Routledge
Taylor & Francis Group

The Journal of Positive Psychology

Dedicated to furthering research and promoting good practice

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rpos20

Growing up happy: Longitudinal relations between children's happiness and their social and academic functioning

Yanwen Yu, Xinyin Chen, Dan Li, Jungsheng Liu & Fan Yang

To cite this article: Yanwen Yu, Xinyin Chen, Dan Li, Jungsheng Liu & Fan Yang (2022): Growing up happy: Longitudinal relations between children's happiness and their social and academic functioning, The Journal of Positive Psychology, DOI: 10.1080/17439760.2022.2093783

To link to this article: https://doi.org/10.1080/17439760.2022.2093783

THE JOURNAL OF POSITIVE PSYCHOLOGY
https://doi.org/10.1080/17439760.2022.2093783

Routledge
Taylor & Francis Group

Growing up happy: Longitudinal relations between children's happiness and their social and academic functioning

Yanwen Yu[a], Xinyin Chen[b], Dan Li[c], Jungsheng Liu[d] and Fan Yang[a]

[a]Department of Psychology, The University of Chicago, Chicago, Illinoism, USA; [b]Graduate School of Education, University of Pennsylvania, Philadelphia, Pennsylvania, USA; [c]Department of Psychology, Shang Hai Normal University, Shanghai, China; [d]School of Psychology and Cognitive Science, East China Normal University, Shanghai, China

ABSTRACT

Happiness is valued as one of the most important goals in raising children, but what factors make children happy? Inspired by philosophical conceptions of 'eudaimonia' in life, we investigated how children's social and academic functioning, including prosocial behaviors, peer preference, and academic achievement, may be related to happiness, over and above desire satisfaction. Participants included 2,144 children (initial ages of 9 and 10 years) in China. Two waves of longitudinal data were collected from multiple sources including self-reports, peer evaluations, and school records. Cross-lagged panel analysis indicated that prosocial behaviors, peer preference, and academic achievement predicted children's self-reported happiness over a year, controlling for desire satisfaction. Bidirectional relations were found between peer-assessed happiness and prosocial behaviors, peer preference, and academic achievement. The results suggest that children's happiness is linked to their social and academic functioning from middle childhood, contributing to a better understanding of the nature and development of happiness.

ARTICLE HISTORY
Received 27 June 2021
Accepted 5 June 2022

KEYWORDS
Happiness; prosocial behavior; peer preference; academic achievement; desire satisfaction; children

As one of the most desirable things for human beings in the world, happiness is valued by parents as the most important goal in raising children in modern societies (Stearns, 2019). But what makes children happy? An internet search with keywords like 'how to raise happy children' yields a great many similar questions from parents as well as numerous advice, ranging from recommendations on satisfying simple desires (e.g., arrange more outdoor playtime) to cultivating virtuous behaviors (e.g., foster self-discipline). The recommendations are mostly based on what we (as adults) think would make children happy immediately or in the long run, rather than research from children's point of view about their own happiness. Researchers in developmental psychology has studied various important adjustment outcomes in childhood, such as children's social and academic functioning (e.g., Arnold et al., 2012; for review, see, Duncan et al., 2007; Juvonen, 2006), but little attention has been paid to how these developmental aspects are linked to an intrinsic good in life – happiness. Some traditional views hold that compared to adults, children are relatively positive and optimistic (e.g., Lefkowitz & Burton, 1978; Rholes et al., 1980), and children aged six to twelve report very high levels of positive affect (which decreases with age, Thoilliez, 2011). Therefore, by implication, happiness seems to become an important question only later in life. In contrast to the lack of happiness research in childhood, philosophical and educational views have long emphasized the intrinsic value of happiness in childhood and its significance for human flourishing – happiness has even been considered as the 'final purpose of education' (Altarejos, 1983; Gilead, 2012; Naval & Altarejos, 2000; Rousseau, 1905). Empirical evidence has also shown that children who are *not* happy due to maladaptive parenting or environmental issues have adjustment problems both concurrently and later in life (e.g., Logan et al., 2009; Mychailyszyn et al., 2010; Staudt, 2001). Therefore, to gain a deeper understanding of happiness and its relations with human functioning, it is important to study happiness and its predictors relatively early in life. Our paper examines how key aspects of children's social and academic functioning are related to their happiness using a longitudinal developmental approach.

Philosophers and psychologists have engaged in substantial debates about how to conceptualize and attain happiness in life. On the one hand, happiness is often equated with hedonic pleasure, conceptualized and measured as the presence of more positive affect than

CONTACT Fan Yang fan.yang@uchicago.edu

The data that support the findings of this study are available from the corresponding author, [FY], upon reasonable request.

Supplemental data for this article can be accessed online at https://doi.org/10.1080/17439760.2022.2093783.

negative affect (Diener, 2000; Kahneman et al., 1999; Kubovy, 1999). Based on this view, to achieve happiness is to satisfy one's needs and desires, an emotional mechanism that even toddlers understand (e.g., Wellman, 1992). On the other hand, philosophers dating back to Aristotle have proposed an eudaimonic view of happiness, that true and lasting happiness is not only about pleasures and desire satisfaction, but is found in 'eudaimonia' – the expression of virtue and the realization of potential. This view has also been embraced by some psychologists (Delle Fave et al., 2011; Ryan & Deci, 2001). Among adults, characteristics associated with expressions of eudaimonia, such as prosocial behaviors (e.g., Dunn et al., 2008), intellectual pursuits and achievement (e.g., Judge et al., 2010; Walker et al., 2012), and social relationship (Demir et al., 2007), have been found to be associated with happiness in adulthood. But the developmental origins of these relations remain unclear: Do they only exist among adults, or are similar relations present even in childhood? A related question is whether happiness plays a role in predicting the development of social and intellectual abilities. Motivated by these questions, we examined the bidirectional relations between happiness and children's social and academic functioning (i.e., prosocial behaviors, peer preference, and academic achievement) in a two-wave longitudinal study.

Most existing research on how happiness is related to social and intellectual functioning has been conducted among adults, and the findings suggest that the relations may be bidirectional. On the one hand, consistent with the theoretical view that people are rewarded with 'warm-glow' feelings by performing prosocial behaviors (e.g., Andreoni, 1990; Taufik et al., 2015), adults feel happier after acting to benefit others (Aknin et al., 2013, 2015, 2018; Dunn et al., 2014; Otake et al., 2006; Rowland & Curry, 2019; Rudd et al., 2014). Daily moral acts predict gains in momentary happiness relative to baseline (Hofmann et al., 2014). In addition to moral behaviors, social relationships (e.g., with friends, romantic partners, families, coworkers) have been found to be one of the most reliable and strongest predictors of happiness and wellbeing among adults (e.g., Delle Fave et al., 2011; Demir et al., 2007; Dush & Amato, 2005; Simon et al., 2010). In terms of intellectual functioning, doing well on cognitive tasks, having higher education levels, and obtaining career success are associated with happiness among adults (Abele et al., 2016; Nikolaev, 2018; Nix et al., 1999).

Happiness has also been found to affect social and intellectual characteristics and behaviors. In terms of morality, people with induced positive affective states (e.g., receiving a cookie) have been found to be more likely to help others (Isen & Levin, 1972), and Aknin, Dunn et al. (2012) demonstrated a positive feedback loop between prosocial spending and happiness. Moreover, happiness predicts satisfaction in romantic or marital relationships longitudinally, and people are more willing to befriend and offer support to those who exhibit positive outlooks (see, Lyubomirsky et al., 2005 for a review. Happiness has also been found to contribute to creativity and problem-solving (Boehm & Lyubomirsky, 2008; Lyubomirsky et al., 2005). Unhappy individuals are more likely than happy individuals to ruminate about unfavorable achievement feedback, and hence show hindered performance in academic tasks (Lyubomirsky et al., 2011). Taken together, research with adults suggests that happiness is not only predicted by social and intellectual factors, but it may also facilitate and influence the display and presence of these factors.

Much less research has been conducted to examine how social and intellectual factors promote happiness in children. On the one hand, it is possible that children's happiness may be more influenced by hedonic experiences and simple desire satisfactions than by social and intellectual factors. Research on lay theories of happiness suggests that under age 12, children tend to view happiness as simple pleasures from doing desirable activities; it is not until adolescence and adulthood do people appreciate happiness as related to factors such as social relationships and personal growth (Giacomoni et al., 2014; López-Pérez et al., 2016). Children aged between six and twelve frequently mentioned academic achievement and good behaviors as what teachers and parents value the most in them, but they are much less likely to view academic achievement and moral behaviors as sources of happiness for themselves (Thoilliez, 2011). Children's view of happiness may be a reflection of their actual subjective experiences during this period, before they develop higher needs for self-actualization and autonomy during adolescence (e.g., López-Pérez et al., 2016; Schwartz et al., 2013; Zimmer-Gembeck et al., 2004). If this is the case, it may suggest that to derive happiness from social and intellectual factors, certain cognitive abilities (e.g., recognition of the intrinsic value of these factors; abstract thinking about happiness and life), psychological needs (e.g., needs for self-actualization and self-transcendence), or relevant social expectations (e.g., being socially expected to actualize and transcend oneself) may have to be available and firmly in place.

