

Buying to Blunt Negative Feelings: Materialistic Escape From the Self

Grant E. Donnelly
Harvard Business School

Masha Ksendzova
Boston University

Ryan T. Howell
San Francisco State University

Kathleen D. Vohs
University of Minnesota

Roy F. Baumeister
Florida State University

We propose that escape theory, which describes how individuals seek to free themselves from aversive states of self-awareness, helps explain key patterns of materialistic people's behavior. As predicted by escape theory, materialistic individuals may feel dissatisfied with their standard of living, cope with failed expectations and life stressors less effectively than others, suffer from aversive self-awareness, and experience negative emotions as a result. To cope with negative, self-directed emotions, materialistic people may enter a narrow, cognitively deconstructed mindset in order to temporarily blunt the capacity for self-reflection. Cognitive narrowing decreases inhibitions thereby engendering impulsivity, passivity, irrational thought, and disinhibited behaviors, including maladaptive consumption.

Keywords: materialism, escape, self, negative emotions, self-awareness

What makes a life good? Answers range from a belief in a higher power to close, warm relationships to attaining challenging goals. For some, the answer includes the possession of material goods. Materialism is the belief that buying and acquiring goods is an important life goal, leads to happiness, is effective for signaling one's value to other people, and provides a reliable indicator of success in life (Richins & Dawson, 1992). Material possessions offer utilitarian and hedonic benefits, and that fact lends plausibility to the implicit promise that acquiring them will bring widespread benefits to their owners. Many consumers believe and anticipate that material consumption will increase their happiness—yet considerable evidence indicates that highly materialistic persons experience less happiness and lower life satisfaction than others, along with deficits in self-esteem, interpersonal relationships, and physical and mental health (e.g., Belk, 1984; Burroughs & Rindfleisch, 2002; Kashdan & Breen, 2007; Richins & Dawson, 1992; Wright & Larsen, 1993).

If acquiring material goods can increase utility and confer benefits, and if materialists acquire goods, then why are they unhappy? Maladaptive purchasing patterns may offer a partial explanation, but these in turn require further explanation: Why do

materialists buy in misguided, counterproductive ways? Several theories have been put forward.

One suggestion is that materialists experience less happiness and more negative affect than others because of the inherent conflict between material values (which are self-centered) and community-oriented values (Burroughs & Rindfleisch, 2002). A second suggestion, offered by Claxton and Murray (1994), as well as by Shrum et al. (2013), is that materialism is centered on constructing identity through symbolic consumption, whereas relying on others to validate one's identity claims creates vulnerability and instability. A third notion is that materialists develop unrealistic expectations, which set the stage for disappointment (Sirgy, 1998; Sirgy et al., 2013). A fourth suggestion is that relying on materialistic pursuits to achieve happiness and signal success (insofar as purchasing is solitary and self-oriented) makes people feel lonelier than they would be otherwise (Pieters, 2013).

While these suggestions help explain key aspects of materialism, the goal of the present article is to build a more general theory to explain the possible processes that drive its ongoing, unsuccessful pursuits of satisfaction, self-worth, and perceived success through consumption of tangible objects. We conceptualized materialism as a value that predisposes individuals to favor a consumption-based strategy for escaping aversive self-awareness. This review article develops a theory about how materialism can contribute toward escape from self-awareness (Baumeister, 1988, 1990, 1991) and reviews extensive empirical evidence relevant to the theory (Table 1).

Materialism: Definitions and Measurement

Materialism has been defined as a focus on socioeconomic and physical security (Inglehart, 1977), as the combined personality

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Grant E. Donnelly, Department of Marketing, Harvard Business School; Masha Ksendzova, Department of Marketing, Boston University; Ryan T. Howell, Department of Psychology, San Francisco State University; Kathleen D. Vohs, Department of Marketing, Carlson School of Management, University of Minnesota; Roy F. Baumeister, Department of Psychology, Florida State University.

Correspondence concerning this article should be addressed to Kathleen D. Vohs, Department of Marketing, Carlson School of Management, University of Minnesota, 321 19th Avenue South, Minneapolis, MN 55455. E-mail: Vohs005@umn.edu

Table 1
Studies, Separated by Escape Model Steps and Experimental Versus Correlational Evidence, in the Review

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Experimental evidence				Step 1: Falling short of high standards				
Giacomantonio, Mannetti, and Piero (2013)—Study 1	100	.20	.41	DV: Normative beliefs of material consumption—smart phone	IV: Response to recalling a self-other comparison (relative to recalling a productive experience)	Italy	73.0	
Giacomantonio, Mannetti, and Piero (2013)—Study 1	100	.22	.46	DV: Normative beliefs of material consumption—video game	IV: Response to recalling a self-other comparison (relative to recalling a productive experience)	Italy	73.0	
Giacomantonio, Mannetti, and Piero (2013)—Study 1	100	.30	.62	DV: Normative beliefs of material consumption—apartment	IV: Response to recalling a self-other comparison (relative to recalling a productive experience)	Italy	73.0	
Kim et al. (2016)—Study 4	164	.21	.43	DV: Desire for increased income for personal use (i.e., not to give to charity)	IV: Being informed that one has less (versus similar) discretionary income than peers of same demographic characteristics	United Kingdom	76.0	21.74 (3.50)
Mandel, Petrovar Cialdini (2006)—Study 3	253	.17	.36	DV: State-level materialistic values	IV: Reading about a highly successful peer (compared with an unsuccessful peer)	United States	54.1	
Zhang et al. (2015)—Study 2a	109	.16	.34	DV: Preference for obtaining higher profits (as measured by a bid for contract)	IV: Hypothetical ownership of timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (relative deprivation condition), compared with hypothetical ownership of a timber company without such knowledge (control condition).	China	54.1	22.28 (3.43)
Zhang et al. (2015)—Study 2a	109	.21	.42	DV: Preference for obtaining higher profits (as measured by a bid for contract)	IV: Hypothetical ownership of timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (relative deprivation condition), compared with hypothetical ownership of a timber company without such knowledge (control condition).	China	54.1	22.28 (3.43)
Zhang et al. (2015)—Study 2a	109	.17	.35	DV: Preference for obtaining higher profits (as measured by intended harvest in a forest management game)	IV: Hypothetical ownership of timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (relative deprivation condition), compared with hypothetical ownership of a timber company without such knowledge (control condition).	China	54.1	22.28 (3.43)

(table continues)

Table 1 (continued)

Article	<i>N</i>	<i>r</i>	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (<i>SD</i>) ^a
Zhang et al. (2015)—Study 2a	109	.21	.43	DV: Preference for obtaining higher profits (as measured by intended harvest in a forest management game)	IV: Hypothetical ownership of a timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (relative deprivation condition), compared with a circumstance in which no reason for harvesting less than competitors is provided (i.e., lesser relative deprivation).	China	54.1	22.28 (3.43)
Zhang et al. (2015)—Study 2b	123	.28	.58	DV: Preference for obtaining higher profits (as measured by a bid for contract)	IV: Hypothetical ownership of a timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (relative deprivation condition), compared with hypothetical ownership of a timber company without such knowledge (control condition).	China	57.7	22.88 (3.82)
Zhang et al. (2015)—Study 2b	123	.31	.66	DV: Preference for obtaining higher profits (as measured by a bid for contract)	IV: Hypothetical ownership of a timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (i.e., greater relative deprivation), compared with a circumstance in which no reason for harvesting less than competitors is provided (i.e., lesser relative deprivation).	China	57.7	22.88 (3.82)
Zhang et al. (2015)—Study 2b	123	.38	.82	DV: Preference for obtaining higher profits (as measured by intended harvest in a forest management game)	IV: Hypothetical ownership of a timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (relative deprivation condition), compared with hypothetical ownership of a timber company without such knowledge (control condition).	China	57.7	22.88 (3.82)
Zhang et al. (2015)—Study 2b	123	.23	.47	DV: Preference for obtaining higher profits (as measured by intended harvest in a forest management game)	IV: Hypothetical ownership of a timber company that harvested a smaller area of forest than its competitors due to unjust government regulations (i.e., greater relative deprivation), compared with a circumstance in which no reason for harvesting less than competitors is provided (i.e., lesser relative deprivation).	China	57.7	22.88 (3.82)

Correlational evidence

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Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Ahuvia and Wong (1995) ¹	200	-.34	.72	MVS (1992)	Life satisfaction—income	United States	55.0	Undergraduates
Ahuvia and Wong (1995) ¹	200	-.32	.68	MVS (1992)	Life satisfaction—standard of living	United States	55.0	Undergraduates
Ahuvia and Wong (2002) ¹	287	.21	.43	MS (1996)	Life satisfaction—standard of living	United States	39.4	Undergraduates
Ahuvia and Wong (2002) ¹	287	.15	.30	MS (1996)	Felt formative deprivation	United States	39.4	Undergraduates
Banerjee and Dittmar (2008)—Study 3	171	.36	.77	YMS (2003)	School socioeconomic status	United Kingdom	44.0	8–11
Bindah and Othman (2012a) ¹	956	.52	1.20	MVS (1992)	Television viewing index	Malaysia	60.0	Undergraduates
Bose, Burns, and Folse (2013)—Study 2	408	.65	1.72	MVS (2004)	Number of products one would need to feel satisfied			49.66
Bottomley et al. (2010)—Study 2	557	-.34	.72	YMS (2003)	Relationship with mother	United Kingdom		9–11
Bottomley et al. (2010)—Study 2	557	-.23	.47	YMS (2003)	Relationship with father	United Kingdom		9–11
Bottomley et al. (2010)—Study 2	557	.42	.93	YMS (2003)	Frequency of television viewing	United Kingdom		9–11
Burroughs and Rindfleisch (2002)—Study 1	373	-.25	.52	MVS (1992)	Satisfaction with life scale	United States	52.0	47.00
Chan and Xiao (2009)	646	.28	.58	MVS (1992)	Television advertising viewing	China	44.7	13.30
Chang, Zhang, and Wang (2006)	788	.08	.16	MVS (1992)	Hours of television watched per week	China	53.8	14.90
Chang, Zhang, and Wang (2006)	788	.33	.70	MVS (1992)	Television advertising viewing	China	53.8	14.90
Chaplin, Hill, and John (2014)	117	.54	1.29	Collage task	Socioeconomic status of participant neighborhood	United States		Adolescents
Chaudhuri and Haider (2005)	53	.30	.63	MS (1985)	Number of items listed on wish list	India		16.48 (2.31)
Chia (2010)	695	.44	.98	YMS (2003)	Advertisement viewing	Singapore	62.8	20.25
Christopher et al. (2004)	204	.26	.54	MVS (1992)	Money beliefs and behaviors scale— inadequacy of money subscale	United States	72.1	
Dawson and Bamossy (1990)	127	.55	1.22	MS (1985)	Income	Netherlands		
Deckop, Jurkiewicz, and Giacalone (2010)	274	-.29	.61	MVS (2004)	Job satisfaction	United States	64.0	
Deckop, Jurkiewicz, and Giacalone (2010)	274	-.30	.63	MVS (2004)	Career satisfaction	United States	64.0	
Dittmar (2005a)—Study 2	239	.45	1.00	MVS (2004)	Buying motivations—ideal self subscale	United Kingdom	100.0	39.20 (12.9)
Dittmar (2005a)—Study 3	126	.38	.82	MVS (2004)	Buying motivations—ideal self subscale	United Kingdom	53.9	22.20
Dittmar, Long, and Bond (2007)—Study 2	126	.67	1.81	MVS (2004)	Buying motivations—ideal self subscale	United Kingdom	46.0	21.90 (4.49)
Dittmar and Pepper (1994)	168	.32	.68	MVS (1992)	Socioeconomic status	United Kingdom	50.0	15.00
Donnelly, Iyer, and Howell (2012)—Study 4	291	-.32	.67	MVS (1992)—Happiness scale	Financial management behavioral scale	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	-.16	.32	MVS (1992)—Success scale	Financial management behavioral scale	United States	65.8	34.93 (12.51)
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	.39	.84	MVS (2004)	Transformation expectations	United States	67.7	30.27 (12.91)
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	.57	1.38	MVS (2004)	Buying motivations—emotional subscale	United States	67.7	30.27 (12.91)

