Individual differences in childhood religious experiences with peers

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A R T I C L E   I N F O

Article history:
Received 10 April 2017
Received in revised form 29 June 2017
Accepted 30 June 2017
Available online xxxx

Keywords:
Individual differences
Religiosity
Peer influence
Socialization

A B S T R A C T

Childhood religious experiences with peers are important in the development of religiosity. However, peers' influence on these experiences has not been properly operationalized and measured. We addressed this limitation by developing the Childhood Religious Experiences with a Peer Inventory (CREPI). In Study 1 (n = 254), an act nomination procedure generated 106 items describing childhood religious experiences with a same-sex peer. These experiences were specific things that the peer said to, did to, or did with a participant during their childhood. In Study 2 (n = 458), participants indicated how frequently each item occurred in their childhood. Factor analysis yielded 27 items organized into three factors: Peer Proselytization, Shared Activities, and Peer Dialogue. The CREPI allows researchers to quantify peer influence on childhood religious experiences, enabling future investigation of whether and how these influences predict adult religiosity.

That peers influence religious beliefs has been well documented (e.g., Cornwall, 1988; Desrosiers, Kelley, & Miller, 2011; Erickson, 1992; French, Purwono, & Triwahyuni, 2011; Ozorak, 1989; Regnerus et al., 2004; Schwartz, 2006). However, the specific ways in which peers exert pressure on individuals to adopt religious beliefs is unknown. Several studies have investigated the role of peers in the acquisition of religious beliefs, above and beyond the influence of home environments and parents. For example, the influence and support of peers (compared with parents) accounts for more variance in adult religious faith and spiritual development (Desrosiers et al., 2011; Schwartz, 2006), and having religious peers is a strong predictor of one's own religiosity (French et al., 2011). Participation in religious services and activities is strongly predicted by peers' church attendance (Martin, White, & Perlman, 2003; Ozorak, 1989; Regnerus et al., 2004) and peers' religiosity (Cornwall, 1988). The influence of peers on participation in religious activities increases from early to late adolescence (Madsen & Vernon, 1983; O'Hara, 1980). Similar findings of peer influence on the acquisition of religious beliefs have been documented cross-culturally and in Christian, Mormon, and Muslim samples (Cornwall, 1988; French et al., 2011; O'Hara, 1980; Schwartz, 2006). These findings suggest that peers influence the development and long-term acquisition of religious beliefs during childhood and adolescence.

Previous investigations of peers' religious influence during childhood have been limited theoretically and empirically. The construct of peers' influence on childhood religious experiences has not been properly operationalized and measured, and the specific ways that peers exert their influence has not been specified. Studies often do not assess how peers influence an individual, but instead associate indirect
measures of peer influence (e.g., number of religious friends; French et al., 2011; Gunnoe & Moore, 2002) with individuals’ later behaviors (e.g., “During the past 7 days did you miss the five daily prayers?”; French et al., 2011). Attempts to assess peer influence on the acquisition of religious beliefs often include single-item, general, or unidimensional measures such as: “How comfortable do you feel discussing religion and spirituality with your friends?” (Desrosiers et al., 2011); “How frequently do you partake in these discussions?” (Desrosiers et al., 2011); “When you were about 16, how many of your friends regularly went to church or religious services?” (Gunnoe & Moore, 2002). Additionally, studies often use different measures to quantify peer influences, which hinders scientific advancement when studies are compared or meta-analyzed (e.g., Gunnoe & Moore, 2002; Kristensen, Pedersen, & Williams, 2001; Maton, 1989; Schwartz, 2006). The psychometric parameters of many measures have not been explored (e.g., French et al., 2011) and, therefore, are of unknown reliability or validity (Nunnally & Bernstein, 1994). Additionally, these measures do not assess the specific, quantifiable, childhood religious experiences that are influenced by peers—that is, the specific ways that peers influence childhood religious experiences.

To address these issues, we developed a quantitative measure for childhood religious experiences, the Childhood Religious Experiences with a Peer Inventory (CREPI). This measure has theoretical and applied value for the study of religiosity. For example, it allows researchers to test hypotheses about the development and transmission of religiosity via peer influence, to identify the specific ways peers exert their influence, and to identify the types of peer influence that impact adulthood religiosity. In Study 1, we used an act nomination procedure (Buss & Craik, 1983) to identify a wide range of items. In Study 2, we secure evidence of the reliability and validity of the CREPI. Both studies followed procedures used to develop a related measure, the Childhood Religious Experiences with a Primary Caregiver Inventory (Tratner et al., 2017).

Methods

Study 1: Act Nomination.