On the other hand, existing theories and some empirical findings suggest the possibility that social and intellectual factors may be related to happiness

even relatively early in life. According to the Self Determination Theory (e.g., Ryan & Deci, 2017), factors such as prosocial behaviors, social relationships and intellectual achievement are rooted in basic psychological needs of autonomy, relatedness, and competence, which are intrinsically rewarding and essential to human functioning and wellbeing. The basic forms of these fundamental psychological needs are present even in infancy, and the satisfaction of these needs give rise to subjective experiences and psychological wellbeing throughout life (Dweck, 2017). If social and intellectual factors help satisfy basic psychological needs, then they should predict greater happiness early in life, even if children may not explicitly conceptualize happiness as about these factors yet.

Empirically, developmental research on emotions has mainly focused on negative emotions and their links with developmental problems. For example, children who are aggressive (acting in ways that are disruptive or hurt other people) tend to have internalizing emotional problems such as anxiety and depression (Chen et al., 2012; Holt & Espelage, 2007). Children who have poor peer relationships (e.g., socially rejected by others, lack of friendship) tend to have a range of negative emotions such as depression, loneliness and sadness (e.g., Boivin et al., 1994; Nangle et al., 2003). Academic problems have been found to be associated with negative emotions such as anxiety and decreased liking of school (Løhre et al., 2010; also see, Valiente et al., 2012 for a review). These findings suggest that moral, social and academic problems may lead to negative emotions. But being happy means more than the absence of negative emotions and may involve characteristics beyond the absence of developmental problems (Seligman & Csikszentmihalyi, 2000). The limited findings on children's happiness showing that children display happier facial expressions after acting prosocially to benefit others (compared to receiving treats themselves; Aknin et al., 2015, Aknin, Hamlin et al., 2012; Song et al., 2020). Behaving badly to peers and having negative peer relations are associated with lower levels of happiness (Holder & Coleman, 2009). Test-related positive emotions like joy and relief are positively correlated with school-age children' academic interest and achievement (Pekrun et al., 2004). These studies are either correlational in nature, or are about momentary happiness based on lab manipulations. More direct research is needed to shed light on whether social and intellectual factors predict long-term happiness among children.

Even less is known about whether happiness may predict the development of social and intellectual functioning among children. It is conceivable that such effects may exist due to the social and cognitive functions of positive emotions. In terms of social functions, it has been proposed that emotions can send communicative signals, help solve problems by evoking responses from others, and provide incentives for desired social behaviors (Keltner, 2003). Happiness (especially displayed happiness) may send positive signals to others, conveying friendliness and the enjoyment of social relationships and academic work, which may help evoke positive responses and support from others and motivate prosocial behaviors. If peers (and adults like teachers and parents) recognize and respond positively to displayed happiness, happiness (especially displayed happiness perceived by others) may affect children's moral, social and achievement development. There is some evidence that displayed happiness indeed evokes positive responses among children (Strayer, 1980). In terms of cognitive functions, the broaden-and-build theory (Fredrickson, 1998, 2001) states that positive emotions expand individuals' horizons, motivate people to explore, and facilitate the acquisition of intellectual skills. If similar effects apply to children, it predicts that children who feel happier may also perform better academically. Fifth-grade students who report higher wellbeing have been found to be more likely to get higher grades (Quinn & Duckworth, 2007). Therefore, the social and cognitive functions of positive emotions reviewed above predict that happiness may facilitate social and academic functioning in a long-term manner. Empirical research is needed to examine whether happiness indeed facilitates children's social and academic functioning and whether the relations are consistent or different for self-report happiness and displayed happiness.

The primary purpose of the present study was to examine how social and academic functioning, including prosocial behaviors, peer preference, and academic achievement, may be related to happiness in childhood from a longitudinal perspective. We examined both their concurrent relations and potential bidirectional relations in a large longitudinal sample. Given that children tend to view happiness as about desire satisfactions (Giacomoni et al., 2014; López-Pérez et al., 2016), we measured and included children's perceived desire satisfaction in our models as a major covariate. Based on existing theories and findings on positive emotions, we hypothesized that prosocial behaviors, peer preference, and academic achievement may promote happiness among children over and above desire satisfaction, and happiness (especially displayed happiness) may promote the development of these factors too. Methodologically, most existing research on happiness has been conducted correlationally and using self-report measures, leaving much to be known regarding our

sense of happiness beyond self-report effects. We collected data from multiple sources including peer nominations and school records in this study. The longitudinal design of our project allowed us to examine how social and academic factors are related with happiness in a potentially bidirectional manner. We believe that our study could bridge perspectives and approaches from positive psychology and developmental psychology, contributing to a better understanding of the nature, development, and consequences of happiness as a valued positive emotion in childhood.

Method

Participants

Participants in the original study were 2,144 third and fourth grade students in a region consisting mostly of towns and small cities in South China (48.4% were boys). The children were mostly 9–10 years old. Most children were from families with low to middle socioeconomic status backgrounds. The students were from 10 classes in 5 regular public elementary schools, with approximately 50 students in each class. Stipulated by the Ministry of Education in China, the core curriculum is identical in the region. The structure of the schools are also similar. Students are usually not allowed to switch classes. One head teacher is designated to each class, who often teaches one major course and takes care of the daily activities of the class. Students spend roughly the same amount of time under similar school schedules. They are encouraged to participate in various extracurricular social and academic activities, which provide extensive opportunities for students to interact with each other and help them to know each other and establish close relationships.

From the original sample, 1966 students (92%) participated in a follow up study one year later. No significant differences were found on the variables and relations of interest between students who participated in all waves and those who did not.

Procedure

The data were collected each time near the end of the school year (May and June). During the study, we group administered to the students' peer assessment measures of happiness and prosocial behaviors and a sociometric measure of peer preference. The students also completed self-report measures of happiness and desire satisfaction. In addition, school grades were obtained from school records. The same data were collected in the follow-up study 1 year later. The administration of the measures was conducted by a group of psychology faculty and graduate students in China. Extensive explanations were provided to participants during the collection of data. No evidence was found to suggest that children in the samples had difficulties in understanding the measures or procedures. At each time, we invited all students in our targeted grades to participate, with participation rates hovering around 95%. Written consent was obtained from all children and their parents through the school.

Measures

Happiness

Happiness was measured by both self-reports and peer evaluations, two of the most common methods in the study of happiness in adults. To develop the self-report measure, we sampled a number of established surveys for children and adults, and adopted/modified the items that have the most face validity of measuring subjective feelings of happiness (e.g., *'I am very happy'* in the Oxford Happiness Scale, Hills & Argyle, 2002; 'In general, I consider myself not a very happy person versus a very happy person' in the Subjective Happiness Scale, Lyubomirsky & Lepper, 1999), while making sure the wordings are short and easy to understand for our age group. The self-report measure contains three face-valid items: '*I am satisfied with my current life*,' '*I live a happy life*,' '*I feel happy in my life*'. Students were requested to respond to the items using a 5-point scale, ranging from 1 (*not at all true*) to 5 (*always true*). Internal reliabilities of the measure (Cronbach's α) were .68 and .72 at Times 1 and 2, respectively, in the present study. The scores for the three items were averaged to form a global measure of self-reported happiness.

The peer-assessment measure was conducted using an item from the *Revised Class Play* (*RCP*, Masten et al., 1985). During administration, students were asked to nominate up to three peers in their own class who could best play the role if they were to direct a class play. The item for happiness is '*Someone who is usually very happy*'. Peer-assessed happiness is a measure of observed displayed happiness, which has been used along with self-report measures in adults (Lyubomirsky & Tucker, 1998; Sandvik et al., 1993). The limited studies on school age children show that peer nominations of happiness, anger, and sadness expressions were significantly associated with teacher ratings of these emotions (Kwon et al., 2020; Schultz et al., 2004), although the correlations were generally small in magnitude. Nominations received from all students were used to calculate the item score for each participant. The scores were standardized within the class at each wave to

adjust for differences in the number of nominators. Test-retest reliability of the measure in a separate sample (N = 132) with an interval of 2 weeks was .58.

Desire satisfaction

Desire satisfaction was measured through one face-valid self-report item on a 5-point scale, '*I have everything I want in life*.' Asking or stating what a person wants is a common way to assess children's understanding of desire satisfaction (e.g., Ferres, 2003; Wellman, 1992). Similar to the other measures, the score for each student was standardized by calculating the z-score across the sample.

Prosocial behavior

Prosocial behavior was assessed by a peer evaluation measure adopted from the *RCP* (Masten et al., 1985). There were three items (i.e., '*Someone who is kind to others*,' '*Someone who is willing to help others when they need it*,' '*Someone who you can trust*'). Being helpful, kind, and trustworthy are central aspects of our moral foundations (e.g., Haidt & Kesebir, 2010), and peer nominations of prosocial behaviors typically focus on assessments of these characteristics (e.g., Crick, 1997; Marucci et al., 2020; Sahdra et al., 2015). The measure has been shown to be reliable and valid in previous studies (e.g., Chen et al., 2000; Chung-Hall & Chen, 2010, 2010; Sahdra et al., 2015). At each wave, the item scores were standardized within the class and aggregated to form a variable of prosocial behavior. Internal reliabilities (Cronbach's α) were .84 and .84 at Times 1 and 2, respectively. The measure has been used in previous studies with Chinese children (e.g., Chen et al., 2010).

