

# **‘This princess is brave, bold and needs no prince.’ Reducing Gender Stereotypes in Children Using Short Media Clips**

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## **Abstract**

We investigated the shift in gender role attitudes in children after being exposed to counterstereotypical media representations in a repeated measures experiment. Eighty-eight Kiwi children (42 girls and 46 boys) participated in this study. On average, they were 7.34 years old ( $SD = 2.18$ ). Participants were randomly assigned to the Counterstereotypical (experimental) Group and the Stereotypical (control) Group. Attitudes were recorded before and after 3 weeks of watching short videos. The results indicated that children who watched princes and princesses undertaking counterstereotypical activities reported less stereotyped attitudes towards men and women’s roles in the society. Our findings suggest that children’s media must be mindful of the characters they portray since those can impact children’s attitudes.

**Keywords:** Disney princess, gender stereotypes, princess movies

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Gender stereotypes are described as “structured sets of beliefs about the personal attributes of men and women” (Ashmore & Del Boca, 1979, p.222). For instance, men are often viewed as achievement-oriented, competent, independent and decisive (i.e. display agentic attributes), whereas women are frequently associated with kindness, helpfulness and service-oriented traits (i.e. communal attributes, e.g., Bern, 1974; Broverman et al., 1972). Further, there is evidence that men, while viewed as possessing agentic traits, are expected to lack communal traits, and likewise women are assumed to lack agentic qualities (Fiske, et al., 2007). Such expectations may be problematic if they dictate important life decisions like career choices, friendships and romantic relationships, amongst others. For example, gender-related expectations have been linked to a lower number of women in science, technology, engineering, and mathematics (STEM) fields (Ceci, et al., 2014; Piatek-Jimenez, et al., 2018) and also to low representation of men in healthcare, early education, and domestic (HEED) roles (Croft, et al., 2015; Levanon & Grusky, 2016). Stereotypical beliefs have also been associated with prejudiced behaviour and unhappiness in relationships (e.g., Glick & Fiske, 2011; Helms, et al. 2006).

Specifically concerning are the findings that, children who possess talents and abilities traditionally assigned to another gender often feel distressed when pursuing unconventional roles and experience severe pressure to conform (Drury et al., 2013; Egan & Perry, 2001). Often, they face emotional and physical abuse by peers upon expressing counter stereotypical interests (Masters, et al., 2020; Pauletti et al. 2014). Kwan et al. (2019) found that children as young as 4-5 years old evaluated gender non-conforming children negatively and preferred not to play or share with them. Given that low peer acceptance is linked to a plethora of behavioural and emotional problems, it puts gender non-conforming children at a high risk of psychological problems (Kovalanka, et al., 2017). Further, research indicates that children who faced gender-based teasing in childhood report higher incidence of depression, anxiety, lower self esteem and negative body image (Jewell & Brown, 2014; Jones & Newman, 2009). Given such long lasting impacts, it becomes important to attempt shifting those stereotypes in children.

Although, we acknowledge that there are other recognised gender categories in addition to male and female, but there isn’t sufficient research to understand associated stereotypes. Also, in children’s media (particularly in princess movies, which we examine in this study), only the gender roles for men and women have been defined, so for this research, we limited our discussion to men represented as “princes” and women as “princesses” in animated movies.

### **Gender Stereotypes in Traditional Princess Movies**

Children's television programs often carry messages, either explicitly or more subtly, about "appropriate" activities for men and women. Of particular interest are Disney princess movies which contain many stereotypical messages and are highly influential (Robinson, et al., 2020). Further, many parents give a nod to princess movies because they find them innocuous when compared to other media exposure (Orenstein, 2011). However, the content of these movies is far from perfect. Some earlier studies have identified the gender stereotypes present in these movies: the female protagonist has been depicted as a thin, long haired female of European heritage, and the hero is a strong man of similar genetic background, with extraordinary fighting abilities, who rescues the damsel in distress to win her heart, after which, they live happily ever after (England et al., 2011; Maity, 2014; Seybold & Rondolina, 2018; Whitely, 2013;).

Tobin et al. (2003) found the following recurrent themes in 26 Disney movies' portrayal of women: women's appearance, helplessness and ability to be domesticated was valued more than her intellect. Additionally, overweight women were portrayed as "ugly, unpleasant, and unmarried." Apart from defining an ideal woman, they also found that five movies explicated ridiculed men displaying feminine traits. Researcher in the past two decades, have also criticised these movies for containing aggression (Coyne & Whitehead, 2008), depicting romantic relationships as evolving from "love at first sight" and as being easily maintained (Tanner, et al., 2003) and for espousing the what-is-beautiful-is-good stereotype (Bazzini, et al., 2010).

Scholars have expressed deep concerns about the viewership of such content as consumption of such content may impact a child's understanding of gender and expected behaviours (England et al., 2011). There is some empirical evidence that princess movies teach children about desirable gender roles (for a review see Cook & Main, 2008; Coyne et al., 2016). This effect is more pronounced in girls as research findings indicate that girls who are highly influenced by princess movies prefer to engage in more stereotypical activities, often limit themselves to feminine activities and are more focused on physical beauty (Coyne, et al., 2016; Golden & Jacoby, 2017). Thus, the implication of viewing these 'innocent' movies could be limiting their perspective in more than one way.

### **New Age Princesses**

After decades of promoting the image of a beautiful and helpless princess, movie makers finally introduced some change in their more recent princesses. As Hine, et al. (2018) noted, "princesses from older movies are more feminine in their behavioural profiles, and that modern princesses are more androgynous". For instance, in the movie, *Brave* (2012), Princess Merida appeared to violate many notions of a traditional princess. She is capable, strong and not in search of a man to complete her. She is the star of the movie who is very capable of surviving without the help of a prince. Likewise, *Frozen* (2013) has two princesses as the central characters, and the storyline revolves around sisterly love, thereby giving a new dimension to the term 'true love'. The central character, Elsa, is bold, powerful and independent quite unlike traditional princesses who solely depended on the prince for survival. Similarly, *Moana* (2016) is valiant, witty and on a mission to save the world sans any romantic distractions.