Participants and Procedure.

We recruited 254 undergraduates from the human subjects pool at a US Midwestern university for an online survey. Prospective participants were provided a link to a consent form, and those who electronically signed the consent form, and indicated that they were at least 18 years old, could access the survey. Participants took part in this study to meet research participation requirements in introductory psychology and research methods courses.

Using an act nomination procedure (Buss & Craik, 1983), we asked participants to list 10–15 specific things a same-sex, similar-age peer did with, did to, and/or said to them during their lives (i.e., childhood through the present) that may have affected their religious beliefs and practices today (e.g., “My friend encouraged me to go to church every Sunday”; “My friend and I prayed before meals”; “My friend criticized me for breaking a biblical rule”). Because individuals model the behaviors of peers who are more similar to themselves (Bandura, 1986), we used a same-sex and similar-age peer as a reference for peer influence.

Results

We collected 3271 responses. Following Buss (1988), a team of four research assistants (two females) consolidated the responses by inspecting them and removing vague, redundant, or irrelevant acts. This process resulted in 106 items that we used in Study 2 as a preliminary list of items for the CREPI.

Study 2: Psychometric Assessment.

Participants

Participants were 458 individuals, 18 to 50 years old (90.4%; M = 32.4; SD = 7.2), half female (50.2%), mostly Christian (43.8%), heterosexual (83.8%), and Caucasian (74.7%). Participants selected a same-sex friend about which to respond (see Materials). The majority of selected friends were Christian (68.4%), Caucasian (72.9%), and of similar age to the participant (62.8% were the same age). The friendships began, on average, when the participants were 9.3 years old (SD = 3.5).

Materials

Participants completed an online survey composed of two parts: The preliminary version of the CREPI (106 items) and demographic questions. Participants were asked to identify a person from their childhood whom they considered their best (or closest) friend while they were growing up. “Childhood” was defined as the period when participants were <18 years old. We instructed participants to select a friend that was 1) the same sex as them, 2) raised in a different household than them, and 3) <10 years older or younger than them (and who might therefore serve as an appropriate social model; Bandura, 1986). We instructed participants to indicate the frequency with which they experienced each of the 106 items, on a 7-point Likert scale (0 = Never, 6 = Always). The online survey automatically inserted the friend’s name and gender pronouns based on the participant’s initial response. Sample items include: “[Friend’s name] told me I should use a religious text as a guide for life”, “[Friend’s name] pointed out contradictions within my religion”, and “[Friend’s name] and I volunteered for a religious organization”.

Participants provided demographic information about themselves and their friend (e.g., age, sex, religious affiliation), their friend’s first name, and the age at which they became friends.

Procedure

Prospective participants viewed an advertisement for the study on MTurk’s job listings. We implemented MTurk filters recommended by Peer, Vosgerau, and Acquisti (2013): MTurk participants could access and participate in this study if they had successfully completed at least 95% of at least 500 accessed MTurk jobs. Participants were compensated US$3.50 upon completion.

Results

An analysis of histograms and error bars indicated 73 items (of 106) with considerably low variance (i.e., >70% of participants scored “0”). Examples of such items are “[Friend’s name] told me I should not believe in God” and “[Friend’s name] told me he hated religion.” The low variance for these items suggests that they are not frequent enough to justify inclusion in a measure of peer influence on childhood religious experiences. For parsimony, we excluded these items from further analyses. We evaluated the discriminative power of the remaining 33 items, considering the median total score as the dividing point. We calculated the total score across items for each participant, then divided these scores into two criterion groups (i.e., those above and those below the median; Mdn = 0.92). We entered the items into a Multivariate Analysis of Variance (MANOVA) to evaluate differences in mean scores (dependent variables) between the criterion groups. We rejected the null hypothesis [i.e., no difference in mean scores of the items for the criterion groups; Wilks’ Lambda = 0.27, F (33, 421) = 34.80, p < 0.001]. Univariate tests indicated that all items discriminated between individuals who scored high and those who scored low on the overall scale (all ps ≤ 0.001).

We performed a factor analysis after ensuring the suitability of the data [Kaiser-Meyer-Olkin test, 0.93; Bartlett’s sphericity test, χ²(528) = 11,193.66, p = 0.001]. The Kaiser criterion (eigenvalue ≥1), scree plot (Cattell criterion, see Fig. 1), and a parallel analysis (Horn criterion) indicated retention of 5, 3, and 3 factors, respectively.

