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Development and Validation of the Religious Collective Self-Esteem Scale for Children

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This study aimed to validate a Religious Collective Self-Esteem Scale (RCSES) that assesses children’s evaluations and judgments about their belonging to a religious group. The RCSES includes 3 subscales: Private Religious Self-Esteem (PrRSE), Public Religious Self-Esteem (PuRSE), and Importance to Religious Identity (RI). Data were gathered from students in 39 primary schools (9 Reformed Protestant, 9 Islamic, 3 Hindu and 18 public schools) across five regions in the Netherlands. Students were asked to complete an anonymous questionnaire containing measures of variables of interest. Subjects were 1,437 6th graders (M_age = 11.72, SD = 0.61; 51.7% girls. 680 Students identified themselves as Muslim (47.3%), 442 (30.8%) as Christian, 278 (19.3%) as Hindu, and 37 (2.6%) children had another religion.

Results indicated sufficient internal consistency of RCSES (α = .80), PrRSE (α = .77), PuRSE (α = .73), and RI (α = .60), moderate to high correlations between the subscales and moderate to large test-retest reliability across 1 year (r = .57). Three-factor model fitted the best. Overall, findings support partial measurement and structural invariance across religious groups. Convergent validity was supported by small to moderate correlations with other scales (Individual Self-Esteem Scale, r = .29; Private Ethnic Self-Esteem Scale (PESES), r = .40). Divergent validity was supported by positive small significant correlations with school well-being (r = .18) and social school motivation (r = .19). RCSES and its subscales significantly predicted, over and above PESES, school well-being and school motivation scores. Findings support the reliability and validity of the RCSES for assessing religious collective self-esteem.

**Keywords:** Religious Collective Self-Esteem Scale (RCSES), collective self-esteem, religious minority children, ethnic minority children, psychometric properties

The importance of group belonging to one’s collective self-esteem is examined in many fields and especially in social identity theory (Brewer, 1991; Garcia & Sanchez, 2009; Hogg, 2003; Luhtanen & Crocker, 1992; Marsh, Bradley, Love, Alexander, & Norham, 2007; Tajfel & Turner, 1979, 1986). Collective self-esteem describes the aspect of an individual’s self-concept that derives from how one interacts with others and the groups that one is a part of. Social identity theory investigates the importance of belonging to social groups to individual’s self-esteem and social behavior (Garcia & Sanchez, 2009; Luhtanen & Crocker, 1992; Tajfel & Turner, 1986).

Previous studies have shown that being a member of a social group may in general boost one’s individual and collective self-esteem. According to Tajfel and Turner (1979, 1986) people are motivated to maintain a positive individual and collective self-esteem, because this may contribute to their well-being. Whereas the focus has traditionally been on measuring the individual part of the self-concept, Luhtanen and Crocker (1992) developed a Collective Self-Esteem Scale that assesses adults’ judgments and evaluations based on their memberships in ascribed groups pertaining to gender, race, and ethnicity. Being a member of a religious group, however, may also contribute to one’s individual and collective self-esteem (Blaine & Crocker, 1995; Constantine, Donnelly, & Myers, 2002), because one’s religious membership enhanced the positive social identification based on one’s religious affiliation.

The goal of this present study is to develop and validate a measure of religious collective self-esteem: the Religious Collective Self-Esteem Scale (RCSES) for children, because at the moment there is no adequate instrument to assess children’s self-esteem that derives from belonging to a religious group. We focus on ascribed group memberships, especially those of religious minority groups. Members of a religious minority group develop a sense of belonging together because of the group membership they share (De Koning, 2008; Duderija, 2015; Phalet & Ter Wal, 2004). This sense of religious belonging may be essential for one’s religious collective self-esteem.

**Previous Research Examining Individual and Collective Self-Esteem**

Many studies have focused on examining individual and collective self-esteem. Rosenberg’s (1979, p. 8) definition of self-esteem...
as “totality of the individual’s thoughts and feelings with reference to himself as an object” was for many researchers a starting point in further investigating the different perspectives in which self-esteem can be seen, understood, and measured. Whereas Rosenberg focused mainly on examining and measuring individual self-esteem, Tajfel and Turner (1979, 1986) focused on investigating both individual and social self-esteem. Social identity theory states that the self consists of two parts; one is individual identity, which includes “specific attributes of the individual such as competence, talent and sociability” (Tajfel, 1981, p. 255). The other part is social (collective) identity, which Tajfel (1981, p. 255) defines as “that part of an individual’s self-concept which derives from his knowledge of his membership in social group(s) together with the value and emotional significance belonging to that membership.” According to social identity theory, a social group is a collection of individuals who see themselves as members of the same social group. Additionally, one’s social (collective) identity can derive from several different ethnic, religious or other group memberships. These identities are thus intimately related to one’s individual and collective self-esteem.

Luhtanen and Crocker (1992) define collective self-esteem as the attitude toward one’s collective identity. According to Garcia and Sanchez (2009, p. 194) collective self-esteem can be understood “as the feelings of self-worth one derives from one’s group memberships.” Although many self-esteem measures are available in the literature, most of them focus on individual’s evaluation of their personal identity. A well-known and commonly used self-report measure to assess one’s individual self-esteem is the Rosenberg’s Self Esteem Scale (Rosenberg, 1965). However, Luhtanen and Crocker (1992) focus more on collective self-esteem. According to Luhtanen and Crocker (1992) measuring a collective self-esteem for acquired groups (such as those based on one profession, hobbies, or interest) would confound social identity with individual identity, because acquired group memberships are usually because of individual desires, efforts, and achievements.

### Measuring Different Types of Collective Self-Esteem

Different ways for measuring collective self-esteem exist alongside its various concepts, for example measuring ethnic or racial collective self-esteem. Research in the past years has shed light on ethnic identity as a predictor of self-esteem (Phinney, Cantu, & Kurtz, 1997), the relationship between race and ethnic self-esteem (Twenge & Crocker, 2002), the protective effect of collective self-esteem toward stigmatization (Crocker & Major, 1989), the relationship of devalued group membership and well-being (Katz, Joiner, & Kwon, 2002), and the role of ethnic collective self-esteem for ethnic minorities (Verkuyten & Lay, 1998).

Whereas the focus of these studies was on adolescents and adults, other studies have focused on early adolescents and children in school context, for example Cassidy, O’Connor, Howe, and Warden (2004), and Verkuyten and Thijss (2004, 2006) examined the mediating role of ethnic collective self-esteem for ethnic discrimination in early adolescents. Accordingly, researchers have also investigated young children’s evaluations of in- and outgroups (Bennett et al., 2004), and group relations among Christian, Islamic, and nonreligious groups (Verkuyten & Thijss, 2010). Similarly, studies have shown a positive relation between religiousness and collective self-esteem (Blaine & Crocker, 1995) although this effect was only significant for minorities. Constantine et al. (2002) showed that African American adolescents who reported higher collective self-esteem used more spiritual coping styles. Ho and Sim (2013) developed a God-Centered Self-Esteem Scale for adults that assesses a Protestant Christian’s evaluations of the self in the context of God’s love, availability, and ability to help.