Peer preference

Students were asked to nominate up to three classmates within the class with whom they most liked to be and three classmates with whom they least liked to be (positive and negative nominations). This measure has been used and validated in previous studies (e.g., Ojanen & Nostrand, 2014; Jin et al., 2021; for a review, see, Cillessen & Marks, 2017). The measure reflects how much a child is liked by peers, and it is an important aspect of peer relationships in school. The nominations received from all classmates were totaled and then standardized by classroom to permit appropriate comparisons. As suggested by other researchers (e.g., J. Coie et al., 1995), cross-gender nominations were allowed. The positive and negative nominations received from peers provided indexes of peer preference and peer rejection, respectively. Following the J. D. Coie et al. (1982) procedure, an index of peer preference, which indicates how well an individual is liked by peers in the classroom, was formed by subtracting negative nomination scores from positive nomination scores and was used in the analyses. The procedure has been used in Chinese children (e.g., Chen et al., 2005).

Academic achievement

Information concerning academic achievement in Chinese, mathematics, and English was obtained from the school records. Academic achievement scores were based on examinations conducted by the school. Chinese, mathematics, and English were the three major subjects that were common in Chinese schools. Scores on the subjects were significantly correlated (rs ranging from .58-.71, ps < .001) and were summed and standardized within the class to form a single index of academic achievement. The measure based on grades in the subjects has been used in other studies with Chinese students, and it is a measure reflecting academic and intellectual functioning in school age children (Chen et al., 2005, 2013). The internal reliabilities of academic achievement were .82 and .87 at Times 1 and 2, respectively, in the present study.

Analysis and results

We calculated descriptive statistics and conducted a repeated measures analysis of variance to test the effects of gender and grade. Intercorrelations of the variables were then calculated for each year. Next, we conducted cross-lagged panel analyses, a strategy commonly used to examine reciprocal relations or directional influences between variables over time (Allen, 2017). The analyses were conducted separately for each of the three variables (i.e., prosocial behavior, peer preference, and academic achievement) and for self-reported happiness and peer-assessed happiness. *Six* models were tested in total. In each model, we examined the cross-lagged relations among one social or academic functioning variable, happiness, and desire satisfaction, controlling for the stability of these variables. We did not have specific hypotheses about gender or grade differences for the models, and these variables were included as covariates in all the models. We conducted gender invariance tests for each of the six cross-lagged models (see supplemental materials for full results). We present the results for the analyses as follows.

Descriptive data

The means and standard deviations are shown in Table 1 by gender and year. Children's average self-reported happiness is around point 4 on a scale of 0–5, which means

Table 1. Means and standard deviations of study variables by gender.

	Time 1 (N = 2144)		Time 2 (N = 1966)		
Variables	Boys	Girls	Boys	Girls	F value for gender
1. Prosocial behavior	−0.59 (1.60)	0.60 (3.18)	−0.49 (1.79)	0.57 (3.15)	108.99[a]
2. Academic achievement	−0.17 (0.91)	0.17 (0.82)	−0.16 (0.86)	0.15 (0.82)	37.30[a]
3. Peer preference	−0.11 (1.55)	0.12 (1.48)	−0.10 (1.55)	0.14 (1.54)	14.43[a]
4. Desire satisfaction	3.00 (1.39)	3.21 (1.32)	3.13 (1.32)	3.33 (1.27)	15.93[a]
5. Self-report happiness	3.98 (0.81)	4.11 (0.75)	4.07 (0.82)	4.13 (0.75)	8.53**
6. Peer-assessed happiness	−0.13 (0.80)	0.14 (1.14)	−0.11 (0.83)	0.13 (1.13)	41.81[a]

[a]$p < .001$, ** $p < .01$, * $p < .05$.

that the average happiness level was high ($Mean_{Time1}$ = 4.0, SD_{Time1} = .78, $Mean_{Time2}$ = 4.1, SD_{Time2} = .79). A repeated measures analysis of variance was conducted for each variable to test the effects of gender and grade. A significant effect of gender was found: Girls had higher scores on prosocial behavior, F (1, 1954) = 108.99, $p < .001$, academic achievement, F (1, 904) = 37.30, $p < .001$, peer preference, F (1, 1954) = 28.78, $p < .001$, and desire satisfaction, F (1, 1838) = 15.93, $p < .001$. Girls also had higher scores on self-reported happiness, F (1, 1794) = 8.53, $p < .01$, and peer-assessed happiness, F (1, 1954) = 41.81, $p < .001$. No significant effects of grade or gender by grade interaction were found.

The intercorrelations among the variables are shown in Table 2. The magnitudes of the correlations are from small to moderate (for self-report happiness: 0.15–0.32 at Time 1 and 0.12–0.36 at Time 2; for peer-assessed happiness: 0.08–0.63 at Time 1 and 0.06–0.52 at Time 2), suggesting that the variables were related but tapped into different aspects of children's life. All three eudaimonic factors were correlated with both self-reported happiness and peer-assessed happiness.

Cross-lagged panel analysis

We conducted structural equation modeling using R 3.6.2 (R Core Team, 2019). All variables were standardized so that they had the same scales before entering into the models. Full information maximum likelihood was used to handle the missing data. A 1,000-sample bootstrap test was used to calculate the standard errors. We first examined baseline stability models including only autoregressive paths (M0) and then examined models with additional cross-lagged paths. The model comparison results are shown in Table 3.

Cross-lagged models for self-reported happiness

The measurements of each variable at Time 1 in all models predicted the corresponding variables at Time 2, indicating stabilities of these factors. Overall, gender and grade generally did not predict social and academic functioning. Desire satisfaction positively predicted self-reported happiness, and self-reported happiness also predicted desire satisfaction over a year, suggesting hedonic aspects in children's life were related to their overall happiness. Importantly, prosocial behavior (β = .045, $p < .05$, SE = .018, 95% CI = [.008, .080], R^2 = .16), peer-preference (β = .056, $p < .05$, SE = .025, 95% CI = [.008, .103], R^2 = .16), and academic achievement (β = .085, $p < .05$, SE = .04, 95% CI = [.006, .166], R^2 = .14) all predicted increased happiness reported by the students in one year, over and above desire satisfaction. Self-reported happiness predicted peer-preference as well (β = .043, $p < .05$, SE = .018, 95% CI = [.007, .079], R^2 = .41). The effect sizes (as indicated by standardized beta) for our results are reasonable considering the longitudinal nature of data (.043 ~ .161, Adachi & Willoughby, 2015). Results for these major cross-lagged paths can be seen in Figure 1, and full results for all paths are presented in Table 4. The results suggest that self-reported happiness is predicted by prosocial behavior, peer preference, and academic achievement, over and above levels of desire satisfaction.

Cross-lagged models for peer-assessed happiness

The measurements of each variable in Time 1 predict the corresponding variables in Time 2, indicating good stability of these factors. Similar to the results for self-reported happiness, gender and grade in general did not predict social and academic functioning. Desire satisfaction was predicted by peer-assessed happiness but did not predict peer-assessed happiness. Prosocial behavior, peer preference, and academic achievement had positive feedback loops with peer assessed happiness, over and above desire satisfaction. Prosocial behavior (β = .256, $p < .001$, SE = .037, 95% CI = [.186, .329], R^2 = .39), peer preference (β = .066, $p < .05$, SE = .028, 95% CI = [.009, .117], R^2 = .36), and academic achievement (β = .129, $p < .001$, SE = .026, 95% CI = [.079, .180], R^2 = .38) positively predicted later peer-assessed happiness. On the other hand, peer-assessed happiness also positively predicted prosocial behavior (β = .086, $p < .01$, SE = .031, 95% CI = [.027,

Table 2. Means, standard deviations, sample sizes and intercorrelations for all variables.

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1. PB-T1	1.00													
2. PB-T2	0.76***	1.00												
3. AA-T1	0.37***	0.36***	1.00											
4. AA-T2	0.35***	0.37***	0.72***	1.00										
5. PP-T1	0.44***	0.40***	0.37***	0.36***	1.00									
6. PP-T2	0.36***	0.51***	0.37***	0.37***	0.64***	1.00								
7. SRH-T1	0.15***	0.12***	0.22***	0.18***	0.13***	0.12***	1.00							
8. SRH-T2	0.10***	0.11***	0.17***	0.16***	0.10***	0.12***	0.39***	1.00						
9. PAH-T1	0.66***	0.55***	0.30***	0.30***	0.35***	0.33***	0.14***	0.11***	1.00					
10. PAH-T2	0.54***	0.66***	0.28***	0.32***	0.27***	0.29***	0.14***	0.16***.	0.60***	1.00				
11. DS-T1	0.07**	0.04***	0.06*	0.07*	0.04	0.02	0.32***	0.18***	0.08***	0.05*	1.00			
12. DS-T2	0.05*	0.05***	0.09***	0.10**	−0.01	0.01	0.22***	0.37***	0.07**	0.06**	0.28***	1.00		
13. Gender	0.23***	0.20***	0.19***	0.18***	0.08***	0.08***	0.08***	0.05*	0.14***	0.12***	0.08***	0.08***	1.00	
14. Grade	0.00	0.00	0.00	0.00	0.00	0.00	−0.04+	−0.01	0.00	−0.01	0.04+	−0.02	−0.03	1.00
Mean	0.007	0.059	0.001	−0.008	0.004	0.022	4.047	4.093	0.003	0.014	3.104	3.236	-	-
SD	2.592	2.638	0.880	0.851	1.515	1.548	0.869	0.839	0.993	1.004	1.359	1.301	-	-
Sample Size	2144	1962	1650	1116	2144	1962	2102	1910	2144	1962	2047	1912	2118	2123

Note. PB, prosocial behavior; AA, academic achievement; PP, peer preference; SRH, self-report happiness; PAH, peer-assessed happiness; DS, desire satisfaction; T1, measurement time 1; T2, measurement time 2. *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .01$.