Recent studies largely agree that Disney appears to be making a conscious effort to showcase its new princesses as increasingly independent, self-reliant and more androgynous (Davis, 2019; England et al. 2011; Hine, et al., 2018;). However, there are some contradictory findings from other content analyses which suggest that the new princess movies are not completely devoid of gender stereotypes (Dundes, et al., 2018; Streif & Dundes, 2017). Further, even the new princesses are often feminized in their merchandise (Coyne, et al., 2016). The purpose of the current study is therefore to examine if repeated exposure to prince and princesses engaging in non-traditional activities impacts children's attitudes regarding men and women's abilities across various domains. Till date only Hine, et al. (2018) have attempted to compare children's attitudes after showing them *Sleeping Beauty* (1959) and *Moana* (2016) in the stereotypical vs. androgynous representation of princesses respectively. However, their study included a one-off exposure and at post-study, recorded ratings towards 14 princesses (a mix of old and new). Our study, however, is a test-retest design to test if repeated exposure to a few different unconventional princes and princesses impacts children's ratings for men and women's abilities overall.

### **Theoretical Underpinnings**

Social cognitive theory (Bussey & Bandura 1999) emphasizes that parents, peers and media impact children's concept of gender. The process occurs when children view a character (model) on their screens being reinforced for displaying certain characteristics. According to Bussy and Bandura (1999), *modelling* is one of the most influential way to transmit values and attitudes. Instead of contracting their own ideas about gender, girls have been noted to become stuck in an "intensifying loop of commercially constructed fantasies" that steer them toward "a view of femininity based on stereotypes of beauty, race, class, and behaviour" (Linn 2009, p. 40). As discussed earlier, Disney movies have traditionally provided a passive, helpless and needy princess and this has impacted how girls view their abilities to achieve. Research based on content analysis of new movies has

indicated that the new age princesses are unconventional: brave, independent and need no prince. However, no research till date has examined the impact of repeated viewings of these new movies on children's gender role attitudes. Arguably so, if children have learnt specific gender roles from earlier movies, then they should be able to learn new attitudes from viewing the unconventional ones.

Our current study seeks to answer two main questions: Would children be able to view non-traditional princes and princesses as role models? Would it impact how they rate men and women's abilities in general? We chose to work with children because of two main reasons: First, the influence of princess movies amongst children has already been established. Second, it has been argued that intervention to reduce gender stereotype are best implemented in childhood, before they have a chance to harden over time (Bigler and Liben, 2006). Further, we included both boys and girls in our study as prior studies have found that these animated movies influence both genders (Coyné et al., 2016) and for any change in the society, it would be important that both genders support non-stereotypical ideas. Additionally, we included parental measures as no discussion on measurement of children's beliefs is complete without considering their parent's beliefs.

### **Parent's Stereotypical Beliefs**

Parents may influence children's beliefs about what is acceptable and appropriate for men and women in numerous ways: by reinforcing specific gender-stereotypical behaviours, by differential treatment for sons and daughters, and by choosing certain toys and sports for them (Mascaro, et al., 2017). For example, a father might tell his son that it is a woman's job to do all the housework or he may model the same. Therefore, it is likely that children acquire part of these biases from their parents. Prior research has indicated that when parents have traditional beliefs about what roles men and women play, then children tend to have similar beliefs (Epstein & Ward, 2011). In contrast, when parents hold more egalitarian values, children tend to follow the same trend (Sutfin et al., 2008). Similarly, Fulcher (2010) found that maternal stereotypical beliefs were linked to gender-stereotyped career aspirations in 7- to 12-year-old children. Given these results, we included two measures that would reflect parent's predispositions.

Right wing Authoritarianism (RWA) and Social Dominance Orientation (SDO) scales have been found to correlate with gender-related beliefs such that people who score high on RWA endorse traditional gender roles and specifically disapprove of women who behave non-traditionally (Borgida, et al., 2005). Similarly, there is evidence that individuals who score high in SDO show different forms of sexism (Christopher & Wojda, 2008; Fraser et al., 2015). The RWA scale was created to record people's support for traditional ideologies and therefore individuals scoring high on this scale would be uncomfortable with the idea of agentic women. Similarly, those who score high on SDO endorse the existing hierarchy's and power distribution/roles within the society. These two scales would measure attitudes that correlate to gender stereotypical attitudes without being too obvious therefore we included them in our study.

### **Current Study**

The current study outlines the results of an experiment that repeatedly exposes children aged 4 to 12 years to counter-stereotypical gender role models (princes and princesses) in short videos, in an attempt to shift their gender stereotypical attitudes. We examined general gender-role attitudes as well as attitudes towards items and activities specifically portrayed in the video clips at two time points, pre- and post-stimulus (watching the video clips), with an interest in whether counter-stereotypical models might result in (a) generalised attitude change, (b) specific change only toward the items directly portrayed in the videos, or (c) no change. Additionally, we were interested in age differences, and so based on evidence from the literature, we split children into three age groups (4 to 5 years, 6 to 7 years, 8 to 12 years), hypothesising that younger children's gender role stereotypes would be stronger. Despite this initial strength of attitude, there is evidence that interventions can change attitudes right across this age span, at least for gender-role attitudes (Spinner, et al., 2018).

Thus, for our study, we had the following hypotheses:

1. Younger children would display more stereotypical attitudes and behaviours than older children.
2. The attitudes of children at all ages would become less stereotypical in the counter-stereotypical experimental group.
3. Change in children's attitudes would be greater for activities witnessed in the videos relative to activities not witnessed in the videos.
4. Parental RWA and SDO would correlate positively with children's stereotypical attitudes and behaviours.

## **I. Method**

### **Overview**

Children's attitudes were measured at two time points, before and after watching short video clips showing princes and princesses in either a stereotypical role (for the stereotypical group) or a counter-stereotypical role (for the counter-stereotypical group). Two separate measures were used to assess children's

attitudes and beliefs. The first was a set of six questions regarding behaviours suitable for men and women (Appendix A) and the second was a task in which children had to assign various items to either a prince or a princess (Appendix B). After three weeks of viewing video clips (in three one-to-one sessions; one per week), children were asked to complete the same measures and activities again. The purpose of this experiment was to see if media exposure to a non-traditional prince and princess had caused any change in children's gender-role attitudes and beliefs.

