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## Why Most Children Think Well of Themselves

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This research aimed to examine whether and why children hold favorable self-conceptions (total  $N = 882$  Dutch children, ages 8–12). Surveys (Studies 1–2) showed that children report strongly favorable self-conceptions. For example, when describing themselves on an open-ended measure, children mainly provided positive self-conceptions—about four times more than neutral self-conceptions, and about 11 times more than negative self-conceptions. Experiments (Studies 3–4) demonstrated that children report favorable self-conceptions, in part, to live up to social norms idealizing such self-conceptions, and to avoid seeing or presenting themselves negatively. These findings advance understanding of the developing self-concept and its valence: In middle and late childhood, children's self-conceptions are robustly favorable and influenced by both external (social norms) and internal (self-motives) forces.

How favorably do children think of themselves, especially in middle and late childhood? What shapes the valence of their self-conceptions? Scholars have argued that many children think highly of themselves, both in Western and Eastern cultures (Cai, Kwan, & Sedikides, 2012; Gentile, Twenge, & Campbell, 2010; Ruble, Eisenberg, & Higgins, 1994; Sedikides, Gaertner, & Cai, 2015; Zhang, Pomerantz, Setoh, Qu, & Wang, 2016). Yet, scholars have also expressed concern that children's self-conceptions are often disingenuous: They may report favorable self-conceptions because they feel externally or internally pressured to do so (Brummelman, 2016; Damon, 1995; Hewitt, 1998; Twenge, 2014). Although it is desirable for children to think well of themselves, the concern is that imposed or exaggerated favorable self-conceptions are inauthentic, and might signal that children feel pressured to portray an idealized image of themselves or have difficulty accepting their imperfections (Thomaes, Sedikides, Van den Bos, Hutteman, & Reijntjes, 2017; Twenge, 2014). In four studies, we

examine the subjective valence of children's (ages 8–12) general self-conceptions (i.e., conceptions of their psychological attributes, behavioral dispositions, and competencies), and we test two potential determinants: (a) social norms that cast favorable self-conceptions as ideal standards to live up to, and (b) motives to maximize self-positivity (i.e., self-enhancement) and minimize self-negativity (i.e., self-protection).

### *Normative Development of Self-Conceptions in Childhood*

Between ages 2 and 4, children form rudimentary conceptions of their attributes, possessions, preferences, and abilities (Damon & Hart, 1982; Harter, 2012; Ruble & Dweck, 1995). These self-conceptions become more elaborate over the course of childhood and are shaped, in part, by cognitive maturation (Harter, 2012; Montemayor & Eisen, 1977). Early self-conceptions are marked by a positivity bias: Until about ages 6 or 7, children have

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unrealistic expectations of their future (“I will live in a palace”) and overestimate their abilities (“I am the best drawer in school”; Schneider, 1998; Thompson, 2006; Trzesniewski, Kinal, & Donnellan, 2010). Such self-conceptions do not necessarily reflect strategic attempts to make positive impressions on others; rather, they are mostly a result of cognitive limitations that characterize early childhood. For example, young children cannot reliably distinguish their ideal self (the person they want to be) from their actual self (the person they are), compare their competencies with those of others as a basis for self-conception, or incorporate others’ views of them into their self-conceptions (Bjorklund, 2007; Harter, 2012; Selman, 2003).

In middle to late childhood, however, a number of critical developments occur. From age 7 or 8, children come to realize that they are not the person they ideally would like to be, and they become able to incorporate interpersonal comparisons and others’ views of them into their self-conceptions (Harter, 2012). Also, they learn that they can possess positive and negative attributes simultaneously (“I am generally cheerful, but sometimes grumpy”). How do these developments influence children’s self-conception valence? One might expect that, with these acquired capacities, children would report more balanced, less positive self-conceptions—including both perfections and imperfections, both talents and inabilities. Is this indeed what the literature indicates?

#### *Valence of Children’s Self-Conceptions*

Two lines of research, involving samples of primary and early secondary school children from across the world, provide preliminary evidence that children’s self-conceptions remain predominantly favorable—even in middle to late childhood. One line of research asks children to describe their self-defining characteristics using structured, open-ended methods (e.g., by answering “Who am I?” questions). As judged by outside observers, most American and Chinese children aged 7–8 (Wang, 2004) and 11–13 (Zhang et al., 2016) describe their attributes, dispositions, and competencies in neutral to positive terms. However, this research does not address the *subjective* valence of children’s self-conceptions, that is, how children themselves judge the valence of their self-descriptive traits. It is possible that children perceive their traits less (or even more) favorably than observers do. For example, when they describe themselves as “calm,” they may regard this trait as negative, whereas an observer may regard it as positive.