(table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	.67	1.81	MVS (2004)	Buying motivations—identity subscale	United States	67.7	30.27 (12.91)
Durvasula and Lysonski (2010)	127	.29	.60	MVS (1992)	Money anxiety scale	China	45.0	20.50
Felix and Garza (2012)	339	.73	2.13	MVS (2004)	Body appearance ideals scale	Mexico	100.0	18.70
Felix and Garza (2012)	318	-.24	.49	MVS (2004)	Attitudes toward advertisements	Mexico	100.0	39.18
Felix and Garza (2012)	339	-.22	.45	MVS (2004)	Satisfaction with life scale	Mexico	100.0	18.70
Flouri (2004)	2,218	.13	.26	MVS (1987)	Socioeconomic status (recipient of free school meals)	United Kingdom	44.6	13.48 (1.75)
Gardarsdottir and Dittmar (2012)—Study 1	271	-.22	.45	MVS (1992)	Money management scale	Iceland	79.3	38.41 (10.27)
Gardarsdottir and Dittmar (2012)—Study 2	191	-.19	.39	MVS (1992)	Money management scale	Iceland	56.0	48.80 (13.70)
Gardarsdottir and Dittmar (2012)—Study 1	271	.33	.70	MVS (1992)	Financial worry	Iceland	79.3	38.41 (10.27)
Gardarsdottir and Dittmar (2012)—Study 2	191	.27	.56	MVS (1992)	Financial worry	Iceland	56.0	48.80 (13.70)
Gardarsdottir and Dittmar (2012)—Study 2	191	.43	.95	MVS (1992)	Buying motivations—ideal self subscale	Iceland	56.0	48.80 (13.70)
Goldberg et al. (2003) ¹	996	.18	.36	YMS (2003)	Anticipated income relative to parents	United States	52.0	9–14
Goldberg et al. (2003)	123	.33	.70	YMS (2003)	Anticipated dollar amount parents will spend on a birthday present	United States		9–14
Goldberg et al. (2003)	123	.32	.67	YMS (2003)	Anticipated dollar amount parents will spend on a Christmas present	United States		9–14
Goldberg et al. (2003) ¹	996	.27	.56	YMS (2003)	Influence of TV commercials on intention to purchase products	United States	52.0	9–14
Goldberg et al. (2003) ¹	996	.10	.19	YMS (2003)	Household income	United States	52.0	9–14
Gutter and Copur (2011)	15,797	-.31	.65	MVS (1992)	In charge financial distress/wellbeing scale	United States		21.30
Hartnett and Skowronski (2008) ¹ —Study 1	388	.28	.58	MVS (2004)	Predicted emotions if lost \$200	United States		
Jiang and Chia (2009)	210	.28	.58	MVS (1992)	Advertisement viewing and exposure	China	66.7	20.72 (1.31)
Karabati and Cemalcilar (2010)	948	-.05	.09	MVS (1992)	Socioeconomic index	Turkey	46.1	21.60 (1.85)
Kashyap and Iyer (2009)	348	.27	.56	MVS (1992)	Economic investing goals	United States	32.8	45.00
Keng et al. (2000) ¹	1,534	.07	.13	MVS (1992)	List of values—financial security subscale	Singapore	52.1	
Keng et al. (2000) ¹	1,534	-.13	.26	MVS (1992)	Satisfied with finances	Singapore	52.1	
Kim et al. (2016)—Study 1	393	.49	1.12	MVS (1992)	Personal relative deprivation	United States	41.4	35.37 (11.25)
Kim et al. (2016)—Study 3	299	.44	.98	MVS (1992)	Personal relative deprivation	United Kingdom	47.0	34.64 (11.61)
Kim et al. (2016)—Study 3	299	.60	1.50	MVS (1992)	Iowa Netherlands Comparison Orientation Measure	United Kingdom	47.0	34.64 (11.61)
Kim et al. (2016)—Study 5	799	.16	.32	Financial windfall money allocation task—to buy desired material items	Personal relative deprivation	Canada United States	48.0	34.96 (11.56)
Kim et al. (2016)—Study 5	799	-.12	.24	Financial windfall money allocation task—to give to charity	Personal relative deprivation	Canada United States	48.0	34.96 (11.56)
Kolodinsky et al. (2010)	298	-.22	.45	MVS (1992)	Corporate social responsibility	United States	49.0	18–26
La Ferle and Chan (2008)	190	.45	1.01	MVS (2004)	Advertisement viewing	Singapore	51.5	13–18

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Lemrova et al. (2014)	330	-.15	.30	MVS (2004)	Money ethic scale—budget subscale	Czech Republic	74.2	21.90
Lemrova et al. (2014)	330	.29	.60	MVS (2004)	Money ethic scale—love of money subscale	Czech Republic	74.2	21.90
Lysonski and Durvasula (2013)	120	.11	.24	MVS (1987)	Consumer decision making—perfectionism subscale	India	40.0	22.00
Manchiraju and Son (2014)	349	.17	.34	MVS (1992)	Felt formative deprivation	United States	41.0	29.00
Narin, Ormrod, and Bottomley (2007)	557	.15	.31	YMS (2003)	Index of multiple deprivation (calculated by the National Statistics Office of United Kingdom by geographic location)	United Kingdom		9–13
Norris and Larsen (2011)	101	.32	.68	MVS (1992)	Desire for new possessions	United States	64.0	20.00
Opree et al. (2013)	466	.14	.28	MVS (1992)	TV—viewership of programs with high ad content	Netherlands	55.0	8–11
Richins (1987)	252	.17	.34	MVS (1987)	Media exposure	United States	50.8	50.8
Richins (1987)	252	-.08	.16	MVS (1987)	Life satisfaction—standard of living	United States	50.8	50.8
Richins (2011)	386	.43	.96	MVS (2004)	Transformation expectations—appearance subscale	United States	48.7	48.7
Richins (2011)	386	.48	1.10	MVS (2004)	Transformation expectations—social subscale	United States	48.7	48.7
Richins (2011)	386	.33	.70	MVS (2004)	Transformation expectations—hedonic subscale	United States	48.7	48.7
Richins (2011)	386	.37	.79	MVS (2004)	Transformation expectations—relationships subscale	United States	48.7	48.7
Richins (2011)	386	.25	.51	MVS (2004)	Transformation expectations—efficacy subscale	United States	48.7	48.7
Richins (2013)—Study 3	171	.47	1.06	MVS (2004)	Transformation expectations—appearance subscale	United States	52.6	52.6
Richins (2013)—Study 3	171	.29	.61	MVS (2004)	Transformation expectations—relationships subscale	United States	52.6	52.6
Richins (2013)—Study 3	171	.40	.87	MVS (2004)	Transformation expectations—hedonic subscale	United States	52.6	52.6
Richins (2013)—Study 3	171	.24	.49	MVS (2004)	Transformation expectations—efficacy subscale	United States	52.6	52.6
Richins and Dawson (1990)	833	.20	.41	MVS (1990)	List of values—financial security subscale	United States		
Richins and Dawson (1992)—Study 3	235	.24	.49	MVS (1992)	List of values—financial security subscale	United States		
Richins and Dawson (1992)—Study 4	119	-.39	.84	MVS (1992)	Life satisfaction—standard of living	United States		
Rindfleisch, Burroughs, and Denton (1997)	261	-.19	.39	MVS (1992)	Socioeconomic status (composite of perceived family wealth, parental education and housing status)	United States		
Roberts and Clement (2007)	402	-.23	.47	MVS (2004)	Satisfaction with job/career	United States	50.0	50.0
Roberts and Clement (2007)	402	-.33	.69	MVS (2004)	Satisfaction with fun/enjoyment	United States	50.0	50.0
Roberts and Clement (2007)	402	-.48	1.09	MVS (2004)	Satisfaction with money	United States	50.0	50.0
Roberts, Manolis, and Tanner (2003)	174	-.16	.32	MVS (1987)—Success	Family resources	United States	49.4	13.70

(table continues)

Table 1 (continued)

Article	<i>N</i>	<i>r</i>	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (<i>SD</i>) ^a
Ryan and Dzurawiec (2001)	162	-.21	.43	MVS (1992)	Life satisfaction—housing	Australia	55.6	42.50
Ryan and Dzurawiec (2001)	162	-.24	.49	MVS (1992)	Life satisfaction—standard of living	Australia	55.6	42.50
Ryan and Dzurawiec (2001)	162	-.20	.41	MVS (1992)	Life satisfaction—standard of living	Australia	55.6	42.50
Ryan and Dzurawiec (2001)	162	-.21	.43	MVS (1992)	Life satisfaction—fun/enjoyment	Australia	55.6	42.50
Saunders (2007)—Study 2	302	.25	.52	MVS (1992)	Television viewership	Australia	74.8	23.00
Saunders and Munro (2000)—Study 2	87	.25	.52	MVS (1992)	Television viewership	Australia	62.1	27.70
Shrum, Burroughs, and Rindfleisch (2005)—Study 1	314	.37	.80	MVS (2004)	Attention to television	United States	45.7	
Shrum et al. (2011)—Study 2	314	.35	.76	MVS (2004)	Television viewing	United States	45.7	
Sirgy et al. (2012)	1,138	.48	1.09	MVS (1992)	Television viewership	Australia Bosnia Egypt Germany South Korea Turkey	58.7	33.81
Sirgy et al. (2013)	1,138	.30	.63	MVS (1992)	Ideal-based expectations	United States Australia Bosnia Egypt Germany South Korea Turkey	58.7	33.81
Sirgy et al. (2013)	1,138	.14	.28	MVS (1992)	Ability-based expectations	United States Australia Bosnia Egypt Germany South Korea Turkey	58.7	33.81
Sirgy et al. (1998)	191	.13	.26	MVS (1987)	Television viewing measure	United States	54.2	32.87 (8.32)
Sirgy et al. (1998)	249	.18	.37	MVS (1987)	Television viewing measure	China	49.8	29.56 (12.41)
Sirgy et al. (1998)	233	.31	.65	MVS (1987)	Television viewing measure	Australia	40.3	48.45 (16.17)
Speck and Roy (2008)	1,211	-.06	.12	MVS (2004)	Perceived socioeconomic status	United States Argentina Chile China Croatia India Lebanon Mexico New Zealand Poland Romania Turkey UAE United States	59.2	21–23

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Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Speck and Roy (2008)	1,211	.08	.16	MVS (2004)	Television viewership	Argentina Chile China Croatia India Lebanon Mexico New Zealand Poland Romania Turkey UAE United States	59.2	21–23
Tang et al. (2014)	1,011	.39	.85	MVS (1992)—Centrality	Love of money	United States	49.0	
Tang et al. (2014)	1,011	.33	.70	MVS (1992)—Happiness	Love of money	Spain	49.0	
Tang et al. (2014)	1,011	.48	1.09	MVS (1992)—Success	Love of money	Spain	49.0	
Wachtel and Blatt (1990)	101	.23	.47	MS (1985)—Possessiveness	Perceived income needed for comfortable life	United States		Undergraduates
Watson (2003) ¹	322	.43	.95	MVS (1992)	Spending tendency	United States	58.5	
Yoon (1995)	166	.35	.74	MVS (1992)	Perceived acceptability of advertising	United States	64.4	19.70 (2.0)
Zhang, Howell, and Howell (2014)	2,702	-.14	.28	MVS (2004)	Individual socioeconomic status	United States	73.7	30.45 (12.98)
Zhang, Howell, and Howell (2014)	2,702	.09	.18	MVS (2004)	Neighborhood socioeconomic status	United States	73.7	30.45 (12.98)
Zhang et al. (2015)—Study 1	171	.35	.74	MVS (1992)—Success	Personal relative deprivation	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	.21	.43	MVS (1992)—Centrality	Personal relative deprivation	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	.24	.49	MVS (1992)—Happiness	Personal relative deprivation	China	54.4	22.36 (3.18)
Experimental evidence					Step 2: Self-blame, feelings of inadequacy, low self-esteem			
Ashikali and Dittmar (2012)—Study 3	155	.18	.36	IV: Exposure to advertisements with materialistic emphasis and content (compared with nonmaterialistic advertisements)	DV: Appearance centrality to self-concept	United Kingdom	100.0	24.43 (3.43)
Bauer et al. (2012)—Study 1	50	.28	.55	IV: Exposure to images of luxury consumer goods (compared with neutral images)	DV: Negative affect, measured by Positive and Negative Affect Scale	United States	56.0	18.84
Bauer et al. (2012)—Study 1	50	.25	.51	IV: Exposure to images of luxury consumer goods (compared with neutral images)	DV: Dissatisfaction with the self (measured using items from the Positive and Negative Affect Scale)	United States	56.0	18.84
Chang and Arkin (2002)—Study 2	95	.33	.72	IV: Memorizing words related to self-doubt (compared with unrelated words) and having high (versus low) trait self-doubt	DV: State MVS (1992)	United States		Undergraduates

