

# Pretty as a Princess: Longitudinal Effects of Engagement With Disney Princesses on Gender Stereotypes, Body Esteem, and Prosocial Behavior in Children

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This study examined level of engagement with Disney Princess media/products as it relates to gender-stereotypical behavior, body esteem (i.e. body image), and prosocial behavior during early childhood. Participants consisted of 198 children ( $M_{\text{age}} = 58$  months), who were tested at two time points (approximately 1 year apart). Data consisted of parent and teacher reports, and child observations in a toy preference task. Longitudinal results revealed that Disney Princess engagement was associated with more female gender-stereotypical behavior 1 year later, even after controlling for initial levels of gender-stereotypical behavior. Parental mediation strengthened associations between princess engagement and adherence to female gender-stereotypical behavior for both girls and boys, and for body esteem and prosocial behavior for boys only.

“I am a princess. All girls are.” —Sara Crewe. (*A Little Princess*; Burnett, 1905)

Girls and women are often stereotyped and sexualized in the mass media (e.g., Collins, 2011; Smith, Pieper, Granados, & Choueite, 2010). An examination of the media during early childhood is particularly important, as these years lay down a foundation for gender role development over time (Bussey & Bandura, 1999), and media may act as a key socializing agent for gender role development (for a review, see Signorielli, 2011). A meta-analysis of 30 studies found that television viewing can develop and reinforce children’s attitudes regarding gender stereotypes (Herrett-Skjellum & Allen, 1996). Notably, female stereotypes in the media influence both female and male attitudes about gender, though effects are much stronger for girls than boys

(Bussey & Bandura, 1999). Additionally, exposure to gender-stereotypical media can alter children’s perceptions of the gender appropriateness of toys (Pike & Jennings, 2005) and is associated with more gender-typed play among preschoolers (Coyne, Linder, Rasmussen, Nelson, & Collier, 2014).

One of the most popular types of media and merchandise for young girls is the Disney Princess line. The line is highly profitable, with sales in 2012 alone exceeding more than \$3 billion (Goudreau, 2012). There is some public concern regarding the effect that Disney Princesses may have on young girls (e.g., Orenstein, 2011). However, there is little empirical research examining how Disney Princesses are portrayed in the media and what effect they might have on children’s gender role development, attitudes, and behavior. Accordingly, the aim of the current study is to examine longitudinal associations between exposure to Disney Princess media and gender-stereotypical behavior, body esteem, and prosocial behavior for preschool and kindergarten age children.

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*Disney Princesses and Gender*

The remarkable profitability of the Disney Princess line is clear evidence of its popularity among young girls (Disney Consumer Products, 2011). As of 2015, the Disney Princess line involves 13 female Disney characters identified by the corporation, many of whom are princesses by birth or marriage (e.g., *Cinderella*), though some are not (e.g., *Mulan*). The princess franchise involves multiple ways for children to engage with the Disney characters, including films, toys, clothing, and more. According to Orenstein (2011), parents generally like Disney Princesses and view them as “safe” compared to other, highly sexualized media models. Yet others question this sense of safety with the Disney Princess brand and speculate that young girls may be particularly vulnerable to potential negative effects (Best & Lowney, 2009; Ehrenreich, 2007). The princess line, in particular, has drawn criticism for glamorizing characters who essentially are passive and need to be saved by men (Ehrenreich, 2007; Orenstein, 2011).

A few content analyses reveal that Disney Princess films send a number of strong messages regarding gender. One content analysis of Disney Princess movies from 1937 to 2009 found that, although portrayals of gender have become more complex over time, there are still strong messages of traditional gender role stereotypes for girls and women (e.g., physically weak, affectionate, nurturing, helpful, fearful, submissive) in many of the movies (England, Descartes, & Collier-Meek, 2011). Although gender messages in Disney movies are becoming more progressive and varied as time goes on (England et al., 2011), older Disney movies (such as *Snow White*, released in 1937, or *Cinderella*, released in 1950) remain extremely popular with children today (Do Rozaría, 2004), and their messages are therefore still relevant to children’s learning and development. Additionally, newer, less gender-stereotyped princesses (e.g., Merida) tend to be feminized for Disney merchandise (Samakow, 2013).

Very little research has examined the effects of viewing Disney Princess media on children’s internalization of gender stereotypes. Wohlwend (2009) conducted an ethnographic study that followed young girls who were avid Disney Princess fans across 3 years. Results revealed that these girls not only used the princess storylines (sometimes modified) in their own personal play but also showed highly gendered expectations. This study gives some evidence to the idea that Disney Princesses

can influence behaviors and attitudes; however, the Disney Princess “group” only consisted of three kindergarten girls, so it is difficult to generalize the results with any confidence. Additionally, although not examining Disney Princesses specifically, Dinella (2013) found that emerging adult women who self-identified themselves as a “princess” reported less desire to work, expected more traditional divisions of household labor, and placed greater value on superficial qualities, such as appearance. They also put forth less effort in a challenging behavioral task. Although Dinella (2013) did not specifically examine the role of the media in her study, it suggests that there may be a long-term effect of internalizing a princess culture early in life.

Additionally, although Disney Princesses are predominantly popular with girls, many preschool boys watch these programs. For example, *Frozen*, the best-selling Disney Princess movie of all time, was extremely popular with both girls and boys (Gomez, 2014). Research has found that boys can learn gender stereotypes from watching female heroines in the media and vice versa. For example, Coyne et al. (2014) found that viewing superhero programs was longitudinally associated with engagement in some forms of male gender-stereotypical play (i.e., playing with weapons) for girls, even though viewing superhero programs was rare among girls. Accordingly, boys who frequently view Disney Princess programs may engage in less traditionally masculine gender-stereotypical play, relative to other boys, particularly if they identify with the leading female characters (Bussey & Bandura, 1999). Alternatively, boys who frequently watch these programs may instead identify with the male characters (e.g., the princes), who typically exhibit a mixture of feminine and masculine traits (England et al., 2011). Therefore, in order to examine associations with *princess* identification and involvement, the current study focused on participants’ identification and involvement with Disney Princess characters (rather than Disney media and products in general).

Given Disney’s wide marketing and product campaign, children also have frequent opportunities to rehearse the gender stereotypes they view in the movies through playing with princess toys, dressing up in princess costumes, and more. To our knowledge, no research has been conducted on Disney Princess toys and gender stereotypes. However, playing with Barbie dolls (which are in recent years connected to Barbie movies) is associated with girls seeing fewer career options for themselves in the

future (Sherman & Zurbriggen, 2014). This study suggests that playing with gendered toys, particularly those associated with a movie franchise, may also promote internalization of gender-stereotypical expectations in early childhood.