Because the Horn criterion is the most rigorous of the three criteria (Garrido, Abad, & Ponsoda, 2013), and because two of the three criteria (Cattell’s and Horn’s criteria) suggested a three-factor structure, we performed another factor analysis, setting the number of factors to three,
with an oblimin rotation. Factors I, II and III produced eigenvalues of 13.78, 3.33, and 1.98, respectively. We retained only items that loaded >0.40 on a single factor. Six items did not meet this requirement, and were excluded. For example, the item “[Friend’s name] told me there is life after death” loaded greater than 0.40 on multiple factors, and the item “[Friend’s name] and I watched media with religious themes together” did not load >0.40 on any factor. Table 1 shows factor loadings, communalities, and internal consistencies.

Factor I included items such as “[Friend’s name] told me I should believe in God,” “[Friend’s name] told me about his religion,” and “[Friend’s name] quoted a religious text.” We labeled Factor I Peer Proselytization because its constituent items involved a peer’s declaration of and attempts to impose their beliefs on the individual. Factor II included items such as “[Friend’s name] and I prayed togeth,” “[Friend’s name] and I attended a youth group together,” and “[Friend’s name] and I talked about prayers being effective,” and “[Friend’s name] and I talked about our struggles with our religious beliefs.” We labeled Factor III Peer Dialogue because its constituent items involved individuals and their peers discussing religion and religious beliefs with one another. The final version of the CREPI included 27 items loading on three factors (see Table 1).

For repertory completeness, we performed a MANOVA to investigate sex differences in the occurrence frequency of different factors of peer influence on childhood religious experiences. The results indicated non-significant sex differences [Wilks’ Lambda = 0.99, F(3, 446) = 0.01, p > 0.05]. Additionally, we performed a MANOVA to investigate differences between religiously-affiliated individuals (e.g., Christians, Muslims, Jews) and non-affiliated individuals (e.g., atheists) in the occurrence frequency of different factors of peer influence on childhood religious experiences. The results indicated non-significant differences between affiliated and non-affiliated individuals [Wilks’ Lambda = 0.99, F(3, 446) = 1.09, p > 0.05].

Discussion

In two studies, we developed the Childhood Religious Experiences with a Peer Inventory (CREPI), which measures the occurrence frequency of 27 specific experiences a person had with a close friend during childhood and adolescence. The CREPI assesses three factors of peer influence: 1) Peer Proselytization, characterized by attempts by a peer to directly affect the individual’s religious beliefs; 2) Shared Activities, characterized by participation in religious activities with a peer; and 3) Peer Dialogue, characterized by religious dialogue with a peer. These factors have in common the promotion of religion and religious beliefs by a peer, but they differ in how such influence is exerted. This suggests that peers may exert their influence on individuals’ religious beliefs and practices through different means—via advocating their religious convictions, mutual participation in religious activities, and engaging in discourse.

Two factors of the CREPI align with facets of influence identified in previous research. Shared Activities coincides with the results of previous studies regarding participation in religious activities (Religious Life Inventory; Hills, Francis, & Robbins, 2005). Peer Dialogue coincides with the results of previous studies investigating discussion of religious beliefs with peers (e.g., Desrosiers et al., 2011). Thus, the CREPI integrates previously documented facets of religious experiences into a single measure, which allows their simultaneous assessment. Peer Proselytization describes a facet of religious experience with peers that has not
been well explored. Peer proselytization appears to be an effective strategy for instilling religious beliefs in children and increasing their participation in religious activities in the United States (e.g., Stewart, 2012). Parents may set the stage for children’s religiosity by exposing them to parental religious affiliation and belief systems, and these beliefs may then be elaborated by interactions with peers throughout development (Ozorak, 1989). To our knowledge, no previous studies have measured peers’ proselytization and criticism of individuals’ religious beliefs. Therefore, the CREPI contributes to the literature by providing a means of assessing how peers influence childhood religious experience through criticism of an individual’s beliefs, combined with attempts to persuade an individual to adopt the peer’s beliefs.

There was no difference in the frequency of peer proselytization, shared activities, and peer dialogue between religiously affiliated and non-affiliated individuals. That is, regardless of religious affiliation, individuals experienced these specific types of peer influences at similar frequencies. However, this does not undermine the potential influence of peers on other aspects of individuals’ religiosity (e.g., the extent to which individuals subscribe to religious beliefs). Additionally, future research may investigate the perceived efficacy (in addition to frequency) of different peer influences on childhood religious experiences, for example, to identify which factor is more effective in influencing an individual’s religious affiliation. Furthermore, there were no sex differences in experienced peer influences. This may be due to the fact that our measure assessed the influence of same-sex peers only. Future research may investigate sex differences in experienced opposite-sex peer influences on religious experiences.