(table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Jiang et al. (2015)—Study 1a	91	.18	.37	DV: MVS (2004)	IV: Recalling past experience of social rejection (compared with social acceptance)	China	49.5	13.59 (.70)
Jiang et al. (2015)—Study 1b	149	.24	.50	DV: Number of materialistic items in collage created by participants	IV: Recalling past experience of social rejection (compared with social acceptance)	China	46.9	13.89 (.65)
Jiang et al. (2015)	71	.42	.92	DV: Number of materialistic items in collage created by participants	IV: Social rejection (versus acceptance) by other players in virtual game (operationalized as willingness to play)	China	46.5	13.73 (.86)
Jiang et al. (2015)	67	-.38	.82	DV: Number of materialistic items in collage created by participants	IV: Self-esteem prime, in which participants were subliminally primed with the word "I" (compared with the word "people") before quickly deciding whether positive-traits words were real words or not in a lexical decision task	China	52.2	13.78 (.90)
Correlational Evidence								
Ashikali and Dittmar (2012)—Study 3	155	.23	.47	MVS (2004)	Appearance centrality to self-concept (appearance schemas inventory)	United Kingdom	100.0	24.43 (3.43)
Ashikali and Dittmar (2012)—Study 3	155	.23	.47	MVS (2004)	Appearance centrality to self-concept (appearance schemas inventory)	United Kingdom	100.0	24.43 (3.43)
Chang and Arkin (2002)—Study 1	416	-.14	.28	MVS (1992)	Self-esteem scale	United States		Undergraduates
Chaplin, Hill, and John (2014)	117	.04	.08	Collage task	Self-esteem scale	United States	50.0	Adolescents 8–18
Chaplin and John (2007)—Study 1	150	-.37	.80	Collage task	Self-esteem scale	United States		
Chaplin and John (2007)—Study 2	105	.73	2.11	Collage task	Self-esteem prime. Participants were made to believe they received many more (versus fewer) compliments than other peers.	United States	51.0	8–18
Chaplin and John (2010)	100	-.36	.77	YMS (2003)	Self-esteem scale	United States	50.0	Adolescents 24.90 (9.40)
Christopher et al. (2006)	204	.28	.58	MVS (1992)	Personal insecurity (self-doubt scale)	United States	68.6	
Christopher and Schlenker (2004)	297	.22	.45	MVS (1992)	Fear of negative evaluation scale	United States	55.5	20.40 (2.90)
Christopher and Schlenker (2004)	297	.30	.63	MVS (1992)	Concern of social inadequacy (aspects of identity questionnaire—social identity subscale)	United States	55.5	20.40 (2.90)
Dittmar (2005a)—Study 2	239	.45	1.00	MVS (2004)	Buying motivations—ideal self subscale	United Kingdom	100.0	39.20 (12.90)
Dittmar (2005a)—Study 3	126	.38	.82	MVS (2004)	Buying motivations—ideal self subscale	United Kingdom	53.9	22.20
Dittmar, Long, and Bond (2007)—Study 2	126	.67	1.81	MVS (2004)	Buying motivations—ideal self subscale	United Kingdom	46.0	21.90 (4.49)
Durvasula and Lysonski (2010)	127	.31	.65	MVS (1992)	Self-enhancement money motivations	China	45.0	20.50
Fitzmaurice (2008) ¹	107	.37	.80	MVS (2004)	Self-reported feelings of guilt	United States	62.6	
Fitzmaurice (2008) ¹	107	.28	.59	MVS (2004)	Coding of free response splurge purchases	United States	62.6	

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Flouri (2004)	2,218	-.11	.22	MVS (1987)	Self-esteem scale	United Kingdom	44.6	13.48 (1.75)
Gudnadotir and Gardarsdotir (2014)—Study 1	303	.40	.87	MVS (2004)	Socio-cultural attitudes toward appearance questionnaire—internalization subscale	Iceland	100.0	19.43 (.61)
Gudnadotir and Gardarsdotir (2014)—Study 1	303	.30	.63	MVS (2004)	Body dissatisfaction scale	Iceland	100.0	19.43 (.61)
Gudnadotir and Gardarsdotir (2014)—Study 1	303	.28	.58	MVS (2004)	Dutch restrained eating scale	Iceland	100.0	19.43 (.61)
Gudnadotir and Gardarsdotir (2014)—Study 2	226	.44	.98	MVS (2004)	Sociocultural attitudes toward appearance questionnaire—internalization subscale	Iceland	.0	22.81 (3.00)
Gudnadotir and Gardarsdotir (2014)—Study 2	226	.39	.85	MVS (2004)	Drive for muscularity scale	Iceland	.0	22.81 (3.00)
Gudnadotir and Gardarsdotir (2014)—Study 2	226	.27	.56	MVS (2004)	Muscular behavior scale	Iceland	.0	22.81 (3.00)
Handa and Khare (2013)	254	.30	.63	MVS (1992)	Fashion clothing involvement	India	35.0	18–24
Karabati and Cemalcilar (2010)	948	.38	.84	MVS (1992)	Self-enhancement values	Turkey	46.1	21.60 (1.85)
Kilbourne, Grunhagen, and Foley (2005)	404	.30	.63	MVS (1992)	Self-enhancement values	Canada Germany	46.0	22.0
Kilbourne and LaForge (2010)	303	.13	.27	MVS (1992)—Happiness	Self-enhancement values	United States	56.0	48.00
Kilbourne and LaForge (2010)	303	.11	.22	MVS (1992)—Success	Self-enhancement values	United States	56.0	48.00
Kim et al. (2016)—Study 1	393	-.29	.61	MVS (1992)	Self-esteem scale	United States	41.4	35.37 (11.25)
Mick (1996)—Study 1	266	-.19	.39	MVS (1992)	Self-esteem scale	United States	50.8	43.20
Mick (1996)—Study 2	172	-.14	.28	MVS (1992)	Self-esteem scale	United States	55.0	40.00
Noguti and Bokeyar (2014)—Study 2	84	-.30	.63	MVS (1992)—Happiness	Self-esteem scale	United States	60.0	35.00 (13.00)
Reeves, Baker, and Truluck (2012)	171	-.17	.34	MVS (1992)	Self-esteem scale	United States	61.9	
Richins (2011)	386	.43	.96	MVS (2004)	Transformation expectations—appearance subscale	United States	48.7	
Richins (2011)	386	.48	1.10	MVS (2004)	Transformation expectations—social subscale	United States	48.7	
Richins (2011)	386	.33	.70	MVS (2004)	Transformation expectations—hedonic subscale	United States	48.7	
Richins (2011)	386	.37	.79	MVS (2004)	Transformation expectations—relationships subscale	United States	48.7	
Richins (2011)	386	.25	.51	MVS (2004)	Transformation expectations—efficacy subscale	United States	48.7	
Richins and Chaplin (2015)—Study 2	261	.21	.43	MVS (2004)	Personal insecurity	United States	52.5	
Richins and Chaplin (2015)—Study 3	280	.16	.32	MVS (2004)	Personal insecurity	United States	54.3	
Richins and Dawson (1990)	833	-.20	.41	MVS (1990)	Self-esteem scale	United States		

(table continues)

Table 1 (continued)

Article	<i>N</i>	<i>r</i>	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (<i>SD</i>) ^a
Richins and Dawson (1992)—Study 3	235	-.12	.24	MVS (1992)	Self-esteem scale	United States		
Rindfleisch, Burroughs, and Wong (2009)	314	.37	.79	MVS (2004)	Self-doubt scale	United States	49.0	49.80 (12.70)
Rindfleisch, Burroughs, and Wong (2009)	314	.49	1.12	MVS (2004)	Personal insecurity (adult attachment scale)	United States	49.0	49.80 (12.70)
Ruvio, Somer, and Rindfleisch (2014)	855	-.14	.28	MVS (2004)	Self-esteem scale	United States	55.0	36.31
Wachtel and Blatt (1990)	101	.17	.34	MS (1985)—Possessiveness	Depressive experiences questionnaire—self-criticism subscale	United States		
Wachtel and Blatt (1990)	101	.19	.39	MS (1985)—Non-Generosity	Depressive Experiences questionnaire—self-criticism subscale	United States		
Wachtel and Blatt (1990)	101	.38	.82	MS (1985)—Envy	Depressive experiences questionnaire—self-criticism subscale	United States		
Wang and Wallendorf (2006)—Study 1	211	.17	.34	MVS (1992)	Consumption satisfaction scale	United States	51.0	21.00
Wang and Wallendorf (2006)—Study 2	270	.12	.24	MVS (1992)	Consumption satisfaction scale	United States	52.0	35.00 (14.20)
Zhang and Kim (2012)	161	.15	.30	MVS (2004)	Attitudes toward buying luxury fashion goods—social comparison subscale	China	68.0	19–30
Step 3: High aversive self-awareness								
Correlational evidence								
Achenreiner (1997)	300	.44	.98	MVS (1987)	Susceptibility to peer influence	United States	55.3	8–16
Bindah and Othman (2012b)	956	.91	4.29	MVS (1992)	Peer communication tendency regarding goods and services	Malaysia		Undergraduates
Bottomley et al. (2010)—Study 2	557	.89	3.90	YMS (2003)	Consumer dissatisfaction scale	United Kingdom	98.2	9–11
Brouskeli and Loumakou (2014)	228	.39	.85	MVS (2004)	Age	Greece	41.1	20.64 (2.57)
Browne and Kaldenberg (1997)	387	.10	.21	MVS (1990)	Self-monitoring scale			21.00
Burroughs and Rindfleisch (2002)—Study 1	373	-.23	.47	MVS (1992)	Age	United States	52.0	47.00
Burroughs and Rindfleisch (2002)—Study 1	373	-.17	.34	MVS (1992)	Community oriented values	United States	52.0	47.00
Cass (2001)	450	.11	.22	MVS (1992)	Self-monitoring scale	Australia	53.6	35.00
Chan (2013)	667	.40	.87	YMS (2003)	Social-comparison of consumption	China	52.0	13.50
Chan (2013)	667	.11	.22	YMS (2003)	Attention to television advertisements	China	52.0	13.50
Chan (2013)	667	.11	.22	YMS (2003)	Age	China	52.0	13.50
Chan and Prendergast (2007)	281	.29	.61	MVS (1992)	Informative peer influence	China	48.0	15.70
Chan and Prendergast (2007)	281	.36	.77	MVS (1992)	Normative peer influence	China	48.0	15.70
Chan and Prendergast (2007)	281	.37	.80	MVS (1992)	Attention to social comparison information—friends	China	48.0	15.70
Chan and Prendergast (2007)	281	.24	.49	MVS (1992)	Attention to social comparison information—media figures	China	48.0	15.70
Chan and Prendergast (2007)	281	.15	.30	MVS (1992)	Television viewing	China	48.0	15.70

