Article

Parents, Television, and Children's Emotional Expressions: A Cross-Cultural Multilevel Model

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Abstract

Parents and media both play an important role in the socialization of children's emotions, yet it remains unclear whether these socializing influences vary by culture. We studied the joint influences of parents and television on children's expression of four basic emotions (happiness, anger, sadness, and fear) using self-report survey data from 3570 six- to 15-year-olds from 13 Asian, European, Middle Eastern, and South American countries. Perceived parental approval positively predicted self-reported expression of all four emotions. In addition, children's approval of TV characters' expression of happiness and anger (but not sadness and fear) positively predicted self-reported expressions of these emotions. A multilevel model combining cultural indicators (individualism, indulgence, assertiveness, humane orientation) and sociopolitical variables (Human Development Index, Gender Inequality Index, Grade Point Average) at the country level with individual-level variables (age, gender, media use) suggested that parental socialization of sadness, and media socialization of anger, varied as a function of some cultural indicators (assertiveness and humane orientation). Overall, though, despite theorizing about cultural differences, parental approval and (to a lesser extent) children's approval of media models tended to predict children's emotion displays rather consistently across a wide array of countries.

Keywords

experienced emotions, emotion expression, emotion display, parental socialization, TV characters, media socialization, cross-cultural similarities

All children face the task of learning the "emotional priorities" of their culture, including which emotions should be "felt, displayed, or attenuated" (Legare & Harris, 2016, p. 365). In working to acquire this information, children may be influenced by parents (Eisenberg, Cumberland, &

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Spinrad, 1998), but also by media representations (Coats & Feldman, 1995; Dorr, 1985). Thus far, little research has examined these two socializing forces simultaneously (Dorr, 1985; Scherr, Mares, Bartsch, & Götz, 2018), and none has considered whether such conjoint influences may vary by culture. As Legare and Harris (2016) argue, it is crucial to assess whether children across an array of countries rely on the same repertoires of learning strategies or whether there are cultural differences in the sources/processes of early socialization. The present study helps address this research gap.

The impetus for the study came from access to survey data gathered in Argentina, Australia, Canada, China, Denmark, Germany, Iran, Italy, Malaysia, the Netherlands, Slovenia, Spain, and Thailand with a total sample size of 3,570 children aged 6 to 15 years old. These data allowed us to look for cross-sectional associations between children's self-reported tendency to show others their emotions and (a) their perceptions that their parents approved of them showing their feelings, and (b) their own approval of TV characters' expressions of emotion. We conceived of the latter as a form of socialization, whereby young viewers make evaluations about characters' emotion displays and may use those evaluations to guide their own expressions. In an earlier article, analyzing only the German data (gathered with 6 to 19 year olds), we found significant positive associations between these three variables (Scherr et al., 2018). The focus of the current article is to examine whether these associations differ in the widely varying contexts of the larger, multinational sample. As such, this article responds to calls for developmental research that includes diverse, non-WEIRD (Western, Educated, Industrialized, Rich, Democratic) samples (e.g., Arnett, 2008; Nielsen, Haun, Kärtner, & Legare, 2017). We begin by reviewing the literature on parental and media socialization, then turn to the literature on cultural differences in emotion expression to consider relevant dimensions for cultural comparisons.

Parental Socialization of Emotion Expression

Most models of emotion socialization suggest that parents socialize their children's responses in a number of ways, including modeling their own emotional reactions to events, responding to the child's emotions, and explicitly discussing emotions (De Leersnyder, Boiger, & Mesquita, 2013; Denham, Bassett, & Wyatt, 2015). Morris, Silk, Steinberg, Myers, and Robinson (2007) described parental socialization of emotions as the "attempt to align their children's emotional experiences to the culturally desired endpoints of emotion regulation, thus helping their children to successfully navigate their social relationships" (p. 4). These socialization practices have important implications for children's emotional development. For example, research suggests that *parental modeling* of warm, positive emotions significantly predicts increases in children's social competence and empathic responding (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Zhou et al., 2002). Conversely, parental modeling of negative, anxious affect predicts more anxious responses from children (Borelli, Margolin, & Rasmussen, 2015).

Parents' *responses to their child's emotions, and family discussions of emotion* also shape children's outcomes. Research suggests that mothers' early discussions of emotions with their child positively predict children's subsequent tendency to talk about emotions (Dunn, Bretherton, & Munn, 1987) and to recognize the emotions of others (Dunn, Brown, & Beardsall, 1991). Conversely, longitudinal work by Eisenberg and colleagues revealed that parental emotion socialization that focused on minimizing children's emotional expressiveness (especially for negative emotions) predicted not only reduced emotional expressiveness, but also reduced social competence and empathy, and resulted in higher levels of stress (see Eisenberg et al., 1998 for a review).

In sum, evidence suggests that cues to parental acceptance or disapproval of emotions shape children's affective responses and expressions. Consistent with this, in the German-only data set, we found significant positive associations between children's perceptions that their parents

approved of them expressing their emotions (happiness, anger, sadness, fear) and children's self-reported displays of those emotions (Scherr et al., 2018). Accordingly, in the current study, our prediction was that, across the array of countries considered in the expanded data set, perceived parental approval would be positively associated with children's self-reported expressions of each emotion (Hypothesis 1 [H1]). Nonetheless, as Nielsen et al. (2017) argue, culturally specific findings should not be assumed to be universal traits. The extent to which these associations may be moderated by cultural factors is discussed in the section on cultural differences below.

Socialization via Media Exposure

Children may also learn how to respond to social situations by watching media characters. Dorr (1985) noted that elementary school-aged children in her studies spoke of watching TV, in part, to learn "how to get along with others, how to display their feelings" (p. 77). She argued that television and film might be particularly potent socializers of emotion expressions, given that production techniques (e.g., camera angles, close-ups, sound effects) allow for presentation of emotional experiences with greater intensity and frequency than everyday life. In an early content analysis of U.S. children's television, Houle and Feldman (1991) found unrealistically frequent depictions of happy, sad, and angry expressions and infrequent depictions of fear and disgust expressions. Furthermore, Coats and Feldman (1995) found that when children were put in experimental situations designed to evoke emotions, heavy TV viewers (relative to light viewers) were more likely to show clear facial displays of those emotions that were frequently depicted on TV, and less likely to show clear nonverbal cues for less commonly depicted emotions. This early work is consistent with Nabi, So, and Prestin's (2010) suggestion that repeated exposure to media role models of emotion might socialize viewers' perception of social norms and display rules, and, thus, shape their own expression of emotions.

This theme of media's role in the process of emotional socialization was also developed by Arnett (1995) who argued that media use gives adolescents a chance to explore emotion and to practice (or release) impulse control. He noted that teens have little control over the socializing messages offered by their family, school, community, or legal system, but are relatively autonomous in their choices of media role models. Arnett (1995) uses the term "self-socialization" to highlight adolescents' active role in choosing their models from the mass media.

In the German-only analyses (Scherr et al., 2018), we found that children's approval of media characters' expressions of happiness, anger, and sadness were positively associated with their self-reports of how often they expressed those emotions. These associations did not vary by the age of the child. Indeed, other research suggests that even 4 and 5 year olds use TV to regulate their moods, suggesting that emotional self-socialization via media begins early (see Dillman Carpentier et al., 2008 for similar findings with 7-17 year olds; also Masters, Ford, & Arend, 1983). The only emotion for which no influence of favorite TV characters emerged was fear. Given the preliminary nature of this nonfinding for fear, we reexamined the initial hypothesis that the socializing role of media was the same for all emotions under study. Thus, in the current study, our second prediction was that, across the array of countries in the expanded data set, children's approval of media characters' emotion displays would be positively related to self-reported expressions of each emotion (Hypothesis 2 [H2]). We discuss possible moderating influence of culture on this relationship below.

Considering Country and Culture

As various authors have noted, research on cultural differences typically involves comparisons between countries, creating challenges of (a) identifying whether observed differences reflect culture rather than other sources of national variation (e.g., GDP), and (b) identifying which

cultural dimensions are most relevant to the outcome of interest (Leung & van de Vijver, 2008; Matsumoto & Yoo, 2006). Matsumoto and Yoo (2006) suggested several methodological strategies for moving the field forward, including comparing multiple countries (rather than simply contrasting a pair), testing several competing cultural models (rather than just focusing on individualism-collectivism), and controlling for relevant noncultural factors that might be responsible for seeming effects of culture. These recommendations have guided our approach to the current data set. We begin by briefly reviewing research on individualism-collectivism, then lay out other plausible cultural influences on children's emotional expression, then consider which key noncultural variables should be treated as covariates.

Individualism-Collectivism and Emotion Expression

The individualism-collectivism dimension defines *individualist cultures* as countries that foster individual development (Markus & Kitayama, 1991), weigh personal goals higher than group goals (Yamaguchi, 1994), and consider personal attitudes as important determinants of behavior (Matsumoto, 1990; Matsumoto, Seung, & Fontaine, 2008). *Collectivist cultures* are defined as those that emphasize interdependence, mutual obligation, the pursuit of group goals, and the importance of social norms as determinants of individual behavior.

Various theoretical accounts have focused on the impact of individualism-collectivism on communicative styles (e.g., Gudykunst et al., 1996; Ting-Toomey, 2004), which makes it one of the most prominent cultural predictors of emotion expressivity (Matsumoto et al., 2008). The basic argument is that in collectivistic cultures, freedom to express emotions is less important than considerations about the impact of such expressions on others, and on the group (Matsumoto et al., 2008). In one of the largest assessments of this proposition, Matsumoto et al. (2008) asked more than 5,000 individuals in 32 countries about appropriate expressions of particular emotions in public and in private. Differences between countries accounted for about 5% of the variance, and were explained in part by national ratings of individualism-collectivism, such that those in more individualistic countries endorsed more expression of emotions in general, and positive emotions, in particular. Van Hemert, Poortinga, and van de Vijver (2007) conducted a meta-analysis of 190 studies examining national and cultural differences in expressions of emotion, and found that the strongest predictor of emotion expression was individualism-collectivism (Hofstede, Hofstede, & Minkov, 2010). This association was not moderated by sample age and was comparably strong for the basic emotions of anger, fear, happiness, and sadness. Therefore, we predict that country-level individualism would be associated with children's self-reports of greater emotion expressivity (Hypothesis 3 [H3]).

