

An Integrative Model of the Influence of Parental and Peer Support on Consumer Ethical Beliefs: The Mediating Role of Self-Esteem, Power, and Materialism

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Abstract What causes adolescents to develop consumer ethical beliefs? Prior research has largely focused on the negative influence of peers and negative patterns of parent–child interactions to explain risky and unethical consumer behaviors. We take a different perspective by focusing on the positive support of parents and peers in adolescent social development. An integrative model is developed that links parental and peer support with adolescents’ self-worth motives, their materialistic tendencies, and their consumer ethical beliefs. In a study of 984 adolescents, we demonstrate support for a sequential mediation model in which

peer and parental support is positively related to adolescents’ self-esteem and feelings of power, which are each associated with decreased materialism as a means of compensating for low self-worth. This reduced materialism is, in turn, associated with more ethical consumer beliefs.

Keywords Ethics · Adolescent consumers · Materialism · Self-esteem · Power · Peer support · Parental support

Introduction

Understanding the determinants of consumer ethical beliefs is undoubtedly of importance to firms. The Report to the Nations (2014) on occupational fraud and abuse estimates that fraud and abuse cause an annual loss of \$3.7 trillion globally. Developmentally, unethical behavior and consumer fraud are more common during adolescence than childhood or adulthood (Ding et al. 2014). For example, a recent study estimates that 85 % of American adolescents engage in some type of academic dishonesty before graduating from high school (NBC News 2012). Similarly, 92 % of adolescents reported that they had lied to their parents in the past year (Bristol and Mangleburg 2005), 40 % of shoplifters are adolescents (Ama and Ifezue 2012), and 38 % of American adolescents think that they must engage in unethical behavior in order to be successful (Salzberg 2010).

So what causes individuals to adopt unethical behaviors? A substantial literature points to a plethora of determinants. These include demographic variables such as age, gender, and education (cf. Lu and Lu 2010; Rawwas and Singhapakdi 1998; Robertson et al. 2012; Tang and Chen 2008; Tang and Sutarso 2013), personality variables such as machiavellianism (cf. Rallapalli et al. 1994; Tang and

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Chen 2008), and personal values such as religiosity (Chen and Tang 2013; Vitell et al. 2007) and materialism (Chen et al. 2014; Muncy and Eastman 1998; Tang 2015; Tang and Chiu 2003; Tang et al. 2014; Tang and Liu 2012). Research has also examined the impact of interpersonal influences, such as peers (Lee 2013; O'Fallon and Butterfield 2011, 2012) and parents (Cabrera et al. 2011) on the development of ethical beliefs.

Although the research documenting many different determinants of consumer ethical beliefs is critical for understanding the scope of the problem, we argue that it is limited in its ability to provide information on the underlying mechanisms that influence consumer ethical beliefs (i.e., how they are formed). First, most research on the determinants of consumer ethical beliefs has focused on adults. However, beliefs, values, and general belief systems are formed at a very early age, typically during adolescence (Gentina et al. 2015a). Moreover, adolescents are different from adults and children, both in the development of their self-concept (Gentina and Bonsu 2013) and their ethical beliefs (Flurry and Swinbergh 2016; Gentina et al. 2015a) and behaviors (Gentina et al. 2015b). Thus, even though adult populations are very useful for understanding the societal scope and prevalence of consumer ethical beliefs (and their behavioral outcomes), we suggest that adolescents are an arguably better group for investigating the causal drivers of consumer ethical beliefs.

Second, and related, simple correlates (whether single or multiple) lack explanatory power. For example, demographics can tell us who has what beliefs, but not why. Even for personal values (e.g., materialism, religiosity), for which one can make reasonable inferences for the underlying causes, simple correlates are limited in their ability to provide a more comprehensive developmental model. Thus, although previous findings are suggestive of particular antecedents of consumer ethical beliefs, what is missing is an integrative framework that can explain them.

The research we present addresses these issues by proposing and testing a more comprehensive, integrative model that links two important developmental factors in adolescents (parental and peer support) with consumer ethical beliefs. Specifically, we report the results of a large-scale study ($n = 984$) of adolescents (ages 13–18) that links both parental and peer support with the development of particular aspects of self-worth (self-esteem and personal power), the development of material values, and the development of consumer ethical beliefs. More specifically, we propose and test an integrative model (sequential mediation) in which parental and peer support influence self-worth (self-esteem and power), which in turn influence adolescent materialism, which influences consumer ethical beliefs. In doing so, we integrate several different lines of research on the antecedents of consumer ethical beliefs.

Theoretical Development

Social Attachment Theory

Attachment theory posits that from a very early age, children construct internal working models of themselves and others, and that these models form the basis of a child's self-concept (Bowlby 1980). Empirical research shows early attachments' enduring influence on psychological well-being and interpersonal functioning in adulthood (Cutrona et al. 1994; Mikulincer and Shaver 2007). The close relationships that children develop and associated positive working models help them develop their self-worth and social behaviors across their lifespan (Chaplin and John 2010).

Thus, positive attachment systems enable adolescents to count on their parents both as a 'secure base' from which to explore and as a 'safe haven' for obtaining support (Moretti and Peled 2004). Social support is especially important during adolescence because of the many changes that take place during this stage of development. These changes include physical changes accompanying puberty that make adolescents very critical and self-conscious, the need to construct a self-identity by progressively distancing themselves from their parents, while also seeking to remain attached to them, and moving into junior high schools where they are the youngest members of the school, and thus rely increasingly on their peers as a support group (Chaplin and John 2007).

