

Expressions of gratitude in children and adolescents: Insights from China and the United States

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Abstract:

Gratitude is a socially desirable virtue that is related to well-being at both personal and societal levels. The present study took a developmental perspective to examine changes with age in types of wishes and gratitude in two societies. The samples consisted of 357 children, aged 7 to 14 years, from a medium-sized city in the southeast United States, and 334 children from a metropolitan area in southern China. Results showed that the expression of connective gratitude, which is considered the most sophisticated form of gratitude and theorized to promote personal well-being and social relationships, increased with age, regardless of society. Participants in China, a society considered to emphasize relatedness more than does the United States, were more likely to express connective gratitude than were their counterparts in the United States. Furthermore, an inverse relationship between hedonistic wishes and connective gratitude was revealed in the U.S. sample.

Keywords: cultural psychology | developmental | child/adolescent | values | gratitude | beliefs | social

Article:

Gratitude is a socially desirable virtue that is said to benefit humankind at societal, relational, and individual levels. Feeling and expressing gratitude has long been viewed as a moral virtue. The Roman author and politician Cicero considered gratitude to be the parent of all virtues, and philosophers from Adam Smith (1759/2000) to McConnell (1993, 2013) have extolled its moral nature. In many cultures, gratitude is valued for the role it plays in strengthening social relationships, whereas ingratitude is viewed as a moral failing (Buck, 2004; Emmons, 2004; McConnell, 1993; McCullough, Kilpatrick, Emmons, & Larson, 2001) that can weaken or destroy relationships (Gintis, Bowles, Boyd, & Fehr, 2005). At the individual level, North Americans who expressed higher levels of gratitude reported having higher levels of life

satisfaction, having more positive relationships, and having lower levels of depression and stress (Lambert, Fincham, Stillman, & Dean, 2009; Wood, Froh, & Geraghty, 2010; Wood, Maltby, Stewart, Linley, & Joseph, 2008). American youth who express greater gratitude tend to feel more positive in terms of their overall life satisfaction and school experience and report better grades and less depressive symptoms than those who express less gratitude (Froh, Bono, & Emmons, 2010; Froh, Emmons, Card, Bono, & Wilson, 2011; Froh, Fan, Emmons, Bono, Huebner, & Watkins, 2011; Froh, Sefick, & Emmons, 2008), and in China, expressing greater gratitude might feature as a buffer against suicidal ideation and attempts at suicide (Li, Zhang, Li, Li, & Ye, 2012). Gratitude also features as a part of American adolescents' conceptions of what it takes to be considered a moral person (Hardy, Walker, Olsen, Skalski, & Basinger, 2011). These studies, although certainly suggestive of interesting correlations, do not examine how gratitude develops.

Emmons and Shelton (2002) felt that gratitude might be “a universal characteristic that transcends historical and cultural periods” (p. 460), but it would be imprudent to conclude that the development of gratitude among children follows universal patterns given that little research has focused on sociocultural or cross-cultural influences on gratitude (Watkins, Van Gelder, & Frias, 2009). Research on moral development has revealed the important role that culture plays in child development. Children are raised to become socially and cognitively competent members of their cultural group, but what counts as “competence” varies widely, and is instantiated through values and practices that are embedded and constituted daily in each culture's everyday practices and routines (Miller, 2006; Tappan, 1997, 2006; Tudge, 2008). Children are not born grateful; rather, gratitude, like other moral virtues, is learned through socialization processes embedded in the culture in which they grow up. For example, cultures as varied as the Japanese, the Inuit, and the Tamils of South India have developed entirely different ways of dealing with the receipt of gifts: Saying “thank you” is the polite thing to do in the United States but, whereas it is incumbent on the Japanese to repay a gift with one of at least equal value, receiving meat after a hunt is not viewed as requiring gratitude among the Inuit (Visser, 2009), and although the Tamils find it easy to express their thanks nonverbally, it is much more difficult to do so verbally (Appadurai, 1985).

In this article, we will focus on the expressions of gratitude in children and adolescents in the United States and China. Societies have traditionally been described in terms of individualism–collectivism (e.g., Hofstede, 2001; Triandis, 1995) or independence–interdependence (Markus & Kitayama, 1991). Hofstede (2011) and Minkov (2011), in fact, categorized the United States as one of the highest in terms of individualism (scoring 91 on his Individualism scale) and China one of the lowest (scoring 20). However, these dichotomous value systems have been criticized as overly simplistic (Tamis-LeMonda et al., 2008) and there is growing recognition among researchers that within societies can be found people valuing both individualism and collectivism. Drawing on Kağıtçıbaşı (2007, 2012), we argue that agency (ranging from autonomy to heteronomy) and connectedness (ranging from relatedness to separation) form two orthogonal dimensions, and thus four quadrants, into which all cultural groups can be placed. Whereas Kağıtçıbaşı describes the United States as fitting into the autonomous-separate quadrant, the rural population of China (like that of Turkey, see Kağıtçıbaşı & Ataca, 2005) would be expected to fit into the heteronomous-related quadrant, whereas the urban population, particularly with access to higher education, would fit into the autonomous-related quadrant. The

difference between the two groups, according to Kağıtçıbaşı, is that the former group of parents is interested in its children fitting in to the demands and wishes of their parents and other elders of the group, whereas parents in the latter group wish their children to be autonomous while still wanting them to be closely tied to the family and others in their group.

Both dimensions (autonomy-heteronomy and related-separate) are relevant to the development of gratitude. To understand why this is the case, it is necessary to consider the essential components of gratitude: a benefactor has to freely and intentionally provide something intended to be of value (a gift or help) to a beneficiary who, in turn, needs both to feel positively toward the benefactor and feel an obligation to repay, if at all possible, with something deemed to be of value to the benefactor. In the process, a connection is formed or strengthened between the two individuals and a positive cycle of retribution may be set in motion (see, for example, Godbout, 1992; McConnell, 1993; Piaget, 1954/1981, 1965/1995). In other words, both autonomy and relatedness are implicated in this conception of gratitude. When both the benefactor and the beneficiary engage autonomously in a positive cycle of retribution, the formation or strengthening of connections among people is underway, which is clearly relevant to relatedness. By contrast, when either the benefactor or beneficiary is forced to act, that is, to behave heteronomously, gratitude is neither required nor being expressed.