Table 3. Fit indices and model comparisons for cross-lagged panel regression models.

Happiness Variable	Eudaimonia Variable	Model	AIC	RMSEA	SRMRCFI	Model Comparison	Δχ2	Δdf
Self-report Happiness	Prosocial behavior	M0	37,638	0.082	0.055 0.938	M1-M0	49.702[a]	6
		M1	32,601	0.099	0.047 0.954			
	Academic achievement	M0	14,888	0.075	0.060 0.947	M1-M0	34.608[a]	6
		M1	14,865	0.073	0.041 0.975			
	Peer preference	M0	38,291	0.059	0.038 0.956	M1-M0	62.411[a]	6
		M1	38,292	0.050	0.024 0.984			
Peer-assessed Happiness	Prosocial behavior	M0	36,424	0.107	0.068 0.936	M1-M0	181.510[a]	6
		M1	36,254	0.097	0.052 0.974			
	Academic achievement	M0	15,811	0.083	0.065 0.943	M1-M0	44.672[a]	6
		M1	15,778	0.080	0.050 0.974			
	Peer preference	M0	38,270	0.064	0.042 0.959	M1-M0	62.099[a]	6
		M1	38,220	0.062	0.031 0.981			

[a]$p < .001$, ** $p < .01$, * $p < .05$, + p < .01.

.146], R^2 = .57), peer preference (β = .115, $p < .001$, *SE* = .023, 95% *CI* = [.069, .157], R^2 = .42), and academic achievement (β = .083, $p < .001$, *SE* = .018, 95% *CI* = [.050, .119], R^2 = .52) after a year. The effect sizes for our results are reasonable (.066 ~ .256, Adachi & Willoughby, 2015). Results for these major paths are presented in Figure 2, and full results for all paths are presented in Table 5. The results suggest that happiness as assessed by peers is reciprocally related to prosocial behavior, peer preference, and academic achievement.

General discussion

Our study examined bidirectional relations between happiness and children's social and academic functioning from a longitudinal developmental perspective. We found that prosocial behaviors, peer preference, and academic achievement predicted higher levels of self-reported and peer-assessed happiness over time, over and above desire satisfaction. Peer-assessed happiness also predicted children's prosocial behaviors, peer preference, and academic achievement over time. The findings suggest that happiness is positively predicted by and predicts the development of social and academic functioning in a reciprocal fashion.

Developmental researchers have studied extensive aspects of children's social and academic functioning (e.g., Arnold et al., 2012; see, Duncan et al., 2007; Juvonen, 2006 for reviews), but little attention has been paid to how these aspects are linked to happiness. Despite that happiness in childhood has been theorized as intrinsically valuable and having implications for developing adaptive outcomes (Altarejos, 1983; Gilead, 2012; Naval & Altarejos, 2000; Rousseau, 1905), most existing research on happiness has focused on concurrent correlates in adults. Our findings help integrate developmental and positive psychology approaches to the understanding of happiness in childhood.

Happiness has been conceptualized as hedonic psychological states derived from pleasures and desire satisfactions (Diener, 1984, Kahneman et al., 1999; Kubovy, 1999). The results of the present study suggest that desire satisfaction does not fully account for children's feelings of happiness. These results are interesting considering children's lay theories of happiness. It has been found that children under age 12 tend to view their own happiness as about simple pleasures from doing desirable activities and that it is not until adolescence do people appreciate happiness as related to factors such as social relationships and personal growth (Giacomoni et al., 2014; López-Pérez et al., 2016). Inconsistent with these findings, our results indicate that although relative to adults, children may be less likely to have certain cognitive abilities (e.g., abstract thinking about happiness and life) and advanced psychological needs (e.g., needs for self-actualization and self-transcendence) and less likely to explicitly conceptualize happiness as 'eudaimonia', children's happiness are predicted by social and intellectual factors (as adults are). This raises an interesting possibility that perhaps understanding happiness as eudaimonia may be a consequence rather than an antecedent for children to derive happiness from social and intellectual factors. It is still possible that when children develop the more sophisticated view of happiness as eudaimonia, their identification with that view may lead to higher happiness through relevant conscious goal pursuits. It will be fruitful to systematically study the social cognitive mechanisms through which children's lay theories of happiness are related to their feelings of happiness in life.

Multiple mechanisms may exist for how prosocial behaviors, social relationships, and achievement give rise to happiness in childhood. It is possible that these social and academic factors help satisfy basic psychological needs of autonomy, relatedness, and competence, which are theorized to be intrinsically rewarding and essential to human functioning from early in life

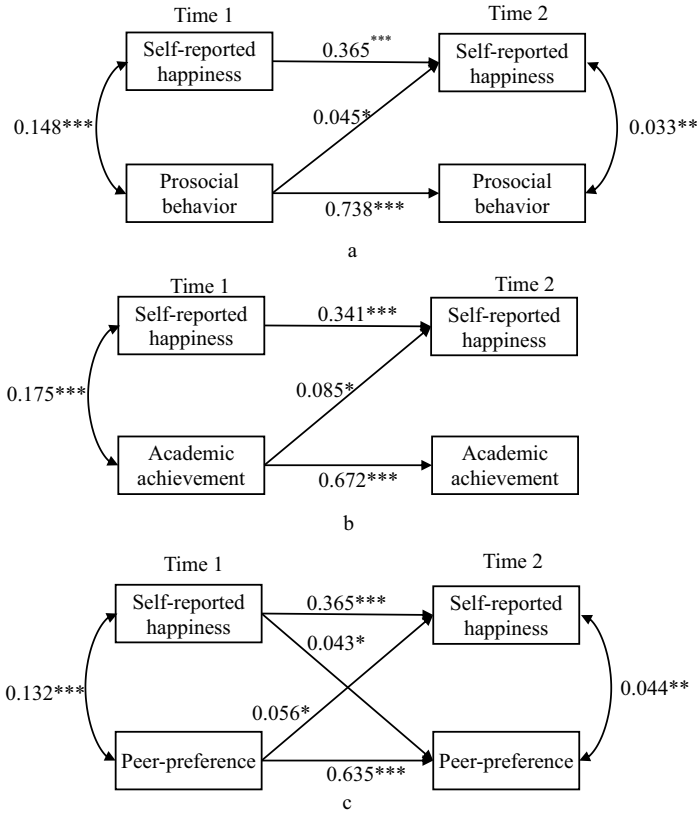

Figure 1. Cross-lagged relationship between self-report happiness and a) prosocial behavior, (b) peer preference, and (c) academic achievement. Note: Results are standardized beta coefficients for all stability and cross-lagged paths, controlling for desire satisfaction, gender, and grade in all models (results for the controlled variables are presented in Table 4). *** $p < .001$, ** $p < .01$, * $p < .05$.

(Dweck, 2017; Ryan & Deci, 2017). Pursuing eudaimonic goals (e.g., seeking to develop competence and excellence) have been found to predict positive affect among adolescents (Jia et al., 2021). It is possible that children who have better social and academic functioning may be more able to meet basic psychological needs on a regular basis, leading to a greater sense of overall happiness in life. From this perspective, a high level of social and academic functioning represents a valuable resource for the development of happiness in childhood.

In addition to satisfying our basic psychological needs, pursuing intellectual and social activities may give rise to moments of intensified subjective feelings, which may lead to higher perceived overall happiness over time. For example, when individuals are immersed in exercising skills or doing social activities that match their abilities, they may experience the intense positive feelings of 'flow' (e.g., Czikszentmihalyi, 1990). Individuals may also experience 'warm glow' when behaving prosocially to benefit others, as supported by some experimental studies with children (Aknin et al., 2015; Aknin, Hamlin et al., 2012; song et al., 2020). These boosts of momentary happiness are usually elicited only by actively performing prosocial and learning activities, rather than by passively receiving benefits or pleasures to satisfy simple desires. It is possible that children who have good social and intellectual functioning are more likely to experience warm-glow and flow in their social and academic activities, and these boosts of momentary positive feelings may lead to perceptions of heightened overall happiness in life.