A healthy transition to autonomy and adulthood is facilitated by secure attachment and emotional connectedness to parents and peers (Ryan and Lynch 1989). First, parents are primary attachment figures for adolescents (Richins and Chaplin 2015), and parental support has a positive influence on self-esteem (Colarossi and Eccles 2000) and general identity development (Meeus et al. 2002). Moreover, parents are significant socialization agents, influencing the development of adolescent beliefs, attitudes, and values (John 1999). Conversely, detachment from parents can lead to the adoption of risky behaviors such as drinking and driving (Bogenschneider et al. 1998).

Second, peer support is critical to adolescent development. Peer support contributes to adolescents' self-esteem (Colarossi and Eccles 2000), social competence, general self-worth, and life satisfaction (Weiss and Ebbeck 1996). Conversely, a perceived lack of peer support and peer pressure can lead to unethical and detrimental behaviors such as smoking, and drug and alcohol use (Rose et al. 1992). However, even though adolescents rely on their friends for emotional support, they also continue to rely on their parents for some attachment needs (Nickerson and Nagle 2005).

Social Attachment Theory and Consumer Ethical Beliefs

Consumer ethics represent the “moral principles and standards that guide behavior of individuals or groups as they obtain, use, and dispose of goods and services” (Muncy and Vitell 1992, p. 298). Muncy and Vitell (1992) were among the first to define personal ethics in a consumption context, and to conceptualize consumer ethical beliefs in terms of four dimensions: (1) active engagement in an illegal activity, (2) passive engagement in an illegal activity, (3) engagement in a questionable or deceptive (but legal) activity, and (4) engagement in questionable activities that are perceived to result in little or no harm (termed “no harm, no foul” activities; Muncy and Eastman 1998, p. 139).

Parents serve as primary socialization agents. They provide support, convey the means to behave to achieve one’s goals through modeling, and shape the ethics of adolescent consumers (Flurry and Singhapakdi 2016; Rawwas and Singhapakdi 1998). Given the strong influence of peer and parental support on the development of adolescent beliefs, attitudes, and values (John 1999), it is likely that such social support influences consumer ethical beliefs and behaviors. Some research supports this proposition. For example, higher levels of parental support are associated with lower levels of adolescent unethical behaviors (Booth-LaForce and Oxford 2008; Spinrad et al. 2007), aggression (Hesari and Hejazi 2011), delinquency (Simons et al. 1998), substance abuse (Yang and Schaninger 2010), and cheating (Gentina et al. 2015b), although at least two studies have reported null findings (Agnew 1993; Akers and Cochran 1985). Similarly, peers also serve as socialization agents for adolescents (Chaplin and John 2010); research shows that higher levels of peer support are associated with fewer unethical behaviors (cheating, theft, vandalism, and violent acts; Gentina et al. 2015a, b; McElhaney et al. 2006) and more ethical beliefs (Gentina et al. 2015a; Lee 2013; but see Vitell 2003 for null findings).

Social Support, Self-Worth, and Materialism

Social Support and Self-Worth

Self-concept refers to the way individuals see themselves (Leary and Tangney 2003). It is multi-faceted, complex, and encompasses both a content component (e.g., how we see ourselves: teacher, student, athlete, mother, etc.; Harter 2012; Marsh 1990) and an evaluative component (how do we feel about ourselves; Hoyle et al. 1999). The evaluative component is commonly referred to as self-

worth, and consists primarily of self-esteem and power, i.e., self-efficacy (see Oyserman et al. 2012 for a review).

Adolescence is a critical period of self-concept development and for the formation and enhancement of feelings of self-worth, or lack thereof (Erikson 1968). Adolescence is often characterized by feelings of unease and self-doubt, low levels of self-esteem (Rosenberg 1965), and feelings of powerlessness (Mondimore and Kelly 2002). However, both parental and peer support can play an important role in bolstering adolescents’ feelings of self-worth (Hesari and Hejazi 2011). A substantial body of literature documents the effects of parental support on children’s social skills, including self-esteem (Gecas and Schwalbe 1986; Parker and Benson 2004) and self-assertiveness (Openshaw et al. 1984). Supportive parents boost adolescents’ self-esteem (Chaplin and John 2010), and positive parent–child interactions delay or reduce the onset and severity of initial self-esteem deterioration (Yang and Schaninger 2010). In the same way, peer support can contribute to adolescent psychological development and well-being (Kef and Dekovic 2004; Weiss and Ebbeck 1996). Adolescent friendships increase self-esteem, whereas peer rejection decreases self-esteem (Damon et al. 2006).

Power is a psychological state that influences behavior in numerous ways (Anderson and Galinsky 2006; Galinsky et al. 2003; Magee et al. 2007). For example, feeling powerful leads to optimism and action (Anderson and Galinsky 2006), greater reliance on one’s thoughts (Brinol et al. 2007), and increased abstract thinking (Smith and Trope 2006). Surprisingly little research, however, has examined the antecedents of feelings of personal power, and more specifically how parental and peer support can affect feeling powerful or powerless. Nevertheless, some research is suggestive. For example, parental support influences the development of leadership skills (Deason and Randolph 1998; Keller 2003), and adolescents with supportive parents positively approach their leadership roles and express more certainty about their ability to lead (Ainsworth and Bowlby 1991). In contrast, adolescents with unsupportive parents approach leadership with ambivalence and express reservations about their leadership capabilities (Keller 2003). Similarly, peer support can also be empowering. For example, peer support is fundamental to the development of positive peer social status among adolescents (Banerjee and Dittmar 2008). Individuals who are socially integrated within their peer network and who benefit from peer support have the advantage of accumulating higher quality information, which strengthens their expertise and credibility (Hinz et al. 2012; Lee et al. 2010), and thus their feeling of power.