Individualism-Collectivism and Parental and Media Socialization

Various authors have suggested that parents in more individualistic cultures (relative to those in more collectivistic cultures) place more emphasis on the child's self-expression and self-reliance, and less emphasis on obedience to parents and grandparents (Markus & Kitayama, 1991; Yaman, Mesman, van Ijzendoorn, Bakermans-Kranenburg, & Linting, 2010). Evidence, thus far, is mixed. For example, Keller et al. (2006) found that mothers from more collectivist countries stressed the importance of learning to be obedient toward the elderly. However, Park, Coello, and Lau (2014) found that East Asian parents valued individualistic parenting goals such as independence *more* than Western parents, and Western parents appreciated endorsement of obedience, unselfishness, and tolerance more than East Asian parents.

There is even less evidence that country-level individualism-collectivism predicts the nature of media depictions of emotions. A content analysis of more than 6,000 children's TV shows from 24 countries (Götz et al., 2008) found that most main characters (57%) were presented as

members of groups or teams, and only a minority (20%) were loners. There was no clear pattern of individualistic countries (e.g., the United States) depicting a higher proportion of loners than collectivistic countries (e.g., China). Nevertheless, given the theoretical arguments about the role of individualism-collectivism in socialization of emotion (e.g., Matsumoto et al., 2008), it is valuable to examine whether the influences of parents and the media on children's emotion expression vary along this dimension. Given the mixed evidence about individualism-collectivism differences in parental socialization of emotions, and the lack of evidence about differences in media depictions of emotions, we ask whether the associations between perceived parental approval, children's approval of characters' emotions, and their self-reported emotion expression will vary by country-level individualism-collectivism (Research Question 1 [RQ1]).

It is important to acknowledge that there are various critiques of individualism-collectivism as a framework. It is clear that individualism-collectivism does not represent a single dimension, and that both cultural features consist of multiple components (e.g., Oyserman, Coon, & Kemmelmeier, 2002). The critique also includes concerns over lack of conceptual clarity in the core dimensions (Voronov & Singer, 2002), lack of attention to contextual variation (Fiske, 2002; Miller, 2002), and lack of attention to ethnic and subgroup differences within countries (Fiske, 2002). Others have suggested that such classifications are a form of Eurocentric essentialism, with overly simplistic emphasis on binary demarcations between "East and West" cultures (e.g., Martínez Mateo, Cabanis, Stenmanns, & Krach, 2013). Hofstede (1980) himself raised a number of concerns, including the possibility that country-level individualism fluctuates with economic and historical circumstances. Matsumoto and Yoo (2006) noted that various sociopolitical characteristics of nations are related to cultural dimensions (and may, indeed, contribute to cultural differences). In particular, they noted that Hofstede (1980) reported a correlation of .82 between country-level individualism and affluence. Thus, they pointed out, "there is a distinct possibility that observed between-country differences that are assumed to occur because of differences in individualism-collectivism may in fact occur because of economic factors" (p. 237). To account for this potential confound of individualism-collectivism with sociopolitical characteristics, we included GDP, the Human Development Index (HDI), and the Gender Inequality Index (GII; see below). Furthermore, we included additional cultural dimensions of indulgence-restraint, assertiveness, and humane orientation that are theoretically related to emotion expression.

Other Cultural Dimensions Related to Emotion Expression

In keeping with Matsumoto and Yoo's (2006) recommendation that multiple, potentially overlapping cultural dimensions be considered simultaneously, we looked for alternative indicators. Hofstede et al. (2010) argued for *indulgence-restraint*. Indulgent societies are conceptualized as those that focus on hedonic gratification of desires related to enjoying life, personal happiness, and well-being. Employees in Western European countries as well as in Central, South, and North America tended to score higher on this dimension. In contrast, restraint societies are conceptualized as embracing stricter social norms and codes of conduct, and controlling the pursuit of gratifications. Employees in Eastern European and Asian countries tended to score higher on this dimension (Hofstede et al., 2010). Maleki and de Jong (2013) found that people from countries in which gratifications from emotions are less restrained (i.e., more indulgent countries) expressed emotions more openly. However, Putnam and Gartstein (2017) found that national indulgence scores were positively correlated with ratings of children's tendency to express positive affect, but were negatively (rather than positively) associated with the tendency to express anger, fear, or sadness. Given these mixed findings, in the current study, we asked whether and how the associations among children's emotion displays, parental approval, and their own approval of characters' emotions vary by cultural indulgence (Research Question 2 [RQ2]).

Two other cultural dimensions that may be relevant to emotion expressivity come from the Global Leadership & Organizational Behavior Effectiveness (GLOBE) study, a survey of managers of 951 organizations in 62 countries, intended to assess the impact of culture on leadership style (House, Hanges, Javidan, Dorfman, & Gupta, 2004). As in the Hofstede et al. (2010) project, responses were factor-analyzed to yield different dimensions, and countries were assigned scores on each dimension. *Assertiveness* is conceptualized as the degree to which "individuals are assertive, confrontational and aggressive in their relationships with others" (House, Javidan, Hanges, & Dorfman, 2002, p. 6). Hence, the expression of assertive emotions such as anger might be encouraged, whereas the expression of vulnerable emotions such as fear and sadness might be disapproved in cultures higher on the assertiveness dimension. In the current study, we asked whether and how the associations among children's emotion displays, parental approval, and their own approval of characters' emotions vary by cultural assertiveness (Research Question 3 [RQ3]).

Humane orientation has been defined as "the degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others" (House et al., 2002, p. 6). We might expect that cultures that rate higher on this dimension would have more normative encouragement of positive affect, and perhaps even more acceptance of fear and sadness displays, whereas anger display might be discouraged. We asked whether and how the associations among children's displays of emotions, parental approval, and their own approval of characters' emotions, would vary by cultural humane orientation (Research Question 4 [RQ4]).

Sociopolitical Variables Related to Cultural Dimensions

As noted above, Matsumoto and Yoo (2006) raised concerns that cultural differences might be partly driven by sociopolitical characteristics of nations. Although van Hemert et al. (2007) found nonsignificant meta-analytic associations between emotional expression and national *GDP* (The World Bank, 2016) or the *HDI* (United Nations Development Programme, 2016; measure reflects life expectancy, adult literacy rates, and GDP per capita), we consider them as a possible counterexplanation for seeming cultural effects, given the strength of associations with individualism and given that industrialization was found to affect children's social reasoning (e.g., about fairness; Blake et al., 2015). We also consider the *GII* (House et al., 2002, p. 6; United Nations Development Programme, 2016)—in a study of 14 countries, Williams and Best (1990) found positive associations between individualism and liberal gender-role attitudes.

The Present Study

The original study was conducted in Spring 2014 by the International Central Institute for Youth and Educational Television (IZI) in collaboration with its research network in 17 countries. The selection of countries was driven by the aim of maximizing cultural and geo-economic diversity within the sample, and by the availability of collaborating research institutions with adequate resources (e.g., trained interviewers). These data were gathered by local collaborators in Afghanistan, Argentina, Australia, Bosnia, Canada, China, Cuba, Denmark, Germany, Iran, Italy, Malaysia, the Netherlands, Slovenia, Spain, Thailand, Ukraine, resulting in a sample of adequate geo-economical heterogeneity to study cultural differences and extend previous research (e.g., Matsumoto et al., 2008). We combined the survey data with the data for four cultural indicators. These were only available for 13 countries (see Table 1), thus, Afghanistan, Bosnia, Cuba, and Ukraine were excluded from the final sample. The remaining countries in our sample varied substantially on these cultural indicators: individualism-collectivism (sample range: 20-90; scale: 1-100), indulgence (sample range: 18-71; scale: 1-100), assertiveness (sample range:

Table 1. Overview of the Countries in the Final Sample for Analyses.

Country	Sample size	Age range	M age (SD)	% female	I-C[a]	I-R[a]	Ass.[b]	Hum.[b]	HDI[c]	GII[c]	GDP[d]
Afghanistan[e]	n = 428	6-15y	10.3 (2.6)	49.5	—	—	—	—	.48	.68	629
Argentina	n = 204	6-15y	10.6 (2.9)	51.5	46	62	4.22	3.99	.83	.36	12,245
Australia	n = 48	8-12y	10.2 (0.92)	45.8	90	71	4.28	4.28	.94	.12	62,100
Bosnia[e]	n = 406	11-15y	12.7 (1.4)	50.0	—	—	—	—	.75	—	5,204
Canada	n = 40	6-15y	10.7 (2.3)	40.0	80	68	4.05	4.49	.92	.10	50,454
China	n = 400	6-15y	10.5 (2.9)	50.0	20	24	3.76	4.36	.73	.17	7,684
Cuba[e]	n = 397	6-15y	10.5 (2.9)	50.1	—	—	—	—	.77	.31	7,051
Denmark	n = 93	6-15y	8.3 (2.3)	75.3	74	70	3.80	4.44	.92	.04	62,549
Germany	n = 1,016	6-15y	10.6 (2.9)	51.6	67	40	4.73	3.40	.92	.07	48,043
Iran	n = 409	6-15y	10.5 (2.9)	50.1	41	40	4.04	4.23	.77	.51	5,541
Italy	n = 74	10-13y	11.3 (0.68)	48.6	76	30	4.07	3.63	.88	.09	35,397
Malaysia	n = 419	6-15y	10.7 (2.9)	49.4	26	57	3.87	4.87	.79	.29	11,184
The Netherlands	n = 143	13-15y	14.4 (0.53)	65.7	80	68	4.32	3.86	.92	.04	52,157
Slovenia	n = 327	6-15y	10.3 (2.6)	48.0	27	48	4.00	3.79	.89	.06	24,202
Spain	n = 157	12-15y	13.5 (1.1)	49.0	51	44	4.42	3.32	.88	.09	29,623
Thailand	n = 240	7-15y	11.5 (2.2)	55.0	20	45	3.64	4.81	.74	.37	5,942
Ukraine[e]	n = 385	8-15y	12.9 (1.6)	56.4	25	18	—	—	.75	.29	3,105
N total	5,186		11.1 (2.8)	51.6							
N excluded	1,616		11.6 (2.6)	51.4							
N included in analysis	3,570		10.8 (2.8)	51.7							

Note. I-C = individualism-collectivism; I-R = indulgence-restraint; Ass. = assertiveness; Hum. = humane orientation; HDI = Human Development Index; GII = Gender Inequality Index.

aValues are based on (see Johnson et al., 2005); available under https://geert-hofstede.com/countries.html.
bValues are based on the Global Leadership & Organizational Behavior Effectiveness (GLOBE) project data (2004); available under http://globeproject.com/results.
cValues are from Scollon et al. (2004); available under http://hdr.undp.org/en/data.
dValues are from Scollon et al. (2004); available under http://api.worldbank.org/v2/en/indicator/NY.GDP.PCAP.CD?downloadformat=excel.
eCountries excluded from the sample, because not all country-level data were available.