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Chan and Prendergast (2007)	281	.20	.41	MVS (1992)	Age	China	48.0	15.70
Chang and Arkin (2002)—Study 1	416	.39	.84	MVS (1992)	Social anxiety and public self-consciousness scale	United States		Undergraduates
Chang, Zhang, and Wang (2006) ²	788	.14	.28	MVS (1992)	Age	China	53.8	14.90
Chaplin, Hill, and John (2014)	117	.87	3.47	Collage task	Age	United States		Adolescents
Chatterjee and Hunt (1996)	170	.48	1.09	MVS (1992)	Self-monitoring scale	United States	44.0	23.00 (4.90)
Chatterjee, Hunt, and Kernan (2000)	170	.22	.45	MVS (1992)—Centrality	Social monitoring scale	United States		Undergraduates
Chatterjee, Hunt, and Kernan (2000)	170	.22	.45	MVS (1992)—Success	Social monitoring scale	United States		Undergraduates
Chatterjee, Hunt, and Kernan (2000)	170	.17	.35	MVS (1992)—Happiness	Social monitoring scale	United States		Undergraduates
Chaudhuri, Mazumdar, and Ghoshal (2011)—Study 5	250	.66	1.76	MS (1985)	Conspicuous consumption orientation scale	India		Undergraduates
Chen and Kim (2013)	201	.51	1.19	MVS (1992)	Luxury brand consumption	China	64.2	26.00
Chia (2010)	695	.15	.30	YMS (2003)	Age	Singapore	62.8	16.48 (2.31)
Christopher et al. (2006)	204	-.20	.41	MVS (1992)	Age	United States	68.6	24.90 (9.40)
Christopher, Lasane, Troisi, and Park (2007)	277	.33	.70	MVS (1992)	Self-presentation tactics excuse making subscale	United States	63.5	18.80 (.93)
Christopher, Lasane, Troisi, and Park (2007)	277	.16	.32	MVS (1992)	Self-presentation tactics justifications subscale	United States	63.5	18.80 (.93)
Christopher, Lasane, Troisi, and Park (2007)	277	.22	.45	MVS (1992)	Self-presentation tactics disclaimers subscale	United States	63.5	18.80 (.93)
Christopher, Lasane, Troisi, and Park (2007)	277	.17	.35	MVS (1992)	Self-presentation self-handicapping subscale	United States	63.5	18.80 (.93)
Christopher, Lasane, Troisi, and Park (2007)	277	.26	.54	MVS (1992)	Self-presentation tactics entitlement subscale	United States	63.5	18.80 (.93)
Christopher, Lasane, Troisi, and Park (2007)	277	.29	.61	MVS (1992)	Self-presentation tactics enhancement subscale	United States	63.5	18.80 (.93)
Christopher, Saliba, and Deadmarsh (2009)	440	-.19	.39	MVS (1992)	Age	United States	52.3	39.00 (12.00)
Christopher and Schlenker (2004)	297	.22	.45	MVS (1992)	Fear of negative evaluation scale	United States	55.5	20.40 (2.90)
Cleveland, Laroche, and Papadopoulos (2009)	2,015	-.22	.45	MVS (2004)	Age	Canada Chile Greece Hungary India Mexico South Korea Sweden	52.0	
Dawson and Bamossy (1990)	127	.53	1.24	MS (1985)	Age			
Deckop, Jurkiewicz, and Giacalone (2010)	274	-.18	.37	MVS (2004)	Age	United States	64.0	
DeMotta, Kongsompong, and Sen (2013)	410	.16	.32	MVS (2004)	Susceptibility to social influence	China India	56.0	20.12 (1.55)

(table continues)

Table 1 (continued)

Article	<i>N</i>	<i>r</i>	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (<i>SD</i>) ^b
Dittmar (2005a)—Study 2	239	.39	.84	MVS (2004)	Self-discrepancy scale	Thailand	100.0	39.20 (12.90)
Dittmar (2005a)—Study 3	126	.28	.58	MVS (2004)	Self-discrepancy scale	United Kingdom	53.9	22.20
Dittmar and Bond (2010)—Study 2	60	.32	.68	MVS (1992)	Self-discrepancy scale	United Kingdom	51.8	32.50 (13.10)
Dittmar and Kapur (2011)	236	.10	.20	MVS (1992)	Age (median split)	United Kingdom India		
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	-.26	.54	MVS (2004)	Age	United States	67.7	30.27 (12.91)
Durvasula and Lysonski (2010)	127	.31	.65	MVS (1992)	Money attitudes scale—power and prestige subscale	China	45.0	20.50
Eastman et al. (1997)	254	.41	.89	MVS (1992)	Status consumption tendencies	United States	39.8	23.57 (4.81)
Eastman et al. (1997)	235	.50	1.15	MVS (1992)	Status consumption tendencies	Mexico	57.0	22.01 (1.85)
Eastman et al. (1997)	311	.21	.43	MVS (1992)	Status consumption tendencies	China	56.0	21.37 (3.30)
Felix and Garza (2012)	339	.73	2.13	MVS (2004)	Body surveillance scale	Mexico	100.0	18.70
Fitzmaurice and Comegys (2006)	204	.56	1.35	MVS (1992)	Social consumption motivation scale	United States	70.6	
Flouri (2004)	2,218	.05	.10	MVS (1987)	Age	United Kingdom	44.6	13.48 (1.75)
Gatersleben et al. (2010)	194	-.38	.82	MVS (2004)	Age	United Kingdom	51.0	43.00
Giacomantonio, Mannetti, and Heaney et al. (2005)	370	.41	.90	MVS (1992)	Negative motives for money—self-monitoring subscale	Italy	57.0	31.90 (11.00)
Heaney et al. (2005)	239	.51	1.19	MVS (1992)	Status consumption tendency	Malaysia	63.0	23.00
Heaney et al. (2005)	239	.29	.61	MVS (1992)	Attention to social comparison information	Malaysia	63.0	23.00
Kallinen (2005)	104	.27	.56	MVS (1992)	Status consumption tendency	Australia	43.2	18–30
Keng et al. (2000) ¹	1,534	-.35	.76	MVS (1992)	Age	Singapore	51.2	48.00
Kilbourne and LaForge (2010)	303	-.10	.21	MVS (1992)—Success	Self-transcendent values	United States	56.0	
Ku, Dittmar, and Banerjee (2012)—Study 1	577	.60	1.50	YMS (2003)	Social motives for materialism	China		13–19
La Barbera and Gurhan (1997)	241	-.16	.32	MS (1984)—Possessiveness	Age	United Kingdom		
La Barbera and Gurhan (1997)	241	-.17	.35	MS (1984)—Non-Generosity	Age	United States	53.9	
La Barbera and Gurhan (1997)	241	-.15	.30	MS (1984)—Envy	Age	United States	53.9	
La Ferle and Chan (2008)	190	.47	1.06	MVS (2004)	Perceived peer influence	Singapore	51.5	13–18
Lerman and Maxwell (2006)	278	.13	.25	MVS (1992)	Age	United States (Russian Immigrants)	60.0	54.00
Lerman and Maxwell (2006)	200	.27	.57	MVS (1992)	Age	United States		
Manchiraju and Son (2014)	349	-.16	.32	MVS (1992)	Age	United States	41.0	29.00
Ogden and Cheng (2011)	683	-.23	.48	MVS (1992)	Age	Canada	55.6	
Pace (2013)	304	-.28	.58	MVS (1992)	Community-oriented values	China		
Park, Rabolt, and Jeon (2008)	319	.25	.52	MVS (1992)	Conformity in clothing	United States	57.0	40.60 (11.98)
Park, Rabolt, and Jeon (2008)	319	.24	.49	MVS (1992)	Need for uniqueness	South Korea	60.1	17–28
Pepper, Jackson, and Uzzell (2009)	260	-.13	.26	MVS (2004)	Age	United Kingdom	66.0	50.00 (16.00)
Pepper, Jackson, and Uzzell (2009)	260	-.34	.72	MVS (2004)	Community concerns	United Kingdom	66.0	50.00 (16.00)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Podoshen and Andrzejewski (2012)	538	.22	.45	MVS (1992)—Centrality	Conspicuous consumption	United States	58.2	55.64 (17.07)
Podoshen and Andrzejewski (2012)	538	.42	.93	MVS (1992)—Success	Conspicuous consumption	United States	58.2	55.64 (17.07)
Podoshen and Andrzejewski (2012)	538	.28	.58	MVS (1992)—Happiness	Conspicuous consumption	United States	58.2	55.64 (17.07)
Promislo, Deckop, Giacalone, and Jurkiewicz (2010)	274	-.16	.32	MVS (1992)	Age	United States	64.0	Undergraduates
Richins (1994)—Study 1	263	.31	.67	MVS (1992)	Value of possessions listed	United States		
Richins (1994)—Study 2	45	.29	.65	MVS (1992)	Prestige of possessions listed	United States		
Richins (2011)	386	.43	.96	MVS (2004)	Transformation expectations—appearance subscale	United States	48.7	
Richins (2011)	386	.48	1.10	MVS (2004)	Transformation expectations—social subscale	United States	48.7	
Richins (2011)	386	.33	.70	MVS (2004)	Transformation expectations—hedonic subscale	United States	48.7	
Richins (2011)	386	.37	.79	MVS (2004)	Transformation expectations—relationships subscale	United States	48.7	
Richins (2011)	386	.25	.51	MVS (2004)	Transformation expectations—efficacy subscale	United States	48.7	
Richins and Chaplin (2015)—Study 3	280	.25	.51	MVS (2004)	Transformation expectations—overall measure	United States	54.3	
Richins and Dawson (1990)	833	.30	.63	MVS (1990)	Public self-consciousness scale	United States		
Richins and Dawson (1990)	833	.30	.63	MVS (1990)	Self-monitoring scale	United States		
Rindfleisch, Burroughs, and Wong (2009)	314	-.16	.32	MVS (2004)	Age	United States	49.0	49.80 (12.70)
Roberts, Manolis, and Tanner (2008)	870	.54	1.28	MVS (1992)	Normative influence—peers	United States	49.4	13.70
Roets, Van Hiel, and Cornelis (2006)—Study 1	183	.18	.37	MVS (1992)	Social dominance orientation	United States	65.5	19.97 (1.57)
Roets, Van Hiel, and Cornelis (2006)—Study 2	176	.25	.52	MVS (1992)	Social dominance orientation	United States	41.0	38.66 (15.07)
Rose and DeJesus (2007)—Study 2	117	.36	.77	MVS (2004)	Social monitoring scale	United States	55.5	20.04 (1.40)
Rose and DeJesus (2007)—Study 2	117	.28	.58	MVS (2004)	Need to belong scale	United States	55.5	20.04 (1.40)
Ruvio, Somer, and Rindfleisch (2014)	139	-.25	.52	MVS (2004)	Age	Israel	53.0	37.00
Ruvio, Somer, and Rindfleisch (2014)	855	-.27	.56	MVS (2004)	Age	United States	55.0	36.31
Saunders (2007)—Study 1	84	-.23	.47	MVS (1992)	Age	Australia	63.1	25.90
Saunders (2007)—Study 1	84	.30	.63	MVS (1992)	Social conformity	Australia	63.1	25.90
Schroeder and Dugal (1995)	66	.42	.93	MS (1984)	Public self-consciousness	United States	63.6	20.20
Schroeder and Dugal (1995)	66	.38	.82	MS (1984)	Susceptibility to interpersonal influence	United States	63.6	20.20
Tang et al. (2014)	1,011	-.14	.28	MVS (1992)—Centrality	Age	Spain	49.0	
Tang et al. (2014)	1,011	-.08	.16	MVS (1992)—Happiness	Age	Spain	49.0	