### Participants

Eighty-eight children participated in this study, split into three age groups: younger ( $n = 26$ , 3.83 to 5.92 years,  $M = 4.92$  years, 11 girls), middle ( $n = 31$ , 6.00 to 7.92 years,  $M = 6.91$  years, 20 girls), and older ( $n = 31$ , 8.00 to 12.16 years,  $M = 9.80$  years, 11 girls). A roughly equal number of participants in each age group were randomly assigned to the counter-stereotypical (experimental) group ( $n = 43$ ) and to the stereotypical (control) group ( $n = 45$ ). The accompanying parent was usually the mother (95%), with the parent's highest education recorded as a measure of socio-economic status,  $M = 2.87$ ;  $SD = 1.00$ , where 1 = some high school, 2 = some professional or vocational training, 3 = undergraduate degree and 4 = post-graduate degree.

### Procedure

Participants visited the experimental lab with their parent or guardian for three consecutive weeks (one day/week; total three visits). The parent or guardian waited in another room as each child individually met with the researcher and answered some questions to measure their pre-test attitudes (Appendix A and B) and then watched a video clip (with either stereotypical or counter-stereotypical gender representation as per random group assignment). After watching the video, each participant was asked questions regarding the characters in the video (Appendix C). In the second week they watched the Week 1 video again and a new video (either stereotypical or counter-stereotypical depending on experimental group) and answered questions regarding the main character. In the third week, they watched the Week 1 and 2 videos again, followed by the third video, and finally they completed the post-test measures (Appendix A and B) to assess change in gender-role attitudes and behaviours. This meant that each participant received six viewings of short videos in total, consistently featuring either gender-stereotypical or counter-stereotypical information. The reason for using repeated viewings across three weeks was to ensure that the children had sufficient exposure to the role models and also to allow ample time for them to process the information.

### Stimuli (Videos)

The stereotypical group saw Snow White baking and singing, Prince Charles saving Cinderella, and Kristoff (a male) saving Princess Anna. In all three videos, men were presented as agentic (competent, achievement-oriented, dominant, assertive, bold, competitive, independent and self-reliant) whereas women were presented as communal (understanding, kind, compassionate, sympathetic, relationship-oriented and likable) in line with prior research that suggests these specific agentic qualities are stereotypically associated with men and these communal qualities are associated with women. The counter-stereotypical group, however, viewed women in agentic and men in communal roles. They saw videos of Merida's exceptional archery and sword fighting, Prince Charles doing housework, and Princess Anna saving Kristoff.

### Measures

#### *Pre And Post Test Measures of Children's Attitudes*

**Gender Role Attitude scale.** We asked children to rate how important it was for men and women to be strong, smart, and to look good (Appendix A). Children rated it significantly more important for women to look good than for men,  $t(87) = 2.51$ ,  $p = .014$ ,  $d = 0.27$  (women:  $M = 3.41$ ,  $SD = 1.44$ ; men:  $M = 3.00$ ,  $SD = 1.33$ ), for men to be smart compared to women,  $t(87) = 1.84$ ,  $p = .035$ , one-tailed,  $d = 0.35$  (women:  $M = 3.21$ ,  $SD = 1.21$ ; men:  $M = 3.68$ ,  $SD = 1.17$ ), and for men to be strong compared to women,  $t(87) = 4.35$ ,  $p < .001$ ,  $d = 0.46$  (women:  $M = 2.95$ ,  $SD = 1.25$ ; men:  $M = 3.61$ ,  $SD = 1.24$ ). Thus, over both experimental groups, children rated strength and intelligence as more important for men and looks as more important for women.

We computed a composite score that combined ratings of looks, strength and intelligence. A maximum stereotypical response would be obtained by claiming it was more important for men than women to be strong and smart, and for women to look good. Thus, we subtracted the rating for women from that for men for ratings of strength and intelligence, and we subtracted the rating for men from women for looks, when computing the mean composite rating (see Appendix A for full list of questions). Thus, scores on the composite rating could range from -4 (maximally counter-stereotypical view) to +4 (maximally stereotypical view) and our expectation was that counter-stereotypical videos would *reduce* this score. The overall mean score for gender-role attitudes was .443,  $SD = .959$ , at Time 1 and .447,  $SD = .866$  at Time 2 across all participants.

**Object Assignment Task.** For this task, we asked children to place each of the 10 items (soccer ball, toy car, science lab, bow and arrow, sword, kitchen sink, laundry, broom, nursing kit and baking kit) on one of two

magnet boards headed by a picture of a Prince or Princess (see Appendix B). For each item, a score of +1 was assigned if the child made a stereotypical choice (e.g., assigning the sword to the prince or baking set to the princess) and a score of -1 was assigned if the child made a non-stereotypical choice. Thus, the composite score for this task could range from -10((maximally counter-stereotypical view) to +10 (maximally stereotypical view). Six of these 10 objects appeared in the videos (Familiar items), whereas four were novel (Non-Familiar items). Novel items were included as they could provide information as to whether changes in children's attitudes had generalized beyond the events they viewed in the video.

### Parental SDO and RWA

Six-item versions of SDO and RWA were used for this study to measure parental SDO and RWA (see Appendix D). Following Stanley, et al., 2019 we used the brief versions of these scales to ensure that the parents did not lose interest in lengthier scales. The internal consistency of the SDO scale was acceptable after removal of item 3 ( $\alpha = .705$ ;  $M = 1.70$ ;  $SD = .856$ ) but RWA was reliable with all items included ( $\alpha = .745$ ;  $M = 2.78$ ;  $SD = 1.22$ ). Thus, we used the 5-item measure for parental SDO and the 6-item version for parental RWA.