#### *Social Cognitive Theory of Gender Development*

The social cognitive theory of gender development explains how exposure to gender-stereotyped behavior in the media and playing with gendered toys may have an influence on the development of gender stereotypes and gendered behavior in young children (Bussey & Bandura, 1999). According to this theory, gender development is a complex process that is shaped by two different mechanisms. The first is *modeling*, whereby children learn gendered behavior by watching others, including parents, peers, teachers, and the media. In this process, children tend to learn best from powerful, salient, attractive, same-gender models. Social cognitive theory also suggests that models who are rewarded for their behavior and who are attractive role models should be particularly influential. Disney Princesses represent salient, powerful, attractive characters who tend to be portrayed as conforming to gender stereotypes and are rewarded for their gendered behavior (England et al., 2011). Accordingly, this theory would suggest that Disney Princesses may be a particularly potent model for the learning of gendered behavior in children. Given that Disney Princesses are female, and are predominantly popular among young girls, we would expect the effects of viewing such media on behaviors to be stronger for girls than boys, and especially for those girls who highly identify with Disney Princesses. Although boys could learn gender stereotypes and norms from viewing Disney Princess media, this learning may not readily transfer into behavior. In particular, conformity to traditional gender stereotypes is more pronounced and valued for boys than for girls, and viewing, identifying with, and playing with Disney Princess toys represent a fairly large departure from traditional masculine norms (Bussey & Bandura, 1999). In addition, boys may be less likely to identify with and therefore learn from female characters. Accordingly, we expect any effects on gender-stereotypical behavior to be weaker for boys than girls.

A second process outlined by social cognitive theory that is important for gender development of young children is *direct tuition*, in which children are encouraged and rewarded for engaging in behaviors considered appropriate for their sex, and

are discouraged from gender-inappropriate activities. In early childhood, access to toys and media content is primarily under the control of parents; therefore, high exposure to Disney Princess products is likely to reflect parental endorsement and encouragement of gender-typed behavior. The degree to which parents engage in direct tuition has been shown to be associated with children's gender-typed toy preferences and gender stereotypes (e.g., Fagot, Leinbach, & O'Boyle, 1992). Beginning in the preschool period and continuing through childhood, peers also engage in direct tuition by reinforcing gender-typed toy selection and affiliation with same-sex play partners (Fagot, 1977). The widespread popularity of Disney Princesses among preschool and kindergarten girls suggests that peers likely reinforce involvement with princess toys and media products. Therefore, direct tuition through parents and peers may be an additional mechanism beyond modeling by which Disney Princess exposure influences gender development.

Theories of gender development emphasize the early childhood period as an important developmental time period for the acquisition of gender stereotypes and development of gendered patterns of behavior. Although knowledge of gender stereotypes and some gender-typed play patterns (e.g., toy preferences) first emerge in the toddler years, gender stereotypes become more rigid between the ages 3 and 6, and gender-typed play patterns and toy preferences also become stronger during this age period (e.g., Ruble & Martin, 1998). As such, this is an important developmental period for the socialization of gender-typed behaviors and stereotypes, and therefore the current study focused on children of preschool and kindergarten age.

#### *Body Esteem*

The physical appearance of Disney Princesses has also been a common topic in the news media, popular press, and research literature (Orenstein, 2011). The typical princess is portrayed as young and attractive with large eyes, small nose and chin, moderately large breasts, prominent cheekbones, lustrous hair, and good muscle tone and skin complexion (Gangestad & Scheyd, 2005; Lacroix, 2004). Additionally, princesses generally embody a form of "thin-ideal" media, meaning that they represent an unrealistically thin female figure as the most positive and desirable (Lacroix, 2004). Studies have shown that as early as preschool, children begin to express a preference for thin body types, and girls

as young as 5 years old express fears of getting fat or show problems with body esteem, a self-evaluation of one's body and appearance (Tremblay, Lovsin, Zecevic, & Lariviere, 2011). Although preschoolers may not understand the sexual implications, many are aware that body fat is undesirable for women (Tremblay et al., 2011), and that it is important for women to be pretty (Smolak & Murnen, 2011). Disney Princess movies, their portrayal of the thin ideal, and emphasis on the princess' beauty may be an early context in which girls are taught that attractiveness is a necessary component of female identity.

According to research on the thin-ideal internalization, a belief that "thin is good" results when individuals internalize perceptions that are voiced by significant or respected individuals, including parents, peers, and the media (Thompson & Stice, 2001). Media messages regarding the thin ideal are both pervasive and powerful and may negatively influence body esteem in viewers (Hohlstein, Smith, & Atlas, 1998). Indeed, a number of meta-analyses show that heightened exposure to the thin ideal in media is associated with internalization of this standard in girls (Grabe, Ward, & Hyde, 2008; Want, 2009). Although most research examines the effect of media on older girls and women, longitudinal studies suggest that early exposure to the thin ideal in media (around the age of 5 years old) predicts appearance-related concerns in the future (Dohnt & Tiggemann, 2006). Thin-ideal media is also associated with disordered eating in early elementary-aged children both concurrently and longitudinally (Harrison, 2000; Moriarty & Harrison, 2008). Not surprisingly, playing with thin-ideal dolls (e.g., Barbie) is also associated with lower body esteem, especially in younger girls (e.g., Anschutz & Engels, 2010). Accordingly, Disney Princess movies and the associated marketing are concerning because they potentially represent some of the earliest exposure to thin-ideal media in a girl's life.

To our knowledge, there is only one study examining how viewing Disney Princesses influences body esteem in children. Hayes and Tantleff-Dunn (2010) showed 3- to 6-year-old girls a series of appearance-related clips, including several from Disney movies (e.g., *Cinderella*, *Little Mermaid*). Compared to a control group, these girls did not experience any body dissatisfaction or engage in any appearance-related play behaviors. Although this study suggests that effects of short-term exposure to thin-ideal media may not be particularly strong on young girls, the study does not examine the cumulative effects over time. It may be that

early exposure to thin-ideal media may influence later concerns with body esteem. Accordingly, the current study examined the effect of exposure to Disney Princess media on body esteem over time. Although we examine the potential effects of Disney Princesses on body esteem in boys, we do not expect the body esteem of boys to be affected by the thin ideal. Body esteem in boys tends to be influenced by exposure to media characters with a "muscular ideal" (e.g., large muscles, small waist) as opposed to the "thin ideal" epitomized by Disney Princesses (e.g., Hargreaves & Tiggemann, 2009).

#### *Prosocial Behavior in Disney Films*

Although media research often focuses on problematic content and effects, it is important to note that media also have the potential to be a positive socializing agent for children. For example, a meta-analysis of 34 studies regarding prosocial television viewing found that children who watched prosocial content were more likely to behave positively or have more positive attitudes (Mares & Woodard, 2005). Consistent with social cognitive theory, media portrayals of rewarded acts of prosocial behavior by attractive characters are especially likely to result in learning of these behaviors by viewers.

Although research has not examined Disney Princesses specifically, Padilla-Walker, Coyne, Fraser, and Stockdale (2013) found that Disney movies portray extremely high levels of prosocial behaviors, at the rate of nearly one act per minute. Anecdotally, many of the Disney Princesses are extremely prosocial. For example, in *Beauty and the Beast*, Belle sacrifices herself in order to save her father. Indeed, Padilla-Walker et al. (2013) found that two of the three very most "prosocial" Disney films were *Pocahontas* and *Mulan*, two princesses from Disney's line.