Another line of research does assess the subjective valence of children’s self-conceptions, but focuses narrowly on self-perceived competence. Self-report questionnaires such as the Self-Perception Profile for Children (Harter, 1985), and the Self-Description Questionnaire 1 (Marsh, 1990) request children to rate their competence in several domains. Common response patterns on these questionnaires suggest that, in middle and late childhood, children evaluate their competencies favorably. Indeed, for most if not all competence domains, sample means of self-perceived competence scores are well above the neutral scale point (i.e., the scale point that implies equivalent levels of self-perceived competence and incompetence). Furthermore, children evaluate their own competencies more favorably than they evaluate those of others (Ruble, Groszsky, Frey, & Cohen, 1992; Ruble et al., 1994). However, this research is exclusively relevant to children’s self-perceived competence, and does not pertain to their broader self-perceived psychological attributes and behavioral dispositions—traits that are at the core of their self-conceptions.

#### *Origins of Children’s Favorable Self-Conceptions*

Although preliminary, the available evidence provides no indication that children’s newfound capacity to form grounded self-conceptions from middle childhood leads them to report proportional levels of self-positivity and self-negativity. The available evidence suggests, instead, that children this age continue to perceive their attributes, dispositions, and competencies more positively than negatively (Ruble et al., 1994; Zhang et al., 2016). Why so?

From middle childhood, children become increasingly concerned with how they are seen by others, and how they can create desired images of themselves (Banerjee, Bennett, & Luke, 2012; Harter, 2012; Rochat, 2009). They internalize social values and others’ expectations of them as self-guides—implicit standards to which they try to adhere (Higgins, 1991; Selman, 2003). Importantly, then, it is generally regarded as desirable or valuable for children to hold favorable self-conceptions: Children are frequently exposed to social norms (Cialdini & Trost, 1998; Sedikides et al., 2015) that convey it is ideal for them to think well of themselves. These norms are communicated through mass media emphasizing the importance of having high aspirations and being self-assured, parents’ efforts to help children think well of themselves, and educational practices in schools that seek to promote favorable

self-conceptions (Brummelman, Crocker, & Bushman, 2016; Brummelman, Thomaes, Orobio de Castro, Overbeek, & Bushman, 2014; Brummelman, Thomaes, & Sedikides, 2016; Hewitt, 1998; O'Mara, Marsh, Craven, & Debus, 2006; Twenge, 2014). If children seek to adhere to prevailing social norms, then they may be tempted to perceive and describe themselves as favorably as they can.

This begs the question to what extent the favorable self-conceptions that children report reflect their true self-conceptions. We propose that children may also report more favorable self-conceptions than they actually hold because of the internal drives or motives for self-enhancement (i.e., they want to maintain or increase self-positivity) and self-protection (i.e., they want to avoid or decrease self-negativity; Alicke & Sedikides, 2009; Ruble et al., 1994; Trzesniewski et al., 2010). Importantly, these self-motives are context dependent and may be temporarily overridden in situations that encourage children to report their self-conceptions truthfully. Hence, we ask two related questions. Will the self-enhancement motive be curtailed in contexts where children are encouraged to be honest, so that they tone down the positivity of their self-conceptions? Similarly, will the self-protection motive be curtailed in contexts where children are encouraged to be honest, so that they acknowledge the negativity of their self-conceptions?

### Overview

In middle to late childhood, children are cognitively able to form grounded views of themselves, yet the extant evidence suggests that they continue to view themselves positively. The present research builds on this evidence by exploring the favorability of children's self-conceptions via a systematic, multimethod approach. Moreover, this research contributes to the literature by testing the possibility that children report favorable self-conceptions to meet prevailing social norms and to satisfy their motives for self-enhancement and self-protection. We use survey (Studies 1–2) and experimental (Studies 3–4) research designs to test the overall hypothesis that children report favorable self-conceptions, which are driven, in part, by social norms and the self-enhancement/self-protection motives.

We tested children aged 8–12. At this age, children have acquired the cognitive capacities to distinguish their actual and ideal self, to incorporate social comparison and others' evaluations into their self-conceptions, to realize that they can have both

positive and negative attributes, and to internalize others' standards and expectations (Harter, 2012). We recruited participants from public primary schools in suburban and rural areas throughout The Netherlands. The schools served almost exclusively middle-class communities (note that income inequality in The Netherlands is relatively low; CIA World Factbook, 2016). Children from Dutch family origin were overrepresented in our combined sample (92%) compared to the general school population in The Netherlands (78%; Statistics Netherlands, 2016).

## Study 1

In Study 1, we provided the first direct test of the subjective valence of children's self-conceptions. Research indicates that children describe themselves in terms that others judge as positive (Wang, 2004; Zhang et al., 2016). Using a sentence-completion procedure, we tested the hypothesis that children *themselves* judge their self-descriptions to be positive as well.

### Method

#### Participants

Participants, mostly of Dutch family origin (94%), were 304 children (154 girls) recruited from five primary schools in The Netherlands. They ranged in age from 9 to 12 years ( $M = 10.8$ ,  $SD = 0.6$ ) and received active informed parental consent (84% of parents who received an information letter about the study provided their consent).