3.64-4.73; empirical range of all GLOBE countries: 3.4-4.9), and humane orientation (sample range: 3.32-4.87; empirical range of all GLOBE countries: 3.2-5.2).

The data set included measures of children's beliefs about parental approval of their emotion expressions, their own approval of characters' emotions, and their self-reports about their emotional displays. By combining these individual measures with country-level cultural indicators, we generated a two-level data set with the survey data being descriptive for children's perceptions of their parents, and their perceptions of media characters, and their own emotion displays at an individual level, and the four cultural dimensions differentiating the countries at the macro level. The two-level structure of our data allows us to investigate individual-level associations among parental and media-related variables and children's emotion display, and to explore whether these associations vary with cultural dimensions.

Given Matsumoto and Yoo's (2006) recommendation that relevant sociopolitical indicators be controlled, we included GDP in USD per capita (sample range: US$629- US$62,549), the *HDI* (sample range: 0.48-0.94; scale: 0.35-0.95), and the *GII* (sample range: 0.04-0.68; scale: 0-1). While other covariates could also be relevant, we weighed this possibility against the need to avoid eliminating more countries from the data set.

Method

Participants and Procedure

Table 1 provides an overview of the overall and national samples used in this study. The final sample included 3,570 children aged 6 to 15 years ($M = 10.84$, $SD = 2.82$). The gender distribution was balanced (51.7% female). Quota sampling ensured that the data reflect economically higher versus lower developed regions as well as from urban versus rural areas. Trained young interviewers provided participants in their classes with a standardized paper-and-pencil questionnaire. The questionnaire was the same for all countries. It was developed in English, and translated into the different languages. To ensure that the meaning of the items was conserved, the different language versions of the questionnaires were translated back into English by bilingual individuals who did not know the original items. The back-translation was then compared with the original items, and discrepancies were discussed until consent was reached. Questions were read aloud to the participants. Interviewers were instructed to explain questions, using alternative or easier words, if children had difficulty answering.

Measures

All of the self-report measures were single-item Likert-type scales for which the numerical distances between items were considered to be equal. Single items were used to minimize survey length, given that all items needed to be answered multiple times for different emotions. The use of single items comes with clear limitations (Glasgow & Riley, 2013), but is nevertheless employed in comparative emotion research (Helliwell, Layard, & Sachs, 2012). The use of Likert-type scales is recommended for research with children; Laerhoven, Zaag-Loonen, and Derkx (2007) tested 6 to 18 year olds' responses to Likert-type scales, simple Visual Analogue Scales, and numeric Visual Analogue Scales and found that both the younger and older subsets gave fewer missing responses to the Likert-type scale items and reported finding them easier to use.

Child's experiences of emotions. Based on the measure of Schmidt-Atzert and Hüppe (1996), children were asked how often they felt "really happy/sad/scared/angry in the past 7 days" (ordinal scale: 1 = "*never*," 2 = "*rather rarely*," 3 = "*fairly often*," 4 = "*permanently*").

Child's expression of emotions. Participants then indicated how much they had "shown others that they felt really . . . happy/sad/scared/angry" (ordinal scale: 1 = "*not at all*," 2 = "*scarcely*," 3 = "*a little bit*," 4 = "*very much*"). Items were derived from the self-expressiveness scale in the Family Questionnaire (SEFQ; Halberstadt, Cassidy, Stifter, Parke, & Fox, 1995). Research suggests that basic emotions are understood even by children as young as 2 years of age (Fischer, Shaver, & Carnochan, 1990). In spontaneous language at home, 2 year olds commonly talk about basic emotions, using words such as happy, angry, mad, sad, afraid, and scared (Dunn et al., 1987), suggesting that even the youngest participants in our sample (age 6) would have had a clear understanding of these emotion words (see also Casey, 1993 for lack of age differences in the relationship between self-reported emotions and facial expressions in 7 vs. 12 year olds). Similar items, asking for children's self-reports of experiences over the past week, have been validated with similar age groups: In a study of 7- to 12-year-old cancer patients, a series of Likert-type scale items asked about levels of fatigue over the past week and were found to generate responses consistent with parent and hospital staff observations, and with validated measures of depression (Hockenberry et al., 2003). Means for children's self-reported expressions were happiness: $M = 3.16$, $SD = .81$; fear: $M = 1.89$, $SD = .89$; sadness: $M = 1.89$, $SD = .87$; anger: $M = 2.07$, $SD = .96$.

Perceived parental approval of child's emotion expression. Participants were asked "How do your parents like it when you show that you feel really happy/sad/scared/angry?", following the "Emotions as a Child Scale" (EAC; Magai, 1996, 1997). Answers were measured on a 4-point ordinal scale (1 = "*they don't like it at all*," 2 = "*they rather don't like it*," 3 = "*they rather like it*," 4 = "*they like it very much*"). While it is unclear how accurate children were in their perceptions, the focus of the current project is on the effects of children's perceptions rather than of parental reactions per se. In fact, a meta-analysis of research on children's theory of mind (e.g., understanding of others' mental states) found that by age 6, children were mostly accurate at identifying the probable beliefs/false beliefs of others (Wellman, Cross, & Watson, 2003). The final sample yielded the following means for the four emotions under investigation: happiness: $M = 3.52$, $SD = .65$; fear: $M = 2.19$, $SD = 1.00$; sadness: $M = 2.13$, $SD = 1.04$; anger: $M = 1.85$, $SD = .93$.

Child's approval of emotion expression by TV characters. Participants were instructed to think of their favorite TV show and all other shows they watch, and were then asked, "How much do you like it when the characters show honestly that they feel really happy/sad/scared/angry" (ordinal scale: 1 = "*I don't like it at all*," 2 = "*I rather don't like it*," 3 = "*I rather like it*," 4 = "*I like it very much*"). This measure was adapted from Zillmann and Cantor (1977) who used similar measures to assess children's perception of a character's emotions. Means for approval of emotions showed by TV characters: happiness: $M = 3.30$, $SD = .78$; fear: $M = 2.47$, $SD = .96$; sadness: $M = 2.36$, $SD = .98$; anger: $M = 2.37$, $SD = .99$.

Country-level cultural indicators. For each country, we included the score for each of the following four theory-based dimensions: Hofstede's *individualism-collectivism* (higher values indicative of higher individualistic tendencies 0-100), and *indulgence-restraint* (higher values indicative of focus on enjoying life and having fun 0-100). We also included *assertiveness* and *humane orientation* societal practice scores (0-7) from the GLOBE study.

Country-level control variables. We also included *GDP per capita* in USD, the *HDI*, and the *GII* as sociopolitical variables associated with cultural dimensions.

Individual-level control variables. We controlled for child's *gender* recorded as female (1) or male (2) and *age* as well as the child's *TV use* measured on a 5-point ordinal scale ranging from "*not*

at all," "*seldom*," "*once a week*," "*several times a week*," to "*every day.*" Some research suggests that where parents' and children's media-related reports differ, children's reports of media use are slightly more predictive of outcomes (Gentile, Nathanson, Rasmussen, Reimer, & Walsh, 2012).

Analysis

To acknowledge that the children's responses (level 1) are nested within country (level 2), we used a multilevel model to circumvent error inflation. The individual level (level 1) represents the extent to which individual differences among children in perceived parental approval of child emotions and children's approval of TV emotions explained variance in emotion expressivity *within* the different countries. The country level (level 2) represents the extent to which cultural dimensions explained variation in emotion expression *between* countries. The combined notation of our model predicting the expression of the four emotions (Y) in focus is the following:

$$
\begin{aligned}
Y_{ij} = &\ \gamma_{00} + \gamma_{01}\left(Individualism\right)_j + \gamma_{02}\left(Indulgence\right)_j + \gamma_{03}\left(Assertiveness\right)_j \\
&+ \gamma_{04}\left(Humane\ Orientation\right)_j + \gamma_{05}\left(HDI\right)_j + \gamma_{06}\left(GII\right)_j + \gamma_{07}\left(GDP\right)_j \\
&+ \gamma_{10}\left(PAEE\right)_{ij} + \gamma_{11}\left(Individualism\right)_j\left(PAEE\right)_{ij} + \gamma_{12}\left(Indulgence\right)_j\left(PAEE\right)_{ij} \\
&+ \gamma_{13}\left(Assertiveness\right)_j\left(PAEE\right)_{ij} + \gamma_{14}\left(Humane\ Orientation\right)_j\left(PAEE\right)_{ij} \\
&+ \gamma_{15}\left(HDI\right)_j\left(PAEE\right)_{ij} + \gamma_{16}\left(GII\right)_j\left(PAEE\right)_{ij} + \gamma_{17}\left(GDP\right)_j\left(PAEE\right)_{ij} \\
&+ \gamma_{20}\left(CAEETV\right)_{ij} + \gamma_{21}\left(Individualism\right)_j\left(CAEETV\right)_{ij} + \gamma_{22}\left(Indulgence\right)_j\left(CAEETV\right)_{ij} \\
&+ \gamma_{23}\left(Assertiveness\right)_j\left(CAEETV\right)_{ij} + \gamma_{24}\left(Humane\ Orientation\right)_j\left(CAEETV\right)_{ij} \\
&+ \gamma_{25}\left(HDI\right)_j\left(CAEETV\right)_{ij} + \gamma_{26}\left(GII\right)_j\left(CAEETV\right)_{ij} + \gamma_{27}\left(GDP\right)_j\left(CAEETV\right)_{ij} \\
&+ \gamma_{30}\left(GENDER\right)_{ij} + \gamma_{40}\left(AGE\right)_{ij} + \gamma_{50}\left(TV\ USE\right)_{ij} \\
&+ u_{0j} + u_{1j}\left(PAEE\right)_{ij} + u_{2j}\left(CAEETV\right)_{ij} + r_{ij}.
\end{aligned}
$$

We used Hierarchical Linear and Nonlinear Modeling (HLM) 7 to calculate multilevel models with restricted maximum likelihood estimates (REML) for each emotion separately.[1]

Results

Descriptive Statistics

Prior to analyses, we excluded four countries (Afghanistan, Bosnia, Cuba, Ukraine), for which country-level data were missing (see Table 1). In the final sample of 13 countries, roughly equal numbers of girls (51.7%) and boys (48.3%) participated in the study with their age ranging from 6 to 15 years. There were significant gender (Cramer's $V = .106$, $p < .001$) and age differences among the country samples, $F(12) = 47.551$, $p < .001$, *part.* $\eta^2 = .138$. To acknowledge these differences, we included gender and age as covariates in our multilevel model together with children's TV use.