Both social cognitive theory (Bandura, 2001) and the general learning model (Buckley & Anderson, 2006) suggest that exposure to prosocial media may influence prosocial behavior among viewers. Social cognitive theory highlights the process of modeling of characters by viewers, resulting in the learning of both behaviors and scripts. Similarly, the general learning model highlights the development of attitudes, beliefs, and goals as a result of exposure to media. Specifically, the general learning model suggests that, in both the short term and the long term, exposure to prosocial media leads to the development of cognitive scripts supportive of prosocial



behavior among viewers (Buckley & Anderson, 2006). Very little research has examined how viewing prosocial behavior in the media influences young children, and none to our knowledge focus specifically on Disney Princesses. Accordingly, the current study will examine effects of exposure to Disney Princesses on prosocial behavior, both in the short term and long term.

#### *Parental Mediation of Media*

The social cognitive theory of gender development also suggests that the process of direct tuition occurs when parents verbally discuss appropriate gender behavior with children (Bussey & Bandura, 1999). Direct tuition about media depictions of gender roles and behavior likely takes place within the broader context of parental mediation of children's media exposure. Accordingly, in the current study, we will examine whether parental mediation moderates the effect of exposure to Disney Princess media.

Parental mediation refers to parents' efforts to "provide guidance about and control over exposure to certain media offerings" (Hogan, 2001, p. 664). One form of parental mediation that parents frequently engage in is active mediation, which is defined as parent-child discussion of the child's exposure to certain media content. Through active mediation, parents seek to impact the extent to which children are influenced by the messages received via media exposure (Rasmussen, 2013).

Past research shows that active mediation is positively associated with children's acceptance of nontraditional gender roles (Corder-Bolz, 1980), self-esteem, and body satisfaction (Schooler, Kim, & Sorsoli, 2006), and negatively associated with acceptance of gender stereotypes (Nathanson, Wilson, McGee, & Sebastian, 2002). Other research, however, shows that active mediation is related to greater body image disturbance (Nathanson & Botta, 2003). In addition, past research has also demonstrated that active mediation with preschoolers, who have limited cognitive abilities, may have a minimal or negative impact on media effects (Coyne et al., 2014; Wilson & Cantor, 1987). Accordingly, we will assess whether parental mediation practices moderate any associations between Disney Princess engagement and outcomes.

#### *The Current Study*

In summary, although existing research and theory suggest that engagement with Disney Princesses may potentially influence the development of

children's gender stereotypes, body esteem, and prosocial behavior, research is scarce concerning such effects. Given the ubiquitous nature of Disney Princess media and toys, many have suggested that this specific brand of media socialization will by itself affect young children's developing conceptions of the social world and their place in it. The current study examines this proposal for the first time, using a multimethod approach in a sample of preschool and kindergarten children. An additional strength of this study is that the associations between variables are considered both concurrent and over time, in order to examine both short- and long-term effects. We offer the following hypotheses, along with an exploratory research question:

Hypothesis 1: On the basis of previous research and the social cognitive theory of gender development, we predict that exposure to Disney Princesses will be associated with heightened adherence to female gender stereotypes both concurrently and over time. We also predict associations will be stronger for girls than for boys.

Hypothesis 2: According to research on thin-ideal internalization in media, we would expect that exposure to Disney Princesses would be related to poorer body esteem in girls, both in the short term and long term. However, given that research suggests that body esteem socialization effects are either nonexistent or weak in children under the age of 6 years old, we would predict rather modest effects. Given that children are particularly influenced by models of the same sex, we would expect any associations to be stronger among girls than among boys.

Hypothesis 3: Given that prosocial behavior is extremely common in Disney movies, we predict that engagement with Disney Princesses will be associated with heightened prosocial behavior both concurrently and over time. Again, we predict effects to be stronger among girls than boys given girls' potentially higher identification with same-gender princess characters.

Research Question 1 RQ1 In order to clarify previous research, we will explore the role of active mediation in altering the long-term relation between Disney Princess engagement and gender stereotyping, body esteem, and prosocial behavior.

## Method

### Participants

Participants consisted of 198 children (47% male,  $M_{\text{age}} = 58$  months,  $SD = 7.52$  at Time 1, age range 36–78 months) and their parents (97.5% were maternal report,  $M_{\text{age}} = 33.50$  years,  $SD = 5.39$ ) who participated in a larger study on children and media. Children were recruited from preschools and kindergartens at four different sites. Two were in a midsize city in the midwestern United States, one of which was at the university, one at a Headstart school. The other two were from a smaller city in the Pacific Northwestern United States, again one at the university school, the other at a community school. Participation rates at all schools exceeded 70%. Time 2 consisted of only parent reports and took place approximately 1 year after the initial data collection. There was an 82.5% retention rate from Time 1 ( $n = 240$ ) to Time 2 ( $n = 198$ ). Only participants who completed both parts of the study are included in the following analyses. Testing took place between 2012 and 2014.

For ethnicity, approximately 87% of participants were Caucasian, 10% were Hispanic, and 3% were another ethnicity. In terms of relationship status, 86% of parents were married, with 6% divorced, and 8% in other family circumstances. Parental education ranged fairly substantively, with 38% not holding a college degree, 41% holding a bachelor's degree, and 21% holding a higher degree (e.g., MSc or PhD). Approximately 36% of parent respondents (97.5% mothers) worked outside the home. For income, 29% of families earned an annual income less than \$30,000, 13% earned between \$30,000 and \$50,000, 26% earned between \$50,000 and \$80,000, and 33% earned more than \$80,000. Child age, parent education level, and family income were used as controls in the final structural equation modeling (SEM) models we describe below.

### Materials/Procedures

Parents completed all questionnaires (at both time points) at home, either online or on paper. Children were tested during normal school hours in a quiet, separate room. Teachers completed questionnaires outside of school hours. Child and teacher data were only obtained at Time 1. Multiple informants were used where possible on the variables described below as one way to reduce shared method variance in analyses (e.g., Orth, 2013).

### Disney Princess Engagement

Parents reported on three aspects of their child's engagement with Disney Princesses: identification, toys, and media (each was measured with one question). For *identification*, they were first shown a picture of all the Disney Princesses as specified by the Walt Disney Company. They were then asked to choose the princess that their child most identified with and then rate how much their child identified with that princess on a 7-point Likert-type scale (1 = *not at all* to 7 = *highly identifies with*). For *toys*, parents were asked how frequently their child plays with toys relating to any Disney Princess. This measure was rated on a 7-point Likert-type scale (1 = *less than once a month* to 7 = *6 or more times per week*). For *media*, parents reported how frequently their child viewed television shows or movies (including DVDs) portraying Disney Princesses, also measured on a 7-point Likert-type scale (1 = *never* to 7 = *2–3 times per week*). Cronbach's alpha for the combined measure was acceptable,  $\alpha = .78$ .