There are several implications of this conception of gratitude. First, this conception is incompatible with the view of gratitude as a “life orientation” in which individuals express their positive emotional state at seeing beautiful sunsets, walking in the park, or enjoying good health (Emmons, 2004; Froh, Yurkewicz, & Kashdan, 2009; Wood et al., 2010). No intentionality is involved, and it is difficult to imagine how a positive cycle of retribution can be established, even if a spiritual being is assumed to be the source. Second, gratitude is something that will develop over the course of childhood and adolescence. Requiring young American children to respond to something of value with a “thank you” or asking them to repay with a gift of their own may be little other than politeness or the expression of a social convention but may, with time and encouragement, develop into the feeling that some type of repayment is a moral obligation that should be freely undertaken. The development of gratitude might well occur differently in cultures that have different notions of appropriate ways of responding when receiving gifts (Visser, 2009). Third, cultural groups that value not only relatedness with others but also autonomy might encourage the development of gratitude differently or earlier than those that value separation from others or those that stress heteronomy.

The Development of Gratitude

Given our definition, gratitude clearly is not innate, but develops over the course of childhood and adolescence (Baumgarten-Tramer, 1938; Emmons & Shelton, 2002; Freitas, Pieta, & Tudge, 2011; McAdams & Bauer, 2004; Piaget, 1954/1981). However, almost no research has focused on gratitude’s development. As noted above, most research on gratitude in youth has considered variations in the extent to which gratitude is expressed. The scales most widely used to measure gratitude, the Gratitude Questionnaire–6 (McCullough, Emmons, & Tsang, 2002); the Gratitude Adjective Checklist (GAC; McCullough et al., 2002); the Gratitude, Resentment, Appreciation Test–Short Form (GRAT; Watkins, Woodward, Stone, & Kolts, 2003); or the Appreciation Scale (AS; Adler & Fagley, 2005), are probably not suitable for use with children and young

adolescents, and do not measure gratitude as we have defined it (Gulliford, Morgan, & Kristjánsson, 2013; Tudge & Freitas, under review). To understand another's intentionality, children must have developed a theory of mind—to know that other people see and understand things differently from themselves. They should also be able to think, at least on occasion, nonegocentrically if they are to reciprocate with something that the benefactor would value.

We should thus expect that children of different ages might express gratitude in different ways. Young children, while still egocentric and yet to have developed a theory of mind, can be taught to respond politely, with a “thank you,” to those who have provided a gift or help. Politeness, however, is not gratitude as we have defined it, although a heartfelt “thank you” may be indicative of gratitude to the extent to which it foreshadows the desire to repay if at all possible. A form of gratitude more advanced than simply saying “thank you” is when a child recognizes that he or she should reciprocate in some way for help or gifts received but does so in a manner that does not take into account what the original benefactor might like or need. The most sophisticated type of gratitude occurs when the initial beneficiary intentionally and willingly reciprocates in a way that the initial benefactor is likely to view as helpful or pleasurable. For this to occur, the beneficiary has to take into account the wishes or needs of the benefactor. It seems reasonable to assume, then, that the simplest form of gratitude (saying “thank you”) might be the most common type found among younger children. Once children realize that it may be appropriate to repay in some way, it seems likely that younger ones would typically repay with something of interest to themselves rather than to the original benefactor, and that in adolescence one would be most likely to find the most sophisticated form of gratitude—the wish to repay with something that should be liked by or helpful to the original benefactor.

What little research that has been conducted on the development of gratitude in children and adolescents has supported at least two of these assumptions. Baumgarten-Tramer (1938) was the front-runner in investigating the development of gratitude in childhood and adolescence. She asked Swiss 7- to 15-year-olds to write their greatest wishes and what they would do if someone were to grant their wishes. It is important to note that Baumgarten-Tramer did not ask how grateful her respondents were (without knowing why they might feel gratitude) or try to control the object or help for which they might feel gratitude, but instead first allowed them to decide what was important for them and then asked how they would respond if someone granted them their wish. She identified four types of gratitude based on children's responses to the second question.

Baumgarten-Tramer found that the expression of verbal gratitude did not greatly vary by age (between about 30% and 48% for most ages although more than 70% of the 15-year-olds expressed it). As mentioned above, this type of gratitude is probably the simplest: Very young children can be taught to say “thank you” when receiving a gift or help, and it is difficult to distinguish politeness from more heartfelt expressions of thanks. What she termed “concrete gratitude” (an egocentric way to wish to repay, such as offering a doll to an adult who had fulfilled her greatest wish) was far more commonly found among younger children than among those who were older, but is more sophisticated than is verbal gratitude in that at least it includes the notion that some repayment to the original benefactor is an appropriate response. By contrast, “connective gratitude” (that is, the type in which children offer to repay with something felt to be of value to the original benefactor) was more often found among older children, and is the most

sophisticated type, as it involves taking the wishes or needs of the original benefactor into account. Baumgarten-Tramer also identified a fourth type, which she called “finalistic gratitude” (e.g., promising to be the best possible student as a way to repay someone who made it possible to go to college), but found very few individuals who expressed that type.

Two recent replications of Baumgarten-Tramer’s work with 7- to 14-year-olds in Brazil (Freitas et al., 2011) and in the United States (Tudge, Freitas, Mokrova, Wang, & O’Brien, in press) provided similar results in that younger children were far more likely to express concrete gratitude and less likely to express connective gratitude than did older children. These studies provided some empirical evidence supportive of our theoretical standpoint that there may exist different ways of expressing gratitude and that gratitude develops over the course of childhood and adolescence.

Gender may also be relevant to the development and expression of gratitude. Kashdan, Mishra, Breen, and Froh (2009) found that college-age and older females scored significantly higher on gratitude than did males and that the women in their study reported “more intense gratitude for the gift received” (p. 18) than did the men. Froh and colleagues (Froh et al., 2009) found that 11- to 13-year-old girls scored somewhat higher on gratitude than did boys. These researchers, however, were interested in variations in the level, rather than the type, of gratitude expressed. Gordon, Musher-Eizenman, Holub, and Dalrymple (2004) found gender differences in the circumstances in which gratitude feelings were expressed by children and adolescents having examined thank-you letters after the September 11 attacks. This study revealed that girls were more likely to express being thankful in situations where social and interpersonal issues were concerned, whereas boys were more likely to express gratitude when materials goods were received. However, in research examining variations in the expression of types, rather than levels, of gratitude, Freitas et al. (2011) found no gender differences expressed in their Brazilian sample of 7- to 14-year-olds.