Television viewing. Overall, 1.8% of the children indicated that they did not watch TV at all. The country with the highest percentage of children who did not watch TV was the Netherlands (4.9%). As shown in Table 2, children in Iran and Malaysia were most likely to report watching

Table 2. Country-Specific Descriptives for Media Use and Emotion Experience for Children Aged 6 to 15 Years (Final Sample).

	% No TV	% Daily TV (2 hr+)	Happiness		Anger		Sadness		Fear	
			M (SD)	% Never	M (SD)	% Never	M (SD)	% Never	M (SD)	% Never
Argentina (n = 204)	0.5	49.3	3.1 (0.6)	0.5	1.8 (0.8)	9.8	1.6 (0.8)	20.6	2.1 (0.9)	23.5
Australia (n = 48)	2.1	31.3	2.9 (0.5)	—	1.9 (0.6)	27.1	1.7 (0.6)	39.6	1.9 (0.7)	27.1
Canada (n = 40)	2.6	48.7	3.1 (0.5)	—	2.1 (0.7)	20.0	1.9 (0.6)	27.5	2.1 (0.7)	15.0
China (n = 400)	4.1	34.5	3.1 (0.8)	3.0	2.2 (0.9)	19.9	2.1 (0.8)	22.9	2.3 (0.8)	12.6
Denmark (n = 93)	—	18.3	3.3 (0.5)	—	2.5 (0.7)	12.9	2.6 (0.6)	1.1	2.2 (0.6)	9.7
Germany (n = 1,016)	0.1	34.8	3.1 (0.6)	0.8	1.8 (0.7)	38.9	1.7 (0.6)	40.6	1.6 (0.6)	45.7
Iran (n = 409)	0.7	57.2	2.9 (0.8)	5.1	2.0 (0.8)	23.3	2.0 (0.7)	21.9	2.0 (0.8)	27.5
Italy (n = 74)	2.7	30.1	3.0 (0.8)	5.4	2.5 (0.8)	9.5	2.1 (0.9)	31.5	1.8 (0.8)	38.4
Malaysia (n = 419)	3.9	52.1	3.2 (0.8)	2.6	1.8 (0.8)	45.6	1.6 (0.8)	52.9	2.1 (0.9)	28.3
The Netherlands (n = 143)	4.9	35.7	3.0 (0.6)	0.7	1.9 (0.7)	28.2	1.9 (0.8)	32.9	1.7 (0.7)	45.5
Slovenia (n = 327)	1.9	39.5	3.1 (0.8)	2.1	2.1 (0.8)	22.2	1.9 (0.8)	30.2	1.8 (0.8)	40.1
Spain (n = 157)	1.3	25.0	2.8 (0.7)	5.1	2.2 (0.8)	17.8	2.2 (0.8)	19.2	2.0 (0.9)	31.0
Thailand (n = 240)	1.3	50.0	2.7 (0.7)	2.5	2.2 (0.7)	16.0	2.0 (0.7)	21.8	2.3 (0.7)	8.8

Note. Country-specific means (*M*) and standard deviations (*SD*) for children's emotion experience captured on 4-point scales from 1 = "*never*" to 4 = "*permanently*"; percentage of children who indicated to not at all watch TV; percentage of children who indicated to watch TV 2 hr or more per day.

TV more than 2 hr per day (57.2% and 52.1%, respectively); children in Denmark and Spain were the least likely to do so (18.3% and 25.0%, respectively).

Experiences and expression of emotions. Countries varied in the extent to which specific emotions were experienced in the past 7 days (see Table 2). For example, in Germany, the Netherlands, and Slovenia, more than 40% of the children reported no feelings of fear in the past 7 days; in Malaysia, Germany, and Australia, more than one third of the children reported no feelings of sadness; and more than a third of the children in Germany and Malaysia did not feel angry within the past 7 days. Only very few children reported having felt no happiness in the past 7 days: The highest percentages were found for children in Italy (5.4%), Iran (5.1%), and Spain (5.1%). Across the country samples, there were some gender and age differences while controlling for TV use. Girls (relative to boys) reported more frequent experiences of fear (B_{fear} = .077, SE = .027, p = .004) and sadness ($B_{sadness}$ = .099, SE = .025, p < .001) in the past week, but there were no gender differences in reported frequency of happiness ($B_{happiness}$ = −.023, SE = .024, p = .329) or anger (B_{anger} = .006, SE = .027, p = .833). Older children reported less frequent experiences of happiness ($B_{happiness}$ = −.042, SE = .004, p < .001) and fear (B_{fear} = −.015, SE = .005, p = .002), and more frequent experiences of anger (B_{anger} = .018, SE = .005, p < .001). Frequency of sadness was unrelated to age ($B_{sadness}$ = .008, SE = .004, p = .065).

Children in both Germany (48.3%) and Malaysia (47.8%) reported expressing happiness most frequently. Expressions of fear (10.8%) and sadness were reported to occur most frequently among children in Denmark (19.4%), and anger expressions were most frequently reported by children in Argentina (18.1%). Moreover, across all countries, expressions of fear (B_{fear} = −.044, SE = .005, p < .001), sadness ($B_{sadness}$ = −.034, SE = .005, p < .001), and happiness ($B_{happiness}$ = −.032, SE = .005, p < .001) decreased with age through middle childhood, while anger expression increased (B_{anger} = .018, SE = .006, p = .002). Gender differences were only observed for happiness, which was expressed less by boys ($B_{happiness}$ = −.110, SE = .027, p < .001).

Perceived parental approval and child's approval of media character. Across all countries, children in Australia reported most frequently that their parents would be very fine if they expressed happiness (83.3%); children in Iran most frequently reported that their parents would be fine if they expressed fear (37.3%) or sadness (36.6%), and with regard to expressions of anger, parental approval was reported to be highest in Denmark (36.6%). As shown in Table 3, perceived parental approval was highest for expressions of happiness, followed by fear and sadness, with approval of anger displays perceived to be lowest of all, Λ = .294, $F(3, 3460)$ = 2,770.028, p < .001, η_p^2 = .706. There were also significant differences between countries: Perceived approval of happiness displays was lowest in China and highest in Denmark, $F(12, 3542)$ = 21.364, p < .001, η_p^2 = .067; approval of fear, $F(12, 3519)$ = 49.926, p < .001, η_p^2 = .145; and sadness, $F(12, 3505)$ = 50.317, p < .001, η_p^2 = .147, displays were both lowest in Denmark and highest in Iran; and perceived approval of anger expressions was lowest in Malaysia and highest in Iran, $F(12, 3525)$ = 61.835, p < .001, η_p^2 = .174. Girls (relative to boys) reported more frequent parental approval of happiness ($B_{happiness}$ = .055, SE = .022, p = .012), but there were no differences for anger (B_{anger} = .057, SE = .031, p = .066), fear (B_{fear} = −.009, SE = .034, p = .801), or sadness displays ($B_{sadness}$ = .028, SE = .035, p = .428). Older children consistently reported less approval of their parents regarding their displays of happiness ($B_{happiness}$ = −.027, SE = .004, p < .001), fear (B_{fear} = −.018, SE = .006, p = .003), sadness ($B_{sadness}$ = −.026, SE = .006, p < .001), or anger (B_{anger} = −.023, SE = .006, p < .001).

Across countries, children's approval of their favorite TV character expressing happiness was strongest in Germany (61.0%), approval of anger was strongest in Australia (26.1%), and of fear (32.5%) and sadness (28.1%) in Spain. Children reported the highest approval for TV characters' expressions of happiness, followed by anger and fear, with lowest approval for expressions of

Table 3. Descriptives for Parental Approval and Children's Approval of Emotion Expressivity.

Country	Happiness Parental approval M (SD)	Happiness Children's approval M (SD)	Anger Parental approval M (SD)	Anger Children's approval M (SD)	Sadness Parental approval M (SD)	Sadness Children's approval M (SD)	Fear Parental approval M (SD)	Fear Children's approval M (SD)
Argentina (n = 204)	3.6 (0.7)	3.1 (0.8)	1.9 (0.9)	2.5 (1.0)	2.3 (1.0)	2.2 (0.9)	2.4 (0.9)	2.6 (0.9)
Australia (n = 48)	3.8 (0.4)	2.8 (1.0)	1.7 (1.0)	2.7 (1.0)	2.1 (1.1)	2.4 (1.0)	2.3 (1.0)	2.7 (1.1)
Canada (n = 40)	3.6 (0.5)	3.1 (0.9)	1.9 (0.9)	2.5 (0.9)	2.0 (1.0)	2.3 (0.9)	2.2 (0.9)	2.7 (0.9)
China (n = 400)	3.1 (0.7)	3.0 (0.8)	2.0 (0.9)	2.2 (0.9)	2.2 (0.9)	2.3 (0.9)	2.3 (0.9)	2.3 (0.8)
Denmark (n = 93)	4.0 (0.2)	3.9 (0.3)	2.6 (1.2)	2.1 (0.9)	1.5 (0.7)	2.6 (0.9)	1.1 (0.3)	2.8 (1.0)
Germany (n = 1,016)	3.6 (0.6)	3.6 (0.6)	1.6 (0.7)	2.7 (0.9)	2.1 (1.1)	2.7 (0.9)	2.1 (1.0)	2.7 (0.9)
Iran (n = 409)	3.6 (0.7)	3.2 (0.9)	2.7 (1.1)	1.8 (1.0)	2.9 (1.0)	1.7 (0.8)	3.0 (1.0)	1.8 (0.9)
Italy (n = 74)	3.4 (0.6)	3.3 (0.7)	1.6 (0.7)	2.4 (0.9)	1.7 (0.7)	2.1 (1.0)	2.1 (0.7)	2.5 (0.8)
Malaysia (n = 419)	3.6 (0.6)	3.2 (0.9)	1.5 (0.8)	2.0 (1.0)	1.6 (0.8)	2.1 (1.0)	1.8 (0.8)	2.3 (1.0)
The Netherlands (n = 143)	3.5 (0.7)	3.2 (0.6)	2.0 (0.9)	2.7 (0.9)	2.3 (1.0)	2.7 (0.9)	2.3 (1.0)	2.8 (0.8)
Slovenia (n = 327)	3.6 (0.6)	3.3 (0.7)	1.8 (0.8)	2.6 (1.0)	2.0 (0.9)	2.2 (0.9)	2.2 (0.9)	2.6 (0.9)
Spain (n = 157)	3.7 (0.6)	3.3 (0.7)	2.1 (1.0)	2.8 (1.0)	2.7 (1.1)	3.0 (0.9)	2.6 (1.1)	3.0 (0.9)
Thailand (n = 240)	3.4 (0.6)	3.3 (0.8)	1.5 (0.6)	2.1 (0.9)	1.6 (0.7)	2.1 (0.8)	1.7 (0.7)	2.1 (0.8)