Self-Worth and Materialism

The relationship between self-worth and materialism is well established. For example, numerous studies have documented the negative relationship between self-esteem and materialism in both adults (Chang and Arkin 2002; Kasser 2002; Mick 1996; Richins and Dawson 1992) and children and adolescents (Chaplin and John 2007, 2010), and some research suggests that materialism actually increases during adolescence because of declining feelings of self-worth (Chaplin and John 2007). More specifically, because individuals often experience a decline in self-esteem as they enter adolescence, they may use material goods as a means to cope with or compensate for low levels of self-esteem (Chaplin and John 2007, 2010). This compensatory function of materialism as a means of enhancing self-esteem has also been demonstrated experimentally (for reviews, see Lee and Shrum 2012; Rucker and Galinsky 2008). When people experience momentary threats to their self-esteem, they compensate through the purchase of products that will enhance their self-esteem (cf. Lee and Shrum 2012; Sivanathan and Nathan 2010).

Numerous studies, both correlational and experimental, also demonstrate a link between feelings of personal power and materialism. For example, lower feelings of self-efficacy and autonomy are associated with higher levels of materialism (Kashdan and Breen 2007), and those higher in materialism express a greater desire for more personal power (Keng et al. 2000). Situational threats to power also increase materialism. When participants' power was threatened, they were willing to pay more for status products (Rucker and Galinsky 2008) and engaged in more conspicuous consumption (Lee and Shrum 2012; Rucker and Galinsky 2009) than those who were not threatened.

Materialism and Consumer Ethical Beliefs

Materialism refers to the importance people place on their possessions (Belk 1985; Richins and Dawson 1992), reflecting the centrality that possessions occupy in people's lives (Fournier and Richins 1991; Muncy and Eastman 1998). In accumulating possessions, materialistic individuals may be more willing to compromise ethical rules to gain possessions (Muncy and Eastman 1998; Richins and Dawson 1992). Consistent with this reasoning, research shows that the relationship between materialism and consumer ethical beliefs is very robust. Those higher in materialism have less ethical consumer beliefs and exhibit more unethical consumer behavior, and this relationship has been demonstrated across many cultures (cf. Arli and Tjiptono 2014; Lu and Lu 2010; Muncy and Eastman 1998; Rafi et al. 2013).

Sequential Mediation Hypotheses

Summarizing, previous research suggests that both peer and parental support influence the development of consumer ethical beliefs. Previous research also suggests that materialism influences consumer ethical beliefs. We propose that these two separate sets of research findings are in fact interrelated, which forms the basis of our hypotheses. First, we hypothesize that parental support and peer support will each be positively related to the development of consumer ethical beliefs in adolescents.

H1 Level of parental support is positively related to consumer ethical beliefs.

H2 Level of peer support is positively related to consumer ethical beliefs.

Second, we propose that each of these relations is sequentially mediated by self-worth (self-esteem and power) and materialism. In particular, we propose that both parental and peer support increase self-esteem and feelings of personal power (Chaplin and John 2010; Gecas and Schwalbe 1986; Parker and Benson 2004). Increased self-worth, in turn, reduces the need for materialism as a coping mechanism for threats to self-identity (Rucker and Galinsky 2008; Richins and Dawson 1992; Shrum et al. 2013), which leads to decreased levels of materialism. Finally, we propose that resulting decreases in materialism lead to more ethical consumer beliefs, which is consistent with extant research (Muncy and Eastman 1998; Rafi et al. 2013). Thus, we predict:

H3 The relationship between parental support and consumer ethical beliefs is mediated sequentially by adolescents' self-esteem and materialism.

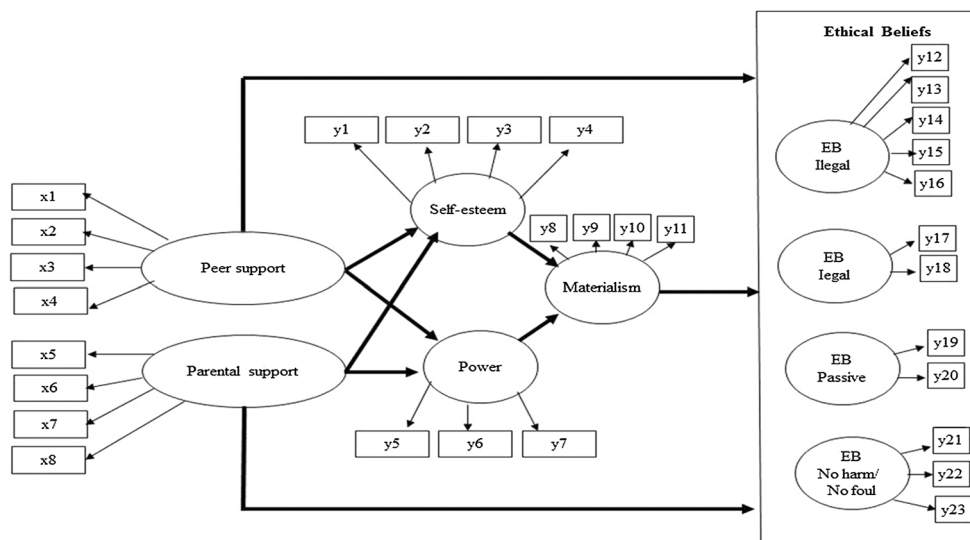
H4 The relationship between peer support and consumer ethical beliefs is mediated sequentially by adolescents' self-esteem and materialism.