#### Procedure

Study 1 was conducted in spring 2012. Children completed a survey in their regular classrooms. As a variant to the *Twenty Statement Test* (Kuhn & McPartland, 1954), they were asked to complete a maximum of seven sentence stems that read "I see myself as someone who . . ." We offered seven (rather than 20) sentence stems, because our pilot research indicated that children rarely provide more than seven meaningful self-conceptions. Next, children self-coded the valence of each of their self-conceptions as *positive*, *neutral*, or *negative*. Although the main goal of Study 1 was to examine the subjective (i.e., self-coded) valence of children's self-conceptions, we also tested their objective (i.e., other-coded) valence. A trained independent coder

(a female psychology student), who was unaware of the hypotheses, coded the valence of children's self-conceptions (again as *positive*, *neutral*, or *negative* following coding criteria detailed in Zhang et al., 2016). A trained second coder (a female psychology graduate) independently coded a random selection of 20% of children's self-conceptions, with high agreement (Cohen's  $\kappa = .92$ ).

### Results

Children provided a total of 1,706 self-conceptions (by completing an average of just under six sentence stems;  $M = 5.61$ ,  $SD = 1.52$ ), of which they coded 1,534 in one of the valence categories (we coded the valence of the remaining self-conceptions as missing). There was moderate agreement between children's self-codings and the independent codings of self-conception valence (Cohen's  $\kappa = .44$ ).

Figure 1 presents the proportion of self-conceptions that children and the independent coder coded as positive, neutral, and negative. Children reported subjectively favorable self-conceptions. The proportion of self-conceptions that they considered to be positive was significantly higher than the proportion they considered to be neutral, paired  $t(303) = 21.56$ ,  $p < .001$ ,  $d = 1.24$ , or negative, paired  $t(303) = 33.96$ ,  $p < .001$ ,  $d = 1.95$ . In fact, their self-conceptions were about four times more likely to be subjectively positive than neutral, and about 11 times more likely to be subjectively positive than negative.

Furthermore, the objective valence of children's self-conceptions was positive as well. The proportion of self-conceptions that the coder considered to

be positive was significantly higher than the proportion she considered to be neutral, paired  $t(303) = 41.76$ ,  $p < .001$ ,  $d = 2.40$ , or negative, paired  $t(303) = 30.37$ ,  $p < .001$ ,  $d = 1.74$ .

### Discussion

Study 1 found that children provide self-conceptions that are predominantly favorable, both subjectively and objectively. This concurs with the view that most children think well of themselves. However, the fact that children generated their own self-conceptions leaves room for an alternative explanation. Because people recollect positive information more easily than negative information (Sedikides, Green, Saunders, Skowronski, & Zengel, 2016; Skowronski, 2011), it is possible that children reported favorable self-conceptions not because they hold them as such, but simply because positive conceptions were more cognitively accessible than negative ones. Study 2 addressed this possibility.

### Study 2

To rule out the accessibility explanation, in Study 2, children did not generate self-descriptive traits themselves. Rather, they were provided with a comprehensive list of trait adjectives, and indicated for each whether it was self-descriptive or not. About 1 week later, they rated the valence of each of the trait adjectives. We hypothesized that children consider their self-descriptive traits to be of positive valence, and more positive than their non-self-descriptive traits.

### Method

#### Participants

Participants, mostly of Dutch family origin (90%), were 376 children (204 girls) recruited from seven primary schools in The Netherlands. They ranged in age from 8 to 12 years ( $M = 10.6$ ,  $SD = 0.9$ ) and received active informed parental consent (82% of parents who received an information letter provided consent).

#### Procedure

Study 2 was conducted in spring and summer 2012. To create an item pool of trait adjectives, three research assistants (RAs; psychology students) selected all "adjectives children may use to describe

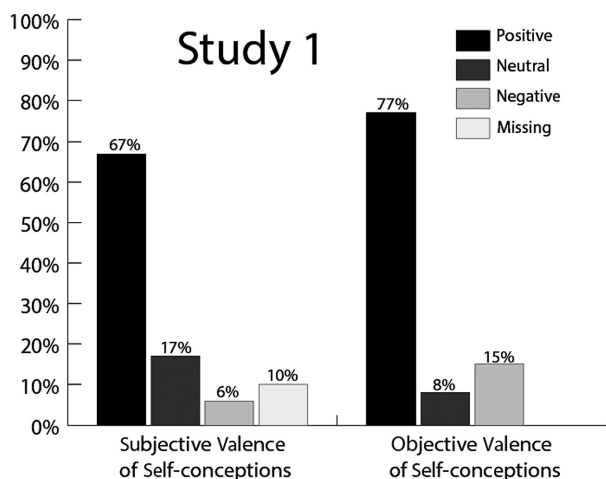


Figure 1. The proportion of self-conceptions ( $N = 1,706$ ) coded as "positive," "neutral," or "negative" by children themselves (i.e., subjective valence) and the independent coder (i.e., objective valence).