Note. Country-specific means (*M*) and standard deviations (*SD*) for parental approval of emotion display and children's approval of a TV character expressing emotions captured on 4-point scales from 1 = "*not good at all*" to 4 = "*very good.*"

sadness, $\Lambda = .564$, $F(3, 3467) = 893.701$, $p < .001$, $\eta_p^2 = .436$. There were also differences between countries: children's approval of TV characters showing happiness were lowest in Australia, and highest in Denmark, $F(12, 3514) = 28.633$, $p < .001$, $\eta_p^2 = .089$. Approval of fear, $F(12, 3509) = 38.491$, $p < .001$, $\eta_p^2 = .117$; sadness, $F(12, 3516) = 45.380$, $p < .001$, $\eta_p^2 = .135$; and anger, $F(12, 3514) = 36.856$, $p < .001$, $\eta_p^2 = .112$, were consistently lowest in Iran and highest in Spain. Notably, children approved of TV characters expressing negative emotions more than they perceived that their parents approved of them expressing those same negative emotions of fear, $t(3473) = 12.816$, $p < .001$, $d = .295$, sadness, $t(3467) = 10.313$, $p < .001$, $d = .218$, and anger, $t(3486) = 22.954$, $p < .001$, $d = .541$. In contrast, they reported that their parents approved of their happiness displays even more than they themselves approved of characters showing happiness, $t(3498) = 14.387$, $p < .001$, $d = .294$.

Finally, girls (relative to boys) reported more frequent approval of their favorite TV characters showing happiness ($B_{happiness} = .111$, $SE = .026$, $p < .001$), but there were no gender differences for anger ($B_{anger} = -.057$, $SE = .033$, $p = .085$), fear ($B_{fear} = -.031$, $SE = .032$, $p = .332$), or sadness displays ($B_{sadness} = .038$, $SE = .033$, $p = .241$). Older children reported less approval of TV characters displaying happiness ($B_{happiness} = -.018$, $SE = .005$, $p < .001$), but consistently more approval of anger ($B_{anger} = .064$, $SE = .006$, $p < .001$), fear ($B_{fear} = .054$, $SE = .006$, $p < .001$), and sadness displays ($B_{sadness} = .054$, $SE = .016$, $p = .001$) of their favorite TV characters.

Multilevel Model to Examine the Hypotheses and Research Questions

As shown in Table 4, as a first step, we calculated a *null model* separately for each emotion without any predictors, to address the question of whether a multilevel model is needed at all. If emotion expressivity does not vary across countries, a simple ordinary least squares (OLS) regression would suffice. Intraclass correlation coefficients (ICC) tell us the proportion of emotion expressivity variation that occurs across countries. Values above zero indicate that a multilevel model is helpful in partitioning the total variation in emotion expression into its "variation across children" and "variation across countries" component parts. The ICCs showed that 12% of the variance in children's expression of both sadness and fear, 9% of the variance in happiness displays, and 8% of the anger expressions may be explained by variables at the country level.[2] Even though the share of variance that can be explained by a multilevel model might seem small, it is within the range between .05 and .20, which is usually reported for cross-sectional multilevel models in social research (see also Casey, 1993 for lack of age differences in the relationship between self-reported emotions and facial expressions in 7 vs. 12 year olds). Accordingly, we examined random coefficients multilevel models.

In H1, we predicted that, on the individual level, perceived parental approval of emotion displays would be positively associated with children's self-reported expressiveness. This hypothesis was supported. Perceived approval was associated with children's self-reported display of all four emotions with associations being slightly larger for happiness and anger ($B_{happiness} = .185$, $SE = .06$, $p = .023$; $B_{anger} = .161$, $SE = .05$, $p = .018$; $B_{sadness} = .112$, $SE = .02$, $p = .006$; $B_{fear} = .116$, $SE = .03$, $p = .011$; see Table 4 for an overview).

In H2, we predicted that children's approval of media characters' emotion displays would be positively related to self-reported expressions of each emotion. H2 was partly supported. The associations were significant for happiness ($B_{happiness} = .165$, $SE = .03$, $p = .004$), and anger ($B_{anger} = .161$, $SE = .05$, $p = .018$), but not for sadness ($B_{sadness} = .057$, $SE = .04$, $p = .164$) or fear ($B_{fear} = .037$, $SE = .02$, $p = .179$).

In H3, we predicted that children's emotion expressivity would be greater in more individualistic cultures. There was no empirical support for this pattern ($B_{happiness} = -.009$, $SE = .01$, $p = .259$; $B_{anger} = -.005$, $SE = .01$, $p = .659$; $B_{sadness} = -.008$, $SE = .01$, $p = .497$; $B_{fear} = -.009$, SE

Table 4. Multilevel Model of Children's Expression of Different Emotions in 13 countries.

	Expression of happiness		Expression of anger		Expression of sadness		Expression of fear	
	Null model	Full contextual model	Null model	Full contextual model	Null model	Full contextual model	Null model	Full contextual model
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
Intercept	3.10 (0.07)***	3.12 (0.05)***	2.16 (0.08)***	2.15 (0.08)***	1.96 (0.08)***	1.99 (0.09)***	1.93 (0.09)***	1.93 (0.07)***
Level 1: Individual								
PAEE		0.185 (0.06)*		0.161 (0.05)*		0.112 (0.02)**		0.116 (0.03)*
CAEETV		0.165 (0.03)**		0.092 (0.03)*		0.057 (0.04)		0.037 (0.02)
Gender (male)		-0.078 (0.03)**		-0.050 (0.03)		0.014 (0.03)		-0.024 (0.03)
Age		-0.007 (0.01)		0.017 (0.01)**		-0.020 (0.01)***		-0.028 (0.01)***
TV use		0.032 (0.01)*		0.005 (0.02)		-0.015 (0.02)		-0.029 (0.02)
Level 2: Country								
Individualism		-0.009 (0.01)		-0.005 (0.01)		-0.008 (0.01)		-0.009 (0.01)
Indulgence		-0.015 (0.01)		0.007 (0.01)		0.006 (0.01)		-0.000 (0.01)
Assertiveness		0.055 (0.39)		-1.007 (0.61)		-1.161 (0.63)		-0.204 (0.52)
Humane Orientation		0.059 (0.35)		-0.547 (0.54)		-0.517 (0.56)		0.219 (0.46)
HDI		7.734 (3.6)		1.056 (5.7)		-0.875 (5.9)		-0.941 (4.8)
GII		0.720 (0.93)		1.145 (1.5)		1.360 (1.5)		0.868 (1.3)
GDP		-0.000 (0.00)		0.000 (0.00)		0.000 (0.00)		0.000 (0.00)
Cross-level interactions								
PAEE × Individualism		-0.002 (0.01)		0.000 (0.01)		-0.000 (0.00)		0.002 (0.00)
PAEE × Indulgence		-0.001 (0.01)		-0.005 (0.01)		-0.005 (0.00)		-0.005 (0.00)
PAEE × Assertiveness		0.460 (0.40)		0.041 (0.32)		0.259 (0.14)		0.473 (0.18)*
PAEE × Humane Orientation		0.116 (0.36)		0.238 (0.30)		0.427 (0.15)*		0.506 (0.18)*
PAEE × HDI		-0.616 (3.4)		2.217 (3.2)		2.785 (1.5)		2.979 (1.9)
PAEE × GII		-0.382 (0.91)		0.294 (0.77)		-0.262 (0.36)		-0.807 (0.45)

(continued)

Table 4. (continued)

	Expression of happiness		Expression of anger		Expression of sadness		Expression of fear	
	Null model	Full contextual model	Null model	Full contextual model	Null model	Full contextual model	Null model	Full contextual model
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
PAEE × GDP		−0.000 (0.00)		−0.000 (0.00)		−0.000 (0.00)		−0.000 (0.00)
CAEETV × Individualism		−0.004 (0.00)		−0.003 (0.00)		0.002 (0.01)		−0.005 (0.00)
CAEETV × Indulgence		−0.001 (0.00)		−0.005 (0.00)		−0.003 (0.01)		0.001 (0.00)
CAEETV × Assertiveness		−0.086 (0.20)		0.682 (0.14)**		−0.048 (0.24)		0.030 (0.12)
CAEETV × Humane Orientation		−0.156 (0.18)		0.530 (0.15)*		−0.061 (0.23)		−0.028 (0.14)
CAEETV × HDI		−0.243 (1.9)		2.979 (1.5)		1.080 (2.4)		−1.28 (1.5)
CAEETV × GII		0.221 (0.46)		−0.681 (0.36)		−0.153 (0.58)		0.624 (0.33)
CAEETV × GDP		0.000 (0.00)		−0.000 (0.00)*		−0.000 (0.00)		0.000 (0.00)
Random effects	Var. comp.	Var. comp.	Var. comp.	Var. comp.	Var. comp.	Var. comp.	Var. comp.	Var. comp.
Individual level	.590***	.531***	.864***	.807***	.715***	.689***	.729***	.697**
Country level	.057	.029	.073	.081	.095	.087	.103	.056
−2 Log-Likelihood	7,698.718	7,555.908	8,961.805	8,955.648	8,337.948	8,434.979	8,406.245	8,465.080

Note. Models based on RML estimates. PAEE = parental approval of emotion expression by their children; CAEETV = children's approval of emotion expression by a favorite TV character; HDI = Human Development Index; GII = Gender Inequality Index; RML = restricted maximum likelihood.
*p < .05. **p < .01. ***p < .001.

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$= .01$, $p = .388$). In fact, none of the aggregated psychocultural variables or sociopolitical indicators was significantly associated with children's self-reports of emotion displays.

In addition, we could explore whether there were significant interactions with the cultural indicators (i.e., cross-level interactions). We asked in RQ1 whether the associations among perceived parental approval or children's approval of media characters' emotion displays and emotional expressiveness would be moderated by country-level cultural individualism scores. In fact, there were no interactions between individualism and perceived parental approval. For children's approval of TV characters' emotion displays, the results of the multilevel analysis also indicated no moderation by country-level individualism.