### Media Time

Consistent with prior studies assessing media effects, overall time spent viewing television was used as a control variable in this study. It was measured by a single item that asked parents to rate how frequently their child viewed television on an average day. This measure was rated using a 6-point Likert-type scale (1 = *none* to 6 = *more than 3 hr*; Vandewater et al., 2007).

### Children's Gender-Stereotypical Behavior

Children's male and female gender-stereotypical behavior at Time 1 consisted of two separate latent variables consisting of a child behavioral task (toy

preference task conducted with each child), parent reports of their child's gender-stereotypical toys, activities, and characteristics and a teacher report of gender-stereotypical behavior of the same child. Parent reports only were used at Time 2 as the children had scattered to many different schools following preschool. Higher scores indicate stronger adherence to gender-stereotypical behavior.

*Toy preference task (child observation).* Children were engaged in a toy preference task to measure gendered toy preferences (Spence & Helmreich, 1978). Children were given a number of toys and were asked to sort them into boxes of which toys they like to play with "a lot," "a little," or "not at all," which were given 3, 2, and 1 points, respectively, in the scoring system. Four toys were female gender-stereotypical (e.g., doll, tea set), four were male gender-stereotypical (e.g., action figure, tool set), and four were gender neutral (e.g., puzzle, paint set). Gender-neutral toys were not used in analyses below. Female and male toy preference scores were computed by averaging the preference scores for the four female and the four male stereotypical toys. Cronbach's alpha was acceptable for both female stereotypical and male stereotypical toy preferences ( $\alpha$ s = .91 and .79, respectively).

*Parent report.* Parents completed a modified version of the Preschool Activities Inventory (Golombok & Rust, 1993), which measures gender-stereotypical behavior in preschool children. Several items were modified to be more specific (e.g., "playing with girls" was changed to "playing with girls [other than siblings]"). All items were measured on a 5-point Likert-type scale from 1 = *never* to 5 = *very often*. Separate scales were computed for male and female gender-stereotypical behavior. There were three subscales, which, in the main analyses, are combined with child observations and teacher reports (see below) into a latent variable. *Gender-stereotypical toy preference* was assessed with a seven-item measure that asked parents to report how frequently their child played with gender-stereotypical toys in the previous month. (e.g., male items: toy guns, tool set; female items: dolls, tea set). Cronbach's alpha for this subscale was acceptable (male items:  $\alpha$  = .75; female items,  $\alpha$  = .85). *Gender-stereotypical activities* were a 12-item scale that asked parents to rate how frequently their child engaged in a number of activities during the past month (e.g., male activities: "sports and ball games," "climbing [fences, trees, gym equipment, etc.];" female activities: "playing house [e.g., cleaning, cooking]," "playing dress up"). Cronbach's alpha for this subscale was acceptable (male

activities:  $\alpha$  = .75; female activities:  $\alpha$  = .82). *Gender-stereotypical characteristics* were a seven-item scale that asked parents to rate how often their child showed a number of stereotypical characteristics (e.g., male characteristics: "enjoys rough and tumble play"; female characteristics: "likes pretty things"). Cronbach's alpha for this subscale was moderate (male characteristics,  $\alpha$  = .67; female characteristics,  $\alpha$  = .50).

*Teacher report.* Teachers also completed a measure of gender-stereotypical behavior for each individual child, loosely based on the Preschool Activities Inventory (Golombok & Rust, 1993). They were asked to read six characteristics and rate how often each child in the study exhibited these behaviors during school. Items were rated on a 5-point Likert-type scale from 1 = *never* to 5 = *almost always*. Again, female stereotypical items (e.g., "engages in quiet play with other children") were averaged together as one scale, whereas male items (e.g., "engages in rough and tumble play with children") were averaged into another scale. This measure has some overlap with the parent's questionnaire but was substantially shorter. Cronbach's alpha for this scale was acceptable (male stereotypical behavior:  $\alpha$  = .89; female stereotypical behavior:  $\alpha$  = .79).

### Body Esteem

*Child body esteem.* Parents reported on the perceived body esteem of children using a five-item questionnaire created for the purposes of the study, though loosely based on adult body esteem measures (Mendelson, Mendelson, & White, 2001). Parents were asked to read each statement ("my child likes his/her body," "my child would like to be thinner," "my child talks about his/her weight often," "my child wishes he/she were better looking," "my child feels good about the way he/she looks") and then rate how much they agreed with each one using a 5-point Likert-type scale (1 = *completely disagree* to 5 = *completely agree*). Higher scores indicate a better body esteem. Cronbach's alpha was .76.

*Parent body esteem.* Parental body esteem was used as a control variable in the current study as it tends to be a good predictor of child body esteem (Guiney & Furlong, 1999). This measure was rated using a 14-item scale: Body Esteem Scale for Adolescents and Adults-MODIFIED (Mendelson et al., 2001). Participants were asked to indicate how much they agreed with a number of statements (e.g., "I like what I look like in pictures") using a 5-point Likert-type scale (1 = *never* to 5 = *always*).

Higher scores indicate a better body esteem. Cronbach's alpha was .90.

### Prosocial Behavior

Prosocial behavior was constructed as a latent variable consisting of both parents and teacher reports of prosocial behavior at Time 1. Parent report only was used at Time 2.

*Parent report.* Parents completed a four-item questionnaire from the Parent Adaptation of the Preschool Social Behavior Survey that asked them to report how frequently their child engages in prosocial behavior (e.g., "your child is helpful to peers"; Crick, Casas, & Mosher, 1997; Crick, Casas, & Ku, 1999). Items were rated using a 5-point Likert-type scale (1 = *never or almost never true* to 5 = *always or almost always true*). Higher scores indicate higher levels of prosocial behavior. Cronbach's alpha was .80.

*Teacher report.* Teachers also rated each child on their prosocial behavior, using a four-item measure from the Social Skills Questionnaire (Evans, 2009). Teachers were asked to rate how frequently each child engaged in a number of prosocial behaviors (e.g., "offers to help other children who are having difficulty with a task in the classroom") using a 5-point Likert-type scale (1 = *never* to 5 = *almost always*). Higher scores indicate higher levels of prosocial behavior. Cronbach's alpha was .91.

### Parental Active Mediation

Parental mediation of media was measured using three items (Padilla-Walker & Coyne, 2011) on a 5-point Likert-type scale (1 = *never* to 5 = *very often*) that asked parents how frequently they discussed media content with their children (e.g., "How often do you try to help your child understand what he/she sees in the media?"). The measure was a general parental mediation of media scale and was not specific to Disney Princesses. Cronbach's alpha was acceptable ( $\alpha = .88$ ).

## Results

### Preliminary Analyses

#### Gender Differences

We first examined gender differences in all main variables at Time 1. For Disney Princess engagement, 22% of girls and 8% of boys viewed Disney Princess media at least once a week, with 50% of girls and 29% of boys viewing such media at least once a month. Only 4% of girls and 13% of boys reported never viewing Disney Princess media. In addition, over 61% of girls played with Disney Princess toys at least once a week, compared with only 4% of boys (indeed, 90% of boys rarely, if ever, played with such toys, according to their parents).

