

ORIGINAL RESEARCH

The Cultivation of Parent and Child Materialism: A Parent–Child Dyadic Study

Cristel A. Russell¹ & L. J. Shrum ²

1 Department of Marketing, Pepperdine University, Malibu, CA, 90263, USA

2 Department of Marketing, HEC Paris, Jouy-en-Josas, 78351, France

Research has shown that television viewing cultivates a materialistic worldview in children. However, other socialization factors may also influence children's materialism. The current research tests two socialization pathways of parental influence: (a) an indirect path in which parents pass on their own materialism to their children, and the parent's materialism is at least partly the result of a parent cultivation effect (parent cultivation); (b) an indirect path in which parents pass on their television viewing behavior to their children, which in turn positively predicts the children's level of materialism (child cultivation). The results of two studies (initial study plus direct replication, N = 818) of U.S. parent–child dyads with 14- to 17-year-old children support the first path but not the second: The relation between parent TV viewing and child materialism is mediated through parent materialism. Child TV viewing is positively correlated with child materialism, but is nonsignificant when parent materialism is controlled.

Keywords: Cultivation, Materialism, Parent–Child Dyad, Television, Children, Socialization

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Increases in children's materialism, and the importance they place on acquisitions and possessions, have been a perennial concern (Kasser, 2002; Nairn, Ormrod, & Bottomley, 2007; Oprea, Petrova, & Rozendaal, 2020). These concerns are understandable given the consistent finding that materialism has numerous negative consequences, with little apparent upside (Chaplin et al., 2019; Richins, 2017; Valkenburg & Piotrowski, 2017). Although there are many reasonable culprits for the development of materialism in children, one of the most frequently mentioned is exposure to media, in particular television. Despite seemingly annual declarations that television viewing is dead (or will die soon), the level of viewing among Americans has remained remarkably invariant over the last 10 years (Nielsen, 2020; Watson 2020b), and the COVID-19 pandemic has increased viewing even more, particularly for children and adolescents (Watson, 2020a). Moreover, parents are

Corresponding author: Cristel A. Russell; e-mail: cristelrussell@fulbrightmail.org

concerned about how such heavy viewing affects their children, including the influence of materialistic media content (Common Sense Media, 2017). Thus, it appears that reports of the death of television viewing may be greatly exaggerated (Singel, 2009; Strachan, 2019).

Research on the effects of media consumption on child materialism typically uses the theoretical lens of cultivation theory, which conceptualizes the effects of television viewing as a socialization factor (Gerbner & Gross, 1976). Television content is considered to be more than simple entertainment or an information provider: Television tells stories, and these stories have symbolic meaning that reflects shared cultural values (Busselle & Van den Bulck, 2020; Gerbner, Gross et al., 2002). In terms of consumer cultivation (Shrum, Burroughs, & Rindfleisch, 2004; Valkenburg & Piotrowski, 2017), the stories that television tells are ones that shine a positive light on consumerism and materialism, and this is true whether the television content is advertising or the programs between the ads. Both the ads and the programs portray messages that align closely with Richins and Dawson's (1992) conceptualization of materialism: Possessions are good, more possessions bring greater happiness, and the quality and quantity of possessions are indicators of success (Buijzen & Valkenburg, 2003).

Although there is a long literature documenting consumer cultivation effects for children and adolescents (Valkenburg & Piotrowski, 2017), as consumer socialization scholars have noted, the media is just one socialization factor among many (Dávila Blázquez & Casabayó, 2013; John, 1999; Moschis, 1987; Richins, 2017). In particular, the role of parents as consumer socialization agents is well-documented. This research has adopted a number of different approaches to considering the effects of parental and media socialization on child materialism, but the predominant focus has been on the role of communication processes. Two types of processes are pertinent to the current research. The first concerns what and how parents communicate to their children in terms of material values. Parents who stress material values and use material rewards produce more materialistic children (Richins & Chaplin, 2015), whereas parents who are warm and supportive produce less materialistic children (Chaplin & John, 2010). The second communication process pertains to parent communications about media consumption, such as how parents monitor what their children watch, limit how much they watch, or discuss what they watch with their children (Valkenburg et al., 1999). This research generally finds that parental styles of mediation and communication can moderate the relation between exposure to media (most often focused on advertising) and the children's materialism (Buijzen & Valkenburg, 2005; for a review, see Bakir, Rose, & Shoham, 2005), although research also shows that parental mediation begins to wane in middle childhood (Beyens, Valkenburg, & Piotrowski, 2019).

To date, these two family communication processes have typically been addressed in separate investigations. In the present research, we account for both parental and media consumer socialization. We argue that it is difficult to interpret research on the effects of child television viewing on child materialism without

considering the potential effects of both parent television viewing and parent materialism on child materialism, because they are all fundamentally intertwined. Along with a possible influence of children's television viewing on their level of materialism (child cultivation), parents' television viewing behavior influences their children's television viewing behavior, and parents' materialism influences their children's materialism.

Given these interrelations, and a presumed causal effect of parent-to-child transmission of viewing behavior and materialism, we propose that parents may influence their children's level of materialism through two paths. First, parents' television viewing may influence parents' materialism (parent cultivation effect), which in turn may influence their child's materialism. In this path, parents pass on their materialism to their children, and the parent's materialism itself is at least in part the result of a parent cultivation effect. Second, parents' television viewing may influence their child's television viewing, which in turn may influence the child's level of materialism, with this latter path reflecting a child cultivation effect. In this path, parents pass on their materialism to their children, but through the parent's viewing behavior. Both processes represent different types of *indirect cultivation* through parental socialization. We test these propositions in two studies with parent-child dyads.