In RQ2, we asked whether children's emotion displays would vary as a function of country-level scores on *cultural indulgence*. The results indicated that cultural indulgence did not predict children's displays of any emotion, nor did it interact with parental approval of any emotion, nor with approval of media characters.

In RQ3, we asked whether the associations among children's emotion displays, parental approval, and their own approval of characters' emotions vary by *cultural assertiveness*. The multilevel analysis revealed a moderation effect for parental approval in the case of fear, such that children in countries with higher assertiveness scores showed a stronger association between parental approval and expression of fear ($B_{\text{fear}} = .473$, $SE = .18$, $p = .044$). In addition, children in countries with higher assertiveness scores showed a stronger association between approval ratings for TV characters' anger, and their own expression of anger ($B_{\text{anger}} = .682$, $SE = .14$, $p = .004$).

In RQ4, we asked whether the associations among children's displays of emotions, parental approval, and their own approval of characters' emotions would vary by cultural levels of *humane orientation*. Multilevel analysis shows that the association between parental approval and children's expression of sadness and fear was stronger in countries scoring higher on humane orientation ($B_{\text{sadness}} = .427$, $SE = .15$, $p = .036$; $B_{\text{fear}} = .506$, $SE = .18$, $p = .038$). In addition, the association between children's approval of anger expressions of TV characters and their own anger displays was moderated, such that the association was stronger in countries scoring higher on humane orientation ($B_{\text{anger}} = .530$, $SE = .15$, $p = .016$).

Beyond our primary focus on these aggregated psychocultural variables, we also included sociopolitical indicators for affluence and development (GDP, the HDI) and gender roles (the GII) in our models (see Table 4). Consistent with the null effects observed by van Hemert et al. (2007), we found no effects of GDP or HDI. We also found no effect of GII. These sociopolitical indicators neither explained variance by themselves nor exerted moderating influence in conjunction with parental or media influences.

Discussion

Several recent studies have documented the overwhelming prevalence of U.S. and European samples in psychological research (e.g., Arnett, 2008; Nielsen et al., 2017). Legare and Harris (2016) argued that this bias is of particular importance to the developmental sciences and noted the importance of examining whether "children everywhere draw on the same repertoire of cultural learning strategies" (p. 634). Accordingly, the central question of this study was whether there would be cultural differences in the socializing influences of parents and media in children's expression of the basic emotions of anger, fear, sadness, and happiness. These associations were observed in 3,570 children aged 6 to 15 years, from 13 countries that varied substantially in level of individualism-collectivism, a variable that has been found to predict emotional expressiveness (van Hemert et al., 2007). We also included other cultural indicators that conceptually touch on emotion displays (indulgence, assertiveness, and humane orientation) as well as sociopolitical indicators associated with cultural dimensions (HDI, GII, GDP per capita).

In all 13 countries in the sample, we found significant associations between perceived parental approval and self-reported expressions of happiness, anger, sadness, and fear. We also found significant associations in all countries between children's perceptions of TV characters and their self-reported expressions of happiness and anger (but not sadness and fear). These findings parallel previous findings from the German-only sample (Scherr et al., 2018), with the exception that in the German-only sample, there was also a significant positive association between children's approval of TV characters' expressions of sadness and their self-reported expressions of that emotion. As such, the current findings provide cross-cultural validation of the conjoint role of parents and the media in the socialization of emotion expression, extending prior work that has tended to focus solely on the socializing influence of parents or older peers (Denham et al., 2015; Denham et al., 1997; Dunn et al., 1987; Dunn et al., 1991; Eisenberg et al., 1998; Morris et al., 2007; Zhou et al., 2002).

With regard to media as a source of early learning about emotion displays, the current study found that children's perceptions of TV characters were only selectively associated with their reported expression of emotions. Significant relationships were found for more active emotions such as anger and happiness that are associated with approach motivation (Lee & Lang, 2009) but not for sadness and fear, which are associated with avoidance motivation and withdrawal. The role of media use in the socialization of active, approach-related emotions such as anger and happiness is consistent with Arnett's (1995) notion of self-socialization that highlights individuals' active and selective engagement with media content as a source of socializing experiences. In addition to learning from parental socialization, children may turn to media models of cultural norms for the expression of happiness and anger as they actively explore the function of these emotions in relationship-building (through shared happiness) and setting of boundaries (through anger expression).

Specifically, with regard to anger and aggression, social cognitive theory (Bandura, 2009), Zillmann and Cantor (1977), and the general aggression model (DeWall, Anderson, & Bushman, 2011) describe processes by which young viewers may learn about appropriate and inappropriate emotion displays through observation of role models, and observation of reward or punishment contingencies as presented in media narratives (see Nabi, So, & Prestin, 2010 for an overview). Content analyses in the United States (Wilson et al., 2002) indicate that characters' feelings of anger are one of the main reasons for aggression featured in children's programming, and 30% of incidents are presented as morally justified. Therefore, violent content on TV might not only cultivate children's acceptance of the expression of anger, but also serve as a particularly vivid source of information about anger expression. The tendency of media mainstreaming observed in content analyses of the children's program across the globe (Götz et al., 2008) might explain the intercultural consistency of the role of media use in children's self-socialization of emotion expression. Given the relatively small size of the association, it is important to emphasize, however, that it would be misleading to overinterpret the socializing role of media as a dominant or even monocausal factor (Sternheimer, 2013). Further research is needed to follow up the present findings on the role of media in self-socialization of emotion expression, in particular, with regard to positive emotions such as happiness. While media portrayals of the expression of anger and aggression have been extensively studied, there is little research on typical media portrayals of people having fun, and how such portrayals might cultivate the expression of positive emotions in children and adolescents.

In addition to the cross-cultural validation of earlier findings on the role of parents and media in the socialization of emotion expression, the present findings revealed cultural differences that significantly moderated these associations, specifically in the case of the negative emotions of anger, sadness, and fear. As indicated by the cross-level interactions, associations between perceived parental approval and children's expression of sadness and fear were stronger in countries ranking higher on assertiveness and humane orientation. Associations between children's

approval of TV characters' displays of anger and their own self-reported expressions of anger were stronger in countries with higher scores for assertiveness and humane orientation.

Several aspects are noteworthy about this pattern of findings. First, and perhaps most important, cultural indicators explained only a limited amount of variance in emotion expression. This finding is consistent with the results of Matsumoto et al. (2008) who estimated that country differences accounted for about 5% of the variance in emotion expression. In the present study, we found that cultural indicators accounted for approximately 10% of the variance in emotion displays of children aged 6 to 15 years old. It is unclear whether this higher amount of variance reflects developmental differences (i.e., children/teens relative to adults) in the influence of cultural norms on emotion displays, or simply developmental differences in the tendency to provide survey answers that are perceived to be socially appropriate. Thus, even the modest evidence for cultural differences in the current study needs to be interpreted with caution.

Second, it is interesting to note that in the case of sadness and fear, cultural moderation occurred for the association of children's emotion expression with parental approval, whereas in the case of anger, cultural moderation occurred for the association of children's own expression with the media. This pattern of cultural moderation might indicate differences in the social context of emotion regulation, with sadness and fear as predominantly private emotions that are regulated within family relationships, and anger as a more public emotion regulated within a broader context of social relationships for which media characters might serve as role models.

Specifically, with regard to sadness and fear, cross-level interactions indicated that the association between perceived parental approval and children's expression of sad or fearful feelings were stronger in countries ranking higher on assertiveness and humane orientation. The role of humane orientation in strengthening this association with parental socialization of sadness and fear is plausible, given that humane orientation reflects the societal value and appreciation of prosocial behaviors such as empathy with the suffering of others. The more empathy is valued, both culturally, and within the family, the more children's expression of sadness and fear will be encouraged and rewarded (Cassano, Perry-Parrish, & Zeman, 2007). The moderating influence of assertiveness on parental socialization of fear expression is plausible as well. According to Wolpe (1969, p. 61), assertiveness denotes "the outward expression of practically all feelings other than anxiety," which likely makes the suppression of fear and anxiety displays a particularly salient target of emotional socialization in cultures that value assertiveness. To our knowledge, systematic research on the influence of cultural assertiveness and humane orientation on the socialization of emotion expression is currently lacking. Thus, despite their plausibility, the current findings need to be treated with caution, pending further validation and replication.

In the case of anger, the moderating role of cultural indicators occurred within the domain of media-related associations. Specifically, the associations between children's approval of TV characters' displays of anger and their own expressions of anger were stronger in countries with higher scores for assertiveness, and humane orientation. There was no significant interaction with individualism-collectivism. Thus, despite the theoretical plausibility of the assumption that the role of media use in the self-socialization of anger expression is reinforced in individualistic cultures, this is not supported empirically. The interaction with assertiveness was more substantial (in fact, the strongest cross-level interaction), indicating that the association between children's approval of anger expression in TV characters and their own expression of anger was stronger in countries with higher cultural assertiveness scores. With anger as an assertive emotion, and modeling of anger expression by media characters as an assertive form of self-socialization, this reinforcing interaction with cultural assertiveness seems intuitively plausible. Somewhat less intuitively, the same association between children's approval of anger expression in TV characters and their own expression of anger was also stronger in countries with higher humane orientation scores. Assertiveness and humane orientation are not necessarily in contradiction with regard to anger expression, however. For example, anger can be expressed out of empathy with others who have

been treated unfairly, or as a form of protest against social injustice. This possible explanation remains speculative, however, and needs to be validated in further research.

Generally, these findings underscore the need to examine further the role of media in the socialization of emotions. Despite some level of cultural variation, anger seems to be perceived as frowned upon by parents across countries, which in turn may lead children to turn to media for role models of when and how to express it. Parental and media influences appeared to resonate with cultural values that function as display rules across childhood. Future studies should also consider how much the media landscape actually differs in these countries, and the extent to which children across the globe are exposed to a comparable TV diet driven by global networks.

Finally, it is worth commenting on the individual-level gender and age patterns observed in the data set. Self-reported expressions of sadness and fear decreased with age through middle childhood, while anger expression increased, and happiness was reported age-independently at very high levels (though a bit lower for boys). These observations shed light on children's subjective emotional experiences and contribute to the literature on developmental changes in children's emotion expressiveness and expressive control (Saarni, 1984).