(table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Troisi, Christopher, and Marek (2006)	266	-.27	.56	MVS (1992)	Age	United States	63.2	32.50 (14.10)
Van Hiel, Cornelis, and Roets (2010)—Study 1	131	-.28	.58	MVS (1992)	Community concerns	Belgium	87.8	19.55 (2.79)
Van Hiel, Cornelis, and Roets (2010)—Study 2	176	-.29	.61	MVS (1992)	Community concerns	Belgium	39.7	38.66 (15.07)
Velov, Gojkovic, and Duric (2014)	272	.40	.87	MVS (1992)	Attitudes towards conspicuous consumption	Russia	55.1	16–18
Watson (1998) ¹	299	.14	.29	MVS (1992)	Age	New Zealand	45.0	22.00
Weaver, Moschis, and Davis (2011)	129	.34	.72	MVS (2004)	Peer communication about consumption	Australia	41.0	
Wong (1997)	200	.26	.54	MVS (1992)—Centrality	Public self-consciousness scale	United States	55.0	
Wong (1997)	200	.16	.32	MVS (1992)—Happiness	Public self-consciousness scale	United States	55.0	
Wong (1997)	200	.28	.58	MVS (1992)—Success	Public self-consciousness scale	United States	55.0	
Wong (1997)	200	-.17	.34	MVS (1992)—Centrality	Individualism-collectivism scale	United States	55.0	
Wong (1997)	200	-.23	.47	MVS (1992)—Happiness	Individualism-collectivism scale	United States	55.0	
Wong (1997)	200	-.24	.49	MVS (1992)—Success	Individualism-collectivism scale	United States	55.0	Undergraduates
Xie, Bagozzi, and Yang (2013)	322	.35	.74	MVS (1992)	Individualism (subjective norms scale)	China	60.0	20.75 (1.98)
Xu (2008)	96	.09	.19	MVS (1992)—Success	Public self-consciousness scale	United States	75.0	Undergraduates
Xu (2008)	96	.06	.13	MVS (1992)—Centrality	Public self-consciousness scale	United States	75.0	
Step 4: Negative affect								
Experimental evidence								
Bauer et al. (2012)—Study 1	50	.27	.55	IV: Exposure to images of luxury consumer goods (compared with neutral images)	DV: Negative affect, measured by Positive and Negative Affect Scale	United States	56.0	18.84
Bauer et al. (2012)—Study 1	50	.36	.78	IV: Exposure to images of luxury consumer goods (compared with neutral images)	DV: Negative affect, measured by Positive and Negative Affect Scale	United States	56.0	18.84
Correlational Evidence								
Ahuvia and Wong (1995) ¹	200	-.30	.63	MVS (1992)	Life satisfaction—Overall	United States	55.0	Undergraduates
Ahuvia and Wong (1995) ¹	200	-.16	.32	MVS (1992)	Life satisfaction—Friendships	United States	55.0	Undergraduates
Ang, Mansor, and Tan (2013)	366	.36	.77	MVS (2004)	UCLA loneliness scale version 3	Malaysia	50.3	Undergraduates
Ang, Mansor, and Tan (2013)	366	-.48	1.09	MVS (2004)	Satisfaction with life scale	Malaysia	50.3	Undergraduates
Baker et al. (2013)	1,003	-.25	.52	MVS (2004)	Satisfaction with life scale	Malaysia	51.4	48.07 (16.58)
Baker et al. (2013)	1,003	.08	.16	MVS (2004)	Depression anxiety stress scale	Malaysia	51.4	48.07 (16.58)
Belk (1984)	338	-.23	.47	MS (1984)	Happiness	United States	33.3	
Belk (1984)	338	-.18	.37	MS (1984)	Satisfaction with life	United States	33.3	
Brouskeli and Loumakou (2014)	228	.20	.41	MVS (2004)	Perceived stress scale	Greece	98.2	20.64 (2.57)
Burroughs and Rindfleisch (1997)—Study 1	200	.24	.49	MVS (1992)	Family stress—life experiences survey	United States	64.5	26.00
Burroughs and Rindfleisch (2002)—Study 1	373	.18	.37	MVS (1992)	Depression scale	United States	52.0	47.00
Burroughs and Rindfleisch (2002)—Study 1	373	-.15	.30	MVS (1992)	Index of general affect	United States	52.0	47.00
Burroughs and Rindfleisch (2002)—Study 1	373	-.25	.51	MVS (1992)	Satisfaction with life scale	United States	52.0	47.00

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Burroughs and Rindfleisch (2002)—Study 1	373	.20	.41	MVS (1992)	Anxiety and stress scale	United States	52.0	47.00
Burroughs and Rindfleisch (2002)—Study 1	373	.22	.44	MVS (1992)	Anxiety and stress scale	United States	52.0	47.00
Chang and Arkin (2002)—Study 1	416	-.21	.43	MVS (1992)	Satisfaction with life scale	United States		
Chen, Yao, and Yan (2014)	261	-.19	.38	MVS (1992)	Positive and negative affect scale	China	63.6	23.00
Chen, Yao, and Yan (2014)	261	-.17	.35	MVS (1992)	Need satisfaction	China	63.6	23.00
Chen, Yao, and Yan (2014)	261	-.14	.28	MVS (1992)	Self-actualization	China	63.6	23.00
Chen, Yao, and Yan (2014)	261	-.17	.35	MVS (1992)	Subjective vitality	China	63.6	23.00
Chen, Yao, and Yan (2014)	261	-.35	.74	MVS (1992)	Satisfaction with life scale	China	63.6	23.00
Christopher et al., (2004)	159	.17	.34	MVS (1992)	Negative affect	United States	53.4	Undergraduates
Christopher, Lasane, Troisi, and Park (2007)	277	-.20	.41	MVS (1992)	Satisfaction with life scale	United States	63.5	18.80 (.93)
Christopher, Saliba, and Deadmarsh (2009)	440	.35	.74	MVS (1992)	Negative affect	United States	52.3	39.00 (12.00)
Christopher and Schlenker (2004)	297	.15	.30	MVS (1992)	Negative affect	United States	55.5	20.40 (2.90)
Claes et al. (2010)	130	.33	.70	MVS (2004)	Depression screener—patient health questionnaire	Belgium	100.0	22.30 (3.60)
Cole et al. (2015)	234	-.35	.74	MS (1985)	Life satisfaction—overall	United States	42.9	
Cole et al. (2015)	234	-.15	.30	MS (1985)—Non-Generosity	Life satisfaction—overall	United States	42.9	
Cole et al. (2015)	234	-.38	.82	MS (1985)—Envy	Life satisfaction—overall	United States	42.9	
Cole et al. (2015)	234	-.27	.56	MVS (1987)	Life satisfaction—overall	United States	42.9	
Cole et al. (2015)	234	-.37	.80	MS (1985)	Congruity life satisfaction scale	United States	42.9	
Cole et al. (2015)	234	-.18	.37	MS (1985)—Non-Generosity	Congruity life satisfaction scale	United States	42.9	
Cole et al. (2015)	234	-.42	.93	MS (1985)—Envy	Congruity life satisfaction scale	United States	42.9	
Cole et al. (2015)	234	-.32	.67	MVS (1987)	Congruity life satisfaction scale	United States	42.9	
Cole et al. (2015)	234	-.37	.80	MS (1985)	Congruity life satisfaction scale	United States	42.9	
Cole et al. (2015)	234	-.16	.32	MS (1985)—Possessiveness	Need hierarchy—life satisfaction	United States	42.9	
Cole et al. (2015)	234	-.37	.80	MS (1985)—Envy	Need hierarchy—life satisfaction	United States	42.9	
Cole et al. (2015)	234	-.29	.61	MVS (1987)	Need hierarchy—life satisfaction	United States	42.9	
Dittmar and Kapur (2011)	53	-.29	.61	MVS (1992)	Satisfaction with life scale	India	53.2	18–27
Felix and Garza (2012)	339	-.22	.45	MVS (2004)	Satisfaction with life scale	Mexico	100.0	18.70
Flouri (1999)	246	.16	.32	MVS (1992)	Satisfaction with quality of relationship with mother	United Kingdom	54.1	17.50 (1.19)
Flouri (2004)	2,218	.20	.41	MVS (1987)	Modified children's perception of inter-parental conflict scale	United Kingdom	44.6	13.48 (1.75)
Flouri (2007)	3,309	-.10	.20	MVS (1987)	General health questionnaire	United Kingdom		42.92 (6.61)
Froh et al. (2010)	1,035	-.34	.72	MVS (2004)	Gratitude questionnaire	United States	49.4	15.67 (1.21)
Froh et al. (2010)	1,035	.25	.51	MVS (2004)	Dispositional envy subscale	United States	49.4	15.67 (1.21)
Frost et al. (2007)	127	.29	.61	MVS (1992)	Depression scale	United States	100.0	18–22
Frost et al. (2007)	127	.40	.87	MVS (1992)	Self-ambivalence	United States	100.0	18–22
Gardarsdottir and Dittmar (2012)—Study 2	191	-.15	.30	MVS (1992)	Subjective well-being	Iceland	56.0	48.80 (13.70)
Gardarsdottir, Dittmar, and Aspinall (2009)—Study 1a	145	-.23	.47	MVS (2004)	Satisfaction with life scale	United Kingdom	64.1	24.20 (6.80)
Gardarsdottir, Dittmar, and Aspinall (2009)—Study 1b	139	-.41	.90	MVS (2004)	Satisfaction with life scale	Iceland	72.6	24.80 (5.60)

(table continues)

Table 1 (continued)