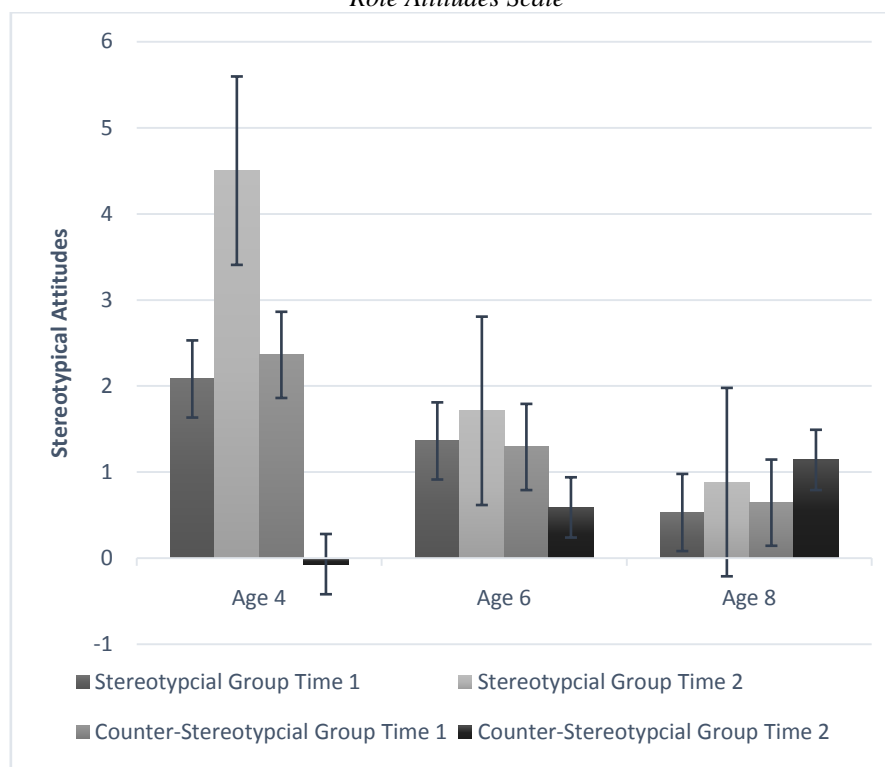
## II. Results

We first explored children's gender-role attitudes with the Gender Role Attitudes Scale and then the Object Task Assignment Task.

### Gender-Role Attitudes

Recall that this scale was created to reflect children's gender-role attitudes and that a higher score reflected more stereotypical attitudes (endorsing the idea that men need to be strong and smart, whereas women need to look pretty). Figure 1 presents the ratings for Gender-role attitudes (GRA), broken down by Timepoint (pre-test, post-test) Experimental Group (stereotypical, counter-stereotypical) and Age Group.

**Figure 1**  
*Three-way Interaction Between Age, Experimental Group and Time for the Composite Score on the Gender Role Attitudes Scale*



*Note.* A higher attitude score indicates a more stereotypical gender role attitude. Age group means are used to represent age groups.

We treated the composite score for Gender-role attitudes as a dependent variable in a 3 (Age Group: younger, middle, older) x 2 (Experimental Group: stereotypical, counter-stereotypical) x 2 (Time: pre-test, post-test) mixed analysis of variance (ANOVA). Age Group and Experimental Group were between-subjects variables and Time was a within-subjects variable. There was a main effect for Age Group,  $F(2, 82) = 3.29, p =$

.042,  $\eta_p^2 = .074$ , and a marginally significant main effect for Experimental Group,  $F(1, 82) = 3.56, p = .063, \eta_p^2 = .042$ . There were also two significant interactions, first between Time and Experimental Group,  $F(1, 82) = 8.57, p = .004, \eta_p^2 = .095$ , and second, between Time, Experimental Group and Age Group,  $F(2, 82) = 5.00, p = .009, \eta_p^2 = .109$ . No other effects were significant, all  $F_s < 2.21$ , all  $p_s > .115$ .

The main effect for Age Group was explored with three independent-samples  $t$ -tests, collapsing across children’s ratings at the two time points. Younger children’s ratings were not different to children in the middle group,  $t(55) = 1.41, p = .164, d = .366$  (younger children:  $M = 2.13, SD = 2.96$ ; middle children:  $M = 1.21, SD = 1.96$ ). In addition, middle children’s ratings were not different to those in the older age group,  $t(60) = 0.97, p = .338, d = .246$  (older children:  $M = 0.79, SD = 1.41$ ). In contrast, younger children’s ratings were significantly higher than older children’s ratings,  $t(55) = 2.24, p = .029, d = .578$ . These results are consistent with the idea that stereotypical gender-role attitudes are strongest in younger children, although in our case we found a peak at 4 to 5 years rather than 6 to 7 years.

Next, we explored whether the Experimental Group x Time interaction was significant in each age group. In the younger age group, the interaction was significant,  $F(1, 24) = 9.88, p = .004, \eta_p^2 = .292$  (indicating that the stereotypical and counter-stereotypical groups experienced a different trend in gender-role attitudes over time), whereas it was not in the middle,  $F(1, 29) = 1.16, p = .290, \eta_p^2 = .038$ , or older age group,  $F(1, 82) = 0.03, p = .871, \eta_p^2 = .001$ .

The Experimental Group x Time interaction in the youngest age group was therefore explored further by computing paired-samples  $t$ -tests comparing the Time 1 composite score indexing gender-role attitudes to the Time 2 composite score. In the counter-stereotypical group, younger children’s gender-role attitudes became *less* stereotyped over time,  $t(13) = 2.72, p = .018, d = .727$  (Time 1:  $M = 2.36, SD = 3.00$ ; Time 2:  $M = -0.07, SD = 1.14$ ). In contrast, in the stereotypical group, there was a trend for younger children’s gender-role attitudes to become *more* stereotypical over time,  $t(11) = 1.86, p = .090, d = .537$  (Time 1:  $M = 2.08, SD = 4.93$ ; Time 2:  $M = 4.50, SD = 3.85$ ).

### Object Assignment task

Recall that in this task children initially placed items on either a board with a prince or a board with a princess. Six of these items were familiar (i.e. they appeared in the videos that the children watched), and four items were non-familiar (they did not appear in the videos). Because of the difference in familiar and unfamiliar item numbers, scores were subsequently analysed as proportions. The descriptive statistics for these items and data are shown in Table 1.