H5 The relationship between parental support and consumer ethical beliefs is mediated sequentially by adolescents' power and materialism.

H6 The relationship between peer support and consumer ethical beliefs is mediated sequentially by adolescents' power and materialism.

The full sequential mediation model is shown in Fig. 1.

In the following sections we report the results of a large study of French adolescents to test these hypotheses. The large sample size and use of a non-U.S. sample address two important issues. The large sample allows for more rigorous testing of complex mediation models and increases reliability. The use of non-U.S. samples addresses concerns

Fig. 1 Proposed sequential mediation model

that much of the extant research on psychological processes is based primarily on U.S. undergraduates (Henrich et al. 2010).

Method

Sample

Nine hundred eighty-four adolescents were recruited from three schools in a major metropolitan area in France: 273 participants 13–14 years of age, 438 participants 15–16 years of age, and 273 participants 17–18 years of age. We selected these ages to capture important developmental changes that occur in adolescent development (Chaplin and John 2007, 2010). This sample size is acceptable for a study that uses a structural equation model (SEM), given the number of observed and latent variables in the model, the anticipated effect size, and the desired probability and statistical power levels (McQuitty 2004). Letters to parents were sent home with all students to invite them to participate. Participants were required to submit both a signed parental consent and individual assent to participate in the study. The first sample ($n_1 = 213$) was used to validate the measurement scales. The second sample ($n_2 = 771$) was used to test the proposed model.

Construct Measures

To measure self-esteem and power, we used the Rosenberg (1965) and Anderson and Galinsky (2006) scales, respectively. To measure parental and peer support, we used the Armsden and Greenberg (1987) and Chaplin and John (2010) scales, respectively. Materialism was measured with Goldberg et al. (2003) Youth Materialism Scale, which is

specifically developed for an adolescent population. Prior research with children and adolescents has provided evidence of the scale's validity (e.g., Chaplin and John 2007, 2010). Consumers' ethical beliefs were measured with Muncy and Vitell's (1992) consumer ethics scale, composed of four dimensions: illegal, passive, legal, and no harm/no foul. The scale has displayed acceptable levels of reliability (e.g., Lee 2013; Lu and Lu 2010; Rafi et al. 2013; Rallapalli et al. 1994; Robertson et al. 2012). All items, information on scale measurement, and descriptive statistics are listed in Table 1.

Results

Tests of Measurement Models

Prior to hypothesis testing, we conducted analyses to determine the acceptability of fit of the measurement models. After confirming that all items passed the tests of univariate quasi normality and multivariate normality (Mardia 1970), exploratory factor analyses (principal components) were conducted on sample 1 ($n_1 = 213$) using Oblimin rotation in SPSS. Items with communalities below 0.50 as well as those with factors loadings below 0.50 were eliminated. The nine-factor solution (parental support, peer support, self-esteem, state of power, materialism, and four dimensions of consumer ethical scale) explained 65 % of the total variance. All reliability coefficients were above 0.70.

We used the following criteria in evaluating confirmatory factor analysis (CFA): (1) Chi square and degrees of freedom ($\chi^2/df < 5$), (2) incremental fit index ($IFI > 0.90$), (3) Tucker–Lewis Index ($TLI > 0.90$), (4) comparative fit index ($CFI > 0.90$), (5) root mean square error of approximation ($RMSEA < 0.10$), and (6) standardized

Table 1 Measurement scales ($n_2 = 771$)

Measure	Items	Mean	SD
Parental support	My parents make me feel very special	4.29	0.88
	My parents put a lot of time and energy into helping me	3.99	1.02
	My parents find time to talk to me	3.89	1.08
	My parents spend a lot of time with me	3.41	1.09
Peer support	My friends can be snobby to me ^a	3.69	1.11
	My friends are hard to please ^a	3.59	0.98
	My friends can be mean to me ^a	3.78	1.11
	My friends pressure me to be a certain way ^a	4.17	1.00
Self-esteem	I feel that I have a number of good qualities	3.61	1.10
	At times, I think I am no good at all ^a	3.42	1.03
	I certainly feel useless at times ^a	2.87	1.04
	I feel that I'm a person of worth, at least on an equal plane with others	3.23	0.92
Power	My wishes do not carry much weight ^a	2.04	0.97
	I think I have a great deal of power	2.09	0.85
	Even when I try, I am not able to get my way ^a	2.73	0.88
Materialism	I'd rather spend time buying things, than doing almost anything else	1.84	0.95
	I would be happier if I had more money to buy more things for myself	2.81	1.23
	When you grow up, the more money you have, the happier you are	2.63	1.16
	I would love to be able to buy things that cost lots of money	3.04	1.25
Ethical belief (EB): Illegal	Giving misleading price information to a clerk for an unpriced item ^a	2.06	0.94
	Using the phone card—SIM—of a cell phone that does not belong to you ^a	1.79	0.94
	Changing price tags on merchandise in a retail store ^a	1.69	0.91
Ethical belief (EB): Legal	Lying about a child's age to get a lower price ^a	3.49	1.14
	Not saying anything when the waiter or waitress miscalculates a bill in your favor ^a	3.46	1.13
Ethical belief (EB): Passive	Knowingly using an expired coupon for merchandise ^a	3.20	0.98
	Returning merchandise to a store by claiming it was a gift when it was not ^a	2.99	1.13
Ethical belief (EB): No harm/no foul	Spending over an hour trying on clothes and not buying anything ^a	3.85	1.10
	Returning merchandise after using it ^a	4.03	0.97
	Burning' a CD rather than buying it ^a	2.82	1.16

