in adolescents in more depth. Our findings suggest that both individualistic and collectivistic values are related to desirable as well as to undesirable outcomes. For example, higher endorsement of individualistic values was related to more autonomy, but also to more delinquency. It is however unclear which factors (e.g., situational or personality) determine *when* individualistic values are related to more delinquency. Likewise, higher endorsement of collectivistic values was related to more interpersonal closeness, conformity, collective self-esteem, and pro-social motivation, but probably only with regard to in-group, not out-group, members. Prior work suggests that collectivism increases the distinction between in-group and out-group members (e.g., Triandis, 1995). Especially during adolescence when peer groups and cliques are very important in youngsters' daily lives, it would be interesting to examine how collectivistic values can enhance adolescents' social lives (initiating and maintaining friendship) and how these values can threaten it (e.g., bullying behavior).

In addition, future research examining youngsters' cultural values could benefit from a person-environment approach (e.g., Higgins, 2005). A few adult studies show that the fit between an individual's values and context matters. For example, research has found that individualism was related to more and collectivism was related to fewer social anxiety symptoms in Chinese adults, but not in European Americans (Xie, Leong, & Feng, 2008). In a similar vein, it is likely that the fit between adolescents' cultural values and their immediate cultural environment has implications for their

psychological health. Adolescents with a migration background in particular may (consciously or unconsciously) may experience a misfit between the cultural values with which they were raised and the cultural values from the dominant society. The fit versus misfit experiences between youngsters' values and context may be a plausible explanation for why some adolescents with a migration background experience psychological difficulties and why some do not.

This study has several limitations that should be considered. First, we included two distinct cultural groups (Dutch, Malaysian) to examine the ICQ-Y. Future studies are needed to examine the validity of the ICQ-Y in more cultural groups. For now, the results may not be generalizable across cultural groups. Second, due to limited options in adolescents' questionnaires, all measures, except the ICQ-Y that we developed in Dutch, originated in English and needed to be translated in both Dutch and Malay and sometimes needed to be adjusted for our age group. Although the translation procedure was in accordance with standard procedures and most of the internal reliabilities were at least adequate, it should be noted that these measures were not validated in Dutch or Malay in advance. Yet, by using existing adult measures our study aims could be executed. Only the conformity scale showed such a low internal consistency in the Malaysian sample, that we needed to exclude that measure in the Malaysian sample in our study.

Third, although we found that, as expected, endorsement of individualistic values was related to more autonomy, endorsement of *collectivistic* values was also related to more autonomy in both countries. In hindsight, the autonomy items did not only reflect doing something independently, but often in the context of achievement or doing something well. This matters given that achievement has been related to collectivistic-related concerns, such as making close others proud (e.g., King, 2016). Thus, future studies may want to consider the use of a different autonomy scale. Another plausible reason for the positive relationship between collectivistic values and autonomy is that especially for adolescents, the focus on peers and the need to fit in is part of their process of becoming an autonomous individual. As described above, studies examining how cultural values develop over time could provide more insight. Finally, we would like to note that all our results are correlational and that it is therefore impossible to draw conclusions about cause and effect.

In sum, our ICQ-Y successfully distinguishes between individualistic and collectivistic values and each of the scales are related to relevant constructs. The questionnaire as presented here can be useful in cross-cultural studies. By measuring individualistic and collectivistic values at an individual level, rather than assuming differences in individualism/collectivism based on prior country scores, scholars now can start examining the influence of individualistic and collectivistic values on cognition, emotion, and behavior in young teenagers. We believe that measuring individualistic and collectivistic values in younger children is also feasible, but would require a revised version of the questionnaire including vignettes and/or pictures to make the items even more concrete. We are currently developing such a questionnaire.

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