Kashdan et al. (2009) argued that gender differences in the level of gratitude may stem from women being socialized to place a higher value than men on social relationships and emotional connections, something that Gilligan (1982) had theorized. Some cross-cultural research suggests that these gender differences in relatedness may be widespread; in many cultures, girls and boys are raised and socialized differently with girls being encouraged to value relatedness, whereas boys are taught to be more independent than girls from earlier ages (Kashima et al., 1995). Kashima and colleagues conducted a study involving five societies that they considered to vary along the individualism–collectivism dimension (the United States, Australia, Hawaii, Korea, and Japan), and found that women scored higher on the relational dimension of self than men in all five societies. As such, it is plausible to hypothesize that girls are more likely to express the type of gratitude encouraging social bonds and interpersonal relationships (i.e., connective gratitude) than are same-age boys, regardless of culture.

Wishes and Gratitude

Although no known published study has been conducted to explore the association between wishes and gratitude, results of Gordon and colleagues’ (2004) study suggest that there might be a link between the type of wishes and the expression of gratitude, as the prevalence of gratitude

feelings that children expressed varied across the types/sources of help (basic needs, material objects, family members, friends, school) they received. Our interest in the relation between wishes and gratitude derives from our conceptualization that wishes for material goods reflect a degree of materialistic value and a plausible inverse relationship between gratitude and materialism (McCullough et al., 2002; Polak & McCullough, 2006). In fact, expressing greater gratitude has been associated with lower levels of materialistic values (Froh, Emmons, et al., 2011; Lambert et al., 2009; McCullough et al., 2002; Polak & McCullough, 2006). What is as yet unknown is whether the type of gratitude is related to materialistic values. Previous research suggested that the level of materialism varies across age groups. For example, Chaplin and John (2007) found that 12- to 13-year-olds, when asked to respond by placing objects that would make them happy onto a collage, were more likely to choose material objects than did either younger children (8 to 9) or those who were older (16 to 18). Cardoso (2006) found that younger (6- to 7-year-old) Portuguese children were more materialistic in their wishes than were 10- to 11-year-olds. Given age-related changes in the type of gratitude expressed (Freitas et al., 2011; Tudge et al., in press), it is conceivable that in a given societal context, certain types of gratitude and certain levels of materialism co-occur among children of specific age groups. In this study, using wishes as an indicator of materialistic values, we examine connections between materialism and the expressions of gratitude in children of various ages across childhood and adolescence.

The Present Study

Similar developmental patterns of gratitude were reported using data drawn from several societies and from periods varying from the 1930s to the past few years. It might be tempting, therefore, to suggest that this pattern might be universal. However, no data on the development of gratitude have so far been published from any Asian society, which, given Kağıtçıbaşı's (2007, 2012) work, should feature parents who encourage relatedness while also emphasizing autonomy, at least if living in urban areas. The goal of this study is therefore to examine the expressions of different types (rather than degrees) of gratitude in children and adolescents from a single city in each of two societies: China and the United States.

It is plausible to hypothesize that societies, or within-society cultural groups, that emphasize relatedness more than separation, may encourage thinking about others (rather than themselves and their own wishes) and facilitate the development of the most sophisticated type of gratitude (i.e., connective gratitude) among children and adolescents. Thus, we argue that children from the southern metropolitan area in China, particularly girls, would be more likely to express more sophisticated forms of gratitude than would their same-age and same-gender peers from the city in the southeastern United States. However, this argument does not mean that children in these two cities would necessarily show different developmental trajectories in expressing different types of gratitude. Chinese children are not more likely to develop a theory of mind (necessary to recognize another's intentionality) at an earlier age or to become less egocentric in their thinking (necessary to wish to repay with something of value to the other) than are American children. Therefore, it is reasonable to hypothesize that the developmental trajectories of expressing different types of gratitude might be similar in the two countries. That is, children in the two societies might show similar developmental patterns in expressing gratitude but Chinese children might express higher levels of the most sophisticated form of gratitude (i.e., connective gratitude) than would American children.

First, we examine whether and how the expressions of wishes and gratitude differ by age, society, and gender. Based on our theoretical perspective and previous research on development of gratitude in children, we hypothesized that the expressions of wishes and gratitude would vary with age. Specifically, we hypothesized that wishes for future-orientated self well-being and social well-being would increase with age, whereas hedonistic wishes (i.e., desire for immediate material gain) would decline with age. For gratitude, we hypothesized that verbal gratitude would stay stable across ages, concrete gratitude would decline with age, and connective gratitude would increase with age. In terms of the potential societal influence, we hypothesized that urban Chinese children would be more likely to express connective gratitude and wishes for social well-being than would their same-age peers in the United States. However, the proposed age-related patterns would be similar for children from both societies. In other words, we hypothesized there would be no slope difference but mean-level difference in expressing wishes and gratitude. For gender difference, we hypothesized that, regardless of society, girls would be more likely to have wishes related to social well-being and to express connective gratitude than would same-age boys.

Second, we explore the relation between what the children wished for and their expressions of gratitude. Although no known published study has examined the relation between wishes and gratitude, it seems likely that children whose wishes focus on material goods or self well-being would be less likely to express gratitude that takes others into account than would children whose wishes focus on the well-being of others or the larger community (i.e., connective gratitude). Therefore, we hypothesized that, regardless of age and society, children who wished for social well-being would be more likely to express connective gratitude than other types of gratitude, and children who expressed hedonistic wishes would be more likely to express concrete gratitude than other types of gratitude.

Method

Participants

The U.S. participants consisted of 357 7- to 14-year-old children (55% girls, M age = 10 years and 6 months). Fifty-five percent of the participants self-identified as European American, 33.5% African American, 8.4% Hispanic, and 4% other ethnicities. Participants were recruited from six public schools from a medium-sized city school district in the southeastern United States. Although socioeconomic information was not collected, the participating schools were selected to represent both middle- and working-class areas of the district.