Table 1  
Gender Differences in All Main Study Variables at Time 1

	Boys		Girls		F value	Partial $\eta^2$
	M	SD	M	SD		
Princess identification (PR)	1.30	0.67	3.69	1.64	113.95***	.46
Princess toys (PR)	1.23	0.82	4.00	1.97	104.55***	.44
Princess media (PR)	3.41	1.40	4.47	1.54	17.28***	.11
Female gender-stereotypical behaviors (PR)	2.32	0.44	3.52	0.48	225.17***	.63
Male gender-stereotypical behaviors (PR)	3.57	0.56	2.77	0.50	74.66***	.36
Female gender-stereotypical behaviors (TR)	2.48	0.59	4.08	0.53	281.85***	.68
Male gender-stereotypical behavior (TR)	3.81	0.70	2.05	0.66	224.01***	.63
Female gendered toy preference (CO)	1.58	0.64	2.89	0.21	273.06***	.67
Male gendered toy preference (CO)	2.68	0.38	1.67	0.57	137.01***	.51
Prosocial behavior (PR)	3.85	0.49	4.11	0.46	10.08**	.07
Prosocial behavior (TR)	2.79	0.89	3.38	0.93	13.83***	.09
Body esteem (PR)	4.70	0.37	4.59	0.48	1.93	.01
Media time (PR)	3.15	1.30	3.31	1.33	0.49	.01
Active mediation (PR)	3.09	0.54	3.16	.53	0.66	.01

Note. PR = parent report; TR = teacher report; CO = child observation.  
\*\* $p < .01$ . \*\*\* $p < .001$ .



Table 1 shows means and standard deviations by gender for all variables. For simplicity, in all remaining preliminary analyses, we averaged the three subscales of parent-reported male and female gender-stereotypical behavior (to indicate an aggregate view of parent perceptions of child male and female gender-stereotypical behavior). These separate items/subscales are later used as observed indicators of latent variables in the main analyses.

A multivariate analysis of variance (MANOVA) revealed an overall significant effect for gender on most variables,  $F(14, 121) = 66.58, p < .001$ , partial  $\eta^2 = .89$  (see Table 1). Girls had significantly higher levels of princess identification, playing with princess toys, and viewing more princess media than boys. Girls also showed higher levels of female gender-stereotypical behaviors than boys as rated by parents, teachers, and observers in the child observation task. Conversely, boys showed higher levels of male gender-stereotypical behaviors than girls as rated by all three informants. Girls also had higher levels of prosocial behavior as rated by teachers and parents. Finally, there were no gender differences on body esteem, overall media time, and active mediation. We also conducted similar analyses for Time 2. The pattern of gender differences did not differ, and analyses can be obtained from the first author on request.

*Ethnicity*

A MANOVA was also conducted to examine any differences in Hispanic and non-Hispanic children on any princess variable or any outcome at both time points. A significant multivariate effect was found,  $F(16, 129) = 1.94, p < .05$ , partial  $\eta^2 = .19$ . Hispanic children viewed more Disney Princess media than non-Hispanic children at both time points ( $ps < .05$ ), though there were no significant differences on any other variable. Accordingly, ethnicity will be controlled for in all major analyses.

*Missing Data*

A MANOVA was conducted comparing those who dropped out of the study after Time 1 with those that completed both waves of the study, with no significant differences on any outcome or predictor variable being found,  $F(8, 199) = 1.51, p > .05$ .

*Correlations*

Bivariate correlations for all study variables are shown in Table 2. Although this is not included in

Table 2  
Bivariate Correlations for Main Variables at Time 1, Including Control Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Princess identification (PR)	—	.45***	.31**	.30**	-.07	-.01	-.16	.13	-.02	.21*	-.01	-.06	.23*	-.23*
2. Princess toys (PR)	.22†	—	.49***	.57***	-.01	.11	-.19†	.21*	.10	.10	.17	.10	.23*	.01
3. Princess media (PR)	.23*	.45***	—	.28**	-.03	.11	-.02	.05	-.11	-.08	-.07	-.04	.26**	-.08
4. Female gender-stereotypical behaviors (PR)	.23*	.25*	.15	—	-.09	.26**	-.14	.29**	-.03	.16	.18†	.02	.03	-.11
5. Male gender-stereotypical behaviors (PR)	.12	.02	.18†	.38**	—	-.10	.11	.10	.36**	-.08	-.09	.09	-.03	.02
6. Female gender-stereotypical behaviors (TR)	.04	.16	.16	.33**	.05	—	-.52***	.04	.03	.13	-.03	.05	-.13	.01
7. Male gender-stereotypical behavior (TR)	-.07	-.14	.01	-.16	.01	-.57***	—	.11	-.05	-.04	.25*	-.05	-.01	.03
8. Female gendered toy preference (CO)	.26*	.25*	.27*	.29**	.12	.08	-.05	—	.16	.04	.15	-.13	.10	-.08
9. Male gendered toy preference (CO)	.18	.12	.01	.15	.21*	.07	.02	.14	—	.01	-.14	.10	.04	.03
10. Prosocial behavior (PR)	-.21*	.04	-.08	.22*	.24*	.21†	-.09	.21†	.23*	—	.38***	.07	-.14	.05
11. Prosocial behavior (TR)	.01	.16	.01	.35***	-.08	.31**	-.06	.09	.27*	.32**	—	.01	-.01	.18†
12. Body esteem (PR)	-.03	-.07	-.11	.04	.02	.09	-.01	.14	-.21†	.25*	-.03	—	-.13	.08
13. Media time (PR)	-.12	.16	.16	.05	-.06	.18†	-.06	-.01	.12	-.05	.12	-.08	—	.01
14. Active mediation (PR)	-.05	-.06	-.08	.19†	.18	.10	-.18	.07	-.15	.12	.08	.06	.01	—

Note. Correlations for girls are above the diagonal, boys below. PR = parent report; TR = teacher report; CO = child observation.  
†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3  
Standardized Factor Loadings for the Measurement Model of Princess Engagement, Gender-Stereotypical Behavior (Male and Female), and Prosocial Behavior at Time 1

Factor	Items/scale	Loadings
Princess engagement	Princess identification (PR)	.76
	Play with princess toys (PR)	.91
	Watch Princess media (PR)	.59
Male gender-stereotypical behavior	Gender-stereotypical toy preference (PR)	.73
	Gender-stereotypical activities (PR)	.79
	Gender-stereotypical characteristics (PR)	.42
	Gender-stereotypical toy preference task (CO)	.73
	Gender-stereotypical behaviors (TR)	.73
Female gender-stereotypical behavior	Gender-stereotypical toy preference (PR)	.93
	Gender-stereotypical activities (PR)	.80
	Gender-stereotypical characteristics (PR)	.52
	Gender-stereotypical toy preference task (CO)	.82
	Gender-stereotypical behaviors (TR)	.79
Prosocial behavior	Prosocial behavior (PR)	.52
	Prosocial behavior (TR)	.71

Note. PR = parent report; TR = teacher report; CO = child observation.

the table, child body esteem and parental body esteem were moderately positively correlated,  $r = .20, p < .01$ .