Article	<i>N</i>	<i>r</i>	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (<i>SD</i>) ^b
Gardarsdottir, Dittmar, and Aspinall (2009)—Study 2	261	-.46	1.04	MVS (2004)	Satisfaction with life scale	United Kingdom	43.3	38.90 (10.50)
Gatersleben et al. (2010)	194	-.29	.61	MVS (2004)	Satisfaction with life (single question)	United Kingdom	51.0	43.00
Giacomantonio, Mannetti, and Piero (2013)—Study 2	370	.38	.82	MVS (1992)	Negative affect	Italy	57.0	31.90 (11.00)
Grougiou and Moschis (2014)	285	.12	.24	MVS (2004)	Family disruption scale	Greece	49.5	22.87 (2.58)
Kashdan and Breen (2007)	144	.33	.70	MVS (2004)	Beck depression inventory ii	United States	78.5	23.78 (7.62)
Kashdan and Breen (2007)	144	.25	.52	MVS (2004)	Negative affect	United States	78.5	23.78 (7.62)
Kasser and Ahuvia (2002)	92	-.28	.58	MVS (1992)	Self-actualization	United States	71.7	21.10 (1.53)
Kasser and Ahuvia (2002)	92	-.24	.49	MVS (1992)	Happiness	United States	71.7	21.10 (1.53)
Kasser and Ahuvia (2002)	92	-.25	.52	MVS (1992)	Vitality	United States	71.7	21.10 (1.53)
Kasser and Ahuvia (2002)	92	.27	.56	MVS (1992)	Anxiety	United States	71.7	21.10 (1.53)
Kasser et al. (2014)—Study 3	748	-.28	.58	MVS (2004)	Physical health problems	United States	70.0	
Kasser et al. (2014)—Study 3	515	-.19	.39	MVS (2004)	Satisfaction with life scale	Iceland	70.0	
Keng et al. (2000) ¹	1,534	-.07	.14	MVS (1992)	Satisfaction with life scale	Iceland	70.0	
La Barbera and Gurhan (1997)	241	-.40	.32	MS (1984)—Possessiveness	Satisfaction with friendships	Singapore	52.1	
La Barbera and Gurhan (1997)	241	-.22	.35	MS (1984)—Non-Generosity	Positive affect	United States	53.9	
La Barbera and Gurhan (1997)	241	-.51	.30	MS (1984)—Envy	Positive affect	United States	53.9	
Lambert et al. (2008)—Study 1	131	-.26	.54	MVS (1992)	Satisfaction with life scale	United States	74.0	21.00
Lambert et al. (2008)—Study 1	131	-.22	.45	MVS (1992)	Gratitude questionnaire	United States	74.0	21.00
Li et al. (2011)	407	-.50	1.15	MVS (1992)	Satisfaction with life scale	Singapore United States	61.4	20.60 (2.01)
Manchiraju and Son (2014)	349	.35	.74	MVS (1992)	Happiness	United States	41.0	29.00
Manchiraju and Son (2014)	349	.44	.98	MVS (1992)	Satisfaction with life scale	United States	41.0	29.00
Manolis and Roberts (2012)	1,329	-.06	.12	YMS (2003)	Satisfaction with self	United States	55.0	14.70
McCullough et al. (2002)—Study 1	156	-.25	.52	MVS (1992)—Success	Gratitude questionnaire	United States		
McCullough et al. (2002)—Study 1	156	-.38	.82	MVS (1992)—Happiness	Gratitude questionnaire	United States		
McCullough et al. (2002)—Study 1	156	-.17	.35	MS (1985)—Possessiveness	Gratitude questionnaire	United States		
McCullough et al. (2002)—Study 1	156	-.35	.74	MS (1985)—Non-Generosity	Gratitude questionnaire	United States		
McCullough et al. (2002)—Study 1	156	-.34	.72	MS (1985)—Envy	Gratitude questionnaire	United States		
Mick (1996)—Study 2	172	-.27	.56	MVS (1992)	Self-actualization	United States	55.0	40.00
Mueller et al. (2011b)	387	.34	.72	MVS (2004)	Depression screener—patient health questionnaire	Germany	66.6	39.10 (14.00)
Norris and Larsen (2011)	101	-.28	.58	MVS (1992)	Satisfaction with life scale	United States	64.0	20.00
Otero-Lopez et al. (2011)	469	-.19	.38	MVS (1992)—Centrality	Satisfaction with life scale	Spain	100.0	37.30 (5.00)
Otero-Lopez et al. (2011)	469	-.29	.61	MVS (1992)—Success	Satisfaction with life scale	Spain	100.0	37.30 (5.00)
Otero-Lopez et al. (2011)	469	-.34	.72	MVS (1992)—Happiness	Satisfaction with life scale	Spain	100.0	37.30 (5.00)
Otero-Lopez and Villardefrancos (2013)	685	.22	.45	MVS (1992)—Centrality	Depression symptom checklist	Spain	100.0	36.50 (5.80)
Otero-Lopez and Villardefrancos (2013)	685	.18	.37	MVS (1992)—Success	Depression symptom checklist	Spain	100.0	36.50 (5.80)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Otero-Lopez and Villardefrancos (2013)	685	.28	.58	MVS (1992)—Happiness	Depression symptom checklist	Spain	100.0	36.50 (5.80)
Pieters (2013)	2,789	.18	.37	MVS (1992)—Success	Loneliness—in 2005	Netherlands	47.0	47.60 (16.40)
Pieters (2013)	2,789	.15	.30	MVS (1992)—Success	Loneliness—in 2007	Netherlands		
Pieters (2013)	2,789	.11	.22	MVS (1992)—Success	Loneliness—in 2008	Netherlands		
Pieters (2013)	2,789	.18	.37	MVS (1992)—Success	Loneliness—in 2009	Netherlands		
Pieters (2013)	2,789	.16	.32	MVS (1992)—Success	Loneliness—in 2010	Netherlands	47.0	47.60 (16.40)
Pieters (2013)	2,789	.24	.49	MVS (1992)—Happiness	Loneliness—in 2005	Netherlands		
Pieters (2013)	2,789	.21	.43	MVS (1992)—Happiness	Loneliness—in 2007	Netherlands		
Pieters (2013)	2,789	.19	.39	MVS (1992)—Happiness	Loneliness—in 2008	Netherlands		
Pieters (2013)	2,789	.23	.47	MVS (1992)—Happiness	Loneliness—in 2009	Netherlands		
Pieters (2013)	2,789	.28	.58	MVS (1992)—Happiness	Loneliness—in 2010	Netherlands		
Piko (2006)	1,114	-.39	.84	MVS (1992)—Happiness	Satisfaction with life scale	Hungary	60.1	16.50 (1.30)
Poraj-Weder (2014)	453	-.10	.20	MVS (2004)—Success	Memories of upbringing-parental conflict	Poland	74.0	
Poraj-Weder (2014)	453	-.13	.26	MVS (2004)—Happiness	Memories of upbringing-parental conflict	Poland	74.0	
Reeves, Baker, and Truluck (2012)	171	-.21	.43	MVS (1992)	Satisfaction with life scale	United States	61.9	
Richins and Dawson (1990)	833	-.20	.41	MVS (1990)	Satisfaction with life scale	United States		
Richins, McKeage, and Najjar (1992) ¹ —Study 2	107	.31	.65	MVS (1992)	Negative affect	United States		
Rindfleisch, Burroughs, and Denton (1997)	261	.15	.30	MVS (1992)	Life experiences	United States		
Roberts and Clement (2007)	402	-.14	.28	MVS (2004)	Satisfaction with family	United States	50.0	
Roberts and Clement (2007)	402	-.25	.52	MVS (2004)	Satisfaction with friendships	United States	50.0	
Roberts, Manolis, and Tanner (2006)	187	.66	1.76	MVS (1992)	Family stressors	United States	44.0	16.70
Roberts, Tanner, and Manolis (2005)	869	.24	.49	MVS (1992)—Happiness	Family stressors	United States	47.9	14.40
Ruvio, Somer, and Rindfleisch (2014)	139	.18	.37	MVS (2004)	Posttraumatic symptom scale	Israel	53.0	38.50
Saunders (2007)—Study 2	302	.21	.43	MVS (1992)	Depression inventory	Australia	74.8	23.00
Saunders (2007)—Study 4	193	-.41	.90	MVS (1992)	Satisfaction with life scale	Australia	41.9	48.80
Saunders and Munro (2000)—Study 1	87	.22	.45	MVS (1992)	Depression inventory	Australia	62.1	27.70
Saunders and Munro (2000)—Study 1	87	-.26	.54	MVS (1992)	Satisfaction with life scale	Australia	62.1	27.70
Shrum et al. (2011)—Study 2	314	-.23	.47	MVS (2004)	Satisfaction with life scale	United States	45.7	
Sirgy et al. (1995)	191	-.15	.30	MS (1985)	Life satisfaction—overall	China	54.2	32.87 (8.32)
Sirgy et al. (1995)	191	-.15	.30	MS (1985)—Possessiveness	Life satisfaction—overall	China	54.2	32.87 (8.32)
Sirgy et al. (1995)	139	-.18	.37	MS (1985)—Possessiveness	Life satisfaction—overall	Turkey	56.8	32.32 (12.84)
Sirgy et al. (1995)	139	-.25	.52	MVS (1992)	Life satisfaction—overall	Turkey	56.8	32.32 (12.84)
Sirgy et al. (1995)	249	-.31	.65	MS (1985)	Life satisfaction—overall	Australia	49.8	29.56 (12.41)
Sirgy et al. (1995)	249	-.21	.43	MS (1985)—Possessiveness	Life satisfaction—overall	Australia	49.8	29.56 (12.41)
Sirgy et al. (1995)	249	-.18	.37	MS (1985)—Envy	Life satisfaction—overall	Australia	49.8	29.56 (12.41)
Sirgy et al. (1995)	249	-.36	.77	MVS (1992)	Life satisfaction—overall	Australia	49.8	29.56 (12.41)
Sirgy et al. (1995)	180	-.26	.54	MS (1985)	Life satisfaction—overall	Canada	24.2	45.55 (13.81)

(table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Sirgy et al. (1995)	180	-.24	.49	MS (1985)—Possessiveness	Life satisfaction—overall	Canada	24.2	45.55 (13.81)
Sirgy et al. (1995)	180	-.15	.30	MS (1985)—Non-Generosity	Life satisfaction—overall	Canada	24.2	45.55 (13.81)
Sirgy et al. (1995)	180	-.26	.54	MVS (1992)	Life satisfaction—overall	Canada	24.2	45.55 (13.81)
Sirgy et al. (1995)	233	-.31	.65	MS (1985)	Life satisfaction—overall	United States	40.3	48.45 (16.17)
Sirgy et al. (1995)	233	-.31	.65	MS (1985)—Possessiveness	Life satisfaction—overall	United States	40.3	48.45 (16.17)
Sirgy et al. (1995)	233	-.14	.28	MS (1985)—Envy	Life satisfaction—overall	United States	40.3	48.45 (16.17)
Sirgy et al. (1995)	233	-.43	.95	MVS (1992)	Life satisfaction—overall	United States	40.3	48.45 (16.17)
Sirgy et al. (1995)	234	-.17	.34	MS (1985)	Life satisfaction—overall	United States	56.5	21.54 (3.52)
Sirgy et al. (1995)	234	-.20	.41	MS (1985)—Possessiveness	Life satisfaction—overall	United States	56.5	21.54 (3.52)
Sirgy et al. (1995)	234	-.34	.72	MVS (1992)	Life satisfaction—overall	United States	56.5	21.54 (3.52)
Sirgy et al. (2012)	1,138	-.15	.30	MVS (1992)	Life satisfaction	Australia	58.7	33.81
						Bosnia		
						Egypt		
						Germany		
						South Korea		
						Turkey		
						United States		
Somer and Ruvico (2014)	326	.27	.56	MVS (2004)	Posttraumatic stress disorder symptom scale	Israel	59.0	38.0
Speck and Roy (2008)	1,211	-.24	.49	MVS (2004)	Satisfaction with life	Argentina	59.2	21–23
						Chile		
						China		
						Croatia		
						India		
						Lebanon		
						Mexico		
						New Zealand		
						Poland		
						Romania		
						Turkey		
						UAE		
						United States		
Swinyard, Kau, and Phua (2001)	425	-.16	.32	MVS (1992)	Life satisfaction—overall	United States		
Swinyard, Kau, and Phua (2001)	314	-.11	.23	MVS (1992)	Life satisfaction—Overall	United States		
Tsang et al. (2014)	246	-.23	.47	MVS (1992)	Balanced measure of psychological needs	Singapore	52.4	21.0
Tsang et al. (2014)	246	-.32	.68	MVS (1992)	Gratitude questionnaire	United States	52.4	21.0
Tsang et al. (2014)	246	-.24	.49	MVS (1992)	Satisfaction with life scale	United States	52.4	21.0
Urien and Kilbourne (2008)	283	-.20	.41	MVS (1992)	Personal well-being index	United States	41.0	20.3
Wang and Wallendorf (2006)	211	.17	.34	MVS (1992)	Consumption satisfaction scale	United States	51.0	21.0
Wang and Wallendorf (2006)	270	.12	.24	MVS (1992)	Consumption satisfaction scale	United States	52.0	35.0 (14.2)
Weaver, Moschis, and Davis (2011)	129	.24	.49	MVS (2004)	Perceived family stress	Australia	41.0	22.0
Weaver, Moschis, and Davis (2011)	129	.25	.52	MVS (2004)	Disruptive family events	Australia	41.0	22.0
Wei and Talpaade (2009)	283	-.25	.52	MVS (2004)	Satisfaction with life scale	China	63.0	63.2
						United States		