The Chinese participants were 334 7- to 14-year-old children (47% girls, M age = 11 years and 3 months) from a metropolitan city in southern China. Participants were from two public schools, which were located in the less economically developed district of the city. Although data were not gathered on the social class background of the children's families, it is safe to assume that the majority of the participants were from working-class families.

Measures and Procedures

The measure used to assess gratitude was the Wishes and Gratitude Survey (WAGS; Freitas, Tudge, & McConnell, 2008). This survey consists of four questions: What is your greatest wish? What would you do for the person who granted you that wish? Is there anything else you should do? Who is this person? The first two questions were adopted from Baumgarten-Tramer (1938). The survey was translated into Chinese by a graduate student, who is a native Chinese speaker, and back-translated to ensure meaning consistency.

Children in the American and Chinese cities were asked to take home and return a parental consent letter. After having obtained parental consent, children provided their own consent, if they agreed to participate. Teachers were given descriptions and instructions of the survey before administering it to their students in the Chinese city; the third author and research assistants administered it in the U.S. city. Participating students took the WAGS (Freitas et al., 2008) in their own classrooms or in a common study room.

Responses to the first two questions in the WAGS (Freitas et al., 2008) were coded and analyzed. As Baumgarten-Tramer (1938) provided no evidence of having either coded or analyzed responses to the first question, regarding the participants' greatest wishes, the third author and his collaborators developed a coding system. Having repeatedly read participants' responses to this question, three primary categories of wishes were identified: (a) hedonism (a desire for immediate or purely monetary gain), including wishes for toys (material), money (monetary), and to go on a vacation (travel); (b) future-oriented self well-being (a desire for future-related personal benefits), including doing well at school (education) or having a particular type of occupation (career), going to Heaven (spiritual), and good health and happiness for the self (personal well-being); (c) social well-being (a desire for current or future benefits for others), including happiness for a family member or a friend (family/friend well-being), contributing to the country or community (social well-being), and helping the homeless (philanthropy). No or unclear responses were coded as "other." Just more than 3% of children fell into the "other" category and were excluded from the following analyses.

Responses to the second question regarding what the child would do for the person who granted his or her wish were coded into the four main categories as those used originally by Baumgarten-Tramer (1938) and subsequently by Freitas et al. (2011): (a) verbal gratitude, (b) concrete gratitude, (c) connective gratitude, and (d) finalistic gratitude. Responses coded as verbal gratitude include saying "I would thank him every day" and "I would be thankful." Examples of concrete gratitude include offering US\$100 back if gaining a million dollars or offering a favorite toy or allowing the benefactor to accompany to the child on a trip to Disneyland. Examples of connective gratitude include "I would be a friend with him" and "I would fulfill his wish." An example of finalistic gratitude would be that a girl wished to go to a good college, and in return she would like to do the best she can to get good grades in college. An "other" category was added to include responses that could not be categorized into the above four types of gratitude and unclear or no responses. Because less than 5% of children expressed finalistic gratitude (8 American children and 15 Chinese children), we dropped these cases from the following analyses. Almost 6% of children fell into the "other" category and were also excluded from the analyses.

A large majority of children in both cities provided responses that could be coded into a single type of wish (United States, 91%; China, 93%) and gratitude (United States, 88%; China, 86%). However, some children provided responses indicating two or more types of wishes or gratitude. All responses were included, and we analyzed the percentage of children at each age that provided each type of response (in other words, percentages for each individual type of response could sum to more than 100).

The U.S. responses were coded by the third author and other data collectors. The third author and one of the other data collectors independently coded 50% of the responses to the first two questions. The intercoder reliabilities were high (kappas of .82 and higher for hedonism, future-oriented self well-being, and social well-being, and kappas of .90 and higher for verbal, concrete, connective, and finalistic gratitude).

The Chinese responses were first translated into English by two undergraduate research assistants, both native Chinese speakers and studying at a U.S. university. Responses to the first two questions were coded by the first author, a native Chinese speaker. The third author coded 25% of the responses independently. The intercoder reliabilities of the two authors were high (kappas of .92 and higher for wishes, and kappas of .80 and higher for gratitude). All disagreements were discussed until final agreement was reached.

Results

Descriptive Statistics

Table 1 presents the frequency and percentage of each type of wishes and gratitude. As noted in the method section, some percentages summed to more than 100 because some children expressed more than one type of wishes and/or gratitude. Girls were more likely than boys to express two or more types of gratitude. Two thirds of the Chinese children expressed wishes related to future-oriented self well-being, compared with less than half for the U.S. sample.

Age, Gender, and Society Differences in Wishes and Gratitude

First, we conducted logistic regression analyses to examine whether the expressions of wishes and gratitude varied by age, society, and gender. Each type of wish and gratitude was separately treated as the dependent dichotomous variable; age, society, gender, and interaction terms of the three were entered as independent variables. Any interaction terms that were not statistically significant were deleted from the analyses but main effects were retained even if they were not significant. Results of logistic regression analyses are shown in Tables 2 and 3. Age and society were significant predictors for all types of wishes and gratitude, either as a main effect or an interaction. We only interpreted the main effects when their related interactive terms were not included in the model because of the confound effects between main and interactive terms in logistic regression models (Jaccard, 2001).

Table 1. Descriptive Statistics for Wishes and Gratitude by Society and Gender.

	United States						China						Whole	
	Male		Female		All		Male		Female		All			
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Wishes														
Hedonistic	76	49.0	76	38.8	154	43.1	42	24.7	33	21.2	76	22.8	230	33.3
Self well-being	70	45.2	92	46.9	167	46.8	103	60.6	108	69.2	216	64.7	383	55.4
Social well-being	12	7.7	36	18.4	50	14.0	29	17.1	30	19.2	59	17.7	109	15.8
Total	158	101.9	204	104.1	371	103.9	174	102.4	171	109.6	351	105.2	722	104.5
Gratitude														
Verbal	43	27.7	68	34.7	114	31.9	67	39.4	64	41.0	135	40.4	249	36.0
Concrete	58	37.4	68	34.7	126	35.3	42	24.7	33	21.2	75	22.5	201	29.1
Connective	51	32.9	76	38.8	132	37.0	68	40.0	73	46.8	144	43.1	276	39.9
Finalistic	1	0.6	8	4.1	9	2.5	1	0.6	14	9.0	15	4.5	24	3.5
Total	153	98.7	220	112.2	381	106.7	178	104.7	184	117.9	369	110.5	750	108.5

Note. $n = 357$ for the United States and 334 for China. Some percentages sum up to greater than 100 because some children expressed more than one type of wishes/gratitude. Freq = frequency; % = percentage of children who express that type of wishes/gratitude.