### Ethnic Collective Self-Esteem Versus Religious Collective Self-Esteem

Previous studies have shown that being a member of a social group may in general boost one’s individual and collective self-esteem. As mentioned earlier, this effect can work especially for ethnic and religious minorities, because one’s religious membership may enhance the positive social identification based on one’s religious affiliation (Blaine & Crocker, 1995; Constantine et al., 2002). In the Netherlands, a significant number of second and third generation Muslims report having difficulty adjusting to the mainstream Dutch culture and reconciling their conflicting thoughts and feelings about their cultural and religious identity in a modern society (Huijnk, Dagevos, Gijsberts, & Andriessen, 2015). A majority of these second and third generation Muslims do not feel accepted by mainstream Dutch society and many feel discriminated against compared with other ethnic or indigenous adolescents in the Netherlands (Huijnk et al., 2015; Phalet, 2003). For many of these Moroccan and Turkish Muslim youths, (religious) beliefs and values give meaning to their life (De Koning, 2008; Phalet; 2003; Phalet & Ter Wal, 2004). These shared, religious beliefs are vital for the self-esteem of these young adolescents and they are an important part of their identity (Duderija, 2015). Recent reports in the Netherlands have shown that most of these Turkish and Moorish youths first identify with being Muslim, then with their Turkish and Moorish ethnicity, and in the last place with being Dutch (Demant, 2005; Huijnk et al., 2015; Phalet & Ter Wal, 2004). According to Williams (1998, p. 29), “immigrants may be more religious than they were before they left their home country, because religion can become one of the important identity markers that help preserve self-awareness and cohesion in the group.” The religious identity of Muslim youths, therefore, also becomes important to their identity. That is why it is not sufficient to only measure children’s ethnic collective self-esteem; it is evident that religion plays just as an important role in these children’s lives. This process of changes in ethnic and religious identity of Moroccan and Turkish Muslims is according to Hammond and Warner (1993) and Phalet (2003) a typical example of “religious ethnicity,” in which religious traditions are shared by other ethnicities, and where religion becomes very important—if not most important—to these Moroccan and Turkish Muslims’ identity.

A similar process for other religious minorities examined in this study in the Netherlands are the Dutch Reformed Protestants, and Surinamese Hindu; their process of change in ethnic and religious identity can be considered related to the concept of “ethnic religion.” This applies to religious groups in which religion consists one of several foundations of ethnicity (Hammond & Warner, 1993). The vast majority of the Moroccan Muslim, Surinamese Hindu, and Dutch Reformed Protestant youth religious minority youth often live in urban areas of high same religious or ethnic density with people from similar areas of origin, where they can...
benefit from each other’s support, and this support can be important to their individual and collective self-esteem. Recent studies about this subject in the Netherlands warn us about the negative consequences of segregation of these youth, which could lead to marginalization (Huijink et al., 2015; Phalet, 2003; Phalet & Ter Wal, 2004). However, a similar study about Pakistani Muslims in the United Kingdom showed that high religious or ethnic density had a protective effect on the negative impact of stigmatization, and a promotive effect on their self-esteem (Bécares, Nazroo, & Stafford, 2009).

Public and more specifically faith-based schools are an essential part of religious minority children communities, because the religious values and beliefs at school are often coherent with the ones they may experience at home. In this way, schools function as small communities on their own (Conchas & Rodriguez, 2008; Strike, 2010; Westcott Dodd & Konzal, 2002). Therefore, the described effect in these high religious or ethnic density communities can also be examined for children from religious minorities in the Netherlands visiting public and faith-based schools. The experienced sense of belonging and religious coping style at these school communities can increase children’s collective self-esteem and school well-being and social school motivation. According to Smits and Vorst (2008) school well-being is a student’s attitude toward school life and one’s relationship with peers and teacher(s). Social school motivation is defined by Martin (2003, p. 44) as “students’ energy and drive; and the importance of students’ interest in and enjoyment of school.” Although it thus becomes clear that children’s religious collective self-esteem may have important consequences for their school well-being and social school motivation, no instrument to assess religious collective self-esteem has been developed to date.

The Present Study

The present study was conducted to develop and validate a RCSES that assesses children’s evaluations and judgments about their belonging to a religious group. Specifically, we examined whether the RCSES can be used as a reliable and valid measure to assess religious collective self-esteem, in children aged 10 to 13 years. Our main objective was to develop items and construct a scale measuring children’s religious collective self-esteem. First, this study examined the internal consistency and test–retest reliability of the RCSES. Second, we investigated the construct validity of the RCSE Scale by developing and testing a factorial structure for these items, examining the subscale correlations, and testing whether the factorial structure would hold up across three different religious group of students. A third objective was to examine the convergent and divergent validity of the RCSES compared with other investigated self-esteem scales, to the School Well-Being Scale and to the Social School Motivation Scale. Finally, we investigated the incremental validity of the RCSES and its subscales over Private Ethnic Self-Esteem with school well-being and social school motivation as criteria.

We tested the following specific hypotheses:

First, we examined the internal consistency and test–retest reliability over a year of the scale and we expect that this will be adequate.

Second, we investigated three different models to fit RCSE Scale best: a hierarchical model, a one-factor model, and a three-factor model. We expect that the best model fit for RCSE Scale would be the three-factor model, because this is in line with our theory of RCSE assessing three different constructs of religious self-esteem: how a child feels about belonging to a religious group, how other children evaluate their religious group, and children’s importance to their religious group membership to their self-concept. A one-factor model would suggest that the scale measures one single construct of religious self-esteem, and a hierarchical model is supposed to assess three aspects of religious self-esteem.

Third, we expect that the subscale correlations would correlate positively and strongly with the total RCSES.

We believe that the factorial structure and psychometric properties of RCSE Scale would be adequate for measuring religious self-esteem for different religious minority groups, because the scale is developed to measure student’s religious collective self-esteem.

Our fifth expectation is that there will be a small positive correlation between religious self-esteem, school well-being scale, and social school motivation, because previous studies have shown a small positive correlation between self-esteem, school well-being, and social school motivation. In this study we expect this too, because religious self-esteem can be a very important part of religious minority children’s identity and, thus, essential for how they adapt at school. In other words: religious self-esteem may influence one’s school well-being and social school motivation.

Finally, we expect that the RCSES and its subscales show incremental validity over Private Ethnic Self-Esteem with school well-being and school motivation as criteria, because RCSES is deemed distinct from ethnic collective self-esteem.

Scale Construction

The RCSES includes three subscales: Private Religious Self-Esteem (PrRSE), Public Religious Self-Esteem (PuRSE), and Importance to Religious Identity (RI). The PrRSE subscale indicates personal beliefs of one’s religious group value. The PuRSE subscale measures perceptions of how others view one’s religious group. The importance subscale assesses how important that religious group is to the individual’s identity and self-concept. All items together assess religious collective self-esteem. However, our goal was also to construct three subscales separately to measure either PrRSE, PuRSE, or RI. These subscales were adapted from the Private collective self-esteem, Public collective self-esteem, and Importance to Identity subscales of the Collective Self-Esteem Scale (CSES) as developed by Luhtanen and Crocker (1992).

For the Private Religious subscale we adapted the 4 items of the private subscale of the CSES (Luhtanen & Crocker, 1992) as translated by Verkuyten and Thijs (2001, 2006). This subscale was used in previous studies to assess ethnic self-esteem in children of our age group in the Netherlands (5th and 6th grade). The items of the Public Religious (4 items) and Importance to Identity (4 items) subscales were all adapted from the CSES as developed by Luhtanen and Crocker (1992). We modified the scale by reformulating the items for the assessment of children between 10 and 13 years. Our main objective was to develop items and construct a scale measuring children’s religious collective self-esteem. First, we examined the internal consistency and test–retest reliability of the scale and we expect that this will be adequate.
years old. All items were general or ethnic collective self-esteem statements. However, we reformulated the statements into religious collective self-esteem questions as this would be easier for children to comprehend (Chambers & Johnston, 2002; Marsh, 1986).

