

TV and Internet as Drivers of Children's Materialism: The Moderating Effects of School Type, Age and Attitude to Ads.

Abstract

This article examines the influence of TV and Internet exposure on materialism in children aged 8-12 years in a sample from Spain, and the moderating effects of school type, age and attitude to ads. Results show that the impact of TV exposure on materialism is higher in children who attend religious schools and who hold positive attitudes to ads. Similarly, the impact of Internet exposure on materialism is higher in children of religious schools and in older children. Results are discussed, as well as their implications for parents and policy makers.

Keywords: materialism, children, Internet

Introduction

Children's exposure to consumption has skyrocketed in the last 25 years. With the discovery of kids as a market, marketers in the 90s developed an array of techniques to enter the children's world, such as qualitative techniques, ethnographic studies, and observation of children at home and school (Cook, 2009). Getting rid of considerations about children's vulnerability, companies used this research with the overt goal of increasing sales of goods for children. And they were successful. In 2004, Schor reported that a typical first grader was able to remember 200 different brands and owned an average of 70 different toys (J. B. Schor, 2004). And parents think that marketing today «puts pressure on children to buy things they

do not need, negatively affects their values and worldview, and makes them too materialistic» (Schor 2005 p.5).

Increased materialism in children has led scholars to explore the ways in which materialistic traits develop in children, and some studies have identified many factors correlated to children's materialism (Goldberg, Gorn, Peracchio, & Bamossy, 2003). One of these factors is media exposure. As children media have expanded and exposure of children to TV programs has increased (Rideout, Foehr, & Roberts, 2010), there is a concern that leaving your children in front of a TV set may be a way to let materialistic messages reach their minds and shape their behavior.

But in the study of media and their influence on children, the interaction with other factors has not always been analyzed. Do more hours of TV watching lead to increased materialism, or are there factors that moderate the influence of media exposure on materialism? This paper explores the moderating effect of three factors (school type –religious or secular–, attitude to ads and age) on the relationship between television viewing and Internet surfing with materialism. In addition, it posits that susceptibility to peer influence is a very strong driver of materialism in children, but that its effects are mediated by attitudes to advertisement

Background and Literature Review

Children media have expanded in the last 25 years. The first program for children in the U.S. appeared in 1954, when ABC aired its *Mickey Mouse Show* including ads of Mattel's Barbie (J. B. Schor, 2004). In the 80s, cable stations specifically targeted at children appeared. Networks such as Nickelodeon, the Disney Channel and Cartoon Network became part of children's lives in addition to classical Saturday morning TV shows. This process also took place as a result of increasing TV penetration in American households: in 1970 only 6% of sixth graders had a TV set in their bedroom, while in 2009 71% of children did; besides, 84%

of children in the U.S.A have now cable or satellite TV at home (Rideout et al., 2010; Rideout, Foehr, Roberts, & Brodie, 1999).

In the beginning, some of these networks (as Nickelodeon) did not contain advertising, but that changed over time. In 2000, a corporate Nickelodeon ad boasted that it «owns 50% of the K2-11 Gross Rating Points» (Schor 2004 p.19). Far behind is the year of 1978, when the Federal Trade Commission in the U.S. asked for a ban on all commercials directed to children under the age of seven, on the basis that they were too young to understand their intent and thus advertising was unfair, a request that was overruled by Congress in the 80s. The money at stake is now too much to give up advertising income: purchases of children aged four to twelve in the U.S. increased from 6 billion in 1989 to 30 billion in 2002.

Scholars have discovered that media exposure has a huge power to influence children's behavior from a very early age. Goldberg and Gorn (1978) showed that children exposed to advertisements of a fictitious toy preferred to play with the toy instead of playing with other children. And Goldberg *et al.* (1978) discovered that children of 5 and 6 years exposed to sugared snacks TV ads significantly increased their choice of sugared snacks and breakfast cereals, even when knowing that sugared foods were unhealthy.

Media Effect on Children's Materialism

If media exposure affects children's consumption behavior, can it affect children's materialism as well? Materialism is defined as «the importance a consumer attaches to worldly possessions» (Belk 1984, 291). Worries about increased materialism in children come from reported negative outcomes in people who hold materialistic values, such as unhappiness (Belk, 1984), lower subjective well-being (Belk, 1984; Burroughs &

Rindfleisch, 2002), depression (Burroughs and Rindfleisch 2002) and low school performance (Goldberg et al., 2003).