Table 2. Logistic Regression Analyses of Age, Society, and Gender on Expressions of Wishes.

Step	Predictor	Expression of wishes								
		Hedonism			Self well-being			Social well-being		
		<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
1	Age	-0.20**	.04	0.82	0.24**	.04	1.27	-0.08	.05	1.08
	Society (<i>United States = 1, China = 0</i>)	0.93**	.18	2.53	-0.74**	.16	0.48	-0.35	.21	0.70
	Gender (<i>male = 1, female = 0</i>)	0.28	.17	1.32	-0.16	.16	0.85	-0.49*	.22	0.61
2	Age × Society	—	—	—	0.08	.08	1.08	0.35**	.10	1.42
	Age × Gender	—	—	—	0.13†	.08	1.14	—	—	—
	Society × Gender	—	—	—	0.53	.33	1.70	—	—	—
3	Age × Society × Gender	—	—	—	0.33*	.16	1.40	—	—	—
	Constant	-1.27**	.17	0.28	0.71**	.18	2.04	-1.25**	.18	0.29
	χ^2	61.77**			73.80**			22.52**		

Note. e^B = exponentiated *B*. † $p < .10$. * $p < .05$. ** $p < .01$.

Table 3. Logistic Regression Analyses of Age, Society, and Gender on Expressions of Gratitude.

Step	Predictor	Expression of wishes								
		Verbal			Concrete			Connective		
		<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
1	Age	-0.01	.04	0.99	-0.05	.04	0.96	0.15**	.04	1.16
	Society (<i>United States = 1, China = 0</i>)	-0.39*	.16	0.67	0.62**	.17	1.87	-0.27†	.16	0.76
	Gender (<i>male = 1, female = 0</i>)	-0.20	.16	0.82	0.14	.17	1.15	-0.24	.16	0.79
2	Age × Society	0.28**	.08	1.32	-0.22**	.08	0.80	—	—	—
	Age × Gender	—	—	—	0.22**	.08	1.25	—	—	—
	Society × Gender	—	—	—	—	—	—	—	—	—
3	Age × Society × Gender	—	—	—	—	—	—	—	—	—
	Constant	-0.23	.145	0.80	-1.31**	.17	0.27	-0.26†	.14	0.77
	χ^2	20.76**			33.22**			22.48**		

Note. e^B = exponentiated *B*. † $p < .10$. * $p < .05$. ** $p < .01$.

Wishes. Age had a significant main effect on hedonistic wishes, $\chi^2(1) = 25.0$, $B = -.20$, $e^B = .82$, $p < .001$. That is, the odds of having hedonistic wishes were 18% lower for each year increase in age. Society had a significant main effect on hedonistic wishes, $\chi^2(1) = 28.2$, $B = .93$, $e^B = 2.53$, $p < .001$. The U.S. sample was more than two and half times more likely to have hedonistic wishes than was the Chinese sample. With regard to gender, girls were 1.6 times more likely to have wishes related to social well-being than were boys, $\chi^2(1) = 5.0$, $B = -.49$, $e^B = .61$, $p = .025$.

The more interesting findings lay in the interactions among age, society, and gender. There was a significant three-way interaction among these variables for wishes about self well-being, $\chi^2(1) = 4.47$, $B = .33$, $p = .035$. Overall, as shown in Figure 1, the Chinese children were more likely to have wishes related to self well-being than were the U.S. children. For both Chinese boys and girls, the probability of having self well-being wishes increased with age. For younger U.S. children, girls were more likely to have self well-being wishes than were boys; however, for older U.S. children, the pattern was reversed. Separate regression analyses were run for each subgroup and the results confirmed that these linear relationships between age and the expression of wishes were all statistically significant. A significant age by society interaction was found for social well-being wishes. Follow-up analyses showed that the probability to have wishes related to social well-being increased with age for the U.S. sample only (Figure 2).

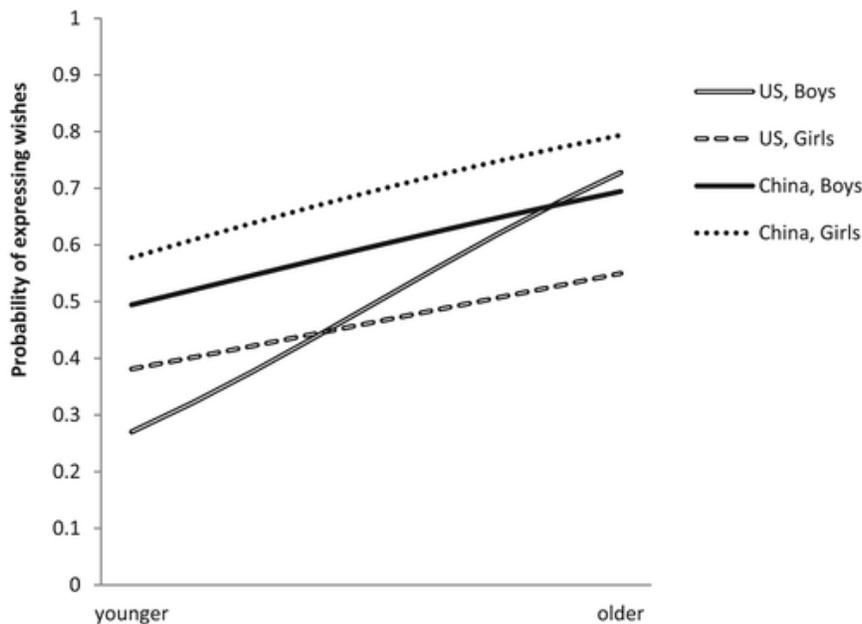


Figure 1. Self well-being wishes: Three-way interaction among age, society, and gender.

Gratitude. Age had a significant main effect on connective gratitude, $\chi^2(1) = 15.7$, $B = .15$, $e^B = 1.16$, $p < .001$. That is, older children were more likely to express connective gratitude than were younger children, regardless of society and gender. Society had a significant main effect on connective gratitude at a trend level, $\chi^2(1) = 2.9$, $B = -.27$, $e^B = .76$, $p = .091$. U.S. children were 76% less likely to express connective gratitude than were Chinese children.