Limitations

Several limitations need to be noted. First, as Jowell (1998) has noted, quota sampling can be particularly problematic in comparative research, because it usually balances gender and age, but still can be unrepresentative in other dimensions (such as educational experiences). Given the difficulties of implementing probability sampling with children, the sampling procedure for the current data set aimed to address this problem by including additional quota for schools from economically higher versus lower developed regions as well as from urban versus rural areas. Nevertheless, it is important to acknowledge that probability sampling would be clearly preferable to obtain reliable estimates of country averages.

Moreover, the measures employed in this study can be questioned for several reasons. As reported in the section "Method," the current data set was based on children's self-report ratings using single-item scales. The assessment of ratings for multiple emotions on multiple dimensions (own experience and expression, parental approval, approval of expression in TV characters) made it impractical to use multi-item scales—which comes with clear limitations (Glasgow & Riley, 2013). Having only the child's self-reports measured with single items, and no data from parents, teachers, or peers, make it impossible to assess the internal consistency of the measures, or to cross-validate them with the perception of others. The use of Likert-type scales without midpoint can be questioned as well (Nadler, Weston, & Voyles, 2015), and in the absence of parental data or tests of children's comprehension of the items and questions, it remains unclear how accurately they were reporting. As explained in the section "Method," our assumption that the age range of children in the sample had adequate comprehension and ability to report on the relevant constructs was based on developmental psychology and psychometric research literature. Nevertheless, future research should include more careful pretesting of item comprehension and validation using multi-item measures and "other-reports."

It is also important to acknowledge that we were only studying children's perceptions of parental approval, rather than parental approval per se. Moreover, children's reports of their own emotional expressions may have been biased by cultural norms (see Johnson, Kulesa, Cho, & Shavitt, 2005); for example, saying "no" may be considered an anger expression in one country, but not in another. As Scollon, Diener, Oishi, and Biswas-Diener (2004) have argued, memory for emotion is a reconstructive process with systematic influences (e.g., a person's self-concept) that help explain memory biases. Most important for our study, Scollon et al. (2004) concluded that biased memories about experienced pleasant and unpleasant emotions vary cross-culturally, with individualistic (relative to collectivistic) countries being more likely to recall intense

pleasant emotion. As we have not controlled for culture-specific memory differences, we cannot rule out a confounding influence. Similarly, our self-report measure of TV use might be biased by overestimation (Prior, 2009). Thus, overall, the measures need to be interpreted cautiously and should be triangulated in future studies with pilot testing, additional measures, or alternative strategies such as cognitive interviewing. The lack of information about peer influences is another important limitation that we cannot address given that this study was conducted as a secondary analysis of an existing data set. Finally, the number of countries in our sample was relatively small. Even if multilevel modeling can be adequate under these circumstances, results and especially standard errors have to be interpreted carefully (McNeish & Stapleton, 2016).

Conclusion

Across the 13 countries in our data, we found that perceived parental approval of emotion displays was associated with children's self-reported expressions of happiness, anger, sadness, and fear. Children's approval of TV characters' emotion displays was associated with their self-reported expressions of happiness and anger. The parent-related associations for sadness and fear, and the media-related associations for anger, varied by country-level assertiveness and humane orientation. These interactions with cultural indicators on the country level were small, in accord with generally limited amounts of variance explained by country differences. However, parental emotion socialization and self-socialization through media resonate with cultural values especially for the display of the negative emotions of anger, sadness, and fear. Thus, our findings shed light on an emerging research field at the intersection of family socialization, sociocultural background, and a global media landscape that jointly shape children's preferences for and responses to their favorite TV programs—with important consequences for children's emotional development and emotional competence.

In particular, the findings draw attention to the understudied role of media in the socialization of emotions such as happiness and anger. With relatively minor intercultural differences, children seemed to use media characters as role models for emotion expression—a finding of import for parents, educators, and parental guidance raters worldwide who are concerned with desirable as well as undesirable cultivation effects from children's media consumption. Our findings suggest that the socializing effects of a global media landscape dominated by Western cultures may extend well beyond the countries from which the content originated, a form of intercultural communication that clearly warrants further scrutiny. Research on cultivation effects of media on children's emotion expression has languished since the early 1990s (e.g., Coats & Feldman, 1995; Houle & Feldman, 1991) and has focused solely on the United States. In the case of anger, the focus of research has only recently been extended from physical aggression to verbal and indirect forms of aggression (e.g., slurs and slander), while media modeling of more functional forms of anger expression have remained underresearched. Research on the cultivation effects of media on the expression of happiness are currently lacking. For example, it would be important to examine how portrayals of happiness are contextualized with regard to cultural norms and values of consumption, achievement, or social relationships. A more comprehensive base of scientific evidence would help parents, educators, and media regulators around the world to identify media messages that are functional or dysfunctional in promoting goals of emotional socialization that are consistent with the cultural norms and values of their communities. We hope that, despite their preliminary nature, our findings will stimulate further research efforts in this domain.

Declaration of Conflicting Interests

Funding

Notes

1. All model indicators have been centered around the grand mean following Nadler, Weston, and Voyles (2015), given their scales had no meaningful zero-points for interpreting the intercepts of the multi-level model. Therefore, effects of the individual-level indicators must be interpreted as their effect at the average level of a country-level indicator.
2. The intraclass correlation coefficient (ICC) describes the proportion of variance that can be explained by the clustering in countries. The ICC can be calculated as $ICC = \frac{\tau_{00}}{\tau_{00} + \sigma^2}$.

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References

Arnett, J. J. (1995). Adolescents' uses of media for self-socialization. *Journal of Youth and Adolescence*, *24*, 519-533. doi:10.1007/BF01537054

Arnett, J. J. (2008). The neglected 95%: Why American psychology needs to become less American. *American Psychologist*, *63*, 602-614. doi:10.1037/0003-066x.63.7.602

Bandura, A. (2009). Social cognitive theory of mass communication. In J. Bryant & M. B. Oliver (Eds.), *Media effects* (3rd ed., pp. 94-124). New York, NY: Lawrence Erlbaum.

Blake, P. R., McAuliffe, K., Corbit, J., Callaghan, T. C., Barry, O., Bowie, A., . . . Warneken, F. (2015). The ontogeny of fairness in seven societies. *Nature*, *528*, 258-261. doi:10.1038/nature15703

Borelli, J. L., Margolin, G., & Rasmussen, H. F. (2015). Parental overcontrol as a mechanism explaining the longitudinal association between parent and child anxiety. *Journal of Child and Family Studies*, *24*, 1559-1574. doi:10.1007/s10826-014-9960-1

Casey, R. J. (1993). Children's emotional experience: Relations among expression, self-report, and understanding. *Developmental Psychology*, *29*, 119-129. doi:10.1037/0012-1649.29.1.119

Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development*, *16*, 210-231. doi:10.1111/j.1467-9507.2007.00381.x

Coats, E. J., & Feldman, R. S. (1995). The role of television in the socialization of nonverbal behavioral skills. *Basic and Applied Social Psychology*, *17*, 327-341. doi:10.1207/s15324834basp1703_3

De Leersnyder, J., Boiger, M., & Mesquita, B. (2013). Cultural regulation of emotion: Individual, relational, and structural sources. *Frontiers in Psychology*, *4*, 55. doi:10.3389/fpsyg.2013.00055

Denham, S. A., Bassett, H. H., & Wyatt, T. (2015). The socialization of emotional competence. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2nd ed., pp. 590-613). New York, NY: Guilford.

Denham, S. A., Mitchell-Copeland, J., Strandberg, K., Auerbach, S., & Blair, K. (1997). Parental contributions to preschoolers' emotional competence: Direct and indirect effects. *Motivation and Emotion*, *21*, 65-86. doi:10.1023/A:1024426431247

DeWall, C. N., Anderson, C. A., & Bushman, B. J. (2011). The general aggression model: Theoretical extensions to violence. *Psychology of Violence*, *1*, 245-258. doi:10.1037/a0023842

Dillman Carpentier, F. R., Brown, J. D., Bertocci, M., Silk, J. S., Forbes, E. E., & Dahl, R. E. (2008). Sad kids, sad media? Applying mood management theory to depressed adolescents' use of media. *Media Psychology*, *11*, 143-166. doi:10.1080/15213260701834484

Dorr, A. (1985). Contexts for experience with emotion, with special attention to television. In M. Lewis & C. Saarni (Eds.), *The socialization of emotions* (Vol. 5, pp. 55-85). New York: Plenum.

Dunn, J., Bretherton, I., & Munn, P. (1987). Conversations about feeling states between mothers and their young children. *Developmental Psychology*, *23*, 132-139. doi:10.1037/0012-1649.23.1.132

Dunn, J., Brown, J., & Beardsall, L. (1991). Family talk about feeling states and children's later understanding of others' emotions. *Developmental Psychology*, *27*, 448-455. doi:10.1037/0012-1649.27.3.448

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, *9*, 241-273.

Fischer, K. W., Shaver, P. R., & Carnochan, P. (1990). How emotions develop and how they organise development. *Cognition & Emotion*, *4*(2), 81-127. doi:10.1080/02699939008407142

Fiske, A. P. (2002). Using individualism and collectivism to compare cultures—A critique of the validity and measurement of the constructs: Comment on Oyserman et al. (2002). *Psychological Bulletin*, *128*, 78-88.

Gentile, D. A., Nathanson, A. I., Rasmussen, E. E., Reimer, R. A., & Walsh, D. A. (2012). Do you see what I see? Parent and child reports of parental monitoring of media. *Family Relations*, *61*, 470-487. doi:10.1111/j.1741-3729.2012.00709.x

Glasgow, R. E., & Riley, W. T. (2013). Pragmatic measures: What they are and why we need them. *American Journal of Preventive Medicine*, *45*, 237-243. doi:10.1016/j.amepre.2013.03.010

Götz, M., Hofmann, O., Brosius, H.-B., Carter, C., Chan, K., Scherr, S., . . . Shepard, S. A. (2008). Gender in children's television worldwide: Results from a media analysis in 24 countries. *Televizion*, *21*, 4-9.