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Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Wu, Lai, and Tong (2014)	1,018	-.20	.41	MVS (2004)	Satisfaction with life scale	China	55.4	41.6 (17.1)
Zhang et al. (2015)—Study 1	171	-.29	.61	MVS (1992)—Success	Basic psychological need scale—autonomy subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.20	.41	MVS (1992)—Centrality	Basic psychological need scale—autonomy subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.24	.49	MVS (1992)—Happiness	Basic psychological need scale—autonomy subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.09	.18	MVS (1992)—Success	Basic psychological need scale—relatedness subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.14	.28	MVS (1992)—Centrality	Basic psychological need scale—relatedness subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.08	.16	MVS (1992)—Happiness	Basic psychological need scale—relatedness subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.23	.47	MVS (1992)—Success	Basic psychological need scale—competence subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.16	.32	MVS (1992)—Centrality	Basic psychological need scale—competence subscale	China	54.4	22.36 (3.18)
Zhang et al. (2015)—Study 1	171	-.16	.32	MVS (1992)—Happiness	Basic psychological need scale—competence subscale	China	54.4	22.36 (3.18)
Step 5: Cognitive deconstruction								
Experimental evidence								
Goodman and Irmak (2013)—Study 4	143	.05	.10	MVS (2004) (moderator)	DV: Tendency to select a cable “plus package” after (IV) thinking about how little the additional channels would be used.	United States		
Kim (2013)—Study 3	90	.29	.60	IV: Purchase (or no purchase) of lottery ticket	DV: Independent coders assessed construal level of participants’ thoughts in a thought listing task.	United States	59.2	34.7
Kim (2013)—Study 3	90	.27	.57	IV: Purchase (or no purchase) of lottery ticket	DV: Preference for immediate, smaller monetary reward over delayed, larger reward.	United States	59.2	34.7
Kim (2013)—Study 4	88	.16	.34	IV: Purchase (or no purchase) of lottery ticket and writing about products would buy with lottery money (compared with writing about a neutral topic [trees]).	DV: Independent coders assessed construal level of participants’ thoughts in a thought listing task.	United States	38.6	30.0
Kim (2013)—Study 4	88	.21	.42	IV: Purchase (or no purchase) of lottery ticket and writing about products would buy with lottery money (compared with writing about a neutral topic [trees]).	DV: Preference for immediate, smaller monetary reward over delayed, larger reward.	United States	38.6	30.0
Correlational Evidence								
Banerjee and McKeage (1994)	309	-.20	.41	MVS (1992)	Environmentalism scale	United States		Undergraduates
Banerjee and McKeage (1994)	309	-.15	.30	MVS (1992)	Environment Behavior scale	United States		Undergraduates
Banerjee and McKeage (1994)	309	-.12	.24	MVS (1992)	Ecological Intentions scale	United States		Undergraduates
Burroughs and Rindfleisch (2002)—Study 1	373	.31	.65	MVS (1992)	Community values	United States	52.0	47 (table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Claes et al. (2010)	130	.19	.39	MVS (2004)	Worry concerning future punishments in the future (behavioral inhibition system)	Belgium	100.0	22.3(3.6)
Clarke and Micklen (2002) ^b	1009	.10	.22	MVS (1992)	List of values—fun/enjoyment subscale	Australia	49.5	21–24
Clarke and Micklen (2002) ^b	1009	.08	.16	MVS (1992)	List of values—excitement subscale	France Mexico United States Australia France Mexico United States	49.5	21–24
Clump, Brandel, and Sharpe (2002)	271	-.20	.41	MVS (1992)	New ecological paradigm	United States	69.0	21.7
Dittmar and Bond (2010)—Study 3	72	.54	1.29	MVS (1992)	Discount rates	United Kingdom	100.0	
Donnelly, Iyer, and Howell (2012)—Study 2	993	.17	.34	MVS (1992)—Centrality	Money management scale	United States	72.5	27.45 (12.70)
Donnelly, Iyer, and Howell (2012)—Study 2	993	.05	.18	MVS (1992)—Happiness	Money management scale	United States	72.5	27.45 (12.70)
Donnelly, Iyer, and Howell (2012)—Study 3	355	.20	.41	MVS (2004)—Happiness	Money management scale	United States	70.2	33.42 (13.77)
Donnelly, Iyer, and Howell (2012)—Study 2	355	.15	.30	MVS (2004)—Happiness	Financial management behavioral scale	United States	70.2	33.42 (13.77)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.17	.34	MVS (1992)—Happiness	Hedonic time perspective	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.12	.24	MVS (1992)—Success	Hedonic time perspective	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.13	.26	MVS (1992)—Centrality	Hedonic time perspective	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	-.32	.67	MVS (1992)—Happiness	Financial management behavioral scale	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	-.16	.32	MVS (1992)—Success	Financial management behavioral scale	United States	65.8	34.93 (12.51)
Donnelly, Ksendzova, and Howell (2013)—Study 1	1,077	-.26	.53	MVS (1992)	Money management scale	United States	74.0	24.23 (9.71)
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	.39	.84	MVS (2004)	Transformation expectations—overall measure	United States	67.7	30.27 (12.91)
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	-.24	.49	MVS (2004)	Money management scale	United States	67.7	30.27 (12.91)
Gardarsdottir and Dittmar (2012)—Study 1	271	-.22	.45	MVS (1992)	Money management scale	Iceland	79.3	38.41 (10.27)
Gardarsdottir and Dittmar (2012)—Study 2	191	-.19	.39	MVS (1992)	Money management scale	Iceland	56.0	48.80 (13.7)
Gatersleben et al. (2010)	194	-.20	.41	MVS (2004)	New ecological paradigm	United Kingdom	51.0	43.00
Hultman et al. (2015)	1,181	-.12	.24	MVS (2004)	New ecological paradigm	Sweden Taiwan	52.5	
Joung (2013) ¹	335	.12	.23	MVS (1987)	Environmental attitudes	United States	79.3	19–22
Karabati and Cemalcilar (2010)	948	.19	.40	MVS (1992)	Hedonism	Turkey	46.1	21.60 (1.85)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Kashdan and Breen (2007)	144	.39	.85	MVS (2004)	Experiential avoidance (acceptance and action questionnaire)	United States	78.5	23.78 (7.62)
Keng et al. (2000) ^b	1,534	.16	.32	MVS (1992)	List of values—fun/enjoyment subscale	Singapore	52.1	
Keng et al. (2000) ^b	1,534	.19	.40	MVS (1992)	List of values—excitement subscale	Singapore	52.1	
Kilbourne and Pickett (2008)	303	-.26	.53	MVS (1992)—Success	Environmental beliefs scale	United States	56.0	44.00
Kilbourne and Pickett (2008)	303	-.24	.49	MVS (1992)—Happiness	Environmental beliefs scale	United States	56.0	44.00
Kilbourne and Pickett (2008)	303	-.26	.54	MVS (1992)—Centrality	Environmental beliefs scale	United States	56.0	44.00
Manolis and Roberts (2012)	1,329	-.06	.12	YMS (2003)	Time affluence scale	United States	55.0	14.70
Pepper, Jackson, and Uzzell (2009)	260	.38	.82	MVS (2004)	Hedonism	United Kingdom	66.0	50.00 (16.00)
Polonsky, Kilbourne, and Vocino (2014)	1,174	-.04	.08	MVS (1992)—Success	Environmental Concern	China		
Polonsky, Kilbourne, and Vocino (2014)	1,174	-.07	.14	MVS (1992)—Happiness	Environmental concern	China		
Polonsky, Kilbourne, and Vocino (2014)	1,174	-.03	.06	MVS (1992)—Success	Ecological behavioral intentions	China		
Polonsky, Kilbourne, and Vocino (2014)	1,174	-.02	.04	MVS (1992)—Happiness	Ecological behavioral intentions	China		
Richins (2011)	386	.30	.63	MVS (2004)	Attitude toward borrowing	United States	48.7	
Richins and Dawson (1992) ^b —Study 4	119	-.24	.49	MVS (1992)	Ecological awareness	United States	78.2	25.90
Saunders (2007)—Study 3	101	-.37	.84	MVS (1992)	Environmentalism	Australia		
Saunders and Munro (2000)—Study 4	198	-.12	.25	MS (1985)—Possessiveness	Environmentalism	Australia		
Shafer (2000)	101	-.37	.84	MVS (1992)	Environmentalism	United States	78.2	25.90
Sharpe and Ramanaiyah (1999) ^b	280	-.21	.42	MS (1985)	Big five markers—openness personality	United States	74.2	18.40 (1.2)
Somer and Ruvio (2014)	326	.44	.97	MVS (2004)	Personality inventory—openness	United States	51.7	18.70
Somer and Ruvio (2014)	326	.31	.65	MVS (2004)	Using shopping as a means of escape (shopping escapism scale)	Israel	59.0	38.00
Strizhakova and Coulter (2013)	625	.08	.16	MVS (1987)	Hedonic shopping	Israel	59.0	38.00
Strizhakova and Coulter (2013)	625	.06	.12	MVS (1987)	Concern for environmentally friendly products when making purchases	Australia	50.5	39.00 (12.00)
Strizhakova and Coulter (2013)	625	.06	.12	MVS (1987)	Willingness to pay extra for environmentally friendly products	United States	50.5	39.00 (12.00)
Tiilikidou and Delistavrou (2004)	470	-.25	.52	MS (1985)	Proenvironmental post purchase behavior	Australia		
Troisi, Christopher, and Marek (2006)	266	-.13	.26	MVS (1992)	Openness to experience	United States	63.2	32.50 (14.10)
Troisi, Christopher, and Marek (2006)	266	.17	.35	MVS (1992)	Sensation seeking scale	United States	63.2	32.50 (14.10)
Walker (1996)	100	.17	.35	MVS (1992)—Happiness	Financial management practices	United States	100.0	29.00
Watson (2014)—Study 1	382	-.21	.43	MS (1985)	International personality item pool—openness subscale	Canada	67.3	20.61
Watson (2014)—Study 1	382	-.15	.30	MVS (2004)	International personality item pool—openness subscale	Canada	67.3	20.61

(table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Watson (2014)—Study 3	429	-.19	.39	MS (1985)	Personality inventory—openness		65.9	20.85
Watson (2014)—Study 3	429	-.20	.41	MVS (2004)	Personality inventory—openness		65.9	20.85
Westerman et al. (2014)	531	-.16	.32	MVS (1992)	New ecological paradigm	United States	42.3	21.50
Westerman et al. (2014)	76	-.24	.49	MVS (1992)	New ecological paradigm	Netherlands	47.4	21.20
Step 6: Disinhibition								
Experimental evidence								
Cohn, Fehr, and Marechal (2014)—Study 1	128	.24	.49	IV: Making bank employees' professional identity salient (compared with a prompt to reflect on habits)	DV: Dishonesty (operationalized as number of reported coin flips that yielded a financial reward in a game and supposedly occurred more than 50% of the time, thus exceeding chance)	Switzerland		
Kim (2013)—Study 1	46	.37	.80	IV: Lottery ticket given (versus not given) as compensation for participation	DV: Number of candies consumed	United States	63.0	34.50
Correlational evidence								
Chowdhury and Fernando (2013)	937	.19	.38	MVS (1992)	Ethical consumer attitudes	Australia	66.3	
Deadmarsh (2009)	440	.34	.72	MVS (1992)	External locus of control	United States	52.3	39.00 (12.00)
Claes et al. (2010)	130	.34	.72	MVS (2004)	Compulsive buying scale	Belgium	100.0	22.30 (3.60)
Cole and Sherrell (1995)	319	.28	.58	MVS (1992)	Compulsive buying scale	United States		Undergraduates
Dittmar (2005a)—Study 2	239	.39	.85	MVS (2004)	Compulsive buying scale	United Kingdom	100.0	39.20 (12.90)
Dittmar (2005a)—Study 3	126	.44	.97	MVS (2004)	Compulsive buying scale	United Kingdom	53.9	22.20
Dittmar (2005b)	330	.39	.84	MVS (2004)	Compulsive buying scale	United Kingdom	72.7	39.50 (13.30)
Dittmar (2005b)	250	.52	1.22	MVS (2004)	Compulsive buying scale	United Kingdom	53.2	34.20
Dittmar (2005b)	195	.29	.61	MVS (2004)	Compulsive buying scale	United Kingdom	51.2	Adolescents
Dittmar and Kapur (2011)	53	.67	1.81	MVS (1992)	Compulsive buying scale	India	53.2	18–27
Dittmar and Kapur (2011)	56	.61	1.54	MVS (1992)	Compulsive buying scale	India	53.2	28.00 +
Dittmar and Kapur (2011)	70	.70	1.96	MVS (1992)	Compulsive buying scale	United Kingdom	53.2	18–27
Dittmar and Kapur (2011)	57	.57	1.39	MVS (1992)	Compulsive buying scale	United Kingdom	53.2	28.00 +
Dittmar, Long, and Bond (2007)—Study 2	126	.54	1.28	MVS (2004)	Compulsive buying scale	United Kingdom	46.0	21.90 (4.49)
Donnelly, Iyer, and Howell (2012)—Study 2	993	.09	.18	MVS (1992)—Happiness	Credit card debt (self-reported)	United States	72.5	27.45 (12.70)
Donnelly, Iyer, and Howell (2012)—Study 2	993	.12	.24	MVS (1992)—Centrality	Compulsive buying scale	United States	72.5	27.45 (12.70)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.22	.45	MVS (1992)—Happiness	External locus of control	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.16	.32	MVS (1992)—Success	External locus of control	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.15	.30	MVS (1992)—Centrality	External locus of control	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.37	.79	MVS (1992)—Happiness	Compulsive buying scale	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.36	.77	MVS (1992)—Success	Compulsive buying scale	United States	65.8	34.93 (12.51)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Donnelly, Iyer, and Howell (2012)—Study 4	291	.27	.56	MVS (1992)—Centrality	Compulsive buying scale	United States	65.8	34.93 (12.51)
Donnelly, Iyer, and Howell (2012)—Study 4	291	.11	.22	MVS (1992)—Happiness	Credit card overdue	United States	65.8	34.93 (12.51)
Donnelly, Ksendzova, and Howell (2013)—Study 1	1,077	.36	.77	MVS (1992)	Compulsive buying scale	United States	74.0	24.23 (9.71)
Donnelly, Ksendzova, and Howell (2013)—Study 2	650	.38	.82	MVS (2004)	Compulsive Buying Scale	United States	67.7	30.27 (12.91)
Efrat and Shoham (2013)	220	.69	1.91	MS (1984)	Aggressive driving behavior	Israel	44.7	33.96 (9.45)
Faber and O'Guinn (1988)	258	.25	.52	MS (1985)	Compulsive shopper (self-reported identification)	United States		
Faber and O'Guinn (1992)	680	.39	.87	MS (1985)	Compulsive shopper (self-reported identification)	United States	48.3	45.60
Frost et al. (2007)	127	.58	1.42	MVS (1992)	Compulsive acquisition scale	United States	100.0	18–22
Gardarsdottir and Dittmar (2012)—Study 1	271	.48	1.09	MVS (1992)	Compulsive buying scale	Iceland	79.3	38.41 (10.27)
Gardarsdottir and Dittmar (2012)—Study 1	271	.31	.65	MVS (1992)	Overspending tendency	Iceland	79.3	38.41 (10.27)
Gardarsdottir and Dittmar (2012)—Study 2	191	.41	.89	MVS (1992)	Compulsive buying scale	Iceland	56.0	48.80 (13.70)
Gardarsdottir and Dittmar (2012)—Study 2	191	.22	.45	MVS (1992)	Debt balance (self-reported)	Iceland	56.0	48.80 (13.70)
Hunt et al. (1990)	148	.26	.54	MS (1985)	External locus of control	United States	47.3	Undergraduates
Joung (2013) ¹	335	.31	.66	MVS (1987)	Compulsive buying scale	United States	79.3	19–22
Khare (2014)—Study 1	409	.36	.77	MVS (1992)	Compulsive buying scale	India	21.5	
Kwak et al. (2001)	76	.26	.54	MVS (1992)	Degree of involvement with socially harmful products (personal involvement inventory)	United States	53.0	20–24
Lu and Lu (2009)	230	.31	.65	MVS (1992)	Consumer ethics scale	Indonesia	47.4	26–35
Manolis and Roberts (2008)	406	.46	1.03	MVS (1992)	Compulsive buying scale	United States	48.5	19.00
Manolis and Roberts (2012)	1,329	.57	1.38	YMS (2003)	Compulsive buying scale	United States	55.0	14.70
Mick (1996)—Study 1	266	.43	.95	MVS (1992)	Compulsive buying scale	United States	50.8	43.20
Mick (1996)—Study 2	172	.35	.74	MVS (1992)	Compulsive buying scale	United States	55.0	40.00
Mick (1996)—Study 2	172	.41	.89	MVS (1992)	Impulsive buying scale	United States	55.0	40.00
Mowen and Spears (1999)—Study 1	304	.25	.52	MVS (1992)	Compulsive buying scale	United States		
Mueller et al. (2011a)	410	.46	1.03	MVS (2004)	Compulsive buying scale	Germany	70.0	22.90 (3.70)
Mueller et al. (2011b)	387	.45	1.01	MVS (2004)	Compulsive buying scale	Germany	66.6	39.10 (14.00)
Muncy and Eastman (1998)	214	-.35	.74	MVS (1992)	Consumer ethics scale	United States		
Netemeyer et al. (1998)	429	.20	.41	MVS (1992)	Revised South Oaks Gambling Screen	United States	33.0	46.70
Noguti and Bokeyar (2014)—Study 1	306	.36	.77	MVS (1992)—Success	Compulsive buying scale	Australia	59.0	37.00 (13.00)
Noguti and Bokeyar (2014)—Study 2	84	.45	1.00	MVS (1992)—Success	Compulsive buying scale	United States	60.0	35.00 (13.00)
Noguti and Bokeyar (2014)—Study 2	84	.48	1.09	MVS (1992)—Centrality	Compulsive buying scale	United States	60.0	35.00 (13.00)