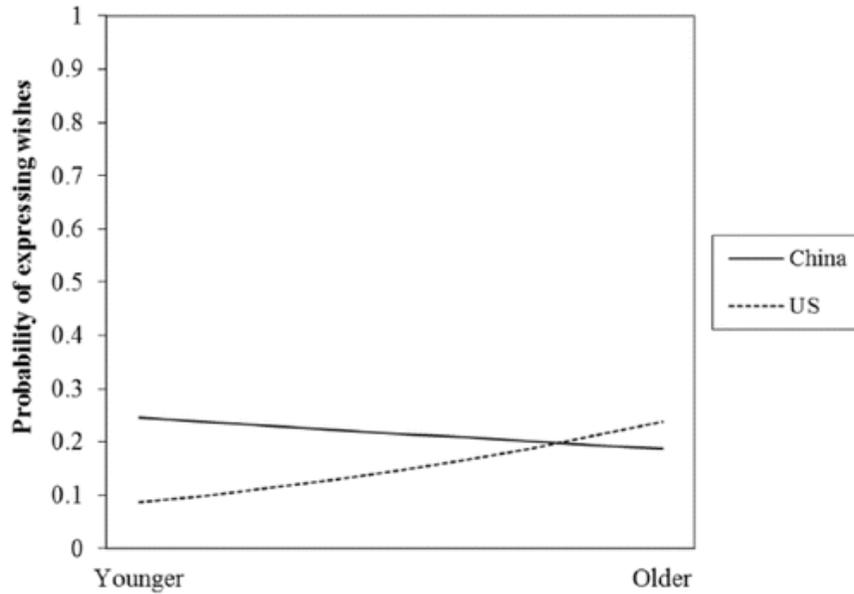


Figure 2. Social well-being wishes: Two-way interaction between age and society.

Two significant age by society interactions were found for verbal gratitude, $\chi^2(1) = 13.5$, $B = .28$, $p < .001$, and concrete gratitude, $\chi^2(1) = 7.8$, $B = -.22$, $p = .005$. To further examine age-related changes in the expressions of gratitude in each society, we conducted follow-up logistic regression analyses separately for the Chinese sample and the U.S. sample (Figures 3 and 4). For the U.S. sample, older children were more likely to express verbal gratitude and were less likely to express concrete gratitude than were younger children. For the Chinese sample, the probability of expressing concrete gratitude remained relatively stable across ages, whereas verbal gratitude decreased with age.

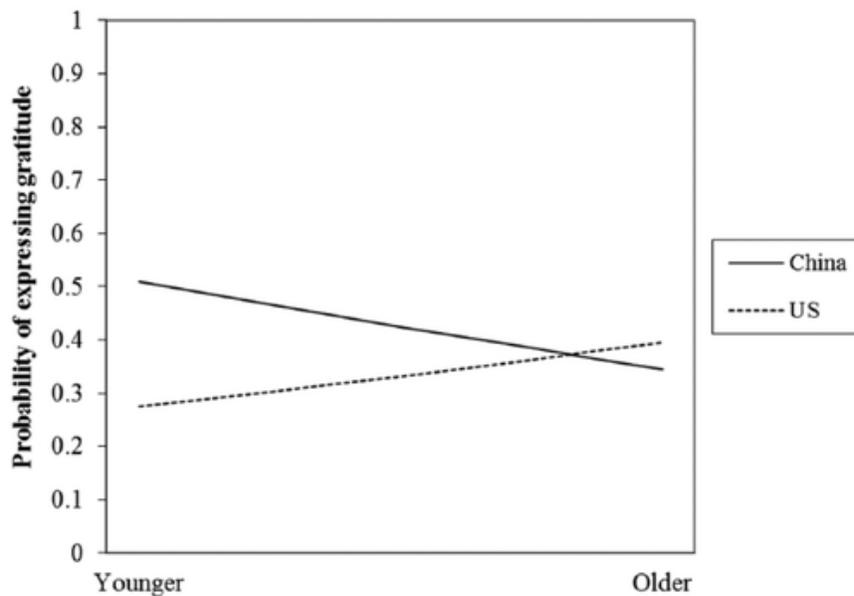


Figure 3. Verbal gratitude: Two-way interaction between age and society.

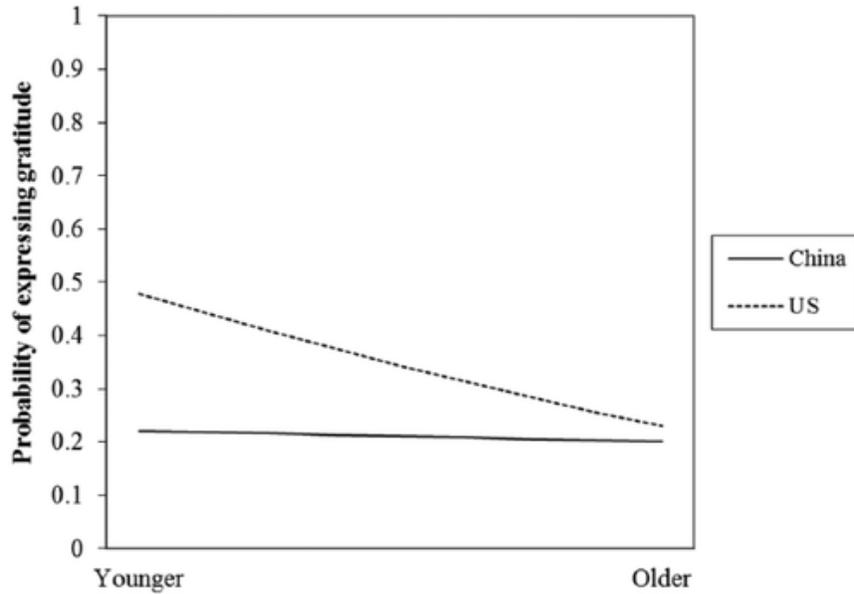


Figure 4. Concrete gratitude: Two-way interaction between age and society.

In addition, age and gender significantly interacted in terms of concrete gratitude, $\chi^2(1) = 8.10$, $B = .22$, $p = .004$. Logistic regressions were run for each gender group and the results revealed that for boys, the probability of expressing concrete gratitude was relatively stable across ages, whereas the probability decreased for girls (Figure 5).