^a Indicates items that are reverse-scored. Items were measured on a five-point Likert scale, from 1 (“strongly believe it is wrong”) to 5 (“strongly believe it is not wrong”), with high scores reflecting less ethical concern

RMR ($SRMR < 0.10$) (Vandenberg and Lance 2000). The measurement model indicated excellent fit ($\chi^2 = 739.252$, $df = 399$, $p < 0.001$; adjusted $\chi^2 = 1.85$; IFI = 0.95; TLI = 0.94; CFI = 0.95; RMSEA = 0.03; and SRMR = 0.04). The composite reliability coefficients were adequate (Jöreskog $\rho_{vc} > 0.72$), and convergent validity was supported ($\rho_{vc} > 0.50$). To assess discriminant validity, we verified that each latent construct extracted more variance from its indicators (ρ_{vc}) than it shared with all other constructs (Fornell and Larcker 1981). The results of the confirmatory factor analyses of the nine scales are shown in Table 2.

Tests of Hypotheses

Given the acceptable fit of the measurement model, we proceeded to hypothesis testing. H1 and H2 predict simple

relations between both parental and peer support and consumer ethical beliefs. To test these hypotheses, we regressed each of the four types of consumer ethical beliefs on parental support and on peer support in separate regressions. The results of these analyses are shown in Table 3. As the table shows, both hypotheses were confirmed. Both parental support and peer support were positively related to each of the four consumer ethical beliefs.

To test our sequential mediation hypotheses (H3–H6), we first tested the full conceptual model ($n_2 = 771$) with AMOS using maximum-likelihood estimation. The normed Chi square fell below 5.0 ($\chi^2/df = 2.86$), and other fit measures ($\chi^2 = 156.62$, $df = 415$, $p < 0.001$; adjusted $\chi^2 = 2.86$; IFI = 0.90; TLI = 0.90; CFI = 0.90; RMSEA = 0.04; SRMR = 0.06) also indicate a good model fit. Given the acceptable fit of the general model, we next examined the relevant path coefficients to determine

Table 2 Results of the nine-factor CFA model ($n_2 = 771$)

Construct	Reliability Cronbach alpha	Reliability (Jöreskog rho)	Convergent validity	Ethical belief no harm/no foul	Ethical belief legal	Ethical belief passive	Ethical belief illegal	Materialism	Power	Self-esteem	Peer support	Parental support
Parental support	0.85	0.83	0.62								×	×
Peer support	0.90	0.88	0.65								×	0.04 (0.21)
Self-esteem	0.88	0.83	0.63							×	0.11 (0.34)	0.07 (0.27)
Power	0.79	0.76	0.50						×	0.11 (0.34)	0.02 (0.16)	0.04 (0.20)
Materialism	0.82	0.79	0.53					×	0.04 (0.21)	0.03 (0.18)	0.04 (0.21)	0.04 (0.21)
Ethical belief Illegal	0.65	0.72	0.50				×	0.08 (-0.29)	0.06 (-0.26)	0.00 (0.07)	0.00 (0.09)	0.01 (0.11)
Ethical belief Passive	0.94	0.94	0.90			×	0.20 (0.45)	0.09 (-0.31)	0.00 (-0.14)	0.00 (0.03)	0.00 (0.05)	0.00 (0.05)
Ethical belief Legal	0.84	0.80	0.57		×	0.39 (0.63)	0.44 (0.67)	0.07 (-0.27)	0.04 (-0.21)	0.00 (0.05)	0.00 (0.01)	0.00 (0.06)
Ethical belief No harm/no foul	0.81	0.77	0.56	×	0.28 ^b (0.53) ^a	0.07 (0.28)	0.11 (0.33)	0.04 (-0.20)	0.01 (-0.10)	0.00 (0.08)	0.00 (-0.04)	0.00 (0.05)

^a Correlations among trait factors

^b Shared variance among trait factors

Table 3 Relations between parental and peer support and consumer ethical beliefs

	Coefficient beta	F value	R ²	p value
Parental support → Consumer ethical beliefs				
Parental support → EB Illegal	−0.173	23.570	0.030	<0.05
Parental support → EB Legal	−0.040	1.217	0.002	>0.05
Parental support → EB Passive	−0.116	10.220	0.015	<0.05
Parental support → EB No harm/no foul	−0.003	2.514	0.003	>0.05
Peer support → Consumer ethical beliefs				
Peer support → EB Illegal	−0.067	3.543	0.041	<0.05
Peer support → EB Legal	−0.025	0.475	0.001	>0.05
Peer support → EB Passive	−0.110	9.523	0.023	<0.05
Peer support → EB No harm/no foul	−0.007	0.041	0.007	>0.05

whether our sequential mediation hypotheses were supported. The results of these analyses are shown in Fig. 2. For simplicity in presentation, the results are broken out by social support (parental and peer) and self-worth motives (self-esteem and power). The four panels in Fig. 2 show the path coefficients, their significance, and the relevant hypothesis.