Parent and child consumer cultivation

Cultivation theory posits that the media—in particular, television—acts as a socialization factor that shapes viewers' attitudes, values, and beliefs (Gerbner & Gross, 1976). Cultivation theory is based on two core propositions: (a) the reality portrayed in television programs is a consistent but distorted view of the real world and (b) frequent viewing of these consistent but highly stylized distortions shifts viewers' beliefs toward the symbolic messages underlying the television programs. Although there have been frequent challenges to aspects of cultivation theory (for a review, see Busselle & Van den Bulck, 2020), a substantial literature has accumulated in support of both premises. For example, television programs portray a world that is far more violent than the real world, and thus, compared to lighter viewers, heavier television viewers estimate frequency of real-world violence to be greater than do light viewers, and also think that the world is a meaner and more dangerous place. Similar effects have been demonstrated for other types of distortions (e.g., prevalence of particular occupations, marital discord, etc.; for a review, see Busselle & Van den Bulck, 2020).

Media consumer socialization

Parents (adults)

Another type of distortion that occurs in television programming pertains to portrayals of affluence and the world of consumption. Referred to by some as *consumer cultivation* (Shrum et al., 2004; Valkenburg & Piotrowski, 2017), this research posits

that television programs present a systematic distortion of consumption and its importance, and like cultivation effects more generally, heavy viewing of these distortions causes them to be internalized by viewers. Research supports both premises. Message system analyses show that the world of television is more affluent than the real world (Hirschman 1988; Lichter et al., 1994; Shrum, 1999), and television representations of consumption are often used as “visual shorthand” to indicate values and social status (O’Guinn & Shrum, 1997, p. 279).

Research has also confirmed the second proposition, that viewing distorted portrayals of consumption may influence consumer beliefs. Earlier cultivation research has shown that television viewing frequency is positively correlated with perceptions of affluence (Shrum et al., 1998; Weimann, 1984; Yang & Oliver, 2010). More directly related to the present research, studies have also demonstrated a positive relation between overall television viewing frequency and measures of materialism (Shrum et al., 2005; Sirgy et al., 1998; Yang & Oliver, 2010), as well as positive relations between materialism and viewing frequency of particular genres, such as celebrity reality programs and other shows that depict high-income characters and their pursuit of material aspirations (Leyva, 2018). Quasi-experimental (Hyll & Schneider, 2013) and experimental research (Leyva, 2018; Shrum et al., 2011) have produced similar findings.

Children and adolescents

Research has also investigated consumer cultivation in children and adolescents. This research typically takes two forms. The first focuses on traditional cultivation effects of the positive relation between the frequency of children’s viewing of television programs and children’s materialism, whereas the second focuses on the positive relation between children’s viewing of advertisements and children’s materialism.¹

Television viewing and materialism

A number of studies have reported positive relations between children’s frequency of television viewing and children’s materialism. The studies include early investigations of adolescents and young adults in the United States (Churchill & Moschis, 1979), as well as other countries, such as France (Moschis et al., 2011) and India (Behal & Soni, 2018), suggesting that child cultivation effects are robust across cultures.

Recent research has also linked viewing of specific program genres with materialism, in particular reality television. For example, in a survey of 15- to 21-year-old Dutch adolescents and emerging adults, Oprea and Kühne (2016) found that viewing of MTV reality shows was positively associated with materialism, over and above the relations with total television viewing, which was also positively associated with materialism. In addition, the effects tended to be stronger for adolescents than for emerging adults. Similar results were reported by Lewallen, Miller, and

Behm-Morawitz (2016) for celebrity TV viewing, although cultivation effects were observed only for women.

Advertising viewing and materialism

Most research on consumer cultivation in adults has focused on the positive relations between television program viewing and material values and aspirations, and as we just reviewed, a few studies have investigated the same effects in children. However, a much larger literature has developed that focuses on the relations between television advertising viewing and children's materialism (Valkenburg & Piotrowski, 2017). Although children and adolescents can certainly understand the symbolic consumption narratives in television programs, advertising is arguably easier for children to process, and thus may have effects that potentially surpass program content effects. Ads are simple, targeted, and focused, and thus more likely to be processed and integrated into children's knowledge structures. Consistent with this reasoning, numerous studies have documented relations between children's television ad viewing and their level of materialism (for a review, see Valkenburg & Piotrowski, 2017). For example, cross-sectional studies have found consistent positive correlations between children's television advertising viewing and materialism across age groups (Buijzen & Valkenburg, 2003), and the same relations have been noted in longitudinal research (Opree et al., 2014).

Summarizing, research indicates that consumer cultivation effects are robust for both adults and children. The effects have been documented across cultures, age groups, and research methodologies. These findings suggest that the media serves as an important socialization factor in the development of material values, particularly in children and adolescents. In the next section, we discuss other socialization factors that may impact the interpretation of research on consumer cultivation in children and adolescents.

Parental consumer socialization

Perhaps more so than media, parents play a significant socializing role in their children's development (McLeod & O'Keefe, 1972; Richins, 2017). Parental socialization starts from birth, and thus is the first socializing influence on children. Children learn lessons from their parents, and this learning process may be direct or indirect. Indirect processes occur when children make inferences based on their parent's behaviors, and effectively model those behaviors and the values that underlie them (Bandura, 1977). Direct processes occur when parents explicitly communicate what actions and values are important. Two particular types of socialization that are relevant to the current research pertain to viewing behaviors (frequency of television viewing) and material values.

Television viewing

Parents' behaviors are often passed on to their children, and this is no less true for television viewing behaviors. Television viewing is often a shared family experience,

at least for younger children (Nielsen, 2015). Thus, children may directly develop the television viewing habits of their parents. (By habits, we are primarily referring to frequency of viewing, rather than the selection of program content; children, particularly older ones, may not necessarily watch the same programs as their parents.) In addition, children may indirectly infer the importance of television viewing from the frequency of their parent's viewing frequency, and internalize (model) both the behaviors and their importance (Bandura, 1977). For these reasons, heavy-viewing parents typically produce heavy-viewing children, and this effect has been demonstrated in both cross-sectional (Lauricella et al., 2015) and longitudinal (Davison et al., 2005) studies of parent-child dyads.