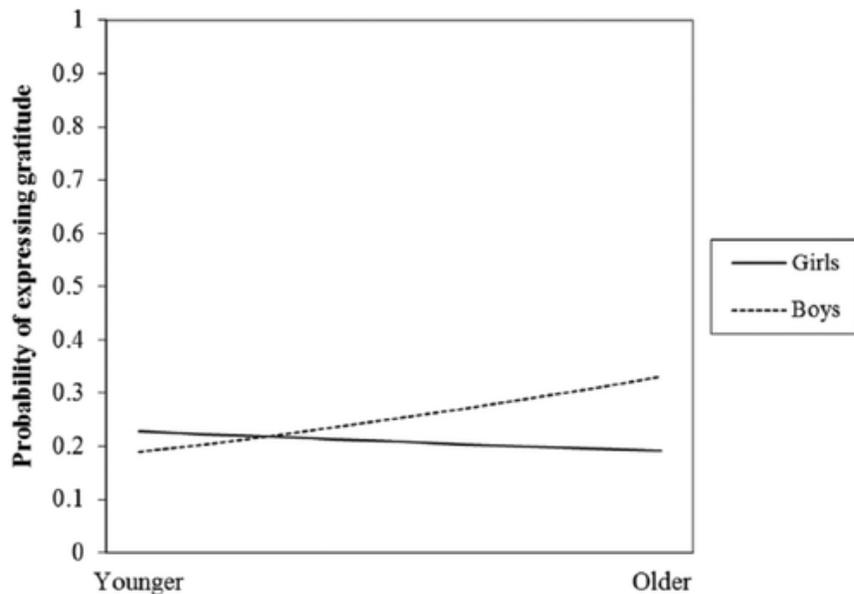


Figure 5. Concrete gratitude: Two-way interaction between age and gender.

Although not a part of our main hypotheses, we also tested whether ethnicity plays a role in expressing gratitude in the U.S. sample. Results indicated that ethnicity did not emerge as a significant factor, as either a main effect or an interaction effect with age or gender.

Relation Between Wishes and Gratitude

To examine the connection between wishes and gratitude, we conducted logistic regression with each type of gratitude as the independent variable and the three types of wishes as the dependent variables. Due to age and cultural differences revealed in the previous analyses, we conducted these analyses separately for the U.S. and Chinese samples and included age and gender as controls. U.S. children who wished for social well-being were 87% less likely to express concrete gratitude, $\chi^2(1) = 10.73$, $B = -2.05$, $e^B = .13$, $p = .001$, and were 2.6 times more likely to express connective gratitude, $\chi^2(1) = 5.09$, $B = .97$, $e^B = 2.63$, $p = .024$, than those who did not wish for social well-being. For the Chinese sample, children who had hedonistic wishes were 68% less likely to express verbal gratitude, $\chi^2(1) = 5.34$, $B = -1.13$, $e^B = .32$, $p = .021$, and were 2.4 times more likely to express connective gratitude (on a trend level), $\chi^2(1) = 3.50$, $B = .87$, $e^B = 2.39$, $p = .061$.

Variations in Types of Wishes

Although not part of our hypotheses, we also explored whether some of these cultural differences could be due to different responses to specific subcategories of wishes because a culture's values and its level of economic development may influence the types of wishes children express. As described in the "Method" section, in addition to the three primary categories, wishes were coded into subcategories including material wishes, monetary wishes, wishes related to education and career, philanthropic wishes, and so forth. A close examination of the subcategories revealed that the largest differences between children's wishes in the two societies lay in the subcategories of education and family/friend well-being (Table 4). That is, the Chinese participants were far more likely than their American counterparts to have wishes related to their own education (27.2% vs. 6.7%) and to the well-being of their family members or friends (12.3% vs. 3.6%). It is also worth noting that the majority of Chinese children who had hedonistic wishes wished for things that are related to school (such as a schoolbag or something to help them record English), whereas U.S. children were more likely to wish for things related to having fun such as toys and trips.

Table 4. Selective Subcategories of Wishes.

	China (%)	United States (%)
Material wish	15.3	18.8
Wanting money	4.2	10.9
Travel	3.6	9.5
Spiritual wish	0.0	2.8
Academic ambitions	27.2	6.7
Career-related ambitions	24.3	28.9
Family or friend well-being	12.3	3.6
Well-being for others	2.4	5.9
Philanthropic wishes	1.2	3.9

Note. Presented is a subgroup of all subcategories. % = percentage of children who expressed this subtype of wishes in each society

Discussion

Gratitude is a socially desirable virtue that is related to well-being at personal, interpersonal, and societal levels. The present study is unique in examining society, age, and gender variability in the expression of gratitude following the granting of children's greatest wishes. We took a

developmental perspective to examine changes with age in types of wishes and gratitude in two societies. Both similarities and differences were revealed in our sample of Chinese and U.S. participants in terms of age-related patterns of wishes and gratitude as well as the connections between wishes and gratitude. The expression of connective gratitude, which is considered the most sophisticated form of gratitude and theorized to promote personal well-being and social relationships, increased with age. Participants in China, a society considered to emphasize relatedness more than does mainstream American culture, were more likely to express connective gratitude than were their counterparts in the United States. Furthermore, an inverse relationship between hedonistic wishes and connective gratitude was revealed in the U.S. sample.

Age, Gender, and Society Differences in Gratitude

Our hypothesis regarding mean differences by society but no slope differences by age in connective gratitude was supported. That is, the expression of connective gratitude increased with age and Chinese children were more likely to express connective gratitude than were U.S. children. The hypotheses regarding verbal and concrete gratitude were supported only for the U.S. sample. The American participants' patterns of results were similar to those found in previous research on Swiss and Brazilian children (Baumgarten-Tramer, 1938; Freitas et al., 2011) in that older children were more likely to express verbal gratitude and were less likely to express concrete gratitude. For the Chinese sample, the probability of expressing concrete gratitude remained relatively stable across age, whereas verbal gratitude decreased with age.