We predicted that self-worth (self-esteem and power) and materialism would mediate the relations between both parental and peer support and each of the four dimensions of consumer ethical beliefs. Specifically, we predicted a sequential mediation in which greater parental and peer support each increases adolescents' feelings of self-esteem and power, each of which leads to lower levels of materialism, which in turn fosters more ethical beliefs. Following Preacher and Hayes (2008) recommendations for testing multiple mediators, we used bootstrapping methods to test our hypotheses¹. In particular, to test the predicted mediations, we used Preacher et al. (2007) procedure (model 8) and computed bias-corrected bootstrap confidence intervals. Using Hayes' (2013) SPSS macro, we computed regression equations and estimated the mediator variable models, using self-esteem/power and materialism as the respective sequential mediators, enabling us to estimate indirect effects by bootstrapping methods (1000 bootstraps). If the bootstrapped confidence interval does not include 0, the indirect effect is significant and sequential mediation is supported.

The results of these analyses are shown in Fig. 2 and Table 4. First, as Fig. 2 shows, each of the proposed links in the sequential mediation models was significant. Thus,

¹ When the hypothesis of mediation by multiple potential mediators is entertained, multiple mediations are the appropriate analytic strategy (Preacher and Hayes 2008; Zhao et al. 2010). "Bootstrapping provides the most powerful and reasonable method of obtaining confidence limits for specific indirect effects under most conditions" (Preacher and Hayes 2008, p. 886). Therefore, Preacher and Hayes's primary recommendation is to use bootstrapping—in particular, BC bootstrapping—when multiple mediators are entertained.

in all cases, both of the social support variables (parental and peer) were positively related to self-esteem and to power, and each of these self-worth variables was negatively related to materialism, which in turn was negatively related to each of the consumer ethical beliefs. Second, as Table 4 shows, for each of the hypothesized sequential mediations, the confidence interval does not include zero, indicating a significant mediation chain (except for parental support-self-esteem-materialism-illegal). These results support H3–H6. Moreover, as Table 4 also shows, most of the tests indicated full mediation. Full mediation is inferred if the direct effect between the social support variables and the ethical beliefs is reduced to non-significance in the presence of the mediators.

Discussion and Conclusion

Theoretical Implications

Research in both psychology (Bogenschneider et al. 1998; Noom et al. 2001) and marketing (Bristol and Mangleburg 2005; Cox et al. 1990; Rose et al. 1992) has recognized the importance of both parents and peers as influences on risky behaviors (e.g., smoking, substance use, and shoplifting). However, little research has addressed the social mechanisms through which parents and peers affect the formation of ethical beliefs during adolescence (Gentina et al. 2015a). Our research addresses this gap. We show the existence of sequential mediation effects: more positive parental and peer support is associated with an increase in specific aspects of adolescents' self-worth, particularly their self-esteem and feelings of personal power. Increases in self-worth, in turn, are associated with lower levels of materialism. These findings are consistent with prior research showing that materialism is often the result of efforts to compensate for low self-worth (Richins and Dawson 1992). Finally, we show that positive outcomes of parental and peer support (increased self-worth and decreased materialism) are