The CREPI focuses on religious experiences during childhood and adolescence because these periods appear to be particularly important for establishing adulthood religiosity (Erickson, 1992; O’Hara, 1980). Religious indoctrination of children may occur in early educational settings that endorse religious worldviews in place of naturalistic explanations (e.g., rejection of the theory of evolution by natural selection, and endorsement of creationism; Kutscher, 2008; Miller, Scott, & Okamoto, 2006). Religious education contributes to the development of religious beliefs by combining exposure to religious concepts with the presence of peers who are also religious—reinforcing the pressure to subscribe to the shared views of the peer group (Erickson, 1992; Stewart, 2012). Therefore, childhood and adolescence are important periods for the acquisition of religious beliefs as individuals in these (compared to other) periods are more sensitive to peer influences and the pressure to conform (Berndt, 1979; Harris, 1995).

Peers may exert influence in different contexts such as school, neighborhood, religious community, and even in the family (e.g., siblings, cousins; Schwartz, Bukowski, & Aoki, 2006). However, previous research has operationalized peers simply as “friends,” without specifying the context of the friendship (Desrosiers et al., 2011; French et al., 2011; Schwartz, 2006). This vague definition of peers prevents researchers from evaluating the role of friendship context. Thus, previous research has not addressed differences in peer influence across contexts—although such differences are likely (Harris, 1995). For instance, even if both school peers and neighborhood peers offer religious mentoring (e.g., encouraging prayer), their influence on an individual’s religious beliefs and practices may be different. Additionally, the closeness of a friendship affects peer influence on religiosity (Schwartz et al., 2006). However, participants in previous studies did not identify a specific friend as a reference while responding to measures of childhood religious experiences (Desrosiers et al., 2011; French et al., 2011; Schwartz, 2006). The CREPI facilitates research that can address these issues. For example, researchers could investigate the influence of specific peers (e.g., acquaintance) by creating alternative instructions (e.g., select an acquaintance).

Another variable that may be important in peers’ influence during childhood is age discrepancy. Children venerate older peers (Harris, 1995). Older children are dominant in mixed-age play groups and sibling groups (Edwards, 1992; Whiting & Edwards, 1988). Perhaps religious influence exerted by older peers is greater than by same-age peers and younger peers. Future research could use the CREPI to explore these hypotheses by investigating effects of age discrepancy on religious experiences with peers and on religiosity outcomes.

The current studies used established methods (e.g., Tratner et al., 2017) to develop the CREPI. In Study 1, we used an act nomination procedure and act frequency analysis of childhood religious experiences with peers as a preliminary criterion for category membership. Thus, the CREPI is comprised of actual childhood religious experiences with peers, which strengthens the measure’s content validity. In Study 2, we used factor analysis to explore the structure of the CREPI, which allowed us to secure evidence of its validity (Nunnally & Bernstein, 1994). For example, factor analysis provides tools to define internal structures and cross-structures for sets of variables in construct validity (e.g., by investigating the extent to which the observed factor structure corresponds to a well-defined theory).

This research has several limitations. First, different types of peers (e.g., peer groups, opposite-sex peers, familial peers) may influence religious beliefs. We instructed individuals to select one, non-related, same-sex friend about whom to respond. Because the act nomination did not assess how opposite-sex friends influence childhood religious experiences, we may not have obtained items unique to other types of relationships (e.g., opposite-sex friendships). Another limitation is related to the samples we used: undergraduates (Study 1), and adult MTurk workers (Study 2) residing in the United States. Although the MTurk sample was relatively heterogeneous (e.g., nearly even split of men and women, a variety of religious denominations), most of the participants were Caucasian and Christian. Further, our samples improved upon previous research that has relied on college student convenience samples (Cutting & Walsh, 2008). Future research could secure data from other demographic groups and cultures to investigate whether the three-factor structure replicates cross-culturally, and also to investigate cross-cultural differences in peer influences on childhood religious experiences.

Conclusion

The current research developed and provided initial psychometric validation for a measure of childhood religious experiences with peers. The Childhood Religious Experiences with a Peer Inventory (CREPI) is a quantitative tool that secures occurrence frequencies of 27 specific childhood religious experiences with a peer, organized into three factors: Peer Proselytization, Shared Activities, and Peer Dialogue. We focused on the experiences that individuals shared with peers during childhood and adolescence because these are important periods for peer influence and for the development of religious beliefs. The CREPI facilitates the investigation of new research avenues to test hypotheses about the development, transmission, and acquisition of religiosity via peer influence. The current research adds to the relevant literature by integrating and expanding on different facets of peer influences on religious experience during childhood and adolescence.

References