Connective gratitude, defined as the beneficiary's positive feeling toward the benefactor and the recognition of an obligation to repay, if at all possible, with something deemed to be of value to the benefactor, requires a sense of relatedness and some degree of autonomy. The societal difference in connective gratitude is in line with Kağıtçıbaşı's (2007, 2012) argument that urban and educated Chinese should value autonomy and relatedness, whereas Americans should be more inclined to value autonomy and separation. However, we should be cautious interpreting this finding given that our Chinese participants were all from an urban area. Specific information on socioeconomic status (including parent education) and an explicit measure of autonomy-relatedness as well as a more diverse sample along these dimensions are needed to test Kağıtçıbaşı's theoretical framework. Different patterns regarding verbal and concrete gratitude suggest that distinct socialization processes may exist in different societies and different behaviors are more likely to be approved and encouraged based on the societal context and cultural values.

With regard to the role of gender, the hypothesis that girls would be more likely to express connective gratitude was not supported in our sample. In general, boys were as likely to express connective gratitude as were girls and older children were more likely to express connective gratitude, regardless of gender. However, girls were less likely than boys to express concrete gratitude across all ages and the probability of expressing concrete gratitude decreased with age. Girls were also more likely to have wishes related to the well-being of families and the broader community than were boys, which is consistent with our hypothesis. This finding fits with the notion that girls might be socialized to encourage interpersonal relationships and with research findings that females place a higher value on social bonds (Gordon et al., 2004; Kashima et al.,

1995). However, the lack of any gender differences in the expression of connective gratitude is not consistent with our hypothesis. These gender differences and similarities in expressing wishes and gratitude may imply a gender effect on connections between wishes and gratitude.

Wishes and Gratitude

Consistent with our hypothesis, the U.S. children who wished for social well-being were less likely to express concrete gratitude and were more likely to express connective gratitude than were those who did not wish for social well-being. However, for the Chinese sample, children who had hedonistic wishes were more likely to express connective gratitude, contrary to our hypothesis. This unexpected findings for the Chinese participants prompted questions regarding the roles of cultural values and societal contexts in the development of gratitude and materialist values.

Culture is not only about values, beliefs, and practices but also involves access to resources and the larger economic and political contexts (Tudge, 2008). Moreover, Tudge argued, parents' beliefs about how to raise and socialize their children vary by ecological and socioeconomic factors, and these factors are not homogeneous within a given society. The Chinese children in our sample, coming from a relatively poor neighborhood in a large Chinese city, probably had different resources than did their U.S. counterparts. Nevertheless, they were much less likely than the American children to wish for toys, trips, or money. Instead, many of these Chinese children wished for things related to study (e.g., schoolbags, devices to help them learn English, or computers). It may well be the case that Chinese parents, especially those with a working-class background, hold the belief that education is the best path for their children to get a better life and thus emphasize the importance of school to their children (Wang, 2014). If the children themselves accepted that message, it is possible that although their wishes were for something immediate (i.e., hedonistic), they appreciated that their parents, if responding to those wishes, were trying to invest in their future, and thus expressed connective gratitude. For the same reason, it is not surprising that such a high proportion of the Chinese participants had wishes related to education and career (self well-being) and self well-being wishes increased with age.

Furthermore, our data revealed that the U.S. children were more likely to have hedonistic wishes than were the Chinese children, and hedonistic wishes declined with age, regardless of society. Here, we should be aware that the definition and the endorsement of materialism, and in what ways materialism is being pursued, are likely to vary across societies and change within a society. It may be particularly relevant in contemporary Chinese society, which is transitioning from a planned economy led by Marxist political ideals to a market economy overwhelmed by Western influences with images of material abundance. As such, further research is needed to explore the precursors, correlates, and prognosis of hedonistic wishes and, relatedly, gratitude.

Limitations and Conclusion

As innovative as our study was, there are several limitations that we would like to address in future research. First, as mentioned above, we did not have information on the socioeconomic background of the participants and thus were unable to ascertain whether the differences we found in these two societies were in part influenced by the participants' social class. According

to Kağıtçıbaşı's (2007) view and literature in other areas of parenting and child development (e.g., teaching values, social norms), social class may be a more salient factor in the development of one's value and moral system. Thus, our next step would be to include social class as one key dimension of societal influence and to examine its role in the development of gratitude. Second, our data are cross-sectional in nature. We can therefore only write about age-related changes in children's wishes and their gratitude rather than about developmental trajectories; longitudinal data are clearly required. Third, we were unable to find any hypothesized relation between social well-being wishes and connective gratitude in China, but this may be due to the reduced statistical power caused by having too few children who wished for the well-being of others. It would be worth replicating this research with a larger sample, or possibly with a sample that was more mixed with regard to social class. Finally, we must stress that the data were drawn from just a single city in each of two very large and heterogeneous countries. Although for simplicity's sake we have referred to Chinese and U.S. findings, we do not mean to imply that our data can be generalized to other areas or other groups in the respective countries. For example, ethnicity is a crucial factor in American society, one that children are aware of and influenced by from an early age, and has been included as one key demographic variable in most research, in one form or another. However, the majority of China, including the city from which we drew our sample, is relatively homogeneous with 92% of the population being Han and the majority of other ethnicities residing in specific parts of the country. In this study, we did test whether ethnicity plays a role in the expression of gratitude within the U.S. sample and found no ethnic differences, suggesting some levels of robustness in this regard. Further research is needed to study the same issues along other dimensions of society such as socioeconomic status, region of the country, and rural–urban differences.

Despite the limitations, this current study is among the few to examine age-related changes in both wishes and gratitude among children and young adolescents in two societies. Our results highlighted that 7- to 14-year-olds express different types of gratitude and that their expression varies with age. Both similarities and differences were found between the Chinese sample and the U.S. sample. Results from the U.S. sample were consistent with our hypotheses and previous studies (Baumgarten-Tramer, 1938; Freitas et al., 2011), whereas results from the Chinese sample revealed some distinctive patterns. More importantly, we are interested in connective gratitude and its possible inverse connections with hedonism. As materialism becomes pervasive in our societies, especially among the younger generation, it is crucial to search for means to reduce it. Encouraging and facilitating the development of connective gratitude could be one of the possible solutions. Our finding of an inverse relationship between hedonistic wishes (as a proxy for materialistic values) and connective gratitude in the U.S. sample provides preliminary support for this hypothesis and emphasizes the need to consider the cultural meanings of and contextual factors that may influence these constructs.

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