themselves" from a list of 15,000 words that Dutch children are expected to be able to use by the end of elementary school (Schrooten & Vermeer, 1994). Next, each RA independently selected 100 adjectives that they believed to be most commonly used by children this age, resulting in a pool of 183 adjectives that were mentioned by at least one RA. We excluded adjectives that described physical characteristics (e.g., *skinny*, *short*) or temporary states (e.g., *furious*, *down*). From pairs of synonyms, we retained

the most age-appropriate adjective (e.g., we removed *courageous* but retained *brave*). This procedure resulted in a pool of 79 trait adjectives that children may use to describe themselves (Table 1).

Children completed a survey in their regular classrooms on two separate days. On Day 1, they indicated for each of the 79 adjectives "whether or not this word describes you as a person" (0 = *no*, 1 = *yes*). We opted for a dichotomous response format to be able to directly compare the valence of

Table 1  
Descriptive Statistics for the Trait Adjectives in Study 2 (Adjectives Used in Studies 3 and 4 Are in Bold)

Adjective	Endorsed as self-descriptive (%)	Positivity rating <i>M</i> ( <i>SD</i> )	Adjective	Endorsed as self-descriptive (%)	Positivity rating <i>M</i> ( <i>SD</i> )
Cautious	64	2.11 (0.70)	<b>Funny</b>	73	2.51 (0.61)
<b>Caring</b>	79	2.46 (0.66)	Stubborn	39	1.01 (0.84)
Naughty	28	0.70 (0.68)	<b>Ungrateful</b>	5	0.28 (0.54)
<b>Uninterested</b>	15	0.43 (0.62)	<b>Hostile</b>	9	0.33 (0.65)
Modest	44	1.66 (0.88)	<b>Sensible</b>	89	2.55 (0.59)
<b>Boring</b>	7	0.50 (0.59)	Interesting	62	2.23 (0.68)
<b>Honest</b>	88	2.74 (0.51)	Different	32	1.83 (0.88)
Stubborn	22	0.53 (0.62)	Impatient	38	0.81 (0.69)
Quiet	29	1.24 (0.82)	Cute	33	1.87 (0.89)
<b>Athletic</b>	90	2.65 (0.62)	Tough	54	1.83 (0.92)
Chatty	77	2.10 (0.72)	Restless	24	0.99 (0.78)
<b>Grumpy</b>	8	0.30 (0.50)	Noisy	25	0.86 (0.78)
<b>Cowardly</b>	4	0.49 (0.63)	Serious	72	2.03 (0.86)
<b>Catty</b>	6	0.26 (0.48)	Awkward	7	0.99 (0.58)
<b>Satisfied</b>	92	2.66 (0.53)	<b>Adventurous</b>	81	2.46 (0.62)
Clumsy	21	0.95 (0.65)	Rowdy	36	0.99 (0.78)
<b>Brave</b>	78	2.44 (0.63)	Eager to learn	51	1.77 (0.94)
Hardworking	65	2.00 (0.94)	<b>Terrible</b>	2	0.28 (0.49)
<b>Envious</b>	11	0.54 (0.65)	<b>Annoying</b>	11	0.37 (0.61)
<b>Reliable</b>	95	2.80 (0.48)	<b>Bossy</b>	11	0.33 (0.57)
<b>Disobedient</b>	13	0.51 (0.59)	Normal	79	2.24 (0.77)
Distinctive	32	1.73 (0.86)	Spontaneous	72	2.16 (0.81)
<b>Outgoing</b>	95	2.81 (0.43)	Insecure	23	0.84 (0.71)
Dumb	6	0.79 (0.69)	<b>Smart</b>	83	2.47 (0.59)
<b>Cheeky</b>	22	0.47 (0.69)	<b>Confident</b>	78	2.51 (0.64)
<b>Polite</b>	88	2.46 (0.64)	Proud	78	2.34 (0.77)
<b>Cheerful</b>	97	2.82 (0.40)	<b>Sweet</b>	86	2.55 (0.63)
Sloppy	30	0.86 (0.66)	<b>Nice</b>	95	2.72 (0.50)
<b>Likable</b>	94	2.65 (0.53)	<b>Lying</b>	10	0.35 (0.57)
Childish	6	0.56 (0.63)	<b>Helpful</b>	93	2.68 (0.54)
Gloomy	4	0.53 (0.59)	Dreamy	31	1.13 (0.75)
Sensitive	49	1.54 (0.81)	Shy	24	1.17 (0.76)
Anxious	15	0.88 (0.72)	Careful	73	2.21 (0.72)
<b>Trustworthy</b>	86	2.53 (0.70)	Critical	43	1.43 (0.87)
Tidy	61	2.04 (0.75)	Fanatical	76	2.21 (0.79)
Relaxed	73	2.33 (0.68)	<b>Lazy</b>	12	0.52 (0.61)
<b>Stupid</b>	5	0.30 (0.51)	<b>Rude</b>	4	0.43 (0.59)
Easily angered	10	0.39 (0.60)	<b>Tiring</b>	7	0.27 (0.49)
<b>Enthusiastic</b>	89	2.50 (0.68)	<b>Mean</b>	4	0.17 (0.42)
Ordinary	26	1.13 (0.83)			