Materialism

The parental socialization process includes instilling important personal values in children. Parents attempt to directly pass on their core values to their children through a teaching process (teaching right from wrong). Although the relation between parent and child values is not always a strong one (Roest et al., 2009), because children may rebel or other role models offset parental influence, strong parent-child value similarities are typically noted when the parental values are consistent with societal norms (Chan & Tam, 2016), which is arguably the case for materialism in consumer cultures. Materialism in children can also develop indirectly through exposure to social role models that espouse materialistic values (Kasser, 2002). Children may infer the importance of materialistic values from observing their parent's striving for higher standards of living and external success (Chaplin & John, 2010), and internalize those values (Bandura, 1977). Parents may also engage in "material parenting" by using material goods to express love or incentivize their children's behavior (Richins & Chaplin, 2015, p. 1333). Consistent with this process of parental consumer socialization, numerous studies using parent-child dyads show that materialistic parents tend to have materialistic children (Chaplin & John, 2010; Flouri, 1999; Goldberg et al., 2003; but see Dávila Blázquez, 2016 for no relation between Spanish parents' materialism and their children's).

Conceptual model

Thus far we have reviewed research showing that, although a number of studies have reported results of a positive relation between child TV viewing and child materialism (child cultivation effect), parental TV viewing and parental materialism also influence child TV viewing and child materialism, respectively. Thus, without simultaneously accounting for these parental socialization factors, it is difficult to interpret the simple relation between child TV viewing and child materialism.

To address this issue, in the current research, we test a conceptual model that includes all of these factors. The model is shown in Figure 1. We propose two possible pathways for the development of materialism in children, both of which represent indirect cultivation effects through parental socialization. In the upper pathway

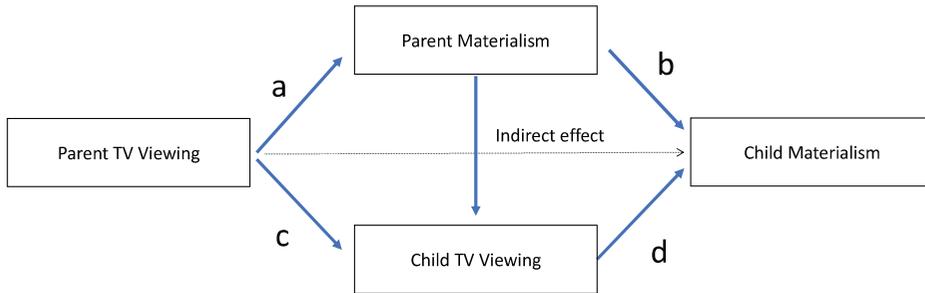


Figure 1 Conceptual model.

Note: a = parent cultivation effect; b = parental socialization effect (materialism); c = parental socialization effect (viewing behavior); d = child cultivation effect.

shown in [Figure 1](#), we propose that parent TV viewing will be positively associated with parent materialism (Path a). This relation reflects the traditional cultivation effect in adults. We also propose that parent materialism will be positively associated with child materialism (Path b), which reflects parental socialization of material values. The upper mediated path (Path a → Path b) represents an indirect parent cultivation effect; parents' television viewing is positively associated with their level of materialism, which they then pass on to their children. In the lower pathway, we propose that parent TV viewing will also be positively associated with child TV viewing (Path c), which reflects parental socialization of media behavior in which parents pass on their viewing behavior to their children. We also propose that child TV viewing will be positively associated with child materialism (Path d), consistent with a child cultivation effect. The lower mediated path (Path c → Path d) represents an indirect cultivation effect through the parental socialization of television viewing behavior. In this indirect path, parents pass on their materialism to their children, but the presumed effect stems from the parent's television viewing behavior. Finally, although not formally hypothesized, we include a path from parent materialism to child television viewing, to allow for the possibility that parent materialism may influence their child's television viewing behavior (e.g., materialistic parents may have more viewing devices in the home).

Several aspects of the model are worth emphasizing. First, as we have noted earlier, each of the four paths (a–d) has been demonstrated in prior research; thus, in isolation, demonstrating support for each path is not a novel contribution. However, our primary contribution is determining which paths remain significant when all variables are accounted for simultaneously. For example, it is possible that hypothesized relations between child television viewing and child materialism (child cultivation effect) may actually be driven by parent materialism.

Second, our model proposes two possible mediation processes by which parent TV viewing may influence child materialism. The upper pathway in [Figure 1](#) (Path a → Path b) suggests an indirect cultivation effect of parent TV viewing on child materialism via parent materialism. In other words, rather than merely considering the

simple relation between parent materialism and child materialism, which has been frequently demonstrated, we propose the possibility of an indirect consumer cultivation effect in which the socializing effect of television consumption on parent's materialism is passed on to their children. In essence, parent cultivation effects influence their children's level of materialism. In contrast, the lower pathway (Path c→Path d) also represents an indirect socialization effect, but one in which parent TV viewing influences child TV viewing, which in turn influences child materialism (child cultivation effect).

Third, the two mediation paths are not mutually exclusive. It is possible that both mediation paths are empirically supported. That said, although each link is theory-driven and has been empirically supported in previous research, few if any studies have addressed the simultaneous effects of each socialization factor. Thus, it is possible that some effects observed in previous studies may not be observed in our studies.

Overview of the studies

Two studies were conducted as part of a larger research project funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) to study potential media influences on adolescents. The present research uses the cross-sectional survey data collected in the first phase of that research program and which included measures of television viewing and materialism, among other lifestyle measures. The two studies were identical in terms of the method of recruitment and the measures included in the studies, and thus Study 2 serves as an exact replication of Study 1 (Nosek, Spies, & Motyl, 2012). Within the larger study, measures relevant to the present research included television viewing frequency of both the parents and the children, materialism of the parents and the children, and parents' income.