Earlier research by the end of the 70s found that the amount of TV viewed is linked to higher levels of materialism in teenagers (Churchill & Moschis, 1979). But recent studies have come up with different findings. Speck and Peterson (2010) found that the quantity of television viewed was not significantly related to materialism in a sample of Peruvian teenagers from a Catholic High School. Chan et al. (2006) also found that television viewing had no effect on materialism, although adolescents who viewed advertising for social motives (to impress others, to learn about cool things to buy, or to see icons) were more materialistic.

TV Commercials Effect on Children's Materialism

Media exposure, or the number of hours a kid watches TV, may be only a proxy of other variables, such as TV ads exposure, interest in TV ads or positive attitudes towards advertisement. So, academics have explored all these variables. One of the most examined variables is TV ads exposure, with most studies reporting that it significantly increases children's materialism. Buijzen and Valkenburg found that children who frequently watched television commercials had stronger materialistic values than children who seldom watched TV ads, and this effect was as strong for younger and older children (Buijzen & Valkenburg, 2003, 2005). Other studies also found that TV advertising viewing increased materialism (Chan & Cai, 2009). And some studies have found that interest in commercials (Goldberg et al., 2003) and social utility reasons for watching TV ads (Chan et al., 2006) are strong predictors of adolescents' materialism.

Research Hypotheses

To analyze the impact of media, two variables are considered: television viewing and internet usage. Internet is a relative new factor in the study of materialism: little research has explored its influence on children's materialism. In 2013, Malik and Wojdyski (2013) identified in a content analysis several depictions of materialism in children's web sites in the U.S., including winning a contest, shopping, hoarding wealth and finding riches.

School is a socialization agent that can exert a great influence on children. In Spain, schools can be public, State-aided or private. Public schools are wholly funded from the public purse, while State-aided and private schools can be secular or religious (mostly Catholic). Religious schools provide an environment in which materialism in children is discouraged, given the fact that all major religions criticize an excessive focus on wealth (Belk, 1983). On the same time, it is possible that television viewing and Internet exposure have a greater impact on materialism in children of religious schools. Children in religious schools may have lower materialism levels, as religiosity is associated with lower materialism in adolescents (Speck & Peterson, 2010) and adults (Belk, 1985). And, in turn, TV advertising effects on materialism are stronger in children who initially score low in materialism (Moschis & Moore, 1982). As a result, the following hypotheses are presented:

H1: Television viewing impact on materialism will be higher in children of religious schools than in children of secular schools.

H2: Internet usage impact on materialism will be higher in children of religious schools than in children of secular schools.

Attitude to ads is another variable that can moderate television viewing impact on materialism. Normative influence was defined by Deutsch & Gerard as the influence to conform to the expectations of another person or group (Burkrant & Cousineau, 1975). Kids

can take TV advertising as a source of normative influence, believing that ads tell them what things they should have. The more positive attitude to ads, the more TV viewing is expected to impact on children's materialism. As a result, the following hypothesis is presented:

H3: Television viewing impact on materialism will be higher in children with a positive attitude to ads (children who trust ads or take them as normative influence).

Age is also a possible moderator of the effects of advertising on materialism. It is hypothesized that it may be a moderator of the effects of internet usage on materialism. Older children are more likely to participate in social networks and interact with other children. And interpersonal influences may in turn foster materialistic attitudes (Chaplin & John, 2010). As a result, the following hypothesis is presented:

H4: Internet usage impact on materialism will be higher in older children.

Method

Surveys were conducted in four State-aided schools, secular and religious, in the province of Barcelona, Spain. Access was granted by the school authorities. Children filled out their survey in the classroom following instructions by an assistant. Surveys were strictly anonymous and confidential. 492 children answered the survey. The final sample consisted of 243 girls (49.4%) and 249 boys (50.6%) aged 7 to 13 years ($M=10.40$, $SD=1.48$).

Materialism was measured using the Youth materialism scale (YMS) designed by Goldberg *et al.* (2003). The scale comprises 10 questions, such as «I would be happier if I had more money to buy more things for myself», or «I would love to be able to buy things that cost a lot of money». Answers were measured on a 4-point Likert scale (YES, yes, no, NO). Television viewing and Internet usage was measured by asking how many hours they watched TV and surfed the internet, on weekdays and on weekends. Attitude to ads was measured by three

questions used in a previous Chinese study (Chan, 2003), «Ads make me want to have more toys», «Ads always tell the truth» and «Ads tell me about what things I should have». Cronbach's alpha of the three questions was 0.40 ($M=0.70$, $SD=0.60$), probably because the questions are not a established scale.