An example of this modification in the Private subscale is “I feel good about the social Groups I belong to” into “Do you feel good about being...?” (see Appendix). In the Public subscale we modified “Overall, my social groups are considered good by other” into “Do other children feel good about you being...?” In a third example for the RI subscale we changed “The social Groups I belong to are an important reflection of who I am” into “Do you feel that it matters to your sense of being that you are...”. Additionally, most of the items were positively worded after the feedback we received from students in our pilot study, which indicated that some of the items were very difficult to interpret, because they were formulated in a negative manner. Huang and Dong (2012) demonstrated that negative worded items or negative concepts in Rosenberg’s Individual Self-Esteem Scale lead to ambiguity in interpreting the negative worded items. Furthermore, earlier research has shown that young children have difficulty responding to negatively worded questions (Marsh, 1986). Although we wished to keep the negative concepts to a minimum, we left four reverse scored items in the scale to clearly measure the opposite of the positive worded items as a check for the given answers. Children connected the positive and negative questions as opposites of each other.

We used a 4-point scale so that children were “forced” to choose between certain tendencies without decreasing reliability and validity in the scale. It has been shown that 4-points represent a minimum to obtain good psychometric properties (Lozano, García-Cueto, & Muñiz, 2008). For children, fewer options work better, as they may not be able to differentiate as well between more points. We based the response categories on the adaptation of the CSES for assessing ethnic collective self-esteem, for which reliability and validity was demonstrated for this age range (Verkuyten & Thijis, 2006).

The questions of the RCSES were introduced by stating that “People of many different faiths live in our country. They include practicing Christians, Hindus, Muslims, and Jews in addition to individuals who practice no religion.” Then they were asked for their religious self-definition using an open-ended question; “Please fill in: In terms of religious group, I consider myself to be...”. After defining their religion, the children were asked to fill in their religious self-definition in the subsequent questions on what meaning faith has for them. Responses to the RCSES questions ranged from: 1 = no, certainly not, 2 = no, not particularly, 3 = yes, somewhat, and 4 = yes, certainly. Higher scores indicate a higher level of religious collective self-esteem.

The PrRSE subscale measure children’s personal evaluation and judgment of how good they feel about belonging to their religious group. An example of one item of the private religious collective self-esteem subscale is “Is it important to you that you are Hindu (Muslim, Christian)?” The PuRSE subscale was included to assess children’s evaluations and judgments of how other children evaluate their religious group (e.g., “Do other children find it strange that you are Hindu (Muslim, Christian)?”) To measure children’s importance to their religious group membership to their self-concept, the RI subscale was developed. An example of this subscale is “Do you feel that it matters to your sense of being that you are Hindu (Muslim, Christian)?”

In addition to the scales included in the present measure, the CSES also includes a Membership-Esteem Scale that assesses how one feels about oneself, relative to others within the group. This is quite a difficult concept to grasp, and requires some notion of what would be expected of a “good” group member, as well as an evaluation of oneself in comparison. As this type of self-evaluation is still underdeveloped at this age (Butler & Gasson, 2005), these items were deemed too difficult to comprehend for children in this age range (i.e., feelings of worthiness, uselessness as group member, and not having much to offer as a group member).

Method

Participants and Procedure

Data were gathered from students with religious and nonreligious backgrounds in 39 primary schools (21 faith-based schools and 18 public schools) across five regions in the Netherlands in the Spring of 2012 and a year later in 2013 in the same period again. In total, data were gathered for 1,437 6th graders with religious backgrounds for this study. In the spring of 2012, 717 5th graders and 722 6th graders with religious affiliation participated. A year later, in the spring of 2013, 715 6th graders with religious backgrounds participated in the study. 417 from these 6th graders with religious affiliation were actually the 5th graders who were followed up; 471 of the 5th graders thus also participated in the 6th grade assessment.

Faith-based and public schools were selected in five different regions in the Netherlands, matched with each other on basis of postal code, school population, and school weight. The school weight is based on a percentage of students who need extra educational resources because these children need more attention at school. Schools were contacted by telephone and in writing to participate. Thirty-nine of the 100 selected schools agreed to participate. The main reason schools did not want to participate was because of their busy schedule. The study was explained in a letter to the parents and students as a research on attitudes toward self-esteem, religiousness, school well-being, and school motivation.

According to Dutch legislation, institutional review board approval was not needed for conducting the study because of its nonexperimental nature. Over a vast majority of the parents gave their passive consent to the study. In total, 123 students’ parents (47 from public schools, 42 from Islamic schools, 27 from Hindu schools, and 7 from reformed Protestant schools) who indicated that they did not consent to participation. For our present analysis, 18 public (Nstudents = 507), 9 Islamic (Nstudents = 319), 9 Reformed Protestant (Nstudents = 315), and 3 Hindu schools (Nstudents = 296) were included. Data from 302 students who reported not to have any religious affiliation were unfortunately excluded from analyses, because for these children measuring perceptions of belonging to a religious group is irrelevant. At each school, students from the two highest grades were asked to complete an anonymous paper and pencil questionnaire in class under the supervision of the teacher and research assistants. The reading level of the items of the questionnaire is 5th grade. The questionnaire was introduced and explained emphasizing that the anonym-
Religious Collective Self-Esteem Scale

Measures

Religious Collective Self-Esteem. The RCSES (see Appendix). The scale has 12 items and consists of three subscales, each one assessing another aspect of young people’s religious collective self-esteem: PrRSE Collective Self-Esteem, PuRSE Collective Self-Esteem, and RI. Three sample items for each subscale are “Do you feel good about being Hindu/Christian/Muslim?”, “Do other children respect you because you are Hindu/Christian/Muslim?” and “I do my best at school when I am working with other children.”. Responses to the RCSES Scale were made on a 4-point scale: 1 = no, certainly not; 2 = no, not particularly; 3 = yes, somewhat, and 4 = yes, certainly. Reliability analysis yielded an α of .80 for the total scale.

Private Ethnic Collective Self-Esteem. Ethnic collective self-esteem was measured by the private subscale of Luthanen and Crocker’s Ethnic Collective Self-Esteem (Luthanen & Crocker, 1992) as translated by Verkuyten and Thijs (2001, 2006). It is a 4-item subscale that is often used to measure young adults’ self-esteem as an ethnic group member. In the first translation Verkuyten and Thijs (2001) used a 5-point Likert scale, but later on in 2006 they commenced using a 4-point scale, which we also used for our RCSES Scale. According to Verkuyten and Thijs (2006) the translated young people’s version of the subscale was moderately reliable. Cronbach’s α in this study was .66.

Individual Self-Esteem. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a commonly used and validated self-report measure to assess one’s individual self-esteem. We adapted the Dutch validated version of the Rosenberg Self-Esteem Scale as translated by Franck et al. (2008). We modified the translated scale by reformulating the items for our age group using a 4-point scale; ranging from “does not apply to me” to “applies completely to me.” An example of one the item was “I am satisfied with myself.” Previous Dutch research showed the internal consistency of the Dutch version of Rosenberg’s Self-Esteem Scale to be good (Franck et al., 2008). Cronbach’s α for this study was .81.

School well-being. Students’ attitudes on school well-being was assessed with a subscale of the School Attitudes Questionnaire (SAQ; Smits & Vorst, 2008). The School Well-being (SW) subscale of the SAQ measures to what extent a student experiences affective well-being at school. The 24-item School Well-being subscale of this questionnaire is widely used in primary and secondary schools in the Netherlands (Smits & Vorst, 2008). The SW subscale is divided in three 8-item scales (a) Pleasure at school, (b) Perceived social acceptance, and (c) Relationship with the teacher. An example of the SW subscale is as follows: “I can get along with my teacher.” The reliability and validity of these subscale are adequate (Smits & Vorst, 2008). The SW subscale uses a 3-point scale (1 = that is the case, 2 = I don’t know, and 3 = that is not the case). Cronbach’s α for the SW subscale in this study was .88.