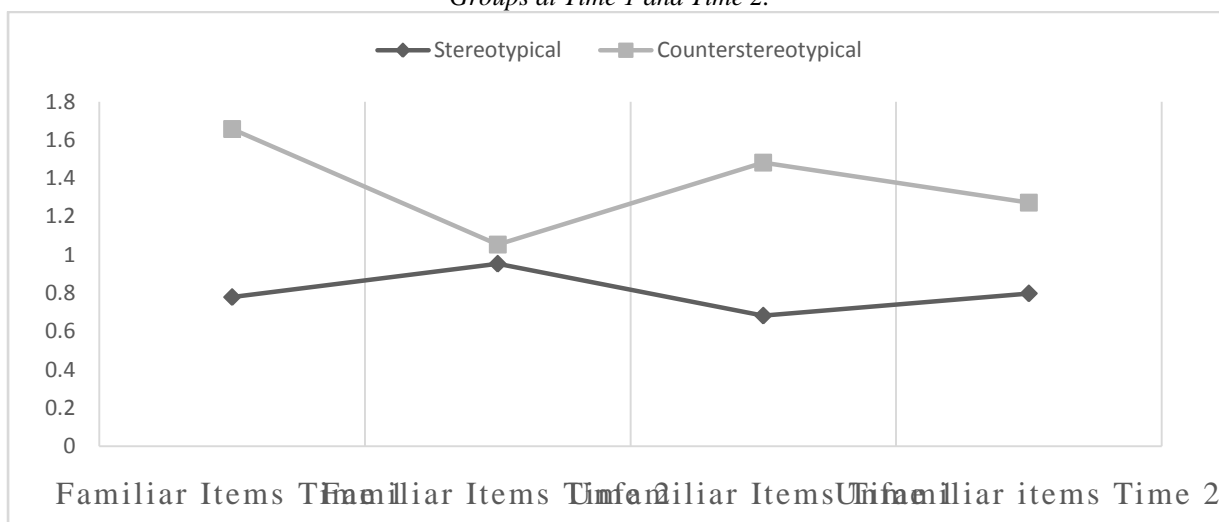
**Table 1**  
*Scores on the Familiar and Unfamiliar Items of the Object Assignment Task*

	Stereotypical Group			Counter-Stereotypical Group		
	Age 4	Age 6	Age 8	Age 4	Age 6	Age 8
<b>Familiar Items</b>						
Time 1	.625 (.377)	.857 (.234)	.826 (.392)	.821 (.316)	.941 (.242)	.857 (.234)
Time 2	1.00 (.000)	.893 (.289)	.970 (1.21)	-.071 (.385)	.177 (.635)	.178 (.421)
<b>Unfamiliar Items</b>						
Time 1	.666 (.317)	.643 (.332)	.726 (.338)	.666 (.320)	.902 (.282)	.809 (.215)
Time 2	.806 (.264)	.666 (.413)	.902 (.196)	.404 (.396)	.470 (.500)	.548 (.405)

*Note.* A higher score indicates a more stereotypical gender-role attitude.

We examined the data with a 3 (Age Group: younger, middle, older) x 2 (Experimental Group: stereotypical, counter-stereotypical) x 2 (Time: pre-test, post-test) x 2 (Familiarity: in video, not in video) mixed ANOVA. Age Group and Experimental Group were between-subjects variables, and Time and Familiarity were within-subjects variables. There was a main effect for Experimental Group,  $F(1, 82) = 23.58, p < .001, \eta_p^2 = .223$ , and Time,  $F(1, 82) = 27.39, p < .001, \eta_p^2 = .250$ . There were also two-way interactions between Time and Experimental Group,  $F(1, 82) = 83.82, p < .001, \eta_p^2 = .505$ , Familiarity and Age Group,  $F(2, 82) = 19.22, p < .001, \eta_p^2 = .190$ , and Time and Familiarity,  $F(1, 82) = 15.00, p < .001, \eta_p^2 = .155$ . Finally, there was a three-way interaction between Time, Familiarity and Experimental Group,  $F(1, 82) = 28.41, p < .001, \eta_p^2 = .257$ . We explored the three-way interaction by examining the Time x Familiarity interaction separately in each experimental group (see Figure 7.3)

**Figure 2**  
Interaction between Familiar and Unfamiliar items of the Object Assignment Task across the Two Experimental Groups at Time 1 and Time 2.



Note. A higher score indicates a more stereotypical gender-role attitude.

For the stereotypical group, the interaction was not significant,  $F(1, 82) = 0.72, p = .401, \eta_p^2 = .017$  (indicating that gender-role attitudes did not change over time). In contrast, for the counter-stereotypical group, the interaction was significant,  $F(1, 82) = 38.37, p < .001, \eta_p^2 = .466$ . This interaction was explored with two paired-samples  $t$ -tests. In the counter-stereotypical group, children's ratings of in-video items indicated a significant drop in stereotypical attitudes from Time 1 ( $M = 0.88, SD = 0.26$ ) to Time 2 ( $M = 0.10, SD = 0.51$ ),  $t(44) = 10.31, p = .031, d = 1.35$ . The same was true for the ratings of not-in-video items,  $t(44) = 5.09, p < .001$  (Time 1:  $M = 0.80, SD = 0.29$ ; Time 2:  $M = 0.47, SD = 0.44, d = 0.71$ ). This effect for not-in-video items indicates some generalisation from in-video items, leading to a loosening of gender roles even for items not featured in the videos. The interaction indicates that the change in gender-role attitudes (going from more stereotypical at Time 1 to less stereotypical at Time 2) was greater for in-video items.

### Parent's Ideological Beliefs

Finally, to explore how parental attitudes related to children's stereotypical attitudes and behaviours, we used Pearson's correlations with Time 1 ratings to fully understand how children's gender-role attitudes related to parental SDO and RWA prior to any manipulation. Table 2 presents the results of this analysis.

**Table 2**  
Correlations Between Parental SDO, Parental RWA, Children's Responses on the Gender Role Attitude Scale and Children's Score on the Object Assignment task

Variable	1	2	3	4
1. Parent SDO	-			
2. Parent RWA	.198	-		
3. Child Gender-Role Attitude	.014	-.099	-	
4. Child Object Assignment Task	.080	.377**	.085	-

Note. \* $p < .05$ , \*\* $p < .01$ .