children's self-descriptive versus non-self-descriptive traits. On Day 2, 7–10 days later, children rated the subjective valence of each of the 79 adjectives (0 = *very negative*, 1 = *rather negative*, 2 = *rather positive*, 3 = *very positive*).

### Results

The trait adjectives pool contained approximately equal numbers of positively valenced adjectives (averaged across participants, 32 adjectives were rated between *rather positive* and *very positive*) and negatively valenced adjectives (averaged across participants, 34 adjectives were rated between *rather negative* and *very negative*). The remaining 13 adjectives were neutrally valenced. On the whole, children considered 45% of the trait adjectives to be self-descriptive ( $M_{\text{self-descriptive traits}} = 35.52$ ,  $SD = 5.95$ ).

Figure 2 presents the proportion of self-descriptive and non-self-descriptive traits that children rated in each of the valence categories. Children rated the valence of their self-descriptive traits ( $M = 2.25$ ,  $SD = 0.34$ ) more positively than the valence of their non-self-descriptive traits ( $M = 0.83$ ,  $SD = 0.29$ ),  $t(375) = 52.28$ ,  $p < .001$ ,  $d = 2.70$ . In fact, they rated their self-descriptive traits most frequently in the most positive valence category (i.e., *very positive*), and they did so significantly more frequently than in all other valence categories ( $ps < .001$ ). Conversely, children rated their non-self-descriptive traits most frequently in the most negative valence category (i.e., *very negative*), and they did so significantly more frequently than in all other valence categories ( $ps < .001$ ).

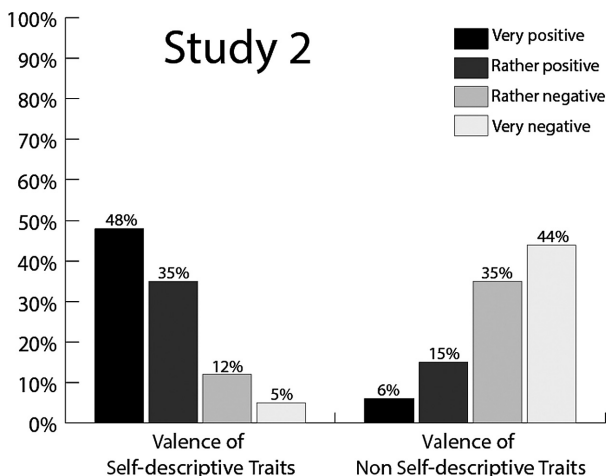


Figure 2. The proportion of self-descriptive and non-self-descriptive traits that children coded as "very positive," "rather positive," "rather negative," or "very negative."

### Discussion

Study 2 refutes the possibility that the subjective favorability of children's self-conceptions is merely a result of positive self-conceptions being more cognitively accessible. Even when children do not generate their self-descriptive traits, they rate their self-conceptions as overwhelmingly favorable. We designed Studies 3–4 to explore why.

### Study 3

In middle to late childhood, children possess the cognitive capacity prerequisite to forming grounded self-conceptions (Harter, 2012). Apparently, this does not keep them from reporting highly favorable self-conceptions. In Study 3, we took a first step in finding out why this is the case. We examined whether injunctive social norms—expressing the prevailing cultural view that casts favorable self-conceptions as ideal standard to live up to (Hewitt, 1998; Twenge, 2014)—encourage children to report favorable self-conceptions. Children read a fabricated news report describing scientific evidence that either confirmed or challenged this social norm, after which they reported their positive and negative self-conceptions. Reports of scientific evidence can be used effectively to temporarily override participants' intuitions about social norms and other psychological or societal phenomena (Brescoll & LaFrance, 2004; Yeager, Trzesniewski, & Dweck, 2013). If social norms influence children's self-conceptions, then children in the norm-confirming (vs. norm-challenging) condition will report more positive and less negative self-conceptions.

### Method

#### Participants

Participants were 101 children (58 girls), mostly (91%) of Dutch family origin, recruited from two primary schools in The Netherlands. They ranged in age from 9 to 12 years ( $M = 11.1$ ,  $SD = 0.7$ ) and received active informed parental consent (69% of parents who received an information letter provided consent).