### Main Analyses

#### Measurement Model

In prelude to the structural models tested below, a measurement model was first examined using SEM via the Analysis of Moments Structure Software (version 23; IBM Corporation, Armonk, New York, USA). There were five constructs (shown in Table 3): princess engagement (three items), male gender-stereotypical behavior (five scales), female gender-stereotypical behavior (five scales), prosocial behavior (two scales), and body esteem (one scale). Goodness-of-fit indices suggested that the model adequately represented the data,  $\chi^2(170) = 208.44, p = .05$ , comparative fit index (CFI) = .92, root mean square error of approximation (RMSEA) = .03.

A multigroup model was examined comparing boys and girls. When the model was constrained by gender, the fit significantly decreased ( $p < .01$ ). However, partial metric invariance was achieved by freeing up one factor loading (princess toys), resulting in no significant difference between the unconstrained and constrained models,  $\chi^2_{\text{difference}}(10) = 18.00, p > .05$ .

#### Structural Model

#### Cross-Sectional Results

The first model examined cross-sectional associations between engagement with Disney Princesses, gender-stereotypical behavior, body esteem, and prosocial behavior. The structural model used the maximum likelihood data estimation method to account for missing data. The analysis modeled Disney Princess media engagement (consisting of a latent variable of watching princess media, identifying with princesses, and playing with princess toys) on male and female gender-stereotypical behavior (latent variable composed of parent and teacher report, as well as child observation), body esteem (parent report), and prosocial behavior (latent variable composed of parent and teacher report). The parent's own body esteem, the child's overall time spent viewing media, child age, parental education, ethnicity, and parental income were used as controls. The figure is not included due to overlap with the longitudinal results.

A multiple group analysis was conducted to examine potential gender differences, comparing a fully constrained model to a fully unconstrained model, which resulted in a decrease in model fit,  $\chi^2_{\text{difference}}(55) = 482.04, p < .001$ . Analyses suggested that model fit was best when intercepts and structural paths were allowed to vary across groups. The final model resulted in adequate fit,  $\chi^2_{\text{difference}}(281) = 347.26, p < .01$ ; CFI = .90, RMSEA = .04. For both boys ( $\beta = .77, p < .01$ ) and girls ( $\beta = .72, p < .001$ ), princess engagement was associated with higher levels of female gender-stereotypical behavior but not male gender-stereotypical behavior, prosocial behavior, or body image concurrently.

#### Longitudinal Results

We also examined longitudinal results of princess engagement on child outcomes (as reported by parents at Time 2) using a cross-lagged structural equation model. In these analyses, princess

engagement at Time 1 (again, a latent variable of watching princess media, identifying with princesses, and playing with princess toys) was modeled to predict both male and female gender-stereotypical behavior (latent variable of parents' reports on gender-stereotypical activities, toys, and characteristics), prosocial behavior, body esteem, and princess engagement at Time 2. All previous control variables and all outcome variables at Time 1 were used as controls. We did not have the power to use the full latent variables as modeled in the cross-sectional model at Time 1. However, to increase validity, we have used an aggregate measure of teacher and parent reports for the gender stereotyping and prosocial measures as control variables at Time 1. All other variables in the model are parent report.

Similar to the first model, a multiple group analysis of gender was conducted that also resulted in a substantial decrease in model fit,  $\chi^2_{\text{difference}}(56) = 212.62, p < .001$ , suggesting that we should allow intercepts and structural paths to vary across child gender. The final model showed adequate fit,  $\chi^2_{\text{difference}}(281) = 299.74, p < .001$ ; CFI = .90, RMSEA = .04. Autoregressive paths were highly stable over time (see Figure 1; see Table S1, for all the coefficient paths for the model). For both girls ( $\beta = .65, p < .001$ ) and boys ( $\beta = .41, p = .07$ ), princess engagement at Time 1 was associated with higher female gender-stereotypical behavior at Time 2, even after controlling for initial levels of gender-stereotypical behavior. Additionally, body esteem ( $\beta = -.14, p \leq .05$ ) at Time 1 negatively predicted princess engagement at Time 2 for girls only. Prosocial behavior was not longitudinally associated with princess engagement.

#### *Parental Mediation*

Next, parental mediation was examined as a potential moderator for long-term effects on both male and female gender-stereotypical behavior, body esteem, and prosocial behavior. For male and female gender-stereotypical behavior, the three parent measures (activities, toys, and characteristics) were averaged to produce overall levels of adherence to male and female stereotypes. The first analysis examined the effect of princess engagement on female gender-stereotypical behavior depending on both the child's gender and the frequency of active mediation each gender received from parents. The moderated moderation model was estimated via OLS regression analysis where the effect of princess engagement on female gender-stereotypical

behavior was estimated as a three-way interaction between gender, active mediation, and princess engagement using Hayes' (2013) PROCESS SPSS macro (Model 3). As part of this analysis, PROCESS generated conditional effects of princess engagement on female gender-stereotypical behavior for various values of gender (boys and girls) and active mediation. Child age, parent income, parent education, TV/media time, and female gender-stereotypical behavior at Time 1 were entered into the model as covariates. Results showed that princess engagement was positively associated with female gender-stereotypical behavior at Time 2 for both girls ( $\beta = .104, t = 2.41, p < .05, 95\% \text{ CI } [0.0186, 0.1890]$ ) and boys ( $\beta = .229, t = 2.64, p < .01, 95\% \text{ CI } [0.0572, 0.4009]$ ) at high amounts of active mediation. A similar analysis was conducted with male gender-stereotypical behavior at Time 2 as the dependent variable (controlling for male gender-stereotypical behavior at Time 1, along with the other covariates). Results revealed a nonsignificant three-way interaction between princess engagement, active mediation, and gender on male gender-stereotypical behavior at Time 2 ( $\beta = .006, t = .05, p > .05, 95\% \text{ CI } [-0.2210, 0.2322]$ ).

Next, the same moderated moderation OLS regression model with prosocial behaviors at Time 2 (controlling for prosocial behaviors at Time 1 and other control variables) and active mediation and gender as moderators revealed that princess engagement predicted prosocial behaviors at Time 2 for boys ( $\beta = .210, t = 2.16, p < .05, 95\% \text{ CI } [0.0173, 0.4024]$ ) at high levels of active mediation. Finally, the same regression model with body esteem at Time 2 (controlling for body esteem at Time 1 and other control variables) and active mediation and gender as moderators revealed that princess engagement predicted higher body esteem at Time 2 for boys at high levels of active mediation ( $\beta = .251, t = 2.44, p < .05, 95\% \text{ CI } [0.0471, 0.4547]$ ).