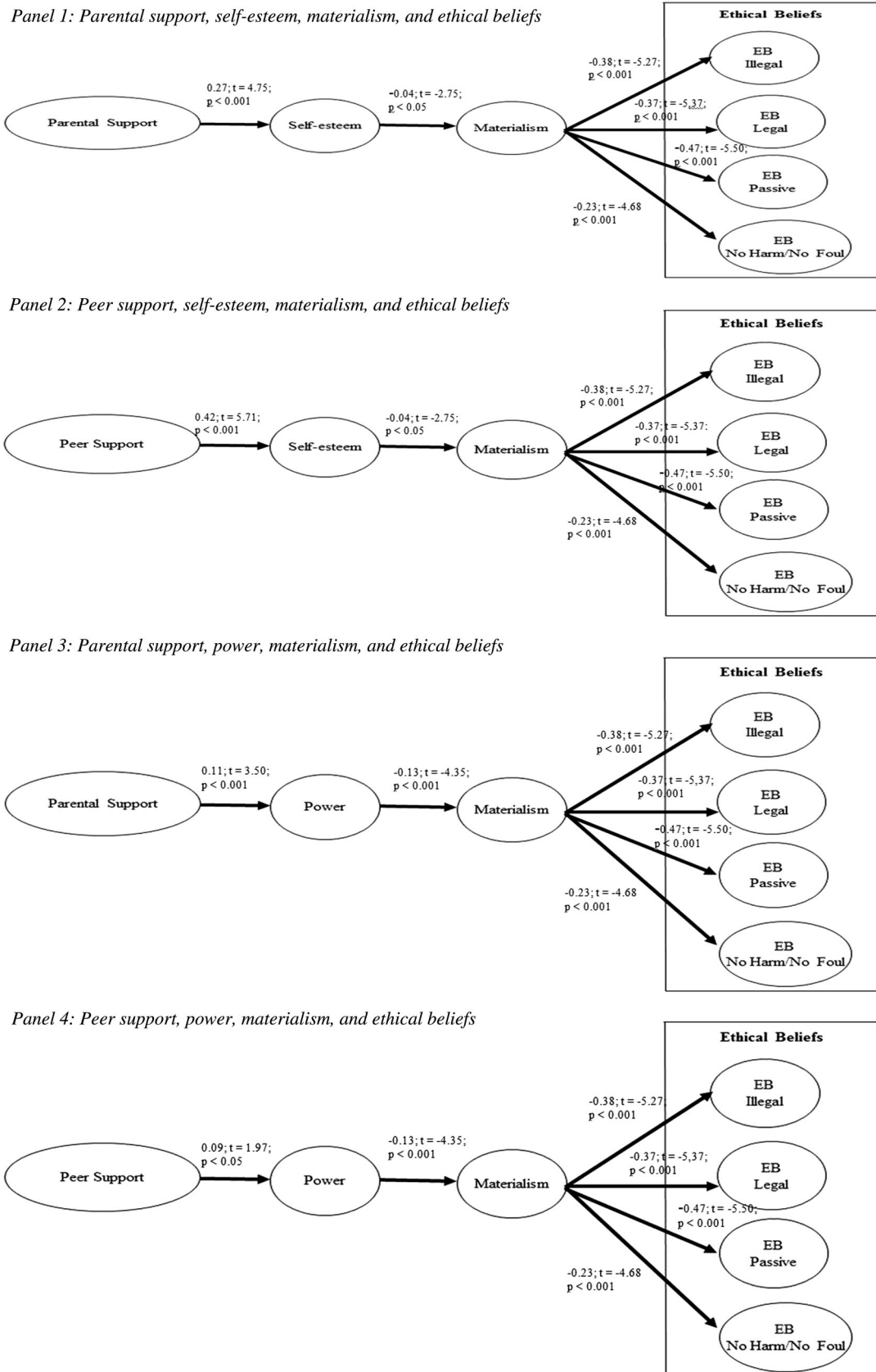


Fig. 2 Sequential mediation results

Table 4 Sequential mediation results ($n_2 = 771$)

	Standardized parameter estimates	Bootstrapped confidence interval	p value	Mediation
Parental support → Self-esteem → Materialism → Consumer ethical beliefs (H3)				
Parental support → Self-esteem → Materialism → EB Illegal	0.002	[-0.002; 0.006]	>0.05	No sequential mediation
Direct effect: Parental support → EB Illegal	-0.152	[0.087; 0.217]	<0.05	
Parental support → Self-esteem → Materialism → EB Legal	0.048	[0.009; 0.011]	<0.05	Full
Direct effect: Parental support → EB Legal	-0.051	[-0.031; 0.163]	>0.05	
Parental support → Self-esteem → Materialism → EB Passive	0.064	[0.001; 0.114]	<0.05	Partial
Direct effect: Parental support → EB Passive	-0.114	[0.053; 0.235]	<0.05	
Parental support → Self-esteem → Materialism → EB No harm/no foul	0.043	[0.010; 0.015]	<0.05	Full
Direct effect: Parental support → EB No harm/no foul	-0.064	[-0.056; 0.133]	>0.05	
Peer support → Self-esteem → Materialism → Consumer ethical beliefs (H4)				
Peer support → Self-esteem → Materialism → EB Illegal	0.050	[-0.013; -0.001]	<0.05	Full
Direct effect: Peer support → EB Illegal	-0.089	[-0.060; 0.238]	>0.05	
Peer support → Self-esteem → Materialism → EB Legal	0.080	[-0.020; -0.003]	<0.05	Full
Direct effect: Peer support → EB Legal	-0.040	[-0.145; 0.228]	>0.05	
Peer support → Self-esteem → Materialism → EB Passive	0.011	[-0.028; -0.001]	<0.05	Full
Direct effect: Peer support → EB Passive	-0.007	[-0.215; 0.020]	>0.05	
Peer support → Self-esteem → Materialism → EB No harm/no foul	0.070	[-0.020; -0.005]	<0.05	Full
Direct effect: Peer support → EB No harm/no foul	-0.060	[-0.152; 0.164]	>0.05	
Parental support → Power → Materialism → Consumer ethical beliefs (H5)				
Parental support → Power → Materialism → EB Illegal	0.035	[0.001; 0.007]	<0.05	Partial
Direct effect: Parental support → EB Illegal	-0.134	[0.069; 0.198]	<0.05	
Parental support → Power → Materialism → EB Legal	0.007	[0.002; 0.145]	<0.05	Full
Direct effect: Parental support → EB Legal	-0.036	[-0.044; 0.118]	>0.05	
Parental support → Power → Materialism → EB Passive	0.092	[0.003; 0.017]	<0.05	Partial
Direct effect: Parental support → EB Passive	-0.127	[0.037; 0.217]	<0.05	
Parental support → Power → Materialism → EB No harm/no foul	0.063	[0.002; 0.013]	<0.05	Full
Direct effect: Parental support → EB No harm/no foul	-0.060	[-0.056; 0.133]	>0.05	
Peer support → Power → Materialism → Consumer ethical beliefs (H6)				
Peer support → Power → Materialism → EB Illegal	0.090	[-0.019; -0.003]	<0.05	Full
Direct effect: Peer support → EB Illegal	-0.128	[-0.022; 0.278]	>0.05	
Peer support → Power → Materialism → EB Legal	0.016	[-0.034; -0.006]	<0.05	Full
Direct effect: Peer support → EB Legal	-0.069	[-0.119; 0.257]	>0.05	
Peer support → Power → Materialism → EB Passive	0.021	[-0.043; -0.008]	<0.05	Full
Direct effect: Peer support → EB Passive	-0.029	[-0.179; 0.238]	>0.05	
Peer support → Power → Materialism → EB No harm/no foul	0.015	[-0.029; -0.005]	<0.05	Full
Direct effect: Peer support → EB No harm/no foul	-0.002	[-0.159; 0.159]	>0.05	

associated with positive outcomes: the development of more ethical consumer beliefs.