Results

Television viewing ($\rho=0.139$, $p<0.01$), Internet surfing ($\rho=0.118$, $p<0.01$) and attitude to ads ($\rho=0.435$, $p<0.001$) were all positively related to children's materialism. Age was negatively related ($\rho=-0.223$, $p<0.001$), with younger children being more materialistic. Children in religious schools were significantly less materialistic than children in secular schools ($\rho=-0.143$, $p<0.01$). The correlation matrix is shown in Table 1:

TABLE 1

Correlation Matrix

	1	2	3	4	5
1. Children's materialism					
2. Television viewing	0.14**				
3. Internet surfing	0.12**	0.26***			
4. Attitude to ads	0.44***	0.03	0.01		
5. Age	-0.22***	0.03	0.12*	-0.31***	
6. School type (0=secular, 1=religious)	-0.14**	-0.17***	-0.07	-0.05	0.06

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Interaction effects.

Interaction effects were examined using Andrew F. Hayes PROCESS software (Field, 2012). A significant interaction effect was found between television viewing and school type, and between Internet surfing and school type. Specifically, for children of secular schools, the

effect of more hours of TV on materialism was not significant, but for children in religious schools, watching more hours of TV significantly increased their levels of materialism. H1 was thus supported.

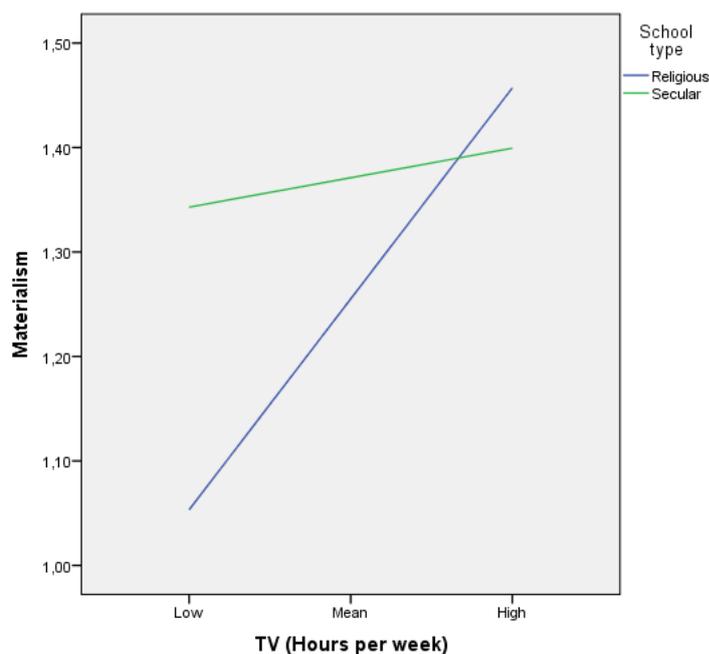
TABLE 2. *School type as moderator of TV hours*

	B	SE β	T	P
Constant	1.34 [1.29,1.39]	.025	54.66	$p < .001$
School type (centred)	-.12 [-.22,-.01]	.054	-2.14	$p < .05$
TV hours (centred)	.007 [.002, .012]	.003	2.69	$p < .01$
School type X TV hours	.017 [.006, .028]	.006	3.06	$p < .01$

School type	Effect	SE	t	p
0 (secular)	.003	.003	.88	NS
1 (religious)	.020	.005	4.32	$p < .001$

Values for quantitative moderators are the mean plus/minus one SD

FIGURE 1. *Slopes of materialism on TV hours by school type*



The interaction effect between Internet hours and school type is significant for children in religious schools, but not for children in secular schools. The reasons for this impact may be similar to the ones explained in the case of TV hours. Table 3 and Figure 2 show these interaction effects. H2 was supported.