Sample recruitment and procedures

For each study, dyadic survey data were collected online from parents and their children aged 14–17. Parents were recruited by a professional research company that maintains national consumer panels that are representative of the U.S. population in terms of gender, race, socio-economic status, and ethnicity. For full details of the recruitment and informed consent procedures, see [Supplementary Appendix A](#).

Across both studies, no data were excluded from analyses except as noted based on a priori criteria. The raw data, SPSS code and output, and [Supplementary Appendices](#) are archived at <https://osf.io/36bxy/> (Russell & Shrum, 2021).

Study 1

Method

Participants

Initially, 1,910 parents were invited to the study, and 67% provided their consent for their child to participate; 189 parents were disqualified because their child was

outside the 14–17 age range, and another 10 did not complete the parent survey. Of the remaining eligible parents, 809 provided an email address for their child, 517 of the contacted children entered the survey, and 99.3% of the children provided assent and completed the child survey. The parent–child survey matching process yielded dyadic data from 374 parents ($M_{\text{age}} = 44.69$, $SD = 8.32$; 68.5% women) and their children who met the screening criteria (seven participants over 17 and one under 14 years of age were excluded). Because of missing data, the analyses are based on 344 parent–child dyads.² Children’s gender was equally distributed (51.6% girls). The age distribution was as follows: ages 14 (14.1%), 15 (27.6%), 16 (37.5%), and 17 (20.8%). In terms of ethnicity/race, 74.2% of the children were Caucasian, 12.5% African American, 7.6% Hispanic, 4.4% Asian, and the remainder (1.3%) indicated “Other.” Parents’ reported annual household incomes ranged from under \$20,000 (7.7%) to over \$150,000 (6.2%), with the median in the \$50–\$60,000 bracket.

Measures

We measured parents’ television viewing by asking them how many hours of television they watch on a typical weekday and how much they watch on a typical weekend day (Rubin, Perse, & Taylor, 1988; Russell & Russell, 2018; Shrum, 1996).³ We computed a measure of weekly viewing by multiplying the typical weekday viewing by five, multiplying the typical weekend day viewing by two, and summing the two ($M = 26.73$ hours, $SD = 13.99$). We measured children’s television viewing by asking them to indicate, on a scale from 0 to 40, the number of hours per week they watch each of 10 categories of programs on any device (e.g., TV, computer, mobile phone): sports, comedy, documentaries, drama, cartoons, sitcoms, soaps, reality shows, movies, other (O’Guinn & Shrum, 1997; Russell & Buhrau, 2015).⁴ The child responses to the number of hours viewed contained clear outliers, which we a priori defined as $> \pm 2 SD$ from the mean viewing hours, or approximately 80 hours per week total viewing. However, this upper bound is implausible, and thus we set the upper bound at 1 SD from the mean, or 62 hours per week.⁵ Using the Winsorizing method (Reifman & Keyton, 2010), we recoded all outliers to 62 hours per week. A weekly measure of television viewing was computed by summing the responses for each genre and media device ($M = 32.89$ hours, $SD = 19.97$).

The 9-item Material Values Scale (Richins, 2004) was used to measure materialism of both the parents ($\alpha = 0.88$) and the children ($\alpha = 0.90$). Parents and children were asked to provide their agreement with the nine items along a 5-point scale (1 = strongly disagree, 5 = strongly agree). We created a composite measure by averaging the nine items, with higher scores indicating higher levels of materialism. We measured demographics by asking parents to report their age, gender, and household income, and we asked the children to report their age, ethnicity/race, and gender. Income was measured with a 15-item scale of \$10,000 increments (1 = under \$20,000, 15 = over \$150,000). Means and correlations for all measured variables appear in Table 1.

Table 1. Means, Standard Deviations, and Correlations

Measure	Mean (SD)	Range	Child materialism	Parent weekly TV viewing	Child weekly TV viewing	Parent income	Child Age
Study 1							
Parent materialism	2.60 (.84)	1-5	.476**	.348**	.256**	.63	-.66
Child materialism	3.04 (.92)	1-5		.091	.173**	-.008	.011
Parent TV viewing per week	26.73 (13.99)	2-62			.323**	-.067	-.101
Child TV viewing per week	32.89 (19.97)	0-62				-.089	.014
Parent income	6.49 (4.02)	1-15					-.035
Child age	15.64 (.97)	14-17					
Study 2							
Parent materialism	3.10 (.78)	1-5	.600**	.315**	.456**	-.005	-.037
Child materialism	3.28 (.81)	1-5		.256**	.252**	-.039	-.085
Parent weekly TV viewing	26.21 (16.26)	0-70			.404**	-.103*	.067
Child weekly TV viewing	22.30 (17.61)	0-52				-.061	.063
Parent income	6.83 (4.17)	1-15					-.109*
Child age	15.12 (.89)	14-17					

* $p < .05$; ** $p < .01$

Results

Child cultivation

We first tested whether child television viewing frequency is positively related to their level of materialism, as cultivation theory would predict. To do so, we regressed the children's materialism score on their weekly frequency of viewing; we also included the child's age and gender, and parent's income, as control variables. The results of this analysis can be seen in the top portion of [Table 2](#). Controlling for the demographic variables, weekly television viewing hours is positively correlated with level of materialism ($\beta = 0.175$, $t(333) = 3.115$, $p = .002$). These results are consistent with previous findings that suggest that television cultivates material values and aspirations in children (Behal & Soni, 2018; Churchill & Moschis, 1979; Moschis et al., 2011).