Happiness is intrinsically valuable and an end in itself, but our findings suggest that being happy may also have the additional value of predicting enhancement in social and academic functioning. Self-reported happiness predicted higher peer preference, and peer-assessed happiness predicted higher levels of prosocial behaviors, peer-preference, and academic performance one year later, controlling for the stability of these factors, desire satisfaction, gender, and grade. It is interesting that peer-assessed happiness was more strongly associated with social and academic functioning than self-reported happiness. Methodologically, peer-assessed happiness may largely reflect children's happiness in the school setting, which may be related to how they perform socially and academically at school. The discrepancy may also indicate the unique social function of displayed happiness compared to self-report happiness. According to the 'social functional account of emotion' (e.g., Keltner, 2003; Keltner & Kring,

Table 4. Overview of the standardized stability and cross-lagged coefficients of self-reported happiness.

Variable	Model	Autoregressive path	β	SE	Cross-lagged path	β	SE
Prosocial behavior	M0	PRO.T1→PRO.T2	.738***	.027			
		REP.T1→REP.T2	.365***	.028			
		DES.T1→DES.T2	.253***	.023			
	M1	PRO.T1→PRO.T2	.365***	.028	PRO.T1→ REP.T2	.045***	.018
		REP.T1→ REP.T2	.738***	.029	REP.T1→PRO.T2	.014	.015
		DES.T1→DES.T2	.232***	.025	DES.T1→ REP.T2	.066**	.024
					DES.T1→PRO.T2	−.014	.016
					PRO.T1→DES.T2	.004	.019
					REP.T1→DES.T2	.136***	.027
					GEN.T1→ REP.T2	.016	.045
					GRA.T1→ REP.T2	.002	.044
					GEN.T1→PRO.T2	.053^{+}	.028
					GRA.T1→PRO.T2	.007	.029
					GEN.T1→DES.T2	.098*	.047
					GRA.T1→DES.T2	−.056	.042
Peer preference	M0	PEER.T1→PEER.T2	.637***	.027			
		REP.T1→REP.T2	.353**	.027			
		DES.T1→DES.T2	.252***	.022			
	M1	PEER.T1→PEER.T2	.635***	.028	PEER.T1→ REP.T2	.056*	.025
		REP.T1→REP.T2	.365***	.027	REP.T1→PEER.T2	.043*	.018
		DES.T1→DES.T2	.231***	.025	DEST1→REP.T2	.067**	.024
					DEST1→PEER.T2	−.012	.018
					PEER.T1→DES.T2	−.040^{+}	.023
					REP.T1→DES.T2	.142***	.027
					GEN.T1→REP.T2	.028	.045
					GRA.T1→REP.T2	.002	.043
					GEN.T1→PEER.T2	.057^{+}	.034
					GRA.T2→PEER.T2	.007	.035
					GEN.T1→DES.T2	.107*	.045
					GRA.T1→DES.T2	−.055	.043
Academic achieve-ment	M0	ACH.T1→ACH.T2	.671***	.030			
		REP.T1→ REP.T2	.322***	.041			
		DES.T1→DES.T2	.251***	.034			
	M1	ACH.T1→ACH.T2	.672**	.047	ACH.T1→ REP.T2	.085*	.040
		REP.T1→ REP.T2	.341***	.031	REP.T1→ACH.T2	.010	.026
		DES.T1→DES.T2	.218***	.037	DES.T1→ REP.T2	.054	.038
					DES.T1→ACH.T2	.-.002	.024
					ACH.T1→DES.T2	.081*	.038
					REP.T1→DES.T2	.161***	.041
					GEN.T1→ REP.T2	.094	.068
					GRA.T1→ REP.T2	−.013	.069
					GEN.T1→ACH.T2	.107*	.048
					GRA.T2→ACH.T2	−.038	.048
					GEN.T1→DES.T2	.092	.069
					GRA.T1→DES.T2	−.079	.069

Note. PRO, prosocial behavior; ACH, academic achievement; PEER, peer preference; REP, self-report happiness; ASSE, peer-assessed happiness; DES, desire satisfaction; GEN, gender; GRA, grade. T1, measurement time 1; T2, measurement time 2. *** $p < .001$, ** $p < .01$, * $p < .05$, $^{+}$ $p < .01$.

1998), the experience and expression of emotions may send communicative signals about the senders, evoke relevant responses from others to solve problems, and provide social incentives for desired behaviors (Keltner, 2003). Expressions of happiness inform others about one's friendliness and motivates interactive behaviors that enable individuals to form social bonds, which may lead to cumulative, long-term social benefits (Frijda & Mesquita, 1994; Keltner & Kring, 1998). It has been found that children's displays of happiness are frequently and positively responded to by their peers (Strayer, 1980). Children's expressions of happiness may thus convey enjoyment of social relationships and academic work, which evokes and reinforces positive responses and support from others. It is important to compare children's self-reported feelings of happiness and expressed happiness observed by peers more systematically in future research. From a practical perspective, our findings suggest that educators, parents, and professionals should help children display positive emotions in school settings to promote their social and academic functioning.

It has been found that the relations between objective outcomes and happiness among adults are moderated by specific cultural values (e.g., Li et al., 2021), and it will be helpful to view our findings in relation to the cultural context too. In individualistic cultures, happiness is often viewed as a construct that is individual-oriented, self-determined and something that can be pursued explicitly (Joshanloo, 2014; Lu & Gilmour, 2004). In contrast, in collectivistic cultures, happiness is viewed more as socially oriented and as a construct that emphasizes social role obligation and mental harmony. Therefore,

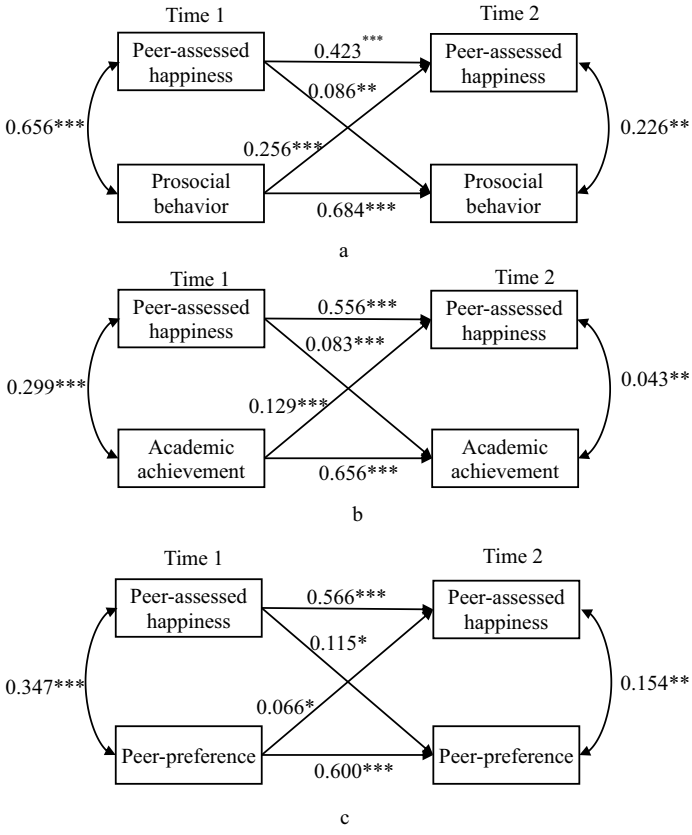

Figure 2. Cross-lagged relationship between peer-assessed happiness and a) prosocial behavior, (b) peer preference, and (c) academic achievement. Note: Results are standardized beta coefficients for all stability and cross-lagged paths, controlling for desire satisfaction, gender, and grade in all models (results for the controlled variables are presented in Table 5). *** $p < .001$, ** $p < .01$, * $p < .05$.

social and moral functioning may have a stronger relation with happiness for children in collectivistic cultures than for children in individualistic cultures. At the same time, children's academic achievement is strongly emphasized in Chinese society (Chen et al., 2013; Yang et al., 2014), which may lead to a stronger relation with happiness than in societies where academic achievement is less emphasized (e.g., Spain, Thoilliez, 2011). That being said, in both individualistic and collectivistic contexts, happiness and subjective well-being are construed to be related to interpersonal bonds (Delle Fave et al., 2011; Kim et al., 2018) and personal achievement (Uchida & Ogihara, 2012) among adults, although it remains to be investigated to what extent these values and beliefs are shared by children in western societies. To better understand the role of cultural values in the development of happiness, it will be informative to study if eudaimonic values held by children across different cultures would moderate the relations between social and intellectual characteristics and happiness.

There are some limitations in the measures and approaches in our study. The study focused on the relations between children's happiness and their social and academic functioning. We did not examine specific mechanisms underlying the relations. For example, moral behaviors in early childhood have been found to positively impact academic achievement in adolescence (Caprara et al., 2000), and academic achievement has significant effects on Chinese students' social and psychological functioning (Chen et al., 1997, 2013; Yang et al., 2014). Thus, it is possible that prosocial behaviors predict happiness not only directly, but also through academic achievement and peer relationships. Future studies should examine the indirect, mediated, and moderated effects of social and achievement factors on happiness. In addition, the data in this study were drawn from a larger longitudinal project in which relatively short measures of self-report happiness and desire satisfaction were used because of the time constraint. Whereas the measures we used have face validity and are consistent with the conceptualizations of the constructs in the literature (e.g., Hills & Argyle, 2002; Lyubomirsky & Lepper, 1999), it will be important to further examine the validity of these measures in future research.