#### **Discussion**

In the current study, we examined the relation between Disney princess engagement and gender-stereotypical behavior, body esteem, and prosocial behavior during early childhood. Girls were much more likely than boys to engage with Disney Princesses through viewing media, playing with toys, and identifying with princesses. Disney Princess engagement was also extremely stable across a 1-year period, for both boys and girls. Our results revealed that princess engagement was

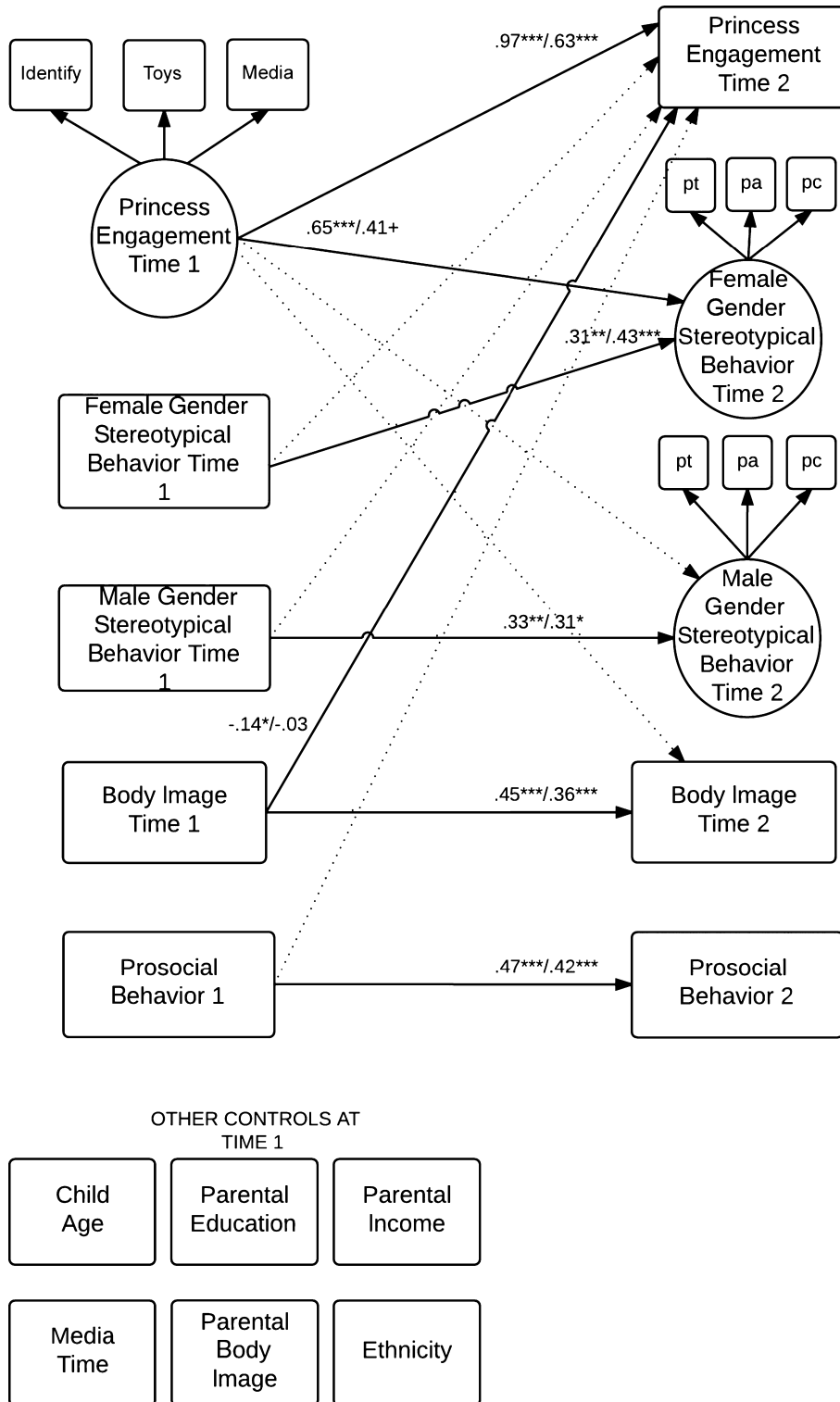


Figure 1. Longitudinal model of associations.

Note. Standardized values are shown. Findings for girls are presented first and boys second. For model simplicity, a number of items are not included in the figure though they are in the original model, including error terms, correlations between exogenous variables and control variables, covariances between error terms, and path weights between control and endogenous variables. If desired, please contact the first author for complete model statistics. pt = parent report of toys; pa = parent report of activities; pc = parent report of characteristics.

<sup>†</sup> $p < .10$ .  $*$  $p < .05$ .  $**p < .01$ .  $***p < .001$ .



concurrently related to higher levels of female gender-stereotypical behavior for both boys and girls. Furthermore, higher princess engagement was associated with increased female gender-stereotypical behavior for both girls and boys (trend level) 1 year later, even after controlling for initial levels of gender-stereotypical behavior. There were no effects on male gender-stereotypical behavior, either concurrently or longitudinally for boys or girls.

Based on previous research and theories of media effects, the first hypothesis was that engagement with Disney Princesses would be associated with higher levels of female gender-stereotypical behavior both concurrently and in the long term. For girls, the results supported this hypothesis and are consistent with previous research, theory, and meta-analyses showing that increased exposure to gender stereotyped media is related to more stereotypical behavior (e.g., Hust & Brown, 2008). It also supports research showing that engagement with the Disney Princess culture can influence gender stereotypes and may contribute to a “girly girl” culture in which gendered behavior is common and highly valued (Dinella, 2013; Orenstein, 2011; Wohlwend, 2009). Importantly, our model showed evidence for a socializing effect between princess engagement and adherence to gender stereotypes, as higher levels of female gender-stereotypical behavior was not related to later princess engagement (after controlling for earlier princess engagement) for girls or boys.

High levels of stereotypical female behavior have potentially mixed implications for parents of young girls. Although there is nothing inherently wrong with expressing femininity or behaving in a gendered manner, stereotypical female behavior may potentially be problematic if girls believe that their opportunities in life are limited because of preconceived notions regarding gender or if they avoid the types of exploration and activities that are important to children learning about the world in order to conform to stereotypical notions about femininity (e.g., choosing not to explore or play certain games in order to avoid getting dirty; Huguet & Régner, 2007). Dinella (2013) also found that grown women who self-identified as “princesses” gave up more easily on a challenging task, were less likely to want to work, and were more focused on superficial qualities. These findings suggest that the development of high levels of female gender-stereotypical behavior during early childhood may have implications for later development.

Notably, the current study only examined the effect of engagement with the princess culture

across a 1-year time period. Future research should examine the cumulative effect of exposure to Disney Princesses from a young age on gender development in both adolescence and adulthood. Additionally, although preschool and kindergarten are important developmental periods for examining gender development, conceptions of gender begin earlier than the preschool age. Accordingly, it is possible that preference for gendered toys or activities may emerge prior to engagement with Disney Princesses. This may be particularly true regarding an understanding and preference for gender-stereotypical toys, which may emerge during infancy (Zosuls et al., 2009). We did not examine very young children in the current study and future longitudinal research may wish to examine these associations in a younger group of participants.