Social school motivation. Social school motivation was measured by the social domain of the Inventory of School Motivation (ISM). The 33-item Inventory of School Motivation (Ali & McInerney, 2005) includes 8 subscales, with items answers on a 5-point scale (strongly disagree to strongly agree). Each domain assesses school motivation across the following domains: mastery, performance, social, and extrinsic. In our study we solely included the social domain to measure the social school motivation, which was translated by Driessen et al. (2009), consisting of two subscales measuring children’s social concern (5-items) and affiliation (3-items) with other peers at school. Two samples from each subscale are, respectively, “I do my best at school when I am working with other children.”. Reliability analysis for the two subscales yielded an α of .70 and .69, respectively (Ali & McInerney, 2005). Previous research (Driessen et al., 2009) showed the internal consistency of the social school motivation subscale to be adequate. Cronbach’s α in this study was .74.

Plan of Analysis

First, preliminary analyses for all investigated scales were conducted to demonstrate the descriptive statistics of the used scales. Skewness and kurtosis indices were used to identify the normality of the data. Third, we also investigated the mean scores of the religious group’s scores on the RCSES by conducting a one way analysis of variance (ANOVA).

Then, reliability analysis was conducted to examine the internal consistency of the RCSES (Cronbach’s α), and autocorrelations for the RCSES were calculated over a 1-year interval to examine test–retest reliability. We expected a three-factor model of the RCSES to provide a better fit to the data than the hierarchical and one-factor model. To determine the factorial structure of the RCSES, three confirmatory factor analyses (hierarchical, one-factor, and three-factor model) were conducted in Mplus version 7.11 (Muthén & Muthén, 2013). We assessed model fit with the comparative fit index (CFI), with a CFI >0.90 indicating an adequate fit and >0.95 suggesting a better fit; the Tucker-Lewis Index (TLI), with TLI >0.90 indicat-
ing an adequate fit, and $>0.95$ suggesting a better fit; and the root mean square error of approximation (RMSEA), with RMSEA $<0.05$ indicating a good fit (Hu & Bentler, 1999). We used maximum likelihood estimation with robust standard errors in testing the goodness of fit of hierarchical, one-, and three-factor models of the RCSES, because some of the items were nonnormal continuous (Tabachnick & Fidell, 2013). Subscale correlations were also calculated in examining the factorial structure.

After determining the factorial structure, we also examined whether the factorial structure and psychometric properties of RCSE Scale would be adequate for measuring religious self-esteem for different religious minority groups: Reformed Protest group, Hindu group, and Islamic group. Therefore, we completed a test of measurement and structural invariance to see if the chosen model would hold up as a function of religious affiliation groups. We then conducted a correlation analysis to evaluate the convergent and divergent validity of the RCSES in relation to other investigated self-esteem scales, to the school well-being scale and to the social school motivation scale.

Finally, we tested incremental validity of RCSES and its subscales over Private Ethnic Self-Esteem with school well-being and school motivation as criteria by conducting a stepwise regression in SPSS.

**Results**

**Preliminary Analyses**

Table 1 contains descriptive statistics for all the scales used in this study, and showed means, SDs, skewness, and Kurtosis scores for the RCSES, Individual Self Esteem Scale, Private Ethnic Self-Esteem Scale, Social School Motivation Scale, and the School Well-Being Scale. Overall, the descriptive statistics demonstrated that children report relatively high levels of Religious Collective Self-Esteem, Individual Self-Esteem, Private Ethnic Self-Esteem, School Well-Being, and Social School Motivation. Most values were below the threshold for large samples (i.e., $+2.58$; Field, 2009; Ghasemi & Zahediasl, 2012).

Table 2 shows Reformed Protestant, Hindu, and Islamic students’ mean scores on the RCSES and its subscales. One-way ANOVA with religious affiliation as an independent variable demonstrated significant effects on the total RCSES, and its subscales. All the effect sizes for RCSES and its subscales on religious affiliation were large (i.e., anything higher than 0.138; Cohen, 1988). Overall, Muslim students showed significantly higher levels of religious self-esteem than Reformed Protestant and Hindu students. Reformed Protestant students scored significant lower on the total scale, and subscales, except for the RI subscale; Hindu students reported significant lower scores of RI.

**Reliability**

Reliability analyses of the RCSES indicated that the scale is internally consistent yielding an $\alpha$ of .80. Its three subscales are mostly internally consistent as well showing substantial $\alpha$s (PrRSE subscale $\alpha = .77$, PuRSE subscale $\alpha = .73$, and RI subscale $\alpha = .60$). The item-total correlations ranged from .27 to .67 for the total scale. The item-total correlations for the PrRSE subscale ranged from .39 to .75, for the PuRSE subscale from .40 to .60, and for the RI subscale from .27 to .57.

The 1-year test–retest analysis showed statistically significant correlations for the total RCSES $r(469) = .57$, $p < .001$, PrRSE subscale $r(469) = .58$, $p < .001$, PuRSE subscale $r(469) = .36$, $p < .001$, and Importance to Identity subscale $r(469) = .48$, $p < .001$. The PrRSE subscale was the most stable in our sample, and the PuRSE subscale the least stable. These correlations are significantly different, $z = 4.359$, $p < .001$. The effect size of test–retest reliability was moderate to large (Cohen, 1988), and comparable to 1-year test–retest reliability of personality traits at this age, $r = .45$ (Butler & Gasson, 2005; Roberts & DelVecchio, 2000).

**Factorial Structure of RCSES**

One of our expectations concerning the factorial structure of the RCSES was to test a three-factor model, because this is in line with our theory of RCSE assessing three different aspects of religious self-esteem. However, we wanted to test a hierarchical and one-factor model as well to examine the alternatives that a more parsimonious one-factor model or hierarchical model might fit better. Three sets of confirmatory analyses (hierarchical model, one-factor model, and three-factor model) were conducted to determine the factorial structure of the RCSES. Missing item data

<table>
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<th>(Sub)scale</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
<th>Range</th>
<th>Skewness</th>
<th>Kurtosis</th>
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<tbody>
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<td>Total RCSES</td>
<td>1,436</td>
<td>3.56</td>
<td>0.40</td>
<td>2.67</td>
<td>−1.17</td>
<td>1.71</td>
</tr>
<tr>
<td>Private Religious</td>
<td>1,435</td>
<td>3.73</td>
<td>.44</td>
<td>3.00</td>
<td>−1.94</td>
<td>4.72</td>
</tr>
<tr>
<td>Public Religious</td>
<td>1,435</td>
<td>3.55</td>
<td>.48</td>
<td>3.00</td>
<td>−1.06</td>
<td>1.27</td>
</tr>
<tr>
<td>Religious Identity</td>
<td>1,436</td>
<td>3.40</td>
<td>.60</td>
<td>3.00</td>
<td>−.87</td>
<td>.31</td>
</tr>
<tr>
<td>Individual self-esteem</td>
<td>1,435</td>
<td>3.36</td>
<td>.49</td>
<td>3.00</td>
<td>−.97</td>
<td>1.04</td>
</tr>
<tr>
<td>Private ethnic collective self-esteem</td>
<td>1,434</td>
<td>3.52</td>
<td>.47</td>
<td>2.75</td>
<td>−.91</td>
<td>.31</td>
</tr>
<tr>
<td>Social school motivation</td>
<td>1,437</td>
<td>3.89</td>
<td>.62</td>
<td>4.00</td>
<td>−.86</td>
<td>1.70</td>
</tr>
<tr>
<td>Social concern</td>
<td>1,437</td>
<td>3.75</td>
<td>.50</td>
<td>3.20</td>
<td>−.55</td>
<td>.85</td>
</tr>
<tr>
<td>Affiliation</td>
<td>1,437</td>
<td>4.00</td>
<td>.84</td>
<td>4.00</td>
<td>−.88</td>
<td>.73</td>
</tr>
<tr>
<td>School well-being</td>
<td>1,435</td>
<td>2.63</td>
<td>.32</td>
<td>2.00</td>
<td>−1.21</td>
<td>1.67</td>
</tr>
<tr>
<td>Pleasure at school</td>
<td>1,435</td>
<td>2.53</td>
<td>.44</td>
<td>2.00</td>
<td>−1.08</td>
<td>.67</td>
</tr>
<tr>
<td>Perceived social acceptance</td>
<td>1,435</td>
<td>2.72</td>
<td>.39</td>
<td>2.00</td>
<td>−1.91</td>
<td>3.61</td>
</tr>
<tr>
<td>Relationship with teacher</td>
<td>1,435</td>
<td>2.63</td>
<td>.42</td>
<td>2.00</td>
<td>−1.42</td>
<td>1.69</td>
</tr>
</tbody>
</table>