Hedonia and eudaimonia are two major issues in happiness research among adults. Eudaimonia is conceptualized as living well or actualizing one's potentials (e.g., Deci &

Table 5. Overview of the standardized stability and cross-lagged coefficients of peer-assessed happiness.

Variable	Model	Autoregressive path	β	SE	Cross-lagged path	β	SE
Prosocial behavior	M0	PRO.T1→PRO.T2	.674***	.030			
		ASSE.T1→ASSE.T2	.539***	.003			
		DES.T1→DES.T2	.276***	.023			
	M1	PRO.T1→PRO.T2	.684***	.035	PRO.T1→ ASSE.T2	.256***	.037
		ASSE.T1→ASSE.T2	.423***	.036	ASSE.T1→PRO.T2	.086**	.031
		DES.T1→DES.T2	.273***	.023	DES.T1→ ASSE.T2	.000	.017
					DES.T1→PRO.T2	−.012	.015
					PRO.T1→DES.T2	−.013	.027
					ASSE.T1→DES.T2	.050^{+}	.028
					GEN.T1→ASSE.T2	.007	.035
					GRA.T1→ASSE.T2	−.016	.035
					GEN.T1→PRO.T2	.057^{+}	.030
					GRA.T1→PRO.T2	.006	.030
					GEN.T1→DES.T2	.106*	.046
					GRA.T1→DES.T2	−.063	.045
Peer preference	M0	PEER.T1→PEER.T2	.624***	.027			
		ASSE.T1→ASSE.T2	.560***	.029			
		DES.T1→DES.T2	.275***	.023			
	M1	PEER.T1→PEER.T2	.600***	.029	PEER.T1→ASSE.T2	.066*	.028
		ASSE.T1→ASSE.T2	.566***	.031	ASSE.T1→PEER.T2	.115***	.023
		DES.T1→DES.T2	.273***	.022	DEST1→ ASSE.T2	.001	.017
					DEST1→PEER.T2	−.006	.018
					PEER.T1→DES.T2	−.046^{+}	.025
					ASSE.T1→DES.T2	.057**	.022
					GEN.T1→ASSE.T2	.078*	.036
					GRA.T1→ASSE.T2	−.017	.036
					GEN.T1→PEER.T2	.035	.034
					GRA.T2→PEER.T2	.003	.034
					GEN.T1→DES.T2	.105*	.044
					GRA.T1→DES.T2	−.062	.044
Academic achieve-ment	M0	ACH.T1→ACH.T2	.671***	.031			
		ASSE.T1→ASSE.T2	.579***	.044			
		DES.T1→DES.T2	.278***	.034			
	M1	ACH.T1→ACH.T2	.656***	.032	ACH.T1→ ASSE.T2	.129***	.026
		ASSE.T1→ASSE.T2	.556***	.048	ASSE.T1→ACH.T2	.083***	.018
		DES.T1→DES.T2	.269***	.035	DES.T1→ASSE.T2	−.032	.026
					DES.T1→ACH.T2	.003	.022
					ACH.T1→DES.T2	.089*	.036
					ASSE.T1→DES.T2	.045	.029
					GEN.T1→ASSE.T2	.023	.052
					GRA.T1→ASSE.T2	−.036	.055
					GEN.T1→ACH.T2	.089*	.045
					GRA.T2→ACH.T2	−.010	.049
					GEN.T1→DES.T2	.087	.067
					GRA.T1→DES.T2	−.074	.064

Note. PRO, prosocial behavior; ACH, academic achievement; PEER, peer preference; REP, self-report happiness; ASSE, peer-assessed happiness; DES, desire satisfaction; GEN, gender; GRA, grade. T1, measurement time 1; T2, measurement time 2. *** $p < .001$, ** $p < .01$, * $p < .05$, $^{+}$ $p < .01$.

Ryan, 2008; Waterman, 1993). Among adults, some researchers have assessed the extent to which certain activities make people feel fulfilled as an indication of eudaimonic wellbeing (Waterman et al., 2008), whereas others have specified components that are believed to constitute eudaimonic well-being (e.g., environmental mastery, positive relations with others, personal growth; e.g., Ryff, 1989). To our best knowledge, there is no corresponding theorizing of eudaimonia and flourishing in childhood. The variables we examined, prosocial behaviors, peer preference, and academic achievement, represent key aspects of social and intellectual functioning in childhood. It will be important to examine if they are precursors of expressions of eudaimonia in adulthood. We hope the present study could help bring this perspective to the attention of developmental researchers.

Happiness is viewed as one of the most important child-rearing goals by parents in modern societies (Stearns, 2019). Our findings contribute to a better understanding of the nature of happiness and how to promote it during childhood. We found that social and academic functioning such as prosocial behaviors, academic achievement, and peer preference predicted higher levels of self-report and peer-assessed happiness over time, over and above desire satisfaction. Peer-assessed happiness also predicted higher levels of prosocial behaviors, academic achievement, and peer preference over time. Therefore, although happiness is often conceptualized as hedonic pleasures derived from desire satisfaction, our findings suggest that happiness is beyond hedonic satisfaction and is related with social and intellectual functioning in a relatively long-

term fashion even in childhood. In modern societies individuals are free to restlessly pursue the satisfactions of various desires, but our findings suggest that factors aligned with the notion of eudaimonia advocated by the ancient philosophers – cultivating virtues and realizing potentials – predict happiness in childhood.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

Abele A E, Hagmaier T and Spurk D. (2016). Does Career Success Make You Happy? The Mediating Role of Multiple Subjective Success Evaluations. J Happiness Stud, 17(4), 1615–1633. 10.1007/s10902-015-9662-4

Adachi, P., & Willoughby, T. (2015). Interpreting effect sizes when controlling for stability effects in longitudinal autoregressive models: Implications for psychological science. *European Journal of Developmental Psychology*, *12*(1), 116–128. https://doi.org/10.1080/17405629.2014.963549

Aknin, L. B., Hamlin, J. K., & Dunn, E. W. (2012). Giving leads to happiness in young children. *PLoS one*, *7*(6), e39211. https://doi.org/10.1371/journal.pone.0039211

Aknin, L. B., Dunn, E. W., & Norton, M. I. (2012). Happiness runs in a circular motion: Evidence for a positive feedback loop between prosocial spending and happiness. *Journal of Happiness Studies*, *13*(2), 347–355. https://doi.org/10.1007/s10902-011-9267-5

Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., Kemeza, I., Nyende, P., Ashton-James, C. E., & Norton, M. I. (2013). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology*, *104*(4), 635. https://doi.org/10.1037/a0031578

Aknin, L. B., Broesch, T., Hamlin, J. K., & Van de Vondervoort, J. W. (2015). Prosocial behavior leads to happiness in a small-scale rural society. *Journal of Experimental Psychology. General*, *144*(4), 788. https://doi.org/10.1037/xge0000082

Aknin, L. B., Van de Vondervoort, J. W., & Hamlin, J. K. (2018). Positive feelings reward and promote prosocial behavior. *Current Opinion in Psychology*, *20*, 55–59. https://doi.org/10.1016/j.copsyc.2017.08.017

Allen, M. (Ed.). (2017). *The SAGE encyclopedia of communication research methods*. SAGE Publications.

Altarejos, F. (1983). *Educación y felicidad*. Eunsa.

Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *The Economic Journal*, *100*(401), 464–477. https://doi.org/10.2307/2234133

Arnold, D. H., Kupersmidt, J. B., Voegler-Lee, M. E., & Marshall, N. A. (2012). The association between preschool children's social functioning and their emergent academic skills. *Early Childhood Research Quarterly*, *27*(3), 376–386. https://doi.org/10.1016/j.ecresq.2011.12.009

Boehm, J. K., & Lyubomirsky, S. (2008). Does happiness promote career success? *Journal of Career Assessment*, *16*(1), 101–116. https://doi.org/10.1177/1069072707308140

Boivin, M., Poulin, F., & Vitaro, F. (1994). Depressed mood and peer rejection in childhood. *Development and Psychopathology*, *6*(3), 483–498. https://doi.org/10.1017/S0954579400006064

Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science*, *11*(4), 302–306. https://doi.org/10.1111/1467-9280.00260

Chen, X., Rubin, K. H., & Li, D. (1997). Relation between academic achievement and social adjustment: Evidence from Chinese children. *Developmental Psychology*, *33*(3), 518. https://doi.org/10.1037/0012-1649.33.3.518

Chen, X., Li, D., Li, Z.-Y., Li, B.-S., & Liu, M. (2000). Sociable and prosocial dimensions of social competence in Chinese children: Common and unique contributions to social, academic, and psychological adjustment. *Developmental Psychology*, *36*(3), 302–314. https://doi.org/10.1037/0012-1649.36.3.302

Chen, X., Chang, L., He, Y., & Liu, H. (2005). The peer group as a context: Moderating effects on relations between maternal parenting and social and school adjustment in Chinese children. *Child Development*, *76*(2), 417–434. https://doi.org/10.1111/j.1467-8624.2005.00854.x