Gudykunst, W. B., Matsumoto, Y., Ting-Toomey, S., Nishida, T., Kim, K., & Heyman, S. A. M. (1996). The influence of cultural individualism-collectivism, self construals, and individual values on communication styles across cultures. *Human Communication Research*, *22*, 510-543. doi:10.1111/j.1468-2958.1996.tb00377.x

Halberstadt, A. G., Cassidy, J., Stifter, C. A., Parke, R. D., & Fox, N. A. (1995). Self-expressiveness within the family context: Psychometric support for a new measure. *Psychological Assessment*, *7*, 93-103. doi:10.1037/1040-3590.7.1.93

Helliwell, J., Layard, R., & Sachs, J. (2012). *World happiness report*. Retrieved from http://eprints.lse.ac.uk/47487/1/World%20happiness%20report%28lsero%29.pdf

Hockenberry, M. J., Hinds, P. S., Barrera, P., Bryant, R., Adams-McNeill, J., Hooke, C., . . . Manteuffel, B. (2003). Three instruments to assess fatigue in children with cancer: The child, parent and staff perspectives. *Journal of Pain and Symptom Management*, *25*, 319-328. doi:10.1016/S0885-3924(02)00680-2

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: SAGE.

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). New York, NY: McGraw-Hill.

Houle, R., & Feldman, R. S. (1991). Emotional displays in children's television programming. *Journal of Nonverbal Behavior*, *15*, 261-271. doi:10.1007/BF00986925

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: SAGE.

House, R. J., Javidan, M., Hanges, P., & Dorfman, P. (2002). Understanding cultures and implicit leadership theories across the globe: An introduction to project GLOBE. *Journal of World Business*, *37*, 3-10. doi:10.1016/S1090-9516(01)00069-4

Johnson, T., Kulesa, P., Cho, Y. I., & Shavitt, S. (2005). The relation between culture and response styles: Evidence from 19 countries. *Journal of Cross-Cultural Psychology*, *36*, 264-277. doi:10.1177/0022022104272905

Jowell, R. (1998). How comparative is comparative research? *American Behavioral Scientist*, *42*, 168-177. doi:10.1177/0002764298042002004

Keller, H., Lamm, B., Abels, M., Yovsi, R., Borke, J., Jensen, H., . . . Chaudhary, N. (2006). Cultural models, socialization goals, and parenting ethnotheories: A multicultural analysis. *Journal of Cross-Cultural Psychology*, *37*, 155-172. doi:10.1177/0022022105284494

Laerhoven, H., Zaag-Loonen, H. J., & Derkx, B. H. F. (2007). A comparison of Likert scale and visual analogue scales as response options in children's questionnaires. *Acta Paediatrica*, *93*, 830-835. doi:10.1111/j.1651-2227.2004.tb03026.x

Lee, S., & Lang, A. (2009). Discrete emotion and motivation: Relative activation in the appetitive and aversive motivational systems as a function of anger, sadness, fear, and joy during televised information campaigns. *Media Psychology*, *12*, 148-170. doi:10.1080/15213260902849927

Legare, C. H., & Harris, P. L. (2016). The ontogeny of cultural learning. *Child Development*, *87*, 633-642. doi:10.1111/cdev.12542

Leung, K., & van de Vijver, F. J. R. (2008). Strategies for strengthening causal inferences in cross cultural research: The consilience approach. *International Journal of Cross Cultural Management*, *8*, 145-169. doi:10.1177/1470595808091788

Magai, C. M. (1996). *Emotions as a child self-rating scale*. Unpublished manuscript, Long Island University, New York, NY.

Magai, C. M. (1997). *Test-retest reliability and internal consistency of the emotions as a child self-rating scale. Unpublished raw data*. New York, NY: Long Island University.

Maleki, A., & de Jong, M. (2013). A proposal for clustering the dimensions of national culture. *Cross-Cultural Research*, *48*, 107-143.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224-253. doi:10.1037/0033-295x.98.2.224

Martínez Mateo, M., Cabanis, M., Stenmanns, J., & Krach, S. (2013). Essentializing the binary self: Individualism and collectivism in cultural neuroscience. *Frontiers in Human Neuroscience*, *7*, Article 289. doi:10.3389/fnhum.2013.00289

Masters, J. C., Ford, M. E., & Arend, R. A. (1983). Children's strategies for controlling affective responses to aversive social experience. *Motivation and Emotion*, *7*, 103-116. doi:10.1007/bf00992967

Matsumoto, D. (1990). Cultural similarities and differences in display rules. *Motivation and Emotion*, *14*, 195-214. doi:10.1007/bf00995569

Matsumoto, D., Seung, H. Y., & Fontaine, J. (2008). Mapping expressive differences around the world: The relationship between emotional display rules and individualism versus collectivism. *Journal of Cross-Cultural Psychology*, *39*, 55-74. doi:10.1177/0022022107311854

Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research. *Perspectives on Psychological Science*, *1*, 234-250. doi:10.1111/j.1745-6916.2006.00014.x

McNeish, D. M., & Stapleton, L. M. (2016). The effect of small sample size on two-level model estimates: A review and illustration. *Educational Psychology Review*, *28*, 295-314. doi:10.1007/s10648-014-9287-x

Miller, J. G. (2002). Bringing culture to basic psychological theory—Beyond individualism and collectivism: Comment on Oyserman et al. (2002). *Psychological Bulletin*, *128*, 97-109.

Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, *16*, 361-388. doi:10.1111/j.1467-9507.2007.00389.x

Nabi, R. L., So, J., & Prestin, A. (2010). Media-based emotional coping: Examining the emotional benefits and pitfalls of media consumption. In K. Döveling, C. von Scheve, & E. Konijn (Eds.), *The Routledge handbook of emotions and mass media* (pp. 116-133). New York, NY: Routledge.

Nadler, J. T., Weston, R., & Voyles, E. C. (2015). Stuck in the middle: The use and interpretation of midpoints in items on questionnaires. *The Journal of General Psychology*, *142*(2), 71-89. doi:10.1080/00221309.2014.994590

Nielsen, M., Haun, D., Kärtner, J., & Legare, C. H. (2017). The persistent sampling bias in developmental psychology: A call to action. *Journal of Experimental Child Psychology*, *162*, 31–38. doi:10.1016/j.jecp.2017.04.017

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3-72.

Park, H., Coello, J. A., & Lau, A. S. (2014). Child socialization goals in East Asian versus Western nations from 1989 to 2010: Evidence for social change in parenting. *Parenting*, *14*, 69-91. doi:10.1080/15295192.2014.914345

Prior, M. (2009). The immensely inflated news audience: Assessing bias in self-reported news exposure. *Public Opinion Quarterly*, *73*, 130-143. doi:10.1093/poq/nfp002

Putnam, S. P., & Gartstein, M. A. (2017). Aggregate temperament scores from multiple countries: Associations with aggregate personality traits, cultural dimensions, and allelic frequency. *Journal of Research in Personality*, *67*, 157-170. doi:10.1016/j.jrp.2016.07.009

Saarni, C. (1984). An observational study of children's attempts to monitor their expressive behavior. *Child Development*, *55*(4), 1504-1513. doi:10.2307/1130020

Scherr, S., Mares, M.-L., Bartsch, A., & Götz, M. (2018). On the relevance of parents and TV as socializers of 6–19 year-olds' expressions of emotion: Representative data from Germany. *Journal of Children and Media*, *12*, 33-50. doi:10.1080/17482798.2017.1365738

Schmidt-Atzert, L., & Hüppe, M. (1996). Emotionsskalen EMO 16. Ein Fragebogen zur Selbstbeschreibung des aktuellen emotionalen Gefühlszustandes [Scales to capture emotions EMO 16: A questionnaire on self-descriptions of current mood states]. *Diagnostica*, *42*, 242-267.

Scollon, C. N., Diener, E., Oishi, S., & Biswas-Diener, R. (2004). Emotions across cultures and methods. *Journal of Cross-Cultural Psychology*, *35*, 304-326. doi:10.1177/0022022104264124

Sternheimer, K. (2013). *Connecting social problems and popular culture: Why media is not the answer*. Boulder, CO: Westview Press.

Ting-Toomey, S. (2004). Translating conflict face-negotiation theory into practice. In D. Landis, J. Bennett, & M. Bennett (Eds.), *Handbook of intercultural training* (3rd ed., pp. 217-248). Thousand Oaks, CA: SAGE.

United Nations Development Programme. (2016). *Human development reports*. Retrieved from http://hdr. undp.org/en/data

van Hemert, D. A., Poortinga, Y. H., & van de Vijver, F. J. R. (2007). Emotion and culture: A meta-analysis. *Cognition & Emotion*, *21*, 913-943. doi:10.1080/02699930701339293

Voronov, M., & Singer, J. A. (2002). The myth of individualism-collectivism: A critical review. *Journal of Social Psychology*, *142*, 461-480. doi:10.1080/00224540209603912

Wellman, H. M., Cross, D., & Watson, J. (2003). Meta-analysis of theory-of-mind development: The truth about false belief. *Child Development*, *72*, 655-684. doi:10.1111/1467-8624.00304

Williams, J. E., & Best, D. L. (1990). *Sex and psyche: Gender and self viewed cross-culturally*. Newbury Park, CA: SAGE.

Wilson, B. J., Smith, S. L., Potter, W. J., Kunkel, D., Linz, D., Colvin, C. M., & Donnerstein, E. (2002). Violence in children's television programming: Assessing the risks. *Journal of Communication*, *52*, 5-35. doi:10.1111/j.1460-2466.2002.tb02531.x

Wolpe, J. (1969). *The practice of behavior therapy*. New York, NY: Pergamon Press.

The World Bank. (2016). GDP per Capita (current US$). Retrieved from http://api.worldbank.org/v2/en/ indicator/NY.GDP.PCAP.CD?downloadformat=excel

Yamaguchi, S. (1994). Collectivism among the Japanese: A perspective from the self. In U. Kim, H. C. Triandis, C. Kagitcibasi, S. C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (Vol. 18, pp. 175-188). Thousand Oaks, CA: SAGE.

Yaman, A., Mesman, J., van Ijzendoorn, M. H., Bakermans-Kranenburg, M. J., & Linting, M. (2010). Parenting in an individualistic culture with a collectivistic cultural background: The case of Turkish immigrant families with toddlers in the Netherlands. *Journal of Child and Family Studies*, *19*, 617-628. doi:10.1007/s10826-009-9346-y

Zhou, Q., Eisenberg, N., Losoya, S. H., Fabes, R. A., Reiser, M., Guthrie, I. K., . . . Shepard, S. A. (2002). The relations of parental warmth and positive expressiveness to children's empathy-related responding and social functioning: A longitudinal study. *Child Development*, *73*, 893-915. doi:10.1111/1467-8624.00446

Zillmann, D., & Cantor, J. (1977). Affective responses to the emotions of a protagonist. *Journal of Experimental Social Psychology*, *13*, 155-165. doi:10.1016/s0022-1031(77)80008-5