*Note.* RCSES = Religious Collective Self-Esteem Scale.
Table 2
One Way ANOVA With Post Hoc Tests of Religious Collective Self-Esteem Scale Mean Scores on Reformed Protestant Students, Hindu Students, and Muslim Students

<table>
<thead>
<tr>
<th>Religious affiliation</th>
<th>Scale</th>
<th>Reformed Protestant (A)</th>
<th>Hindu (B)</th>
<th>Muslim (C)</th>
<th>F(4, 1431)</th>
<th>p</th>
<th>( \eta^2 )</th>
<th>Tukey’s HSD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total RCSES</td>
<td></td>
<td>3.41 .41</td>
<td>3.45 .41</td>
<td>3.72 .31</td>
<td>68.34</td>
<td>.000</td>
<td>.16</td>
<td>A, B &lt; C</td>
</tr>
<tr>
<td>Private</td>
<td></td>
<td>3.60 .48</td>
<td>3.61 .47</td>
<td>3.87 .30</td>
<td>51.31</td>
<td>.000</td>
<td>.13</td>
<td>A, B &lt; C</td>
</tr>
<tr>
<td>Public</td>
<td></td>
<td>3.32 .46</td>
<td>3.59 .44</td>
<td>3.70 .44</td>
<td>55.31</td>
<td>.000</td>
<td>.13</td>
<td>A, B &lt; C</td>
</tr>
<tr>
<td>Religious Identity</td>
<td></td>
<td>3.30 .62</td>
<td>3.16 .65</td>
<td>3.57 .50</td>
<td>38.46</td>
<td>.000</td>
<td>.10</td>
<td>A, B &lt; C, A &gt; B</td>
</tr>
</tbody>
</table>

Note. Reformed Protestants, \( n = 442 \), Hindu’s, \( n = 278 \), Muslims, \( n = 680 \), other religion, \( n = 37 \). RCSES = Religious Collective Self-Esteem Scale; HSD = honest significant difference.

ranged from one missing item response to 10 missing items responses in the RCSES. Item nonresponse was <1%, suggesting item responses were missing-at-random. For three comparative fit indexes (CFAs), variance-covariance matrices served as input, starting values were set at 1.0, and the latent factors were allowed to correlate. The Modification Indices (MI) in Mplus indicated all the error covariances in the models that correlated which each other. We examined which correlated error covariances could be added to the model based on theoretical and methodological grounds. We allowed the first and the second item to be correlated with each other, because these items, though in other item wording, measure how a child feels about belonging to a religious group. We have also allowed the 6th and 7th items to correlate with each other, because both reverse scored items assess the importance to their religious group membership to their self-concept. Finally, we also allowed the 4th and 10th item to correlate with each other, because they share most of the item wording.

The hierarchical model fit the data well; CFI = .95, TLI = .92, SRMR = .05, and the RMSEA = .05. The one-factor model, however, showed a lower fit compared with the hierarchical-factor model; CFI = .89, TLI = .85, SRMR = .07, and the RMSEA was .08. The three-factor model fit the data also well; CFI = .95, TLI = .92, SRMR = .05, and the RMSEA was .05. Both hierarchical and three-factor model are statistically not distinguishable, and because of a negative variance (a Heywood case) it is not recommendable to choose this model over the three-factor model (Kolenikov & Bollen, 2012). Another reason for choosing to maintain the three-factor model is because this is in line with our theory of measuring three different aspects of religious self-esteem: how a child feels about belonging to a religious group, how other children evaluate their religious group, and children’s importance to their religious group membership to their self-concept.

A \( \chi^2 \) difference test comparing the three- and one-factor models yielded a significant \( \chi^2 \) difference of \( \chi^2(3) = 215.9, p < .001 \). Thus, the three-factor model achieved a significantly better fit with the data. Results from confirmatory analyses for the models are shown in Table 3. We have not included the results of the hierarchical model, because the two models are statistically nondistin-

Table 3
Standardized Item Loadings for One-Factor and Three-Factor Confirmatory Analyses of the Religious Collective Self-Esteem Scale Items

<table>
<thead>
<tr>
<th>Subscale and items</th>
<th>One-factor</th>
<th>Three-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total RCSES</td>
<td>Private Rel.</td>
</tr>
<tr>
<td>Private Religious collective self-esteem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel good about being . . . ?</td>
<td>.74*</td>
<td>.77*</td>
</tr>
<tr>
<td>Are you proud that you are . . . ?</td>
<td>.71*</td>
<td>.74*</td>
</tr>
<tr>
<td>Is it annoying to be . . . ? (R)</td>
<td>.46*</td>
<td>.46*</td>
</tr>
<tr>
<td>Is it important to you that you are . . . ?</td>
<td>.74*</td>
<td>.75*</td>
</tr>
<tr>
<td>Public Religious collective self-esteem</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do other children feel good about you being . . . ?</td>
<td>.49*</td>
<td>.79*</td>
</tr>
<tr>
<td>Do other children find it strange that you are . . . ? (R)</td>
<td>.30*</td>
<td>.49*</td>
</tr>
<tr>
<td>Do other children respect you because you are . . . ?</td>
<td>.25*</td>
<td>.46*</td>
</tr>
<tr>
<td>Do other children fit it annoying that you are . . . ? (R)</td>
<td>.38*</td>
<td>.55*</td>
</tr>
<tr>
<td>Importance to Religious Identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel it matters to your sense of being that you are . . . ?</td>
<td>.32*</td>
<td>.33*</td>
</tr>
<tr>
<td>Is it really important to you that you are . . . ?</td>
<td>.77*</td>
<td>.79*</td>
</tr>
<tr>
<td>Do you find it not important at all that you are . . . ? (R)</td>
<td>.34*</td>
<td>.35*</td>
</tr>
<tr>
<td>Is being . . . really a part of who you are?</td>
<td>.81*</td>
<td>.83*</td>
</tr>
</tbody>
</table>


\( p < .01 \).
guishable. Each item loaded significantly on its assigned factor in
the one-factor model, >.25, and three-factor model, >.33. Five
items had poor loadings of below .40 in the one-factor model, and
two items had poor loadings <.40 in the three-factor model.
We followed the rule of thumb as suggested by Comrey and Lee
(1992), Costello and Osborne (2005), and Tabachnick and Fidell
(2013), which indicated that most of the loadings vary from (fairly)
good to excellent, except for two items in the three-factor model
that loaded poorly <.40, but significantly on their own factor.

Table 4 demonstrates the subscale correlations of the RCSES.
The PrRSE, PuRSE, and RI subscales correlated positively and
strongly with the total 12-item RCSES, as expected. The highest
correlation was found between the PrRSE and RI subscales, and as
expected, the lowest between the PuRSE and RI subscales.