The results of this analysis indicated that there was a positive correlation between Parental RWA and children's responses on the Object Assignment Task, with higher parental RWA associated with more stereotypical child responses on the Object Assignment Task. These findings raised a question that would children of parents with high RWA still show reduced stereotypicality in their gender-role attitudes after viewing counter-stereotypical videos? To answer this question, we used analysis of covariance (ANCOVA). More specifically, we used a 2 (Experimental Group: Stereotypical; Counter stereotypical) x 2 (Object Assignment Task ratings at Time 1 and 2) mixed measures ANCOVA, with parental RWA as the covariate. The main interest was in whether the effect for Group would still be significant. It was:  $F(1, 85) = 19.02, p < .001$ ,



$\eta_p^2 = .183$ . This result indicates that the experimental group manipulation was significant regardless of parental RWA.

### III. Discussion

The current study indicated that repeatedly viewing brief videos of counter-stereotypical representations of princes and princesses resulted in children's gender-role attitudes, becoming less stereotypical. This finding indicates that interventions using digital media could be effective in reducing biases, although notably, this was only true for the youngest (4- and 5-year-old) children. Nevertheless, this finding highlights the importance of media portrayals on children's attitudes about gender roles and once again suggests that children's attitudes are easier to shift when they are younger.

For the Object Assignment task, there was also evidence of a reduction in gender-role stereotypical beliefs in the counter-stereotypical condition, and in this case, it was over all children rather than just the youngest age group. Further, there was evidence that attitude change generalised to events and attributes not featured in the videos, although the effect was stronger for items and activities featured in the videos.

Across both the Gender Role Attitudes Scale and the Object Assignment task, there was only *some* evidence consistent with the idea that children's gender-role attitudes are strongest in young children. This was true for the Gender Role Attitudes scale, with 4- to 5-year-old children's attitudes more stereotypical compared to children aged 8 years and over. Yet the Gender Role Attitudes scale indicated that 4- to 5-year-old children's attitudes were also more malleable in that their attitudes shifted more than older children's in the counter-stereotypical condition. For the Object Assignment task there were no age effects, a finding sometimes obtained in previous studies also (see Signorella et al.'s, 1993 meta-analysis). Instead, gender-role attitudes became less stereotypical in the counter-stereotypical condition across all children. Also, of interest was the finding that after three weeks of watching stereotypical content, there was a marginally significant trend such that children reported *stronger* stereotypical attitudes. In contrast, watching counter-stereotypical representations for 3 weeks significantly *lowered* those attitudes.

In sum, the present study indicates the influence of short video clips to shift gender-role attitudes in a relatively short time frame. At the outset, we outlined some of the problems associated with rigid gender-role attitudes such as career limitation, prejudice and relationship problems. As such, recent trends for filmmakers to make less stereotypical films are a very positive step in the right direction, and our study indicates that exposure to such films provides a simple and easy means to change attitudes, and *potentially* improve relations in society.

### References

- [1]. Ashmore, R. D., & Del Boca, F. K. (1979). Sex stereotypes and implicit personality theory: Toward a cognitive—Social psychological conceptualization. *Sex Roles*, 5, 219–248. <https://doi.org/10.1007/bf00287932>
- [2]. Bazzini, D., Curtin, L., Joslin, S., Regan, S., & Martz, D. (2010). Do Animated Disney Characters Portray and Promote the Beauty-Goodness Stereotype? *Journal of Applied Social Psychology*, 40(10), 2687–2709. doi:10.1111/j.1559-1816.2010.00676.x
- [3]. Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155–162. doi:10.1037/h0036215
- [4]. Bigler, R. S., & Liben, L. S. (2006). A developmental intergroup theory of social stereotypes and prejudice. *Advances in Child Development and Behavior*, 34, 39–89. doi:10.1016/s0065-2407(06)80004-2
- [5]. Borgida, E., Hunt, C., & Kim, A. (2005). On the Use of Gender Stereotyping in Sex Discrimination Litigation. *Journal of Law and Policy*, 13(2) 613–628. Retrieved from <https://brooklynworks.brooklaw.edu/jlp/vol13/iss2/6>
- [6]. Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-Role Stereotypes: A Current Appraisal. *Journal of Social Issues*, 28(2), 59–78. doi:10.1111/j.1540-4560.1972.tb00018.x
- [7]. Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106(4), 676–713. doi:10.1037/0033-295x.106.4.676
- [8]. Ceci, S. J., Ginther, D. K., Kahn, S., & Williams, W. M. (2014). Women in Academic Science. *Psychological Science in the Public Interest*, 15(3), 75–141. doi:10.1177/1529100614541236
- [9]. Christopher, A. N., & Wojda, M. R. (2008). Social Dominance Orientation, Right-Wing Authoritarianism, Sexism, and Prejudice Toward Women in the Workforce. *Psychology of Women Quarterly*, 32(1), 65–73. <https://doi.org/10.1111/j.1471-6402.2007.00407.x>
- [10]. Cook, J., & Main, W. (2008). WHAT IS A PRINCESS? *Australian Feminist Studies*, 23(57), 401–415. doi:10.1080/08164640802263465