#### Procedure

Study 3 was conducted in spring 2015. Children completed the experiment in their regular classrooms. We randomly assigned them, within their

classes, to the norm-confirming or norm-challenging condition. The experimenter (a female psychology student) explained the study procedures and asked children to carefully read the news report, allegedly taken from the new magazine *KidzNews*, which either confirmed or challenged the social norm idealizing favorable self-conceptions (Appendix). Immediately after, children reported their positive and negative self-conceptions on a 40-item measure. The measure included the 20 most positively rated ( $M = 2.60$ ,  $SD = 0.31$ ) and the 20 most negatively rated ( $M = 0.38$ ,  $SD = 0.30$ ) trait adjectives from the adjective pool of Study 2 (in bold in Table 1). Children rated the adjectives (0 = *does not describe me at all*, 4 = *describes me very well*; Cronbach's  $\alpha = .84$  and  $.87$  for positive and negative self-conceptions, respectively).

Next, children were thoroughly debriefed. The experimenter explained the study purposes ("we want to know how children your age think of themselves, and whether this depends on whether other people believe it is important for children to think well of themselves") and the reason why we used fabricated news reports. The experimenter also reminded children that their responses would remain confidential.

### Results

We conducted a 2 (trait adjective valence: positive vs. negative)  $\times$  2 (norm: norm-confirming vs. norm-challenging) mixed analysis of variance (ANOVA), with trait adjective valence as the within-subjects factor and norm as the between-subjects factor.

We present the means and standard deviations for positive and negative self-conceptions in Table 2. The trait adjective valence main effect was significant: Children rated positive traits as much

more self-descriptive than negative traits,  $F(1, 99) = 915.91$ ,  $p < .001$ ,  $d = 4.86$ , thus replicating the findings of Studies 1–2. More importantly, this main effect was qualified by the Trait Adjective Valence  $\times$  Norm interaction,  $F(1, 99) = 6.28$ ,  $p = .01$ ,  $d = 0.51$ . Children reported significantly more positive self-conceptions in the norm-confirming than in the norm-challenging condition,  $t(99) = 2.05$ ,  $p = .04$ ,  $d = 0.41$ , and they reported significantly less negative self-conceptions in the norm-confirming than in the norm-challenging condition,  $t(99) = 2.06$ ,  $p = .04$ ,  $d = 0.40$ .

### Discussion

Study 3 found evidence that social norms affect the favorability of children's self-conceptions. Specifically, children reported more positive and less negative self-conceptions when they were exposed to norms prescribing the desirability (vs. undesirability) of thinking well of oneself. Thus, external forces may influence the valence of children's self-conceptions—might internal forces do so too?

### Study 4

It is possible that children report favorable self-conceptions not only to adhere to social norms, but also to meet their own, internal motives to think well of themselves, or to present themselves positively. In particular, children's self-reports may be influenced by the self-enhancement and self-protection motives, such that they overstate their positive self-conceptions and understate their negative self-conceptions (Alicke & Sedikides, 2009; Trzesniewski et al., 2010). Research suggests that these motives are not only universal and persistent, but also

Table 2  
Means and Standard Deviations for the Positive and Negative Self-Conception Measures Used in Studies 3 and 4

(Sub)sample	Study 3		Study 4	
	Positive self-conceptions <i>M (SD)</i>	Negative self-conceptions <i>M (SD)</i>	Positive self-conceptions <i>M (SD)</i>	Negative self-conceptions <i>M (SD)</i>
Total sample	2.99 (0.42)	0.80 (0.48)	2.86 (0.41)	0.77 (0.45)
Norm-challenging condition	2.91 (0.39)	0.89 (0.51)	—	—
Norm-confirming condition	3.08 (0.43)	0.70 (0.43)	—	—
Bogus pipeline condition	—	—	2.86 (0.40)	0.93 (0.49)
Nonbogus pipeline condition	—	—	2.86 (0.42)	0.62 (0.35)

situationally determined (Sedikides & Strube, 1997). For example, they may be curtailed when children are encouraged to respond truthfully. In Study 4, we sought to create such a context by using the bogus pipeline procedure, a classic experimental approach to encourage participants to eschew self-motives and respond more truthfully. The procedure leads participants to believe they are monitored by an apparatus that reveals false or dishonest responses (Jones & Sigall, 1971; for a review, see Roese & Jamieson, 1993). We assigned children to the bogus pipeline or a control condition, and then assessed their positive and negative self-conceptions.

It is not clear whether encouraging truthful responding will impact more on self-enhancement or self-protection motives. If the procedure is particularly powerful at curtailing the self-enhancement motive, then children in the bogus pipeline (vs. control) condition will report less positive, but not necessarily more negative, self-conceptions. Alternatively, if the procedure is especially powerful at curtailing the self-protection motive, then children in the bogus pipeline (vs. control) condition will report more negative, but not necessarily more positive, self-conceptions.

### *Method*

#### *Participants*

Participants were 101 children (57 girls), mostly (93%) of Dutch family origin, recruited from four primary schools in The Netherlands. They ranged in age from 9 to 12 years ( $M = 11.1$ ,  $SD = 0.8$ ) and received active informed parental consent (73% of parents who received an information letter provided consent).