Testing Measurement and Structural Invariance
Across Religious Groups

To establish full or partial measurement and structural invariance
several steps must be taken in comparing the proposed three-factor
model between groups: configural invariance, metric invariance,
scalar invariance, error variance invariance, factor covariance
invariance, factor variance invariance, and factor means invariance.
(Vandenberg & Lance, 2000). If full measurement and/or structural invariance cannot be established Milfont and
measurement invariance can be tested when measures are invariant
across some of the groups, or when some of the parameters are
invariant across groups. Robust maximum likelihood (MLR) es-
timation was used for all analyses. We compared the differences
in CFI, 2LL rescaled difference test, significance of χ2, and degrees
of freedom following Milfont and Fischer (2010). Milfont and
Fischer (2010) note that if in the sequence of the invariance tests,
the partial factor mean invariance model showing a significant worse fit of the partial factor variance invariance
model, −2ΔLL(6) = 6.30, p = .391.

Table 4
Religious Collective Self-Esteem Subscale Correlations

<table>
<thead>
<tr>
<th>(Sub)scale</th>
<th>Private Religious</th>
<th>Public Religious</th>
<th>Religious Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Religious</td>
<td>.42*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Identity</td>
<td>.63*</td>
<td>.28*</td>
<td></td>
</tr>
<tr>
<td>Total RCSES</td>
<td>.84*</td>
<td>.69*</td>
<td>.84*</td>
</tr>
</tbody>
</table>

Note. RCSES = Religious Collective Self-Esteem Scale. *p < .01.

Convergent and Divergent Validity

First, we examined other measures of self-esteem that theo-
retically should be related to each other to show convergent validity.

In the second step we tested whether the three different groups
responded to the items in the same way by constraining the factor
loadings to be the same across the three groups. Results show
adequate fit of the metric model (see Table 5) supporting metric
invariance of the RCSES. The metric invariance model did not
result in a significant decrease in fit relative to the configural
model, −2ΔLL(18) = 7.81, p = .981.

Third, we tested whether students who had the same score on the
items would obtain the same score regardless of their group
membership. We did this, by constraining the intercepts of the
items to be the same across the three different groups. Results
show adequate fit for the error variance model (see Table 5), supporting
scalar invariance. The scalar model did not show a significant
decrease in fit compared with the metric model, −2ΔLL(17) = 78.62, p = 6.723.

In the final step of testing measurement invariance, we assessed
measurement error for each item differed between the groups. The
modification indices suggest that freeing the residual variances for
item the 2nd, 4th, 9th, 10th, and last item between groups would
significantly improve model fit. Therefore, we tested error invari-
ance by constraining all error variances (except for 2nd, 4th, 9th,
10th, and last item) to be equal across all groups. Results show
adequate fit for the error variance model (see Table 5), supporting
partial error variance invariance. The partial error variance model
did not show a significant decrease in fit compared with the scalar
model, −2ΔLL(14) = 11.08, p = .680.

After achieving (partial) measurement invariance as just
described, structural invariance was then tested with three additional
models. First, we measured the stability of the factor relation-
ships across the three groups by constraining all factor covari-
ance’s to be the same across the three groups. Findings dem-
strate adequate fit for the factor covariance invariance model
(see Table 5), supporting partial factor covariance invariance.
The partial factor covariance model did not show a significant
decrease in fit compared with the partial error variance invariance
model, −2ΔLL(4) = 3.53, p = .473.

To test whether the range of score on a latent factor is equal
across the Reformed Protestant, Hindu, and Muslim groups, we
constrained all factor variances to be the same across groups
(except for 2nd, 4th, 9th, 10th, and last item). Table 5 shows a
significant worse fit of the partial factor variance invariance
model, −2ΔLL(2) = 16.50, p < .001, and is rejected. The same
applies to the partial factor mean invariance model showing a
significant worse model fit (CFI), although the χ2 rescaled
difference test was nonsignificant, −2ΔLL(6) = 6.30, p = .391.
Next, we investigated constructs that theoretically should be less strongly related to demonstrate discriminant validity. Table 6 shows the correlations between the RCSES and the other school measures included in this study. All correlations between the RCSES and the other self-esteem constructs were positive and significant. The effect sizes ranged from small to medium. Children who reported higher religious collective self-esteem also reported higher levels of individual self-esteem and private ethnic collective self-esteem, as expected. The PuRSE subscale correlated highest with the Individual Self-Esteem Scale. The PrRSE subscale correlated highest with the Private Ethnic Self-Esteem subscale. The findings of low to moderate self-esteem correlations support the convergent validity of the RCSES.

Results showed a small correlation between the RCSES, the School Well-being Scale ($r = .18$) and the Social School Motivation Scale ($r = .19$); these scales correlated positively and significantly with the PuRSE subscale. Results showed a small correlation between the RCSES, the School Well-being Scale ($r = .18$) and the Social School Motivation Scale ($r = .19$); these scales correlated positively and significantly with the PuRSE subscale. The effect sizes were all $>.10$, indicating a small effect (Cohen, 1988).

The findings regarding associations with low school motivation and school well-being support the discriminant validity of the RCSES, because for each subscale the convergent correlations were significantly stronger than the discriminant ones (PrRSE subscale $z = 3.301, p < .001$; PuRSE subscale, $z = 3.729, p < .001$; and Religious Identity subscale $z = 6.129, p < .001$).

### Incremental Validity

We obtained correlations between the RCSES subscales and other self-esteem scales and school measure scales (see Table 6). Next, we conducted stepwise regressions to test the unique contributions of RCSES and its subscales, over and above the Private Ethnic Self-Esteem Scale, for predicting school well-being and school motivation scores. First, Ethnic Self-Esteem was added to the stepwise regression, and in the second step RCSES and its subscales were added.

PuRSE and Private Ethnic Self-Esteem significantly predicted school well-being scores, $\beta = .10, t(1429) = 5.45, p < .001$. Both predictors explained a significant proportion of variance in school well-being scores, $R^2 = .05, F(2, 1429) = 33.33, p < .001$. RCSES contributed a significant, though small amount of variance (2%), over Private Ethnic Self-Esteem in the prediction of school well-being. PuRSE and Private Ethnic Self-Esteem also significantly predicted school motivation scores, $\beta = .21, t(1429) = 5.81, p < .001$. Both predictors explained a significant proportion of variance in school well-being scores, $R^2 = .05, F(2, 1429) = 33.91, p < .001$. RCSES contributed a significant amount of