Parent cultivation

Next, we tested for cultivation effects for the parents by regressing materialism on weekly television viewing, controlling for parent gender, age, and household income. The results of this analysis can be seen in the bottom portion of [Table 2](#). As with children, controlling for demographic measures, weekly television viewing hours are positively correlated with level of materialism ($\beta = 0.310$, $t(320) = 6.195$, $p < .001$). These findings replicate previous research that has shown that television

Table 2. Study 1 Multiple Regression of Television Cultivation Effect

Dependent variable: child materialism					
	Coefficient	SE	β	t	p
Constant	2.732	.831		3.287	.001
Child TV viewing	.008	.003	.175	3.115	.002
Child age	.006	.052	.006	.106	.915
Child gender (1 = male)	.013	.103	.007	.122	.903
Child race (1 = White)	-.086	.121	-.040	-.710	.478
Parent income	.002	.013	.010	.178	.859
Model summary: $R^2 = .035$; $F(5, 333) = 2.409$, $p = .036$.					
Dependent variable: parent materialism					
	Coefficient	SE	β	t	p
Constant	3.890	.310		12.545	< .001
Parent TV viewing	.019	.003	.310	6.195	< .001
Parent age	-.030	.005	-.294	-5.893	< .001
Parent gender	-.342	.091	-.188	-3.739	< .001
Parent income	.015	.011	.070	1.387	.166
Model summary: $R^2 = .240$; $F(4, 320) = 24.846$, $p < .001$.					

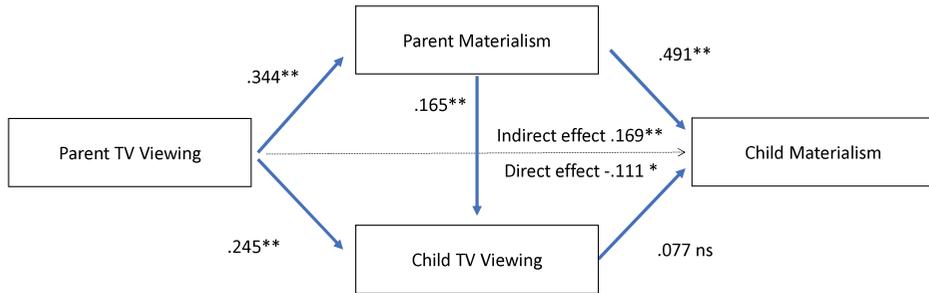


Figure 2 Mediation model (Study 1).

Note: Standardized coefficients are given. $*p < .05$. $**p < .001$.⁶

viewing cultivates adult materialism (Leyva, 2018; Shrum et al., 2005, 2011; Sirgy et al., 1998; Yang & Oliver, 2010).

Mediation

In isolation, the previous analyses are consistent with cultivation effects for both parents and children. However, for the cultivation effects for children, it is possible that child materialism is also driven by the parents' level of materialism, which itself may result from the parents' level of television viewing. To investigate this possibility, we tested a dual model in which parents' television viewing is positively correlated with parent materialism and also with child television viewing, both of which in turn positively predict children's materialism. We also included the path from parent materialism to child TV viewing in the model. We tested this model with Hayes' (2018) PROCESS macro (Model 6) in SPSS with 5,000 bootstrapping samples, with parent television viewing as the independent variable, children's materialism as the dependent variable, parent materialism and child TV viewing as two mediators, and controlling for child age, gender, and race, and parent household income.

The results of this analysis can be seen in Figure 2 (for complete details, see Supplementary Appendix B, Table B1). For mediation through parent materialism, parent TV viewing is significantly related to parent materialism, $\beta = 0.344$, $t(315) = 6.421$, $p < .001$, and parent materialism is significantly related to child materialism, $\beta = 0.491$, $t(313) = 9.090$, $p < .001$. Parent TV viewing is significantly related to both child TV viewing, $\beta = 0.245$, $t(314) = 4.385$, $p < .001$, and to child materialism, $\beta = 0.165$, $t(314) = 3.000$, $p = .003$. However, child TV viewing is not related to child materialism, $\beta = 0.077$, $t(313) = 1.411$, $p = .159$. The direct effect of parent TV viewing on child materialism is significant but negative, $\beta = -0.111$, $t(313) = -1.997$, $p = .047$, whereas the indirect effect between parent TV viewing and child materialism is significant and positive, $\beta = 0.192$, 95% CI = (0.008, 0.018), indicated by the 95% CI not including zero, which suggests that the effect of parent TV viewing on child materialism is partially mediated through parent materialism.

Supplementary analyses

To probe the data further, we conducted additional analyses. First, we tested for possible child age effects. Given that socialization is a developmental process that occurs over time, it is possible that smaller cultivation effects might be observed for younger versus older children. However, no apparent age effects were noted. Of course, the age range restriction makes this test extremely conservative, so the findings are not conclusive. Second, we tested for genre-specific effects by conducting the same set of analyses, but including TV viewing hours for each genre (e.g., comedy, sports, news) instead of the overall TV hours. In those analyses, none of the genre-specific TV variables reach significance, providing empirical support for cultivation as a cross-genre construct related to overall television exposure. Finally, we tested for possible mainstreaming (Gerbner et al., 1980) and differential susceptibility effects (Valkenburg & Peter, 2013), as a function of income, race, or parent materialism. However, none of the variables moderated the child cultivation effect.

Discussion

The results of Study 1 show that, when considered in isolation (i.e., zero-order correlations), each of the individual paths (a–d) shown in Figure 1 were significant. These findings are consistent with theory and prior research. In particular, a parent (adult) cultivation effect was observed, and the magnitude of the effect is almost identical to the effects reported by Sirgy et al. (1998) and Shrum et al. (2005), although somewhat larger than those reported by Good (2007) and Yang and Oliver (2010). A child cultivation effect was also observed. However, when both mediation paths were included in the model, a different story emerged. Although the parent cultivation effect was still observed, the child cultivation effect was no longer significant. Collectively, the findings highlight the importance of accounting for multiple socialization factors when assessing consumer cultivation effects in children.