- [11]. Coyne, S. M., & Whitehead, E. (2008). Indirect Aggression in Animated Disney Films. *Journal of Communication*, 58(2), 382–395. doi:10.1111/j.1460-2466.2008.00390.x
- [12]. Coyne, S. M., Linder, J. R., Rasmussen, E. E., Nelson, D. A., & Birkbeck, V. (2016). Pretty as a Princess: Longitudinal Effects of Engagement with Disney Princesses on Gender Stereotypes, Body Esteem, and Prosocial Behavior in Children. *Child Development*, 87(6), 1909–1925.
- [13]. Croft, A., Schmader, T., & Block, K. (2015). An Underexamined Inequality. *Personality and Social Psychology Review*, 19(4), 343–370. doi:10.1177/1088868314564789
- [14]. Davis, A. M. (2019). Women in Disney's Animated Features 1989–2005. *The Animation Studies Reader*. doi:10.5040/9781501332647.ch-022
- [15]. Drury, K., Bukowski, W. M., Velásquez, A. M., & Stella-Lopez, L. (2013). Victimization and gender identity in single-sex and mixedsex schools: Examining contextual variations in pressure to conform to gender norms. *Sex Roles*, 69(7–8), 442–454. <https://doi.org/10.1007/s11199-012-0118-6>
- [16]. Dundes, L., Streiff, M., & Streiff, Z. (2018). Storm Power, an Icy Tower and Elsa's Bower: The Winds of Change in Disney's Frozen. *Social Sciences*, 7(6), 86. doi:10.3390/socsci7060086
- [17]. Egan, S. K., & Perry, D. G. (2001). Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology*, 37(4), 451–463. <https://doi.org/10.1037//0012-1649.37.4.451>
- [18]. England, D. E., Descartes, L., & Collier-Meek, M. A. (2011). Gender Role Portrayal and the Disney Princesses. *Sex Roles*, 64(7-8), 555–567. doi:10.1007/s11199-011-9930-7
- [19]. Epstein, M., & Ward, L. M. (2011). Exploring Parent-Adolescent Communication About Gender: Results from Adolescent and Emerging Adult Samples. *Sex Roles*, 65(1-2), 108–118. doi:10.1007/s11199-011-9975-7
- [20]. Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: warmth and competence. *Trends in Cognitive Sciences*, 11(2), 77–83. doi:10.1016/j.tics.2006.11.005
- [21]. Fraser, G., Osborne, D., & Sibley, C. G. (2015). “We want you in the Workplace, but only in a Skirt!” Social Dominance Orientation, Gender-Based Affirmative Action and the Moderating Role of Benevolent Sexism. *Sex Roles*, 73(5-6), 231–244. <https://doi.org/10.1007/s11199-015-0515-8>
- [22]. Fulcher, M. (2010). Individual Differences in Children's Occupational Aspirations as a Function of Parental Traditionality. *Sex Roles*, 64(1-2), 117–131. <https://doi.org/10.1007/s11199-010-9854-7>
- [23]. Glick, P. & Fiske, S. T. (2011). Ambivalent sexism revisited. *Psychology of Women Quarterly*, 35(3), 530–535. doi:10.1177/0361684311414832
- [24]. Golden, J. C., & Jacoby, J. W. (2017). Playing princess: Preschool girls' interpretations of gender stereotypes in Disney princess media. *Sex Roles*, 79(5–6), 299–313. <https://doi.org/10.1007/s11199-017-0773-8>.
- [25]. Helms, H. M., Proulx, C. M., Klute, M. M., McHale, S. M., & Crouter, A. C. (2006). Spouses' gender-typed attributes and their links with marital quality: A pattern analytic approach. *Journal of Social and Personal Relationships*, 23(6), 843–864. <https://doi.org/10.1177/0265407506068266>
- [26]. Hine, B., England, D., Loprore, K., Horgan, E. S., & Hartwell, L. (2018). The Rise of the Androgynous Princess: Examining Representations of Gender in Prince and Princess Characters of Disney Movies Released 2009–2016. *Social Sciences*, 7(12), 245. doi:10.3390/socsci7120245
- [27]. Jewell, J. A. & Brown, C. S. (2014). Relations among gender typicality, peer relations, and mental health during early adolescence. *Social Development*, 23, 137–156. doi: 10.1111/sode.12042
- [28]. Jones, D., & Newman, J. B. (2009). Early adolescent adjustment and critical evaluations by self and other: The prospective impact of body image dissatisfaction and peer appearance teasing on global self-esteem. *European Journal of Developmental Science*, 3, 17–26.
- [29]. Kivalanka, K. A., Weiner, J. L., Munroe, C., Goldberg, A. E., & Gardner, M. (2017). Trans and gender-nonconforming children and their caregivers: Gender presentations, peer relations, and well-being at baseline. *Journal of Family Psychology*, 31(7), 889–899. doi:10.1037/fam0000338
- [30]. Kwan, K. M. W., Shi, S. Y., Nabbijohn, A. N., MacMullin, L. N., VanderLaan, D. P., & Wong, W. I. (2019). Children's Appraisals of Gender Nonconformity: Developmental Pattern and Intervention. *Child Development*, 91(4). doi:10.1111/cdev.13316
- [31]. Levanon, A., & Grusky, D. B. (2016). The Persistence of Extreme Gender Segregation in the Twenty-first Century. *American Journal of Sociology*, 122(2), 573–619. doi:10.1086/688628
- [32]. Linn, S. (2009). A royal juggernaut: The Disney princesses and other commercialized threats to creative play and the path to self-realization for young girls. In S. Olfman (Ed.), *The sexualization of childhood* (pp. 33–50). Westport: Praeger Publishers/Greenwood Publishing Group.