### Table 5

**Model Fit Statistics for Tests of Measurement and Structural Invariance Across Religious Groups**

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2 (df)$</th>
<th>$\Delta\chi^2/df$</th>
<th>RMSEA [90% CI]</th>
<th>SRMR</th>
<th>CFI (ΔCFI)</th>
<th>Comparison</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Full configural invariance</td>
<td>365.70 (138)</td>
<td>2.65</td>
<td>.06 [.05-.07]</td>
<td>.06</td>
<td>.93 (−)</td>
<td>—</td>
<td>Accept</td>
</tr>
<tr>
<td>2. Full metric invariance</td>
<td>379.06 (156)</td>
<td>2.43</td>
<td>.055 [.05-.06]</td>
<td>.06</td>
<td>.93 (−.01)</td>
<td>Model 1 vs. Model 2</td>
<td>Accept</td>
</tr>
<tr>
<td>3. Full scalar invariance</td>
<td>459.10 (173)</td>
<td>2.65</td>
<td>.06 [.05-.07]</td>
<td>.08</td>
<td>.92 (−.01)</td>
<td>Model 2 vs. Model 3</td>
<td>Accept</td>
</tr>
<tr>
<td>4. Partial error variance invariance</td>
<td>493.63 (187)</td>
<td>2.64</td>
<td>.059 [.05-.07]</td>
<td>.09</td>
<td>.91 (−.01)</td>
<td>Model 3 vs. Model 4</td>
<td>Accept</td>
</tr>
<tr>
<td>5. Partial factor covariance invariance</td>
<td>498.93 (191)</td>
<td>2.61</td>
<td>.059 [.05-.07]</td>
<td>.10</td>
<td>.90 (−.01)</td>
<td>Model 4 vs. Model 5</td>
<td>Accept</td>
</tr>
<tr>
<td>6. Partial factor variance invariance</td>
<td>575.93 (193)</td>
<td>2.98</td>
<td>.065 [.06-.07]</td>
<td>.10</td>
<td>.89 (−.01)</td>
<td>Model 5 vs. Model 6</td>
<td>Reject</td>
</tr>
<tr>
<td>7. Partial factor mean invariance</td>
<td>785.27 (199)</td>
<td>3.95</td>
<td>.08 [.07-.09]</td>
<td>.50</td>
<td>.83 (−.01)</td>
<td>Model 6 vs. Model 7</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Note. RMSEA = root mean square error of approximation; CI = confidence interval; SRMR = standardized root mean residual; CFI = comparative fit index.

### Table 6

**Correlations Between Religious Collective Self-Esteem Scale and Other Scales**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Private Religious</th>
<th>Public Religious</th>
<th>Religious Identity</th>
<th>Total RCSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual self-esteem</td>
<td>.22**</td>
<td>.32**</td>
<td>.17**</td>
<td>.29**</td>
</tr>
<tr>
<td>Private ethnic collective self-esteem</td>
<td>.38**</td>
<td>.32**</td>
<td>.27**</td>
<td>.40**</td>
</tr>
<tr>
<td>Social school motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social concern</td>
<td>.07*</td>
<td>.18**</td>
<td>.07*</td>
<td>.13**</td>
</tr>
<tr>
<td>Affiliation</td>
<td>.08**</td>
<td>.15**</td>
<td>.06*</td>
<td>.12**</td>
</tr>
<tr>
<td>Total</td>
<td>.10**</td>
<td>.19**</td>
<td>.10*</td>
<td>.16**</td>
</tr>
<tr>
<td>School well-being</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasure at school</td>
<td>.07*</td>
<td>.12**</td>
<td>.04</td>
<td>.09**</td>
</tr>
<tr>
<td>Perceived social acceptance</td>
<td>.05</td>
<td>.19**</td>
<td>.03</td>
<td>.11**</td>
</tr>
<tr>
<td>Relationship with teacher</td>
<td>.06</td>
<td>.13**</td>
<td>.00</td>
<td>.09**</td>
</tr>
<tr>
<td>Total</td>
<td>.08**</td>
<td>.18**</td>
<td>.04</td>
<td>.12**</td>
</tr>
</tbody>
</table>

Note. Correlations in bold indicate convergent validity; underlined correlations indicate discriminant validity. RCSES = Religious Collective Self-Esteem Scale.

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

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variance (2.3%), over and above Private Ethnic Self-Esteem in the prediction of school well-being scores.

Discussion

This study among 1,437 6th graders attending public, Reformed Protestant, Muslim, and Hindu schools demonstrated sufficient internal consistency (α = .80) of the three-factor RCSES, and moderate to large test–retest reliability across 1 year (r = .57). In terms of construct validity, the factor analysis yielded evidence for a three-factor structure, with the subscales PrRSE, PuRSE, and RI. Overall, results support partial measurement and structural invariance across three different religious groups of students. Convergent validity of the RCSES was demonstrated by significant, low to moderate correlations with other investigated self-esteem scales (Individual Self-Esteem Scale, r = .26; Private Ethnic Self-Esteem Scale, r = .41). In addition, divergent validity was supported by small positive significant correlations with school well-being (r = .18) and social school motivation (r = .19). Finally, results showed incremental validity of RCSES and its subscales over Private Ethnic Self-Esteem concerning school well-being- and school motivation scores. In short, our present results provide evidence for the reliability and validity of the RCSES for assessing religious collective self-esteem.

Overall, the descriptive statistics demonstrated that children report relatively high levels of Religious Collective Self-Esteem, Individual Self-Esteem, Private Ethnic Self-Esteem, School Well-Being, and Social School Motivation. Muslim students showed significantly higher levels of religious self-esteem compared with Reformed Protestant and Hindu students. Perhaps this is because of the significance of a religious identity to Muslim youth in the Netherlands (Demant, 2005; Huijnk et al., 2015; Phalet & Ter Wal, 2004). Reformed Protestant and Hindu students scored significant lower on the total scale, and subscales, but their scores were overall pretty high.

In terms of its reliability, the RCSES subscales yielded, as expected, sufficient levels of internal consistency. The reliability of the RCSES was good with internal consistency exceeding .80. As we counted on, test–retest reliability was also good, especially considering the 1-year interval, and compared with other developed scales for children of our age group (Butler & Gasson, 2005; Roberts & DelVecchio, 2000) that reported even lower 1-year test–retest reliabilities.

We did not expect that both the hierarchical and three-factor models would be statistically not distinguishable because of a negative variance in the hierarchical model (a Heywood case; Kolenikov & Bollen, 2012). That is why we chose this model over the hierarchical model supporting the use of the RCSES as a three-factor model; thus, differentiating between the subscales of PrRSE collective self-esteem, PuRSE collective self-esteem, and RI. The three factor structure suggests that children's evaluations and judgments about their belonging to a religious group are ordered along the dimensions PrRSE collective self-esteem, PuRSE collective self-esteem, and RI, which cannot be adequately measured by a single abstract construct or in a hierarchical manner.

The validity of the three-factor model is further supported by significantly positive moderate to high subscale correlations for the RCSES. The subscales correlated positively and highly with the total 12-item RCSES, as expected. The highest correlations were found between the PrRSE and RI subscales, and the lowest between the PuRSE and RI subscales. This may be explained by the intimate relation between one’s PrRSE collective self-esteem and one’s religious identity.

Overall, findings suggest, as accounted for, support for (partial) measurement and structural invariance. The first three models showed full measurement invariance, whereas the models that followed mostly supported partial measurement and structural invariance. These findings indicate that students from different religious groups conceptualize RCSES in the same way; responded to the items in the same way; and that students who had the same score on the items obtained the same score regardless of their group membership. Partial error variance invariance and partial factor covariance were established. However, the last two more constrained models were rejected. According to Vandenberg and Lance (2000) and Milfont and Fischer (2010) most developed scales do not establish full measurement and structural invariance. Therefore, partial measurement and structural invariance is more likely to obtain, because there could be differences in how different groups score on a scale.

As expected, convergent validity was supported by small to moderate correlations with Individual Self-Esteem Scale and Private Ethnic Self-Esteem Scale. In other words: when children report higher religious self-esteem, they also report higher individual self-esteem and higher private ethnic collective self-esteem. The effect sizes ranged from small to moderate (Cohen, 1988). The PuRSE subscale correlated the highest with Individual Self-Esteem Scale indicating a possible relation between individual self-esteem and one’s PuRSE. The Private Ethnic subscale of the Collective Self-Esteem Scale was also correlated with the RCSES and its subscales, as expected, because religious self-esteem is partly related with one’s ethnic self-esteem. The PrRSE subscale correlated most strongly with the Private Ethnic Self-Esteem subscale, as expected. An explanation for this moderate correlation is, that the PrRSE subscale and Private Ethnic subscale are related, because they share a private dimension of the measured constructs. In other words, the subscales measure different constructs (religious self-esteem vs. ethnic self-esteem) in the same private dimension.