Princess engagement was also associated with higher levels of female gender-stereotypical behavior among boys. Given concerns about hypermasculine messages in the media (e.g., Brown, Lamb, & Tappan, 2009), especially in programs popular among preschooler boys, such as superhero programs (e.g., Baker & Raney, 2007), this finding is of particular interest. Princess media and engagement may provide important models of femininity to young boys, who are typically exposed to hypermasculine media. It may be that boys who engage more with Disney Princesses, while simultaneously being exposed to more androgynous Disney princes, demonstrate more androgyny in early childhood, a trait that has benefits for development throughout the life span (e.g., Roos & Cohen, 1987). Future research should investigate to what degree princess engagement is associated with androgyny in young boys as well as the change in this influence over time.

One other aim of the study was to explore whether parental active mediation would moderate the effects of princess engagement on young children. Specifically, the current study examined active mediation, which includes discussing media content with children. Results showed that princess engagement predicted higher female stereotypical behaviors for both girls and boys at high levels of active mediation. In other words, princess engagement only longitudinally predicted adherence to female gender stereotypes when parents talked to their children about the media. Typically, we would expect that discussing media content would lead to lower levels of gender-stereotypical behavior (Nathanson et al., 2002). However, we did not specifically ask questions regarding the messages parents were discussing. Additionally, we do not have information

on the extent to which parents were engaging with their children in play with princess products, which may serve as a type of mediation. Indeed, research reveals that parents feel Disney Princesses are relatively “safe” and many parents may actively promote the stereotypical behavior their children view in the films. Accordingly, socializing messages may be strongest when parental and media messages support each other (Bussey & Bandura, 1999). Again, we did not ask detailed questions regarding the type of active mediation, so future research should examine this in depth.

The second hypothesis was that engagement with Disney Princesses would be related to poor body esteem in girls, due to the perpetuation of the thin ideal by the Disney princess characters. However, princess engagement was not associated with concurrent body esteem for either boys or girls. This finding is somewhat surprising, given research on thin-ideal internalization that suggests that exposure to thin role models in media and playing with thin dolls would increase the likelihood of poor body esteem in childhood (e.g., Anschutz & Engels, 2010; Grabe et al., 2008; Want, 2009). This result may be a function of the age of the sample. Although body esteem concerns can emerge during the preschool years (Dohnt & Tiggemann, 2006), most children generally have very positive body esteem at this age (as was the case in our study). Indeed, our findings do confirm research showing there was no immediate effect on appearance-related play in young children after viewing a short clip from a Disney princess film (Hayes & Tantleff-Dunn, 2010). When examining these associations longitudinally, there was no effect on Disney Princess engagement on body esteem of girls 1 year later (either positive or negative), perhaps because body esteem declined overall. However, girls with lower body image at Time 1 had higher levels of princess engagement 1 year later, suggesting they may be seeking out princesses as appearance-related role models. Accordingly, associations between princess engagement and body esteem may be driven by preexisting body concerns. We hope that research examines the long-term effect of princess engagement on body esteem. It may be that early princess engagement would predict poor body esteem later in childhood or adolescence, as Orenstein (2011) suggests. Prospective longitudinal studies from preschool through adolescence would be useful for investigating this possibility.

Additionally, for boys only, engagement with Disney Princesses at Time 1 was associated with better body esteem at Time 2, again only for those

with high levels of active mediation. This finding is a difficult one to explain, but we offer one tentative explanation. It may be that boys with higher Disney Princess engagement are not only viewing princesses but also princes. Disney princes tend to portray the muscular ideal, which is associated with poor body esteem in boys and men (Barlett, Vowels, & Saucier, 2008). If parents are discussing that the muscular ideal portrayed in the media is unrealistic and unattainable, this may positively influence boys’ feelings about their own bodies. Our explanation is pure speculation as we did not measure exposure to Disney princes in boys or how parents specifically discuss the muscular ideal with their young children; however, it raises some potential questions for future research to pursue.

The third hypothesis was that Disney Princess engagement would be associated with higher levels of prosocial behavior, both concurrently and longitudinally. Results indicated that princess engagement was not associated with higher levels of prosocial behavior for girls. Disney movies contain extremely high levels of prosocial behavior (Padilla-Walker et al., 2013), and the princesses show many prosocial traits, including being self-sacrificing, kind, and defending those in trouble. However, girls do not appear to be picking up on these themes, at least in the context of other factors measured in the study. Conversely, princess engagement predicted prosocial behaviors for boys at Time 2, but only for boys at high levels of active mediation. In other words, high amounts of active mediation encourage boys, but not girls, to adopt the prosocial behaviors portrayed by Disney Princesses. These results appear to coincide with prior mediation research suggesting that active mediation can encourage the learning of positive media messages. Perhaps young girls are already so involved and immersed in the Disney Princess culture that no amount of active mediation can further encourage their mimicry of prosocial behaviors. For boys, it is possible that they are less involved in the Disney Princess culture so that high amounts of active mediation can encourage them to process princess content in a way that they learn the portrayed prosocial behaviors.

Although the current study had many strengths, including the longitudinal design, multiple outcomes, multiple data collection sites, and multiple reporters, there are a few limitations we would like to note. First, the sample is somewhat limited as many of the children came from White, middle-class families; accordingly, future research should examine these associations with diverse

populations. Second, at Time 2, all child outcome variables were parent report. The reason for this is because most of the children went to multiple different schools all over the county after Time 1. Accordingly, it was not feasible to work with the amount of schools required to obtain teacher data at Time 2. Furthermore, the toy preference task (parent report) may measure availability as well as toy preference, as children would need to own the toys to play with them. Additionally, future research could examine both the context and content of children's play with Disney Princess toys, which may consist of many themes including romance, beauty, prosocial behavior, and so on. We also did not measure length of time enrolled at the school. It may be that some teachers were more reliable reporters on behavior for students potentially enrolled at the school in earlier years. Additionally, although this study showed long-term effects of princess engagement, children were only tested 1-year apart. Future longitudinal research should examine effects of princess engagement across childhood and adolescence, as well as attempt to disentangle the effects of media viewing from product engagement, such as play with media-related toys. Finally, the parental mediation measure was general and did not specifically ask about mediation regarding Disney Princesses or our specific outcomes. Accordingly, we do not know whether parents discuss Disney Princesses at all and in what context.

Despite these limitations, this is the first study, to our knowledge, to show a long-term effect of Disney Princess engagement during early childhood. This study shows that engagement with Disney Princesses can be limiting, as young girls especially are more likely to embrace traditional female stereotypes both concurrently and longitudinally. However, there were also some potential positive benefits for boys, including better body esteem and higher levels of prosocial behavior when parents discussed the media with their children. Most child developmentalists hope that children end up living their own "happily ever after"; and greater understanding of the "princess culture" in early childhood may, in a small part, help them on their way.

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### Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's website:

**Table S1.** Coefficient Paths for All Associations for the Longitudinal Model