Chen, X., Huang, X., Chang, L., Wang, L., & Li, D. (2010). Aggression, social competence, and academic achievement in Chinese children: A 5-year longitudinal study. *Development and Psychopathology*, *22*(3), 583–592. https://doi.org/10.1017/S0954579410000295

Chen, X., Huang, X., Wang, L., & Chang, L. (2012). Aggression, peer relationships, and depression in Chinese children: A multiwave longitudinal study. *Journal of Child Psychology and Psychiatry*, *53*(12), 1233–1241. https://doi.org/10.1111/j.1469-7610.2012.02576.x

Chen, X., Yang, F., & Wang, L. (2013). Relations between shyness-sensitivity and internalizing problems in Chinese children: Moderating effects of academic achievement. *Journal of Abnormal Child Psychology*, *41*(5), 825–836. https://doi.org/10.1007/s10802-012-9708-6

Chung-Hall, J., & Chen, X. (2010). Aggressive and prosocial peer group functioning: Effects on children's social, school, and psychological adjustment. *Social Development*, *19*(4), 659–680. https://doi.org/10.1111/j.1467-9507.2009.00556.x

Cillessen, A. H., & Marks, P. E. (2017). Methodological choices in peer nomination research. *New Directions for Child and Adolescent Development*, *2017*(157), 21–44. https://doi.org/10.1002/cad.20206

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology*, *18*(4), 557. https://doi.org/10.1037/0012-1649.18.4.557

Coie, J., Terry, R., Lenox, K., Lochman, J., & Hyman, C. (1995). Childhood peer rejection and aggression as predictors of stable patterns of adolescent disorder. *Development and Psychopathology*, *7*(4), 697–713. https://doi.org/10.1017/S0954579400006799

Crick, N. R. (1997). Engagement in gender normative versus nonnormative forms of aggression: Links to social-psychological adjustment. *Developmental Psychology*, *33*(4), 610–617. https://doi.org/10.1037/0012-1649.33.4.610

Czikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, *9*(1), 1–11. https://doi.org/10.1007/s10902-006-9018-1

Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness: Qualitative and quantitative findings. *Social Indicators Research*, *100*(2), 185–207. https://doi.org/10.1007/s11205-010-9632-5

Demir, M., Özdemir, M., & Weitekamp, L. A. (2007). Looking to happy tomorrows with friends: Best and close friendships as they predict happiness. *Journal of Happiness Studies*, *8*(2), 243–271. https://doi.org/10.1007/s10902-006-9025-2

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34. https://doi.org/10.1037/0003-066X.55.1.34

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., … Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, *43*(6), 1428. https://doi.org/10.1037/0012-1649.43.6.1428

Dunn, E. W., Aknin, L. B., & Norton, M. I. (2008). Spending money on others promotes happiness. *Science*, *319*(5870), 1687–1688. https://doi.org/10.1126/science.1150952

Dunn, E. W., Aknin, L. B., & Norton, M. I. (2014). Prosocial spending and happiness: Using money to benefit others pays off. *Current Directions in Psychological Science*, *23*(1), 41–47. https://doi.org/10.1177/0963721413512503

Dush, C. M. K., & Amato, P. R. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships*, *22*(5), 607–627. https://doi.org/10.1177/0265407505056438

Dweck, C. S. (2017). From needs to goals and representations: Foundations for a unified theory of motivation, personality, and development. *Psychological Review*, *124*(6), 689. https://doi.org/10.1037/rev0000082

Ferres, L. A. (2003). Children's early theory of mind: Exploring the development of the concept of desire in monolingual Spanish children. *Developmental Science*, *6*(2), 159–165. https://doi.org/10.1111/1467-7687.00266

Fredrickson, B. L. (1998). Cultivated emotions: Parental socialization of positive emotions and self-conscious emotions. *Psychological Inquiry*, *9*(4), 279–281. https://doi.org/10.1207/s15327965pli0904_4

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218. https://doi.org/10.1037/0003-066X.56.3.218

Frijda, N. H., & Mesquita, B. (1994). The social roles and functions of emotions. In S. Kitayama & H. R. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 51–87). American Psychological Association. https://doi.org/10.1037/10152-002

Giacomoni, C. H., Souza, L. K. D., & Hutz, C. S. (2014). The concept of happiness in children. *Psico-USF*, *19*(1), 143–153. https://doi.org/10.1590/S1413-82712014000100014

Gilead, T. (2012). Rousseau, happiness, and the economic approach to education. *Educational Theory*, *62*(3), 267–285. https://doi.org/10.1111/j.1741-5446.2012.00446.x

Haidt, J., & Kesebir, S. (2010). Morality. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 797–832). John Wiley & Sons Inc. https://doi.org/10.1002/9780470561119.socpsy002022

Hills, P., & Argyle, M. (2002). The oxford happiness questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, *33*(7), 1073–1082. https://doi.org/10.1016/S0191-8869(01)00213-6

Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science*, *345*(6202), 1340–1343. https://doi.org/10.1126/science.1251560

Holder, M. D., & Coleman, B. (2009). The contribution of social relationships to children's happiness. *Journal of Happiness Studies*, *10*(3), 329–349. https://doi.org/10.1007/s10902-007-9083-0

Holt, M. K., & Espelage, D. L. (2007). Perceived social support among bullies, victims, and bully-victims. *Journal of Youth and Adolescence*, *36*(8), 984–994. https://doi.org/10.1007/s10964-006-9153-3

Isen, A. M., & Levin, P. F. (1972). Effect of feeling good on helping: Cookies and kindness. *Journal of Personality and Social Psychology*, *21*(3), 384. https://doi.org/10.1037/h0032317

Jia, N., Li, W., Zhang, L., & Kong, F. (2021). Beneficial effects of hedonic and eudaimonic motivations on subjective well-being in adolescents: A two-wave cross-lagged analysis. *The Journal of Positive Psychology*, . https://doi.org/10.1080/17439760.2021.1913641

Jin, G., Fu, R., Li, D., Chen, X., & Liu, J. (2021). Longitudinal associations between prosociality and depressive symptoms in Chinese children: The mediating role of peer preference. *Journal of Youth and Adolescence* *51*(5), 956–966. doi:10.1007/s10964-021-01501-4.

Joshanloo, M. (2014). Eastern conceptualizations of happiness: Fundamental differences with Western views. *Journal of Happiness Studies*, *15*(2), 475–493. https://doi.org/10.1007/s10902-013-9431-1

Judge, T. A., Ilies, R., & Dimotakis, N. (2010). Are health and happiness the product of wisdom? The relationship of general mental ability to educational and occupational attainment, health, and well-being. *Journal of Applied Psychology*, *95*(3), 454. https://doi.org/10.1037/a0019084

Juvonen, J. (2006). Sense of belonging, social bonds, and school functioning. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of Educational Psychology* (pp. 655–674). Erlbaum.

Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: Foundations of hedonic psychology*. Russell Sage Foundation.

Keltner, D., & Kring, A. M. (1998). Emotion, social function, and psychopathology. *Review of General Psychology*, *2*(3), 320–342. https://doi.org/10.1037/1089-2680.2.3.320

Keltner, D. (2003). Expression and the course of life: Studies of emotion, personality, and psychopathology from a social-functional perspective. *Annals of the New York Academy of Sciences*, *1000*(1), 222–243. https://doi.org/10.1196/annals.1280.011

Kim, H., Schimmack, U., Oishi, S., & Tsutsui, Y. (2018). Extraversion and life satisfaction: A cross-cultural examination of student and nationally representative samples. *Journal of Personality*, *86*(4), 604–618. https://doi.org/10.1111/jopy.12339

Kubovy, M. (1999). On the pleasures of the mind. In Kahneman, E, Diener, E, Schwarz, N eds., Well-being: the foundations of hedonic psychology. New York: Russell Sage Foundation. 134–154.

Kwon, K., Teer, J. E., Maurice, S. A., & Matejka, C. M. (2020). Self-report of emotional experience and peer nominations of expressivity: Predictability of change in teacher-rated social behavior. *Social Development*, *29*(3), 837–853. https://doi.org/10.1111/sode.12429

Lefkowitz, M. M., & Burton, N. (1978). Childhood depression: A critique of the concept. *Psychological Bulletin*, *85*(4), 716–726. https://doi.org/10.1037/0033-2909.85.4.716

Li, C., Zuckerman, M., & Diener, E. (2021). Culture moderates the relation between gender inequality and well-being. *Psychological Science*, *32*(6), 823–835. https://doi.org/10.1177/0956797620972492

Logan, D. E., Simons, L. E., & Kaczynski, K. J. (2009). School functioning in adolescents with chronic pain: The role of depressive symptoms in school impairment. *Journal of Pediatric Psychology*, *34*(8), 882–892. https://doi.org/10.1093/jpepsy/jsn143

Løhre, A., Lydersen, S., & Vatten, L. J. (2010). School wellbeing among children in grades 1-10. *BMC Public Health*, *10*(1), 1–7. https://doi.org/10.1186/1471-2458-10-526

López-Pérez, B., Sánchez, J., & Gummerum, M. (2016). Children's and adolescents' conceptions of happiness. *Journal of Happiness Studies*, *17*(6), 2431–2455. https://doi.org/10.1007/s10902-015-9701-1