Divergent validity was supported by positive and small, but significant correlations with school well-being and social school motivation. The effect size was small (Cohen, 1988). Results provided general support for a small relation between the RCSES and its PuRSE subscale, the Social School Motivation Scale, and the School Well-Being Scale. This pattern of correlations, although not very strong, is consistent with the assumption that a student’s PuRSE is partly related to school well-being and social school motivation.

As expected, incremental validity was supported by RCSES and its subscales significantly predicting school well-being and school motivation scores. PuRSE contributed a significant higher unique variance of 2%, over Private Ethnic Self-Esteem to predict school well-being scores, and 2.3% to predict school motivation scores. Compared with other incremental validity levels of similar newly developed psychological scales for students of our age group, this is considered to be adequate (Johnston & Murray, 2003).
Strengths and Limitations

In evaluating the significance of these findings, it is important to consider both strengths and limitations of the present study. The study has several strengths. First, we developed a religious collective self-esteem that is different from an ethnic collective self-esteem. Religion is part of one’s ethnicity and, therefore, it may be overlooked as an important part of someone’s self-esteem and identity. For example, a converted Muslim from Dutch descent does not share the same ethnicity as a Moroccan or Turkish Muslim, and so they do not share an ethnic collective self-esteem. However, the converted Muslim of Dutch descent can have a same level of religious collective self-esteem as the Moroccan or Turkish Muslim indicated in the example. Another consideration has to been taken into account that some studies suggest that some young Moroccans and Turks in the Netherlands identify themselves as Muslims to distinct themselves from Western, Christian and secular social and political norms, and not usually in a religious sense (Korf, Yesilduz, Nabben, & Wouters, 2007). In this study we have not measured the religiousness of a child or the reasons why a child is religious, but whether the child identifies with a religious group. Therefore, it is important to make this conceptual and empirical distinction in measuring religious collective and ethnic collective self-esteem in understanding religious minority children.

Second, findings supported partial measurement and structural invariance. In other words, the RCSES can be used for all religious groups when measuring children’s religious collective self-esteem and is not restricted to one certain religious group. Third, the unique sample used in this study consists of heterogeneous religious minority children attending public, Reformed Protestant, Muslim, or Hindu schools in the Netherlands, which could increase the generalizability/external validity of our results. Most studies only contain samples of children attending public schools (Verkuyten & Lay, 1998; Verkuyten & Thijs, 2001, 2004, 2006, 2010).

However, there are also some limitations worth considering. First, all participants in the sample were attending primary public, Islamic, Reformed Protestant, or Hindu schools. We have not investigated other denominations, such as primary Catholic and Protestant schools. We expect to find similar findings in Catholic schools as for public schools, because the heterogeneous populations at these schools in the five investigated regions in the Netherlands often correspond with each other whereas for instance the population in Hindu schools are more homogenous.

Second, all participants were 5th and 6th graders in primary schools. We have not examined children or adolescents from other age groups at secondary schools. We expect to find different findings for this age group, because young adolescents are more likely to go through other developing stages in their lives (e.g., puberty), than children attending primary schools (Butler & Gasson, 2005; Johnston & Murray, 2003). This could influence the way they experience religious beliefs, and how they evaluate about belonging to a religious group. Thus, whether or not the RCSES can be used in other age groups is not clear, and should be investigated.

Third, the RCSES cannot be used for measuring children from nonreligious groups, because for these children assessing perceptions of belonging to a religious group is irrelevant. Therefore, in our present analyses we have left out the nonreligious 6th graders in all our analyses. This does not mean, however, that one cannot measure children’s perceptions of belonging to nonreligious groups in the same way as done in this research. It means that the purpose and questions of the scale should be reconsidered, so that the questions focus more on nonreligious children, and that the scale should be revised. Therefore, perhaps this could be a focus of future research.

Also, the RCSE Scale is especially developed to assess religious self-esteem, not spiritual self-esteem. The scale could work for children who are not-religious, but then the items should be revised in a manner that children comprehend the concept of spirituality, and the items should explicitly address that. Zwingmann, Klein, and Bussing (2011), as well as King (2003), argue that the construct should be operationalized in a concise manner and based on theoretical differentiations, because measuring spirituality and religiosity can overlap. In other words, it is very difficult to capture spirituality in a simple scale for adolescents, and even harder for children. For example, in what way do children belong to a spiritual group; are they aware that this group exists; are they aware of their spiritual identity; can they join this group; is it something they relate to at this young age? These are difficult questions that cannot be measured by the RCSES. Therefore, it is recommendable to only use this scale for the assessment of children’s religious self-esteem.

Another limitation concerning our validation process is that we did not use any other methods to validate our scale than paper-and-pencil methods. Finally, all analyses involved children from school classes in the Netherlands. Because the test was developed and initially studied in the Netherlands and in the Dutch language, it is not necessarily generalizable to other cultures and languages. Therefore, we expect to find differences in the use of the RCSES in other western societies with religious minorities, because of the language and cultural differences. Also, some of the political and societal situations and conditions for religious minorities are different from the situation in the Netherlands. However, future studies are needed to confirm this expectation.

This study shows that children’s evaluations about their belonging to a religious group can be reliably measured and that religious collective self-esteem is distinct from, yet related to ethnic and individual self-esteem. One theoretical implication of these findings is that the evident distinctiveness between ethnic and religious self-esteem contributes to existing debates about religious minority children’s identity. Also, these findings may indicate that government policies and institutions in western societies concerning religious minority children should not only focus on religious minority children’s individual self-esteem, but should also consider religious collective self-esteem when measuring religious minority children’s self-esteem, especially because religious identity could play an important part in some minority group children’s lives. Further research of this measurement may contribute to a better understanding of religious minority children’s evaluations of belonging to a religious group. It is also interesting to learn in what way and why children from specific religious groups are for instance more proud of belonging to their religious (minority) groups in western secular societies, than to other social groups.
Conclusion

The RCSSES that was developed seems adequate for the assessment of children’s evaluations and judgments about their belonging to a religious group. The present results demonstrate the reliability, construct validity, measurement and structural invariance, convergent and divergent validity, and incremental validity of the RCSSES. We look to future research to thoroughly examine in what other ways the RCSSES can be further improved and used.

References


(Appendix follows)
Appendix

Religious Collective Self-Esteem Scale (RCSES) Items

People of many different faiths live in our country. They include practicing Christians, Hindus, Muslims, and Jews in addition to individuals who practice no religion. First, please fill in: “In terms of religious group, I consider myself to be...” Next to the red arrow. Please keep this in mind for the next 12 questions. Make sure that you have filled in this answer in the other questions by following the black arrow. For example, if you are reformed Christian, please fill in “Reformed Christian”; if you are Muslim, please fill in “Muslim”; if you are Hindu, please fill in “Hindu”; if you are not religious, please fill in: “not religious.” Once you have finished this task, you can start answering each question.

<table>
<thead>
<tr>
<th>I am ___________________</th>
<th>No, certainly not!</th>
<th>No, not particularly</th>
<th>Yes, somewhat</th>
<th>Yes, certainly!</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you feel good about being?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>2. Are you proud that you are?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>3. Is it annoying to be?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>4. Is it important to you that you are?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>5. Do other children feel good about you being?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>6. Do other children find it strange that you are?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>7. Do other children respect you because you are?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
<tr>
<td>8. Do other children find it annoying that you are?</td>
<td>No, certainly not!</td>
<td>No, not particularly</td>
<td>Yes, somewhat</td>
<td>Yes, certainly!</td>
</tr>
</tbody>
</table>

(Appendix continues)
Appendix (continued)

9. Do you feel that it matters to your sense of being that you are?

10. Is it really important to you that you are?

11. Do you find it not important at all that you are?

12. Is being really a part of who you are?