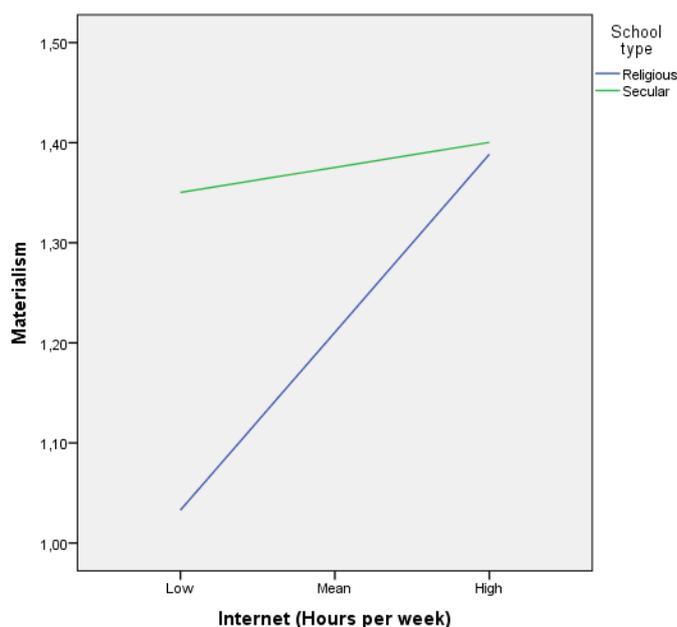
TABLE 3. *School type as a moderator of internet hours*

	β	SE β	t	p
Constant	1.33 [1.29,1.38]	.024	54.79	$p<.001$
School type (centred)	-.16 [-.27,-.06]	.052	-3.17	$p<.01$
Internet hours (centred)	.007 [.001, .012]	.003	2.24	$p<.05$
School type X Internet hours	.016 [.004, .028]	.006	2.62	$p<.01$

School type	Effect	SE	t	P
0 (secular)	.003	.004	.74	NS
1 (religious)	.019	.005	3.76	$p<.001$

Values for quantitative moderators are the mean plus/minus one SD

FIGURE 2. *Slopes of materialism on internet hours by school type*



The interaction term between television viewing and attitudes to ads is significant ($p < 0.01$). At low levels of advertising credibility (when ads are considered untruthful or do not influence the child) the interaction is not significant, and watching TV for many hours does not increase materialism; but at medium and high levels of advertising credibility and influence, watching TV for more hours significantly increases materialism. This suggests that the attitude of a child toward advertising moderates the impact of television viewing on materialism. Increased TV watching leads to increased materialism only in children who believe in ads or take them as a normative influence. H3 was supported.

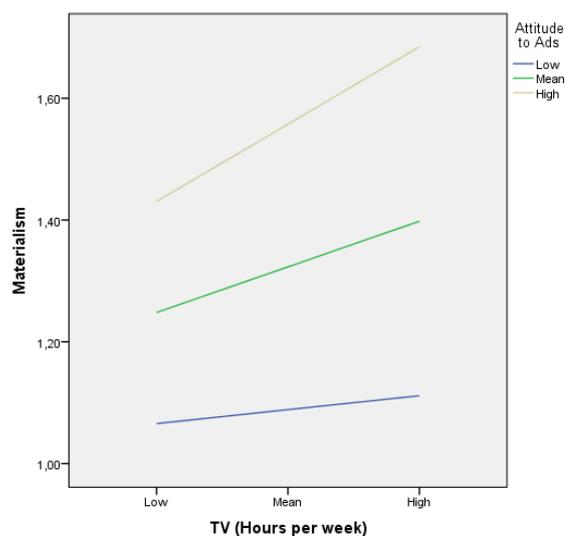
TABLE 4. *Attitude to ads as a moderator of TV hours*

	β	SE β	t	p
Constant	1.32 [1.28, 1.37]	.022	59.32	$p < .001$
Attitude to ads (centred)	.40 [.32, .48]	.040	10.25	$p < .001$
TV hours (centred)	.007 [.003, .011]	.002	3.52	$p < .01$
Attitude to ads X TV hours	.009 [.003, .015]	.003	2.82	$p < .01$

Attitude to ads	Effect	SE	t	P
-.5867	.002	.003	.78	<i>NS</i>
.0000	.007	.002	3.52	$p < .001$
+.5867	.012	.003	4.72	$p < .001$

Values for quantitative moderators are the mean plus/minus one SD

FIGURE 3. Slopes of materialism on TV hours at levels of attitudes to ads



Regarding the interaction of Internet exposure and age, the interaction is not significant for younger children, but it becomes significant for older kids. H4 was thus supported. An explanation may be the different use of internet made at different ages. Older kids in our sample have a higher participation in social networks (67% in children aged 12, versus 30% in children aged 8) This may increase their propensity to conform to peer influence and norms, which in turn triggers materialism. Table 5 and Figure 4 show this effect.