The results of Study 1 support an indirect cultivation effect via the transmission of parents' materialism to their children. However, the results do not support an indirect cultivation effect through the transmission of parents' television viewing behavior to their children. When parent materialism was included in the model, the indirect effect of parent TV viewing on child materialism through child materialism was not significant. In Study 2, we test whether these findings replicate.

Study 2

Method

Participants

The process for recruiting parent–child dyads differed slightly from Study 1 because the panel company required that the parents and their children complete the survey on the same platform, but independently from each other (i.e., we could not contact the child separately by email). Initially, 3,140 parents (all of whom were different

from those in Study 1) were informed about the study, and 80.3% provided their consent for their child to participate. The eligible parents ($n = 555$) who had indicated agreement to the survey procedures then proceeded to the survey; 79 parents did not follow through to the survey itself, 19 parents were disqualified because their child was outside the 14–17 age range, and another four did not complete the parent survey. Of the children contacted to complete the survey, 472 children entered the survey, and 99.2% of the children provided assent and completed the child survey.

The final sample consists of dyadic survey data from 444 parents ($M_{\text{age}} = 43.71$, $SD = 7.84$; 69.6% women) and their children who met the screening criteria (17 participants over 17 years of age and 8 participants under 14 years of age were excluded). Because of missing data, the analyses are based on 419 parent–child dyads. Children’s gender was equally distributed (50.6% girls). The age distribution was as follows: ages 14 (30.8%), 15 (30.5%), 16 (34.8%), and 17 (3.8%). The distribution is slightly different from the one observed in Study 1, with more 14-year-olds and fewer 17-year-olds. In terms of ethnicity/race, 73.5% of the children were Caucasian, 10.5% African American, 7.4% Hispanic, 4.1% Asian, and the remainder (0.1%) indicated “Other.” Parents’ reported annual household incomes ranged from under \$20,000 (8.8%) to over \$150,000 (10.5%), with the median in the \$50–\$60,000 bracket.

Measures

The measures used in Study 2 were identical to those used in Study 1, except that music videos, game shows, news, and late night talk shows were included as additional genres. The materialism scale for parents ($\alpha = 0.86$) and children ($\alpha = 0.89$) again showed high internal consistency. Average weekly television viewing for parents ($M = 26.21$, $SD = 16.26$) and children ($M = 22.30$, $SD = 17.61$) were similar to Study 1 for parents, but slightly lower for children. This may relate to the slight differences in ages (Watson, 2020a). As in Study 1, we treated values greater than 1 SD from the viewing mean (52 hours) as outliers, and thus recoded all total viewing outliers as 52 hours. Means and correlations for all measured variables are shown in the bottom portion of Table 1.

Results

Child cultivation

We again tested whether child television viewing frequency is positively related to their level of materialism via regression analysis. The results of this analysis appear in the top portion of Table 3. Controlling for the demographic variables, weekly television viewing hours is positively correlated with level of materialism ($\beta = 0.253$, $t(412) = 5.293$, $p < .001$), replicating the findings from Study 1, although the magnitude of the effect is somewhat larger than the Study 1 child cultivation effect.

Table 3. Study 2 Multiple Regression of Television Cultivation Effect

Dependent variable: child materialism					
	Coefficient	SE	β	t	p
Constant	4.571	.677		6.750	< .001
Child TV viewing	.012	.002	.253	5.293	< .001
Child age	-.094	.044	-.102	-2.134	.033
Child gender (1 = male)	-.059	.078	-.036	-.758	.449
Child race (1 = White)	-.086	.089	-.047	-.968	.334
Parent income	-.005	.009	-.027	-.554	.580
Model summary: $R^2 = .142$; $F(4, 391) = 15.973$, $p < .001$.					
Dependent variable: parent materialism					
	Coefficient	SE	β	t	p
Constant	3.403	.227		15.017	< .001
Parent TV viewing	.015	.002	.308	6.489	< .001
Parent age	-.017	.005	-.177	-3.733	< .001
Parent gender	.167	.081	.099	2.069	.039
Parent income	.005	.009	.025	.530	.596
Model summary: $R^2 = .078$; $F(5, 412) = 6.920$, $p < .001$.					

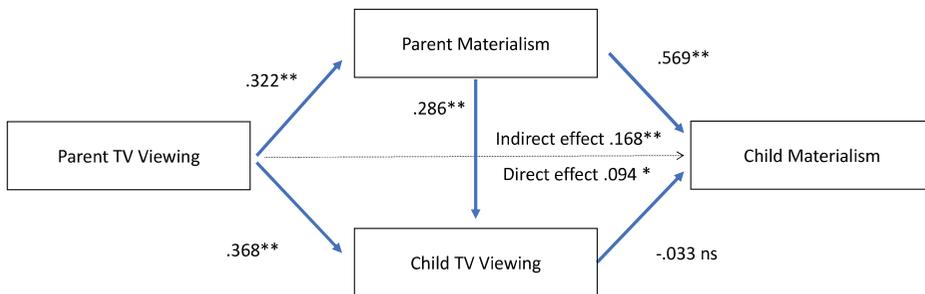


Figure 3 Mediation model (Study 2).

Note: Standardized coefficients are given. * $p < .05$. ** $p < .001$.⁷

Parent cultivation

Next, we tested for cultivation effects for the parents. The results of this analysis appear in the bottom portion of Table 3. Controlling for demographics, weekly television viewing hours are positively correlated with level of materialism ($\beta = 0.308$, $t(391) = 6.489$, $p < .001$), also replicating Study 1 with an almost identical effect size.

Mediation

In isolation, the previous analyses again are consistent with cultivation effects for both parents and children. To test the mediation model, we again used Hayes'

(2018) PROCESS Model 6 in SPSS with 5,000 bootstrapping samples, with parent television viewing as the independent variable, children's materialism as the dependent variable, and parent materialism and child TV viewing as mediators, and child age, child gender, and parent household income as control variables.