#### *Procedure*

Study 4 was conducted in spring 2015. We tested children individually in a quiet room at their school. We randomly assigned them to a bogus pipeline or control condition. Ensuring children's well-being during the experiment was a priority. We followed APA ethical guidelines for experiments with child participants that involve deception and a risk of emotional discomfort. The experimenter (a female psychology student) informed children of the study procedures, and explained that they were free to terminate participation at any time. She then asked children for their assent (one child did not provide assent). During the

experimental session, she monitored children for possible signs of discomfort (no such signs were observed).

In both conditions, the experimenter applied a finger sensor to children's right index finger. In the bogus pipeline condition, the finger sensor was visibly connected to a laptop computer. The experimenter told children that a computer program would monitor whether their answers to the questions in the questionnaire would be honest. To increase the credibility of the procedure, the experimenter asked children to respond to a control question ("What color is the ceiling?"), which allegedly allowed her to verify that the machinery worked properly. In the control condition, the finger sensor was visibly disconnected from the laptop computer. The experimenter told children that she was planning to use the finger sensor in another study and wanted to know whether it would not be too much of a nuisance for them to complete questionnaires while wearing the finger sensor. Next, while wearing the finger sensor, children in both conditions reported their positive and negative self-conceptions on the same measure as in Study 3 (Cronbach's  $\alpha = .85$  and  $.88$  for positive and negative self-conceptions, respectively).

Children were thoroughly debriefed. The experimenter explained the study purposes and the need for a cover story. In the bogus pipeline condition, she also emphasized that the computer program could not actually monitor whether children responded honestly. Finally, the experimenter reminded all children that their responses would remain confidential. Children appeared to enjoy taking part in the experiment (e.g., several children mentioned spontaneously that they found the procedure "fun" or "hilarious"), and they reported no objections against deception or other procedural details. No single child terminated participation.

### *Results*

We conducted a 2 (trait adjective valence: positive vs. negative)  $\times$  2 (context: pipeline vs. control) mixed ANOVA, with trait adjective valence as the within-subjects factor and context as the between-subjects factor.

We present the means and standard deviations for positive and negative self-conceptions in Table 2. The trait adjective valence main effect was significant: Children reported that positive traits were much more self-descriptive than negative traits,  $F(1, 99) = 891.61$ ,  $p < .001$ ,  $d = 4.86$ , thus replicating the findings of Studies 1–3. More



importantly, this main effect was qualified by the Trait Adjective Valence  $\times$  Context interaction,  $F(1, 99) = 4.91, p = .03, d = 0.44$ . Children in the bogus pipeline condition, who thought the experimenter would know if they were being dishonest, reported significantly more negative self-conceptions than those in the control condition,  $t(99) = 3.65, p < .001, d = 0.73$ . However, children in the bogus pipeline condition reported the same levels of positive self-conceptions as those in the control condition,  $t(99) = 0.04, p = .97, d = 0.01$ .

### *Discussion*

Study 4 found that an incentive for truthful responding, set by the bogus pipeline, led children to report more negative self-conceptions, but not less positive self-conceptions. These findings suggest that the valence of children's self-conceptions is influenced by the self-protection motive, which drives children to downplay the negativity of their self-conceptions. Yet, even in the bogus pipeline condition, children considered negative adjectives, on average, to be "not really" self-descriptive; their self-conceptions remained favorable by and large.

### **General Discussion**

In four studies, conducted in samples of 8- to 12-year-old primary school children, we obtained evidence that most children report highly favorable self-conceptions, partly due to social norms and self-motives. These findings allow us to speculate about the origins of children's self-conceptions. The social norm idealizing favorable self-conceptions is prevalent in contemporary society. As children are sensitive to social norms (Rutland, Cameron, Milne, & McGeorge, 2005), and are aware of the positive connotations of "being confident" in the public eye, they may be tempted to conceive of themselves in favorable terms. Indeed, from middle childhood, children internalize the standards and values of society and are internally driven to abide by them (Nelson, 2003). Accordingly, one reason why children's self-conceptions are favorable may be that they seek to adhere to the social norm to think well of oneself.

As our bogus pipeline experiment showed (Study 4), children understate their negative self-conceptions. This finding elucidates how self-motives operate: When encouraged to respond truthfully, children kept their self-protection motive in check, and acknowledged some of their liabilities

or uncertainties. It has been said that people "are very kind and very blind to their own faults; the rhetoric of self-love is always pleading with them on their own behalf" (Jowett, 1892, p. 305). Our findings suggest that, at least in childhood, such blindness may be more motivated than real—children acknowledge more negative self-conceptions when motivated to be truthful. By contrast, we found no evidence that children overstate their positive self-conceptions. This suggests that the motive for self-enhancement may not have a noticeable impact on the favorability of the self-conceptions that children routinely report. However, an alternative possibility is that the self-enhancement motive is, in fact, so potent that it was not effectively curbed by the incentive for truthful responding in the bogus pipeline condition. Future research using alternative incentives for truthful responding is needed to test this possibility.