Our research provides several important contributions. First, we develop and test a theory-based integrative model of adolescent consumers' ethical beliefs. The research is among the first to introduce a psychological process model of how parents and peers influence consumers' ethical beliefs among adolescents. Prior research has made important contributions in identifying the influence of certain social factors (e.g., Lee 2013; Rallapalli et al. 1994) as well as materialism (e.g., Lu and Lu 2010; Muncy and Eastman 1998; Rafi et al. 2013) as possible drivers of consumer ethical beliefs. Our research builds on this knowledge to develop a more comprehensive explanatory model that shows theory-driven links between all of these constructs. Thus, we link risky behaviors to parent and peer influence (e.g., Bogenschneider et al. 1998; Melby et al. 1993; Rose et al. 1992) through the mediators of self-esteem, power, and materialism, and integrate these findings to provide a more integrative and parsimonious explanation for why some adolescents may be more apt to develop consumers' ethical beliefs. This contribution is important because a better understanding of the full scope of these processes can provide insight into the sustained effects of parenting and peer strategies on consumers' ethical beliefs.

A second contribution of our research is that it provides additional insight into the nature of social influence. Psychology and marketing research has primarily focused on the negative influence of social factors on adolescents. Peer influence has typically been characterized in only negative ways (e.g., peer pressure), which in turn results in negative outcomes such as more frequent risky behaviors (Cox et al. 1990; Rose et al. 1992). Because adolescence is a developmental stage in which individuals often distance themselves from their parents, parental factors have also often been conceptualized in negative ways (e.g., emotional detachment, radical separation), which favors the adoption of risky behaviors (Bogenschneider et al. 1998; Bristol and Mangleburg 2005). In contrast, our research shows that parents and peers can have positive effects on the lives of adolescents. Parents and peers can provide support, which fosters adolescent' self-esteem and feelings of power, which reduces their need to compensate for a decrease in self-worth through the adoption of materialistic values and fosters more ethical consumer beliefs.

Practical Implications

Questions about how consumers' ethical beliefs and materialism develop in adolescents are important to a wide range of constituents—parents, educators, public policy, marketers and consumer researchers. It is thus important to understand how adolescents become socialized, with the

help of their parents and their peers, to become responsible and ethical consumers in contemporary society. For many constituents, the key question is what can be done to increase ethical beliefs and decrease materialism among adolescents, as both constructs have been shown to relate to consumer well-being (Richins and Dawson 1992).

Most recommendations to date, for reducing materialism and risky behaviors, involve placing constraints on media content and exposure. These constraints include bans on advertising to adolescents, bans on corporate marketing in public schools, regulation of television program content, and parental limits on television exposure (Chaplin and John 2007; Shrum et al. 1998, 2005). The research we have presented here suggests another route. Our findings suggest that increased parental support can foster more ethical consumer beliefs in adolescents. Today's parents often do not have sufficient information to know how to deal with adolescents who engage in unethical behaviors, or they may not know how best to approach the conversation with their adolescent (Flurry and Swinbergh 2016). Thus, public policy campaigns or instructional conferences might help parents and adolescents better communicate regarding unethical consumer behavior. Moreover, parental support may serve as a useful segmentation variable to identify adolescents who receive high or low levels of support from their parents. Research has shown that parental variables (e.g., parental styles or responsiveness) are important segmentation variables, and thus may prove effective marketing vehicles for disseminating positive messages (Flurry and Swinbergh 2016; Rose 1999).

Our findings also suggest that peer support positively impacts ethical beliefs. Strong peer support during adolescence can cultivate, circulate, and reinforce ethical values and behaviors. Adolescents observe and follow the norms of beliefs and behaviors in their social circles in order to acquire acceptance by other members. Thus, programs that facilitate positive and constructive interactions among peers, such as after school programs, could positively impact adolescent ethical beliefs.

Our findings also demonstrate the impact of feelings of self-esteem and power among adolescents. Programs that promote constructive action and efficacy among adolescents, as well as positive marketing communications, may provide a means of reducing materialism and promoting pro-social ethics. These programs might emphasize the impact of positive actions and setting and attaining goals, thereby increasing feelings of efficacy and power.

Finally, our results highlight that adolescents in pursuit of materialistic values develop lower ethical consumer beliefs. Other studies have shown that past successful unethical behavior predict future unethical behavior (Daunt and Harris 2011). Thus, we may expect that adolescents

who experience material gain from unethical behavior are more likely to engage in additional unethical acts in the future (Flurry and Swinberghe 2016). Increased parental and peer support may help to reduce the probability that adolescents initially engage in unethical acts. Firms should also implement strict and consistent policies which sanction unethical behaviors to decrease the probability that teens initially benefit from unethical acts.

Understanding the drivers of consumer ethical beliefs is important to many constituents. Prior research has delineated some of the inputs into the development of these beliefs. Our research unifies a number of disparate streams of research to provide a more comprehensive and integrated model of these antecedents. The results have important implications for developing policies, programs, and marketing strategies and tactics that seek to promote more ethical consumer beliefs.

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