The results of this analysis can be seen in [Figure 3](#) (for complete details, see [Supplementary Appendix C, Table C1](#)). For mediation through parent materialism, parent TV viewing is significantly related to parent materialism, $\beta = 0.322$, $t(388) = 6.519$, $p < .001$, and parent materialism is significantly related to child materialism, $\beta = 0.569$, $t(386) = 12.641$, $p < .001$. Parent materialism is also related to child TV viewing, $\beta = 0.286$, $t(387) = 6.304$, $p < .001$. Parent TV viewing is significantly related to child TV viewing, $\beta = 0.368$, $t(387) = 7.908$, $p < .001$, but child TV viewing is not related to child materialism, $\beta = -0.033$, $t(386) = -0.695$, $p = .487$. The direct relation between parent TV viewing and child materialism is significant, $\beta = 0.094$, $t(386) = 1.983$, $p = .048$, and the indirect relation is significant, $\beta = 0.168$, 95% CI = (0.005, 0.012), which indicates that parent materialism partially mediates the effect of parent TV viewing on child materialism. The findings generally replicate those of Study 1.

Supplementary analyses

We further probed the data with the same analyses as Study 1 by testing for possible effects of child age (as an interaction variable), and for genre-specific relations. As in Study 1, there were no discernable effects of age. Unlike Study 1, we did observe two significant relations between genre viewing frequency and materialism. When we replaced overall TV viewing hours with genre-specific viewing hours in the regression analyses, cartoon viewing frequency was positively related to materialism ($\beta = 0.247$, $t(407) = 3.377$, $p = .001$), and documentary viewing frequency was negatively related ($\beta = -0.200$, $t(407) = -2.225$, $p = .027$). However, these findings are difficult to interpret, particularly given that none of the genres that prior research has shown to have independent influences are significant predictors (e.g., news, reality shows, soap operas, etc.). Thus, we interpret this pattern as generally aligning with a construal of cultivation as a form of influence related to overall television exposure. Finally, as with Study 1, we tested for moderating effects of income, race, and parent materialism on the child cultivation effect, but again none were significant.

Discussion

The results of Study 2 generally replicate the findings from Study 1. In isolation, both parent and child cultivation effects were observed. However, when all variables are considered simultaneously, the child cultivation effect is no longer significant. Also consistent with Study 1, an indirect cultivation effect was observed in which parents' cultivation of materialism via television viewing is passed on to their children, but there was no indirect cultivation effect through the transmission of parents' television viewing behavior to their children.

General discussion

There is persistent concern about an apparent recent rise in youth materialism, along with feelings of entitlement and narcissistic tendencies (Oprea & Kühne, 2016), and media consumption has received the strongest indictment as the cause of this increase (Valkenburg & Piotrowski, 2017). This indictment has appeal on a number of levels. For one, the media not only reflect consumer culture (at least for the United States) in terms of the symbolic messages, it *is* the consumer culture in terms of marketing and advertising. In addition, media use is increasing. Many children not only have their own smartphones, tablets, and computers, they also often have their own televisions in their own rooms. Thus, given that American youth continue to watch a lot of television, and now supplement that with other media that also have both symbolic and literal consumer messages, it is difficult to imagine how the presumed effect of media consumption on materialism could *not* happen. A third and perhaps more important reason that the media seem the likely culprit for rising youth materialism is the data: A large corpus of research attests to the often-sizable correlation between media consumption (mostly television) and measures of materialism, particularly in the United States. This relation is typically explained in terms of cultivation theory, which posits that media messages act as a socializing force that transmits an inherently materialistic worldview.

In this research, we take a broader look at the consumer socialization process by also including the role of parents as a socialization agent, but still within the theoretical framework of cultivation theory. In two studies, we show that television consumption is both directly and indirectly related to consumer socialization in children. In one pathway, parents act as a socialization agent by directly passing on their material values to their children. However, parents' materialism is itself related to their own media consumption, consistent with traditional consumer cultivation effects in adults. In this pathway, parents in effect pass on their own cultivation effect to their children: Parent TV viewing is positively associated with parent materialism, which is in turn positively associated with their children's level of materialism. We found strong support for this model in both studies.

We also tested a second indirect effect in which parents act as a socialization agent by directly passing on their television viewing habits. Parents pass on their television viewing behavior to their children, which in turn influence the child's level of materialism. When all of the variables were considered in the empirical analyses (i.e., parent TV viewing, parent materialism, child TV viewing), we observed no significant direct relation between child TV viewing and child materialism. In other words, we did not observe a direct child cultivation effect, only one that is mediated through the parent socialization path.

Contributions

Our research makes several contributions. First, it provides a more nuanced view of cultivation effects by demonstrating indirect effects of parents' television viewing

on their children's value systems. Cultivation effects have typically been examined as direct effects of media consumption on outcome variables, whether societal perceptions, attitudes and beliefs, or personal values. In the context of the cultivation of materialism, our findings suggest that parent cultivation effects can essentially be passed along to their children.

Second, when we included the socialization factors of parents' television viewing behavior and parents' materialism, along with child TV viewing, a direct child cultivation effect was no longer observed, and this pattern was consistent across both studies. This finding illustrates the importance of considering multiple socialization factors in cultivation studies, at least when the different factors are clearly intertwined. More specifically, failing to account for parental socialization of materialism may lead to invalid conclusions of a child cultivation effect in which child viewing influences child materialism. However, ironically, the indirect cultivation effect only reinforces the important role of television viewing as a consumer socialization agent by showing another possible cultivation mechanism.

Our findings also closely replicate previous research on adult consumer cultivation. The presumed effect of television viewing on materialism is robust, and relative to many cultivation effects, sizeable. Moreover, the effect sizes noted in this study for adult consumer cultivation were almost identical between the two studies, and consistent with previous research. Thus, both the effect and the effect size replicated, even though the sample characteristics and methods of measurement of key variables were different across those studies.