Lu, L., & Gilmour, R. (2004). Culture and conceptions of happiness: Individual oriented and social oriented SWB. *Journal of Happiness Studies*, *5*(3), 269–291. https://doi.org/10.1007/s10902-004-8789-5

Lyubomirsky, S., & Tucker, K. L. (1998). Implications of individual differences in subjective happiness for perceiving, interpreting, and thinking about life events. *Motivation and Emotion*, *22*(2), 155–186. https://doi.org/10.1023/A:1021396422190

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, *46*(2), 137–155. https://doi.org/10.1023/A:1006824100041

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803. https://doi.org/10.1037/0033-2909.131.6.803

Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2011). Becoming happier takes both a will and a proper way: An experimental longitudinal intervention to boost well-being. *Emotion*, *11*(2), 391. https://doi.org/10.1037/a0022575

Marucci, E., Oldenburg, B., Barrera, D., Cillessen, A. H. N., Hendrickx, M., & Veenstra, R. (2020). Haloand association effects: Cognitive biases in teacher attunement to peer-nominated bullies, victims, and prosocial students. *Social Development*, *30*(1), 187–204. https://doi.org/10.1111/sode.12455

Masten, A. S., Morison, P., & Pellegrini, D. S. (1985). A revised class play method of peer assessment. *Developmental Psychology*, *21*(3), 523–533. https://doi.org/10.1037/0012-1649.21.3.523

Mychailyszyn, M. P., Méndez, J. L., & Kendall, P. C. (2010). School functioning in youth with and without anxiety disorders: Comparisons by diagnosis and comorbidity. *School Psychology Review*, *39*(1), 106–121. https://doi.org/10.1080/02796015.2010.12087793

Nangle, D. W., Erdley, C. A., Newman, J. E., Mason, C. A., & Carpenter, E. M. (2003). Popularity, friendship quantity, and friendship quality: Interactive influences on children's loneliness and depression. *Journal of Clinical Child and Adolescent Psychology*, *32*(4), 546–555. https://doi.org/10.1207/S15374424JCCP3204_7

Naval, C., & Altarejos, F. (2000). *Filosofía de la educación*. EUNSA.

Nikolaev, B. (2018). Does higher education increase hedonic and eudaimonic happiness? *Journal of Happiness Studies*, *19*(2), 483–504. doi:10.1007/s10902-016-9833-y.

Nix, G., Ryan, R. M., Manly, J. B., & Deci, E. L. (1999). Revitalization through self-regulation: The effects of autonomous versus controlled motivation on happiness and vitality. *Journal of Experimental Social Psychology*, *35*(3), 266–284. https://doi.org/10.1006/jesp.1999.1382

Ojanen, T., & Nostrand, F. V. (2014). Social goals, aggression, peer preference, and popularity: Longitudinal links during middle school. *Developmental Psychology*, *50*(8), 2134. https://doi.org/10.1037/a0037137

Otake, K., Shimai, S., Tanaka-Matsumi, J., Otsui, K., & Fredrickson, B. L. (2006). Happy people become happier through kindness: A counting kindnesses intervention. *Journal of Happiness Studies*, *7*(3), 361–375. https://doi.org/10.1007/s10902-005-3650-z

Pekrun, R., Goetz, T., Perry, R. P., Kramer, K., Hochstadt, M., & Molfenter, S. (2004). Beyond test anxiety: Development and validation of the test emotions questionnaire (TEQ). *Anxiety, Stress, and Coping*, *17*(3), 287–316. https://doi.org/10.1080/10615800412331303847

Quinn, P. D., & Duckworth, A. L. (2007). Happiness and academic achievement: Evidence for reciprocal causality. *The Annual Meeting of the American Psychological Society*, *24* (27.5), .

R Core Team. (2019). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/

Rholes, W. S., Blackwell, J., Jordan, C., & Walters, C. (1980). A developmental study of learned helplessness. *Developmental Psychology*, *16*(6), 616. https://doi.org/10.1037/0012-1649.16.6.616

Rousseau, J. J. (1905). *Émile: Or, treatise on education*. Appleton.

Rowland, L., & Curry, O. S. (2019). A range of kindness activities boost happiness. *The Journal of Social Psychology*, *159*(3), 340–343. https://doi.org/10.1080/00224545.2018.1469461

Rudd, M., Aaker, J., & Norton, M. I. (2014). Getting the most out of giving: Concretely framing a prosocial goal maximizes happiness. *Journal of Experimental Social Psychology*, *54*, 11–24. https://doi.org/10.1016/j.jesp.2014.04.002

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*(1), 141–166. https://doi.org/10.1146/annurev.psych.52.1.141

Ryan, R. M., & Deci, E. L. (2017). *Self-Determination Theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069. https://doi.org/10.1037/0022-3514.57.6.1069

Sahdra, B. K., Ciarrochi, J., Parker, P. D., Marshall, S., & Heaven, P. (2015). Empathy and nonattachment independently predict peer nominations of prosocial behavior of adolescents. *Frontiers in Psychology*, *6*, 263. https://doi.org/10.3389/fpsyg.2015.00263

Sandvik, E., Diener, E., & Seidlitz, L. (1993). *Journal of Personality*, 61 (3), 317–342. https://doi.org/10.1111/j.1467-6494.1993.tb00283.x.

Schultz, D., Izard, C. E., & Bear, G. G. (2004). Emotionality, emotion information processing, and aggression. *Development and Psychopathology*, *16*(2), 371–387. https://doi.org/10.1017/S0954579404044566

Schwartz, S. J., Donnellan, M. B., Ravert, R. D., Luyckx, K., & Zamboanga, B. L. (2013). Identity development, personality, and well-being in adolescence and emerging adulthood: Theory, research, and recent advances. In R. M. Lerner, M. A. Easterbrooks, J. Mistry, & I. B. Weiner (Eds.), *Handbook of psychology: Developmental psychology* (pp. 339–364). John Wiley & Sons, Inc.

Seligman, M. E., & Csikszentmihalyi, M. (2000). Flow and the foundations of positive psychology. *American Psychologist*, 55(1), 5–14. doi:10.1037/0003-066X.55.1.5.

Simon, L. S., Judge, T. A., & Halvorsen-Ganepola, M. D. (2010). In good company? A multi-study, multi-level investigation of the effects of coworker relationships on employee well-being. *Journal of Vocational Behavior*, *76*(3), 534–546. https://doi.org/10.1016/j.jvb.2010.01.006

Song, Y., Broekhuizen, M. L., & Dubas, J. S. (2020). Happy little benefactor: Prosocial behaviors promote happiness in young children from two cultures. *Frontiers in Psychology*, *11*, 1398. https://doi.org/10.3389/fpsyg.2020.01398

Staudt, M. M. (2001). Psychopathology, peer relations, and school functioning of maltreated children: A literature review. *Children & Schools*, *23*(2), 85–100. https://doi.org/10.1093/cs/23.2.85

Stearns, P. N. (2019). Happy children: A modern emotional commitment. *Frontiers in Psychology*, *10*, 2025. https://doi.org/10.3389/fpsyg.2019.02025

Strayer, J. (1980). A naturalistic study of empathic behaviors and their relation to affective states and perspective-taking skills in preschool children. *Child Development*, *51*(3), 815–822. https://doi.org/10.2307/1129469

Taufik, D., Bolderdijk, J. W., & Steg, L. (2015). Acting green elicits a literal warm glow. *Nature Climate Change*, *5*(1), 37–40. https://doi.org/10.1038/nclimate2449

Thoilliez, B. (2011). How to grow up happy: An exploratory study on the meaning of happiness from children's voices. *Child Indicators Research*, *4*(2), 323–351. https://doi.org/10.1007/s12187-011-9107-5

Uchida, Y., & Ogihara, Y. (2012). Personal or interpersonal construal of happiness: A cultural psychological perspective. *International Journal of Wellbeing*, *2*(4), 354–369. doi:10.5502/ijw.v2.i4.5.

Valiente, C., Swanson, J., & Eisenberg, N. (2012). Linking students' emotions and academic achievement: When and why emotions matter. *Child Development Perspectives*, *6*(2), 129–135. https://doi.org/10.1111/j.1750-8606.2011.00192.x

Walker, C. O., Winn, T. D., & Lutjens, R. M. (2012). Examining relationships between academic and social achievement goals and routes to happiness. *Education Research International*, *2012*, 1–7. https://doi.org/10.1155/2012/643438

Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, *64*(4), 678. https://doi.org/10.1037/0022-3514.64.4.678

Waterman, A. S., Schwartz, S. J., & Conti, R. (2008). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies*, *9*(1), 41–79. https://doi.org/10.1007/s10902-006-9020-7

Wellman, H. M. (1992). *The child's theory of mind*. The MIT Press.

Yang, F., Chen, X., & Wang, L. (2014). Relations between aggression and adjustment in Chinese children: Moderating effects of academic achievement. *Journal of Clinical Child & Adolescent Psychology*, *43*(4), 656–669. https://doi.org/10.1080/15374416.2013.782816

Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2004). A prospective study of intraindividual and peer influences on adolescents' heterosexual romantic and sexual behavior. *Archives of Sexual Behavior*, *33*(4), 381–394. https://doi.org/10.1023/B:ASEB.0000028891.16654.2c