- [33]. Maity, N. (2014). Damsels in distress: A textual analysis of gender roles in Disney princessfilms, IOSR Journal Of Humanities And Social Science, 19, (10), 28-31. <https://doi.org/10.9790/0837-191032831>
- [34]. Mascaro, J. S., Rentscher, K. E., Hackett, P. D., Mehl, M. R., & Rilling, J. K. (2017). Child gender influences paternal behavior, language, and brain function. Behavioral Neuroscience, 131(3), 262–273. <https://doi.org/10.1037/bne0000199>
- [35]. Masters, S. L., Hixson, K., & Hayes, A. R. (2020). Perceptions of Gender Norm Violations Among Middle School Students: An Experimental Study of the Effects of Violation Type on Exclusion Expectations. The Journal of Early Adolescence, 41(4), 527–549. doi:10.1177/0272431620931193
- [36]. Orenstein, P. (2011). Cinderella ate my daughter. New York, NY: HarperCollins.
- [37]. Pauletti, R. E., Cooper, P. J., & Perry, D. G. (2014). Influences of gender identity on children's maltreatment of gender-nonconforming peers: A person × target analysis of aggression. Journal of Personality and Social Psychology, 106(5), 843–866. doi:10.1037/a0036037
- [38]. Piatek-Jimenez, K., Cribbs, J., & Gill, N. (2018). College students' perceptions of gender stereotypes: making connections to the underrepresentation of women in STEM fields. International Journal of Science Education, 40(12), 1432–1454. doi:10.1080/09500693.2018.1482027
- [39]. Robinson, T., Church, S. H., Callahan, C., Madsen, M., & Pollock, L. (2020). Virtue, royalty, dreams and power: Exploring the appeal of Disney Princesses to preadolescent girls in the United States. Journal of Children and Media, 14(4), 510–525. doi:10.1080/17482798.2020.1711787
- [40]. Seybold, S., & Rondolino, M. (2018). Conforming beasts and compliant princesses: A radical appraisal of Disney's 1990s Americana rhetoric. Visual Inquiry, 7(2), 95–110. doi:10.1386/vi.7.2.95\_1
- [41]. Signorella, M. L., Bigler, R. S., & Liben, L. (1993). Developmental differences in children's gender schemata about others: A meta-analytic review. Developmental Review, 13, 147-183. <https://doi.org/10.1006/drev.1993.1007>
- [42]. Spinner, L., Cameron, L., & Calogero, R. (2018). Peer toy play as a gateway to children's gender flexibility: The effect of (counter) stereotypic portrayals of peers in children's magazines. Sex Roles, 79, 314-328. <https://doi.org/10.1007/s11199-017-0883-3>
- [43]. Stanley, S. K., Milfont, T. L., Wilson, M. S., & Sibley, C. G. (2019). The influence of social dominance orientation and right-wing authoritarianism on environmentalism: A five- year cross-lagged analysis. PloSONE, 14, e0219067. <https://doi.org/10.1371/journal.pone.0219067>
- [44]. Streiff, M., & Dundes, L. (2017). Frozen in Time: How Disney Gender-Stereotypes Its Most Powerful Princess. Social Sciences, 6(2), 38. doi:10.3390/socsci6020038
- [45]. Sutfin, E. L., Fulcher, M., Bowles, R. P., & Patterson, C. J. (2007). How Lesbian and Heterosexual Parents Convey Attitudes about Gender to their Children: The Role of Gendered Environments. Sex Roles, 58(7-8), 501–513. <https://doi.org/10.1007/s11199-007-9368-0>
- [46]. Tanner, L. R., Haddock, S. A., Zimmerman, T. S., & Lund, L. K. (2003). Images of Couples and Families in Disney Feature-Length Animated Films. The American Journal of Family Therapy, 31(5), 355–373. doi:10.1080/01926180390223987
- [47]. Towbin, M. A., Haddock, S. A., Zimmerman, T. S., Lund, L. K., & Tanner, L. R. (2004). Images of Gender, Race, Age, and Sexual Orientation in Disney Feature-Length Animated Films. Journal of Feminist Family Therapy, 15(4), 19–44. doi:10.1300/j086v15n04\_02
- [48]. Whitley, D. (2013). Learning with Disney. Journal of Educational Media, Memory, and Society, 5(2), 75–91. doi:10.3167/jemms.2013.050206

#### Appendix A: Gender Role Attitudes Scale



5                      4                      3                      2                      1

1. Is it important for men to look good? (Appearance)
2. Is it important for women to look good?
3. Is it important for women to be smart? (Intelligence)
4. Is it important for men to be smart?
5. Is it important for men to be strong? (Strength)
6. Is it important for women to be strong?

Composite Score = (Q2-Q1) + (Q4-Q3) + Q5-Q6)

**Appendix B: Object Assignment Task Details**

Picture	Question (Which one of these...)	Familiarity (shown in videos)
Baking utensils	Loves baking for their family.	Yes
Dirty dishes	Will get up after supper and clean the dishes?	No
Washing machine	Is worried about the dirty clothes they need to clean over the weekend.	No
Broom	Will clean the house today?	Yes
Nurse	Is a nurse and will take care of this sick man at the hospital?	No
Bow and arrow	Loves their bow and arrow and is good at taking aims.	Yes
Sports car	Loves driving a bright red car they own?	No
Scientific apparatus	Is currently working on a science project that will make them famous in the world.	No
Soccer ball	Is an excellent soccer player?	No
Sword	Is practicing sword fighting right now?	Yes

**Appendix C: Prince and Princess Questionnaire (PP)**

Questions regarding Prince and Princess immediately after watching videos for Stereotypical (S) and Counter-Stereotypical (CS) Groups



5 4 3 2 1

Week 1, Princess 1: Snow White for (S) or Merida for (CS)

- Q1. Do you think she is a nice person?
- Q2. Do you think she is good at doing things?
- Q3. Would you like to be friends with her?

Week 2, Prince 1: Prince Charles fighting (S) or Prince Charles baking and cleaning (CS)

- Q4. Do you think he is a nice person?
- Q5. Do you think he is good at doing things?
- Q6. Would you like to be friends with him?

Week 3, Princess 2 and Prince 2 interacting: Kristoff saving Anna (S) or Anna saving Kristoff (CS)

- Q7. Do you think Anna is a nice person?
- Q8. Do you think she is good at doing things?
- Q9. Would you like to be friends with her?
- Q10. Do you think Kristoff is a nice person?
- Q11. Do you think he is good at doing things?
- Q12. Would you like to be friends with him?

**Appendix D: SDO and RWA Short version**

SDO Short version

- 1. It is OK if some groups have more of a chance in life than others.
- 2. Inferior groups should stay in their place.
- 3. To get ahead in life, it is sometimes okay to step on other groups.

4. We should have increased social equality. \*
5. It would be good if all groups could be equal. \*
6. We should do what we can to equalize conditions for different groups. \*

RWA Short version

1. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
2. It would be best for everyone if the proper authorities censored magazines so that people could not get their hands on trashy and disgusting material.
3. Our country will be destroyed someday if we do not smash the perversions eating away at our moral fibre and traditional beliefs.
4. People should pay less attention to The Bible and other old traditional forms of religious guidance, and instead develop their own personal standards of what is moral and immoral. \*
5. Atheists and others who have rebelled against established religions are no doubt every bit as good and virtuous as those who attend church regularly. \*
6. Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way" things are supposed to be done. \*

\*Reversed

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