Caveats and limitations

We noted that although we observed a positive correlation between child TV viewing and child materialism, consistent with numerous other studies, the correlation was reduced to nonsignificance when accounting for parent materialism. We further noted that this illustrates the importance of including other socialization factors that may also influence child materialism. However, we also do not want to overstate the case, and also want to be clear that we are not criticizing this prior research. First, although we included additional socialization factors that are not typically considered in cultivation studies, our research itself suffers from the limitation that there are still other important socialization factors we did not account for, such as peer influence and educational influence, among others. Second, it seems unlikely that parent materialism can completely explain the relation between child TV viewing and child materialism in all studies. Moreover, there are several experimental studies, primarily on the effects of advertising on materialistic beliefs (Goldberg & Gorn, 1978; Greenberg & Brand, 1993), showing these same effects, suggesting the effect is genuine. That said, it may be that the size of the direct child cultivation effect is not as large as some studies suggest. However, we also acknowledge that it is difficult to both conceptually and empirically distinguish between the parent and child cultivation effects, as they are both parts of the general system of cultivation.

We tested a mediation model of parent and media socialization, which implies a particular causal order. Although our cross-sectional design prohibits strong inferences of causality from the data, the proposed causal relations are theory-driven and consistent with numerous studies on socialization processes in which parents pass on their values and behaviors to their children. However, although the parent-to-child path is likely the most dominant, reverse effects also occur, and are worth acknowledging. For example, children can also influence their parents' viewing behavior, a phenomenon referred to as the *child effect* (Nelissen, 2018; Van den Bulck et al., 2016). Similarly, children can also influence their parents' values (Knafo & Galansky, 2008). Thus, although parent-to-child socialization may exert the strongest effects, the socialization process is likely a bidirectional and mutually reinforcing process (Van den Bulck & Van den Bergh, 2005).

Implications for future research

*Cultivation meets two-step flow*⁸

Accounting for nonmedia socialization effects in cultivation research raises a number of conceptual and empirical issues. First, although we positioned our research in cultivation theory, it also has some resemblance to the two-step flow model of communication (Katz & Lazarsfeld, 1955), which posits that media influences opinion leaders, who in turn influence the general public. To the extent that parents can be considered opinion leaders or “influencers,” the parent TV viewing → parent materialism → child materialism captures the general tenets of two-step flow theory. Second, although our research is confined to the cultivation of material values, the findings also have implications for child cultivation effects more generally. For example, to what extent do parents also pass on to their children values and beliefs that may foster a mean world syndrome (e.g., fear, anomie, etc.), whose effects may be independent of child television viewing? Moreover, the issue is not confined only to socialization effects during childhood: Parent socialization effects during childhood may foster values and beliefs that persist into adulthood. The fact that parents appear to pass on not only their values but their television viewing behaviors raises the question of the extent to which television viewing messages may have direct effects on viewers. Although disentangling the potential competing effects is both conceptually and empirically challenging, consideration of multiple socialization influences in the context of cultivation research provides a potential path for future research.

Cultivation theory was conceived when media information was more homogeneous, concentrated in terms of how it was disseminated, and dominated by a few large players, raising the question of whether traditional cultivation research (and two-step flow, for that matter) even matters in an environment of numerous media outlets for information via social media, TikTok, YouTube, and the like, all of which are infiltrated by advertisers and influencers? Yet, both adults and children continue to watch a lot of traditional television, and the amount of overtly materialistic content also seems to be growing, particularly in terms of reality TV and celebrity

culture programs that are often targeted to children and emerging adults (Lewallen et al., 2016; Leyva, 2018; Oprea & Kühne, 2016). Consumer cultivation effects appear to be robust, and our research provides a more nuanced view of how cultivation may work. Thus, taken together, just like the reports of the death of television viewing may be greatly exaggerated, reports of the death of cultivation research (Katz & Fialkoff, 2017) may also be greatly exaggerated.

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Supporting information

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Notes

1. We provide separate discussions of presumed effects of television program viewing and television advertising viewing on materialism to accurately portray the positioning of the research, even though in most cases, it is difficult if not impossible to methodologically distinguish between the two presumed causal variables. However, given that both program and ad viewing effects on materialism are conceptualized within cultivation theory, the distinction is not critical for the current research.
2. Because some parent demographic data were missing (e.g., some parents mistakenly indicated their child's age instead of their own), the analyses (in both Studies 1 and 2) do not all have the same degrees of freedom.
3. Note that we measured both parent and child television viewing before materialism, and research suggests that measuring television viewing before the criterion variable can reduce or eliminate cultivation effects (Shrum et al., 1998). However, this question-order effect pertains to memory-based judgments (first-order cultivation judgments), and not online judgments (second-order

- cultivation judgments; Shrum, 2004, 2009). Regardless, measuring television viewing first should only attenuate the effects reported here, not inflate them.
4. The measures for parent and child TV viewing differ because our primary interest was in media effects on adolescents, including potential differential effects of genre viewing.
 5. The relations between variables and overall conclusions do not fundamentally differ as a function of the different outlier limits.
 6. This model was also tested as a structural equations model. This analysis confirmed the array of significant paths from the regression approach reported in the text with the following fit statistics: Chi Square = 3.76, $p = .053$; Root Mean Squared Error of Approximation = 0.092; Comparative Fit Index = 0.984; Tucker–Lewis Index = 0.902.
 7. This model was also tested as a structural equations model. This analysis confirmed the array of significant paths from the regression approach reported in the text with the following fit statistics: Chi Square = 3.94, $p = .047$; Root Mean Squared Error of Approximation = 0.086; Comparative Fit Index = 0.991; Tucker–Lewis Index = 0.947.
 8. We thank a reviewer for this suggestion.

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