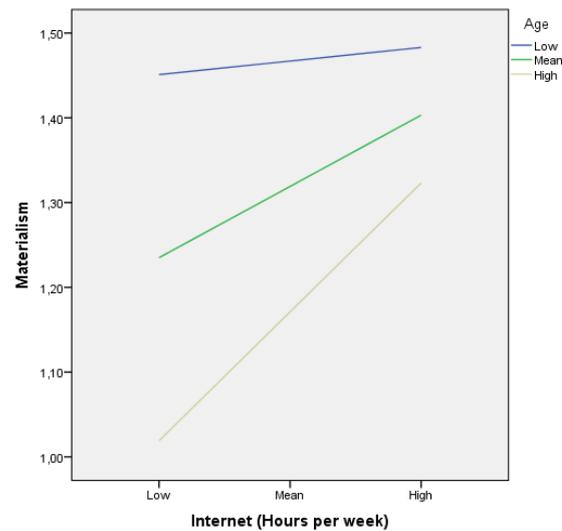
TABLE 5. Age as a moderator of internet hours

	β	SE β	t	p
Constant	1.32 [1.27,1.37]	.024	55.39	$p < .001$
Age (centred)	-.100 [-.133,-.067]	.017	-5.95	$p < .001$
Internet hours (centred)	.009 [.002, .015]	.003	2.62	$p < .01$
Age X Internet hours	.005 [.002, .008]	.002	2.87	$p < .01$

Age	Effect	SE	t	P
-1.485	.002	.004	.42	NS
.000	.009	.003	2.62	$p < .01$
+1.485	.016	.004	3.63	$p < .001$

Values for quantitative moderators are the mean plus/minus one SD

FIGURE 4. *Slopes of materialism on internet hours at levels of age*



Discussion

Results show that at least three factors moderate the effect of media exposure on children's materialism: school type, age and attitude to ads. School type is a significant moderator of both the impact of television viewing and internet usage on materialism. Exposed to heavy television viewing, children in religious schools develop materialistic traits to a greater extent than children in secular schools. Two reasons can account for this phenomenon. First, children in religious schools in our sample were less materialistic than children in secular schools. Moschis & Moore (1982) previously found that TV advertising effects on materialism were stronger in children who scored low in materialism. Children low on materialism may not be exposed to materialistic messages at school, but these messages are overwhelmingly present in television programs and advertising, leading to increased materialism. Second, religious schools may provide an atmosphere in which spiritual values are more important than material values. Exposure to materialistic lifestyles in TV programs and advertising conflicts with this worldview, and this in turn creates distress and feelings of insecurity, which increase materialism.

Internet moderators need further explanation. Two variables moderate internet effect on children's materialism: school type and age. The rationale behind the moderation of school type is the same as in the case of TV viewing, if we assume that internet sites are also a source of materialistic messages for children. Young children have difficulties identifying advertisements in web pages: 8 year olds recognize only half of the advertisements, while 12 year olds recognize three quarters (Ali, Blades, Oates, & Blumberg, 2009). Internet may have a strong influence on children's materialism, as they can hardly distinguish advertisements from neutral messages.

Regarding the effect of age as a moderator of the impact of Internet on materialism, older children are more affected, and this seems related to their higher involvement in social networks. Chia (2010) found that frequent interpersonal communication increased perceived friends' materialism, which in turn increased adolescent's materialism. Further research may explore the influence of social networks on children's materialism.

Two theories help explain the mechanisms through which children of religious schools are affected by materialistic messages in TV and internet. Cultivation theory posits that media, to some extent, shape people's perception of social reality (Richins, 1987). A high number of violent acts in TV programs makes people believe that society is violent, and in the same way, a frequent depiction of happy people boasting the latest car, smartphone or toy, induces children to believe that material possessions bring about happiness. The second theory is Tim Kasser's two pathways to the development of materialistic value orientation. These are: 1) feelings of insecurity and 2) exposure to materialistic models and values (Kasser, Ryan, Couchman, & Sheldon, 2004). Children in religious schools are probably not exposed to materialistic models at school or even at home. Watching TV and engaging in social media in the Internet exposes children to materialistic icons and lifestyles that would otherwise not be available for them.

Finally, regarding the moderating effect of attitude to ads in the relationship of TV viewing and materialism, the finding confirms the idea that mere hours of TV viewing are relevant as long as they are connected with other variables, such as attitude to ads. Children that believe advertising more or take ads as a source of normative influence become more materialistic when exposed to TV viewing, while children who do not trust advertising will not experience any significant effect. Parents could devote time to explain to their kids the selling intention of advertising, and how reality is manipulated in commercials (through selection of beautiful models, artificial alteration of images, etc.) to depict situations that are seldom found in real life, in order to prevent TV messages from increasing materialism in their children.