Our results pertain, specifically, to middle and late childhood. In early childhood, children also report favorable self-conceptions, but they do so for different reasons. For example, young children's self-conceptions are still strongly colored by unrealistic aspirations (Harter, 2012). Later in development, with the onset of adolescence, children's self-conceptions may well become less favorable. That is, research has shown that global self-worth and self-perceived competence decrease in adolescence (Marsh, 1989; Robins & Trzesniewski, 2005), and it would not be surprising to find a similar trajectory for self-conceptions pertaining to psychological attributes and behavioral dispositions. The present findings cannot be taken to imply that self-conceptions remain favorable across development.

### *Strengths, Limitations, and Future Research*

The methodological strength of our research includes its mixed-method approach: We established children's self-conception valence using complementary measures, and used precise experiments to identify its determinants. Moreover, our research addresses enduring questions. Thinkers have been long interested in, and concerned about, how children conceive of themselves (e.g., Rousseau, 1754/1992). One contemporary concern is that children's self-conceptions may seem strikingly favorable, but are actually inflated and disingenuous (Brummelman, 2016; Damon, 1995; Twenge, 2014). We found empirical support for this contention and identified origins of children's favorable self-conceptions. Our research also raises novel questions that will need to be addressed in future work. How problematic is

it for children to downplay negative thoughts about themselves? Is this phenomenon perhaps indicative for children's broader intolerance to their flaws or imperfections? If so, how does such intolerance influence self-acceptance and authenticity (and thus, psychological well-being; Thomaes et al., 2017)?

We acknowledge several limitations. Our emphasis on children's normative, "average" self-conceptions might inadvertently divert attention from the fact that some children conceive of themselves negatively. Previous research has shown, for example, that negative self-conceptions are common among children suffering from depressive symptoms (McGrath & Repetti, 2002), and there is evidence that negative self-conceptions place children at risk for future psychological maladjustment (Aikins, Bierman, & Parker, 2005; Hoffman, Cole, Martin, Tram, & Seroczynski, 2000). Our findings imply that most typically developing children think highly of themselves, but the findings do not challenge the seriousness of children's negative self-conceptions as a risk factor for maladjustment.

We used experimental methods to test external and internal influences on self-conception valence. These influences, however, pertain exclusively to in-the-moment effects (e.g., a challenge to prevalent social norms leads children to adjust their self-conceptions in the here and now) and not to developmental processes. As a complementary approach, prospective longitudinal research is needed to establish to what extent internalized social norms and self-motives influence self-conception valence over time, and to test the developmental processes that underlie their impact.

Finally, the research was conducted in The Netherlands, an individualistic society (Hofstede, 2001). Recent evidence suggests that individualistic values, including social norms regarding the desirability of favorable self-conceptions, are becoming increasingly pervasive throughout the world (Hamamura, 2012; Ogihara et al., 2015; Uz, 2014). Also, self-motives that predispose individuals to pursue favorable self-conceptions are pancultural, and not exclusive to individualistic societies (Cai et al., 2012; Sedikides et al., 2015). Still, future work will need to test the generalizability of our findings in a cross-cultural context.

### Coda

Middle to late childhood is, in some respects, a time of disillusion. As their cognitive capacities mature, children come to realize that their aspirations and views of themselves are not always

realistic. And yet, our research indicates that children's self-conceptions remain overwhelmingly positive. We identified two of the factors that contribute to this phenomenon—social norms idealizing favorable self-conceptions, and the self-protection motive instigating children to avoid self-negativity. Children think well of themselves, and both external pressures and internal drives predispose them to do so.

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## Appendix

### News Reports Used in Study 3

This is the news report that confirms the social norm endorsing favorable self-conceptions. The news report that challenges this social norm was identical, except for the changes noted in brackets. The original news report was in Dutch.

#### Do You Think Positively About Yourself?

(Hilversum, KidzNews) Dutch people think it is [not] important for children to have a positive self-image. They believe it is [not] important for children to think good things about themselves. This is what research shows.

What does “self-image” mean? Self-image refers to how you see yourself (your character traits and behavior). Some kids think very positively about themselves: They like themselves or believe they are good at many things. Other kids think less positively about themselves: They don't like themselves that much, or believe they are not good at many things.

What do you think, is it important for children to have a positive self-image? Most Dutch people think it is [not]. This is shown in a recent study by a famous researcher, professor De Vries.

The researcher says, Dutch people think it is [not] very important for children to have a positive self-image. Dutch people [don't really] like it when children exclusively think positive things about themselves. And they also think it is [not] okay for children to openly say they have a positive self-image.

Thus, it is [not] important to see yourself in a positive way!