References

- Ali, M., Blades, M., Oates, C., & Blumberg, F. (2009). Young children's ability to recognize advertisements in web page designs. *British Journal of Developmental Psychology, 27*, 71–83.
- Belk, R. W. (1983). Worldly possessions: Issues and Criticisms. *Advances in Consumer Research, 10*, 514–519.
- Belk, R. W. (1984). Three scales to measure constructs related to materialism: reliability, validity and relationships to measures of happiness. *Advances in Consumer Research, 11*, 291–297.
- Belk, R. W. (1985). Materialism: trait aspects of living in the material world. *Journal Of Consumer Research, 12*(3), 265–280.
- Buijzen, M., & Valkenburg, P. M. (2003). The unintended effects of television advertising: a parent-child survey. *Communication Research, 30*(5), 483–503.
- Buijzen, M., & Valkenburg, P. M. (2005). Parental mediation of undesired advertising effects. *Journal of Broadcasting & Electronic Media, 49*(2), 153–165.

- Burkrant, R. E., & Cousineau, A. (1975). Informational and normative social influence in buyer behavior. *Journal of Consumer Research*, 2(3), 206–215.
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: a conflicting values perspective. *Journal of Consumer Research*, 29(3), 348–370.
- Chan, K. (2003). Materialism among Chinese children in Hong Kong. *Advertising & Marketing to Children*, (July-September), 47–61.
- Chan, K., & Cai, X. (2009). Influence of television advertising on adolescents in China : an urban-rural comparison. *Young Consumers*, 10(2), 133–145.
- Chan, K., Zhang, H., & Wang, I. (2006). Materialism among adolescents in urban China. *Young Consumers*, (Quarter 1), 64–77.
- Chaplin, L. N., & John, D. R. (2010). Interpersonal influences on adolescent materialism: a new look at the role of parents and peers. *Journal of Consumer Psychology*, 20(2), 176–184.
- Chia, S. C. (2010). How social influence mediates media effects on adolescents' materialism. *Communication Research*, 37(3), 400–419.
- Churchill, G. A., & Moschis, G. P. (1979). Television and interpersonal influences on adolescent consumer learning. *Journal of Consumer Research*, 6(1), 23–35.
- Cook, D. T. (2009). Knowing the child consumer: historical and conceptual insights on qualitative children's consumer research. *Young Consumers*, 10(4), 269–282.
- Field, A. (2012). *Discovering statistics using IBM SPSS statistics* (p. 916). London: Sage Publications.
- Goldberg, M. E., & Gorn, G. J. (1978). Some unintended consequences of TV advertising to children. *Journal of Consumer Research*, 5(1), 22–29.
- Goldberg, M. E., Gorn, G. J., & Gibson, W. (1978). TV messages for snack and breakfast foods: do they influence children's preferences? *Journal of Consumer Research*, 5(2), 73–81.

- Goldberg, M. E., Gorn, G. J., Peracchio, L. A., & Bamossy, G. (2003). Understanding materialism among youth. *Journal of Consumer Psychology, 13*(3), 278–288.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology, 65*(2), 410–422.
- Kasser, T., Ryan, R. M., Couchman, C. E., & Sheldon, K. M. (2004). Materialistic values: their causes and consequences. In *Psychology and Consumer Culture* (pp. 11–28). Washington DC: American Psychology Association.
- Moschis, G. P., & Moore, R. L. (1982). Longitudinal study of television advertising effects. *Journal of Consumer Research, 9*(3), 279–286.
- Richins, M. L. (1987). Media, materialism and human happiness. *Advances in Consumer Research, 14*, 352–356.
- Rideout, V. J., Foehr, U. G., & Roberts, D. F. (2010). *Generation M2 Media in the Lives of 8 to 18 Year Olds* (pp. 1–85). Kaiser Family Foundation.
- Rideout, V. J., Foehr, U. G., Roberts, D. F., & Brodie, M. (1999). *Kids and Media at the New Millennium* (pp. 1–60). Kaiser Family Foundation.
- Schor, J. (2005). Work, family and children's consumer culture. In J. Heymann & C. Beem (Eds.), *Unfinished Work: Building Equality and Democracy in an Era of Working Families* (pp. 285–305). New York: New Press.
- Schor, J. B. (2004). *Born to buy: The commercialized child and the new consumer culture*. Scribner.
- Speck, S. K. S., & Peterson, T. (2010). Socialization of adult and young consumers into materialism: the roles of media and church in Peru. In *Research in Consumer Behaviour* (Vol. 12, pp. 133–160).