(table continues)

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^a
Noguti and Bokeyar (2014)—Study 2	84	.41	.89	MVS (1992)—Happiness	Compulsive buying scale	United States	60.0	35.00 (13.00)
O'Guinn and Faber (1989)	636	.47	1.08	MS (1985)	Compulsive shopper (self-reported)	United States	71.0	41.00
Otero-Lopez et al. (2011)	469	.56	1.35	MVS (1992)—Centrality	German addictive buying scale	Spain	100.0	37.30 (5.00)
Otero-Lopez et al. (2011)	469	.35	.74	MVS (1992)—Success	German addictive buying scale	Spain	100.0	37.30 (5.00)
Otero-Lopez et al. (2011)	469	.31	.65	MVS (1992)—Happiness	German addictive buying scale	Spain	100.0	37.30 (5.00)
Otero-Lopez and Villardefrancos (2013)	685	.51	1.18	MVS (1992)—Centrality	German addictive buying scale	Spain	100.0	36.50 (5.80)
Otero-Lopez and Villardefrancos (2013)	685	.36	.77	MVS (1992)—Success	German addictive buying scale	Spain	100.0	36.50 (5.80)
Otero-Lopez and Villardefrancos (2013)	685	.34	.72	MVS (1992)—Happiness	German addictive buying scale	Spain	100.0	36.50 (5.80)
Pham, Yap, and Dowling (2012)	118	.44	.98	MVS (2004)	Compulsive buying scale	Australia	61.8	27.20 (10.30)
Pirog and Roberts (2007)	254	.21	.43	MVS (2004)	Credit card overuse	United States	50.4	20.90 (1.96)
Pirog and Roberts (2007)	254	.38	.82	MVS (2004)	Consumer impulsiveness scale	United States	50.4	20.90 (1.96)
Podoshen and Andrzejewski (2012)	538	.34	.72	MVS (1992)—Centrality	Impulse buying scale	United States	58.2	55.64 (17.07)
Podoshen and Andrzejewski (2012)	538	.19	.39	MVS (1992)—Success	Impulse buying scale	United States	58.2	55.64 (17.07)
Podoshen and Andrzejewski (2012)	538	.20	.41	MVS (1992)—Happiness	Impulse buying scale	United States	58.2	55.64 (17.07)
Ponchio and Aranha (2008) ^b	436	.11	.22	MVS (1992)	Possession of an installment plan payment booklet	Brazil		
Reeves, Baker, and Truluck (2012)	171	.29	.61	MVS (1992)	Compulsive buying scale	United States	61.9	
Richins (2011)	386	.19	.38	MVS (2004)	Credit card overuse	United States	48.7	
Rindfleisch, Burroughs, and Denton (1997)	261	.36	.77	MVS (1992)	Compulsive buying scale	United States		13.70
Roberts, Manolis, and Tanner (2003)	495	.67	1.81	MVS (1987)—Centrality	Compulsive buying scale	United States	49.4	
Roberts, Manolis, and Tanner (2003)	495	.38	.82	MVS (1987)—Success	Compulsive buying scale	United States	49.4	13.70
Roberts, Manolis, and Tanner (2003)	174	.33	.69	MVS (1987)—Happiness	Compulsive buying scale	United States	49.4	13.70
Roberts, Manolis, and Tanner (2003)	174	.75	2.26	MVS (1987)—Centrality	Compulsive buying scale	United States	49.4	13.70
Roberts, Manolis, and Tanner (2003)	174	.52	1.21	MVS (1987)—Success	Compulsive buying scale	United States	49.4	13.70
Roberts, Manolis, and Tanner (2006)	187	.77	2.41	MVS (1992)	Compulsive buying scale	United States	44.0	16.70
Roberts, Manolis, and Tanner (2008)	870	.69	1.91	MVS (1992)	Compulsive buying scale	United States	49.4	13.70
Roberts and Pirog (2013)	191	.22	.45	MVS (2004)	Trait impulsiveness	United States	40.6	21.00 (1.00)
Rose (2007)	238	-.21	.43	MVS (2004)	Ability to control impulses (impulse control scale)	United States	62.2	19.96 (2.35)
Rose (2007)	238	.34	.72	MVS (2004)	Compulsive buying scale	United States	62.2	19.96 (2.35)
Ruvio, Somer, and Rindfleisch (2014)	139	.34	.72	MVS (2004)	Impulse buying scale	Israel	53.0	38.50

Table 1 (continued)

Article	N	r	Effect size	Materialism measure	Relevance to escape theory	Country ^a	% Female ^a	Age group or average age in years (SD) ^b
Ruvio, Somer, and Rindfleisch (2014)	139	.38	.82	MVS (2004)	Compulsive buying scale	Israel	53.0	38.50
Ruvio, Somer, and Rindfleisch (2014)	855	.52	1.21	MVS (2004)	Impulse buying scale	United States	55.0	36.31
Ruvio, Somer, and Rindfleisch (2014)	855	.57	1.38	MVS (2004)	Compulsive buying scale	United States	55.0	36.31
Troisi, Christopher, and Marek (2006)	266	.50	1.15	MVS (1992)	Impulse buying scale	United States	63.2	32.50 (14.10)
Troisi, Christopher, and Marek (2006)	266	-.19	.39	MVS (1992)	Money conservation scale	United States	63.2	32.50 (14.10)
Ward, Bridges, and Chitty (2005)	315	.15	.31	MVS (1992)	Concern with disclosing personal information (income, name, address) online	Australia	58.0	18-24
Watson (1998) ¹	299	.17	.33	MVS (1992)	Attitude toward debt	New Zealand	45.0	
Watson (2003) ¹	322	.17	.35	MVS (1992)	Reasons for borrowing money over the past 90 days	United States	58.5	
Weaver, Moschis, and Davis (2011)	129	.52	1.21	MVS (2004)	Compulsive buying scale	Australia	41.0	22.00
Wu, Lai, and Tong (2014)	1,018	.24	.49	MVS (2004)	Pathological gambling	China	55.4	41.60 (17.10)
Wu (2013)	197	.24	.49	MVS (1992)	Online game addiction	Taiwan	50.0	
Xu (2008)	96	.11	.23	MVS (1992)—Centrality	Compulsive buying scale	United States	75.0	Undergraduates
Yurchisin and Johnson (2004)	305	.63	1.62	MVS (1992)	Compulsive buying scale	United States	84.6	20.00
Zhang, Howell and Howell (2014)	2,702	.36	.77	MVS (2004)	Impulse buying scale	United States	73.7	30.45 (12.98)
Zhang, Howell, and Howell (2014)	2,702	-.12	.24	MVS (2004)	Money conservation scale	United States	73.7	30.45 (12.98)

^a Information left blank when not reported. ^b Materialism categories were calculated using a median split.

traits of envy, nongenerosity, and possessiveness (Belk, 1984, 1985), and as the belief that the consumption of tangible objects is an important life goal, signals success, and leads to happiness (Richins, 2004; Richins & Dawson, 1992). Most simply, materialism is the “importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states” (Richins, 2004, p. 210). Materialism is not simply one’s tendency to consume tangible objects; rather, it reflects the motivation behind the purchases. In describing people as materialistic, the present research refers to individuals who score higher on the continuum of materialistic values than other individuals.

Some stereotypes regard materialists as greedy for money. These are only partly correct. Materialists do surpass others in how much they value financial security (Keng, Jung, Jiuan, & Wirtz, 2000; Richins & Dawson, 1992) and often feel less satisfied with the amount of money they have (Keng et al., 2000). Materialists tend to desire more money than they have (Christopher, Marek, & Carroll, 2004) and are dissatisfied with their income (Ahuvia & Wong, 2002; Roberts, & Clement, 2007). Despite such signs of wanting money, it appears that materialists want money more for money’s instrumental purpose than for its own sake—they want material goods, and money is a vital means of getting them. Crucially, findings that materialists are prone to overspending and overborrowing (e.g., Dittmar, 2005a, 2005b; Roberts, Manolis, & Tanner, 2008; Yurchisin & Johnson, 2004) indicate that materialism is not primarily about money but rather about the use of money to acquire things.

Materialism is most commonly measured as a value system using the Material Values Scale (MVS; Richins & Dawson, 1990, 1992; Richins, 2004). The MVS is composed of subscales reflecting three components. First, *acquisition centrality* refers to a consumer’s belief that having material items is important (e.g., “I put less emphasis on material things than most people I know” reverse-scored). Second, the *pursuit of happiness through acquisition* reflects a belief that possessions can increase life satisfaction and well-being (e.g., “My life would be better if I owned certain things I don’t have”). Third, *possession-defined success* gauges a person’s tendency to judge accomplishments (the self’s and others’) by the number and prestige of accumulated possessions (e.g., “I admire people who own expensive homes, cars, and clothes”). Although the subscales can be used independently, researchers most commonly create a single index based on all of the items.

The next most common measure is Belk’s Materialism Scale (MS; Belk, 1984, 1985). The MS has three subscales. First, *possessiveness* refers to the inclination to gain control or ownership of one’s possessions (e.g., “I would rather buy something I need than borrow it from someone else”). Second, *nongenerosity* reflects an unwillingness to give or share possessions with others, (e.g., “I don’t like to lend things, even to good friends”). Third, *envy* involves reactions to others’ possessions (e.g., “When friends have things I cannot afford it bothers me”). The MS was used regularly before Richins and Dawson (1992) criticized it for inconsistency and low reliability of the subscales (offering the MVS in its place). The MS primarily represents people’s emotional reactions to the ownership, desire for, and loss of possessions while the MVS reflects beliefs about the importance of material consumption.

Although most work has used the MVS or the MS, some studies have measured trait materialism in other, less direct ways. Chaplin and John (2007) had adolescents create a collage of “what makes

them happy” and operationalized materialism by the frequency of images depicting brand names and money (also see Jiang, Zhang, Ke, Hawk, & Qiu, 2015). Implicit materialism has been measured by asking participants to categorize images of items of varying expense as pertaining to themselves or not (Kim, 2013; Solberg, Diener, & Robinson, 2004). Materialism was measured in terms of stronger associations between expensive items and the self.

State materialism also has been assessed. Chang and Arkin (2002) adapted the MVS to reflect state materialism (e.g., “Right now, I think I will feel happier if I can afford to buy more things”). State materialism also has been measured as believing that it is typical to want to purchase goods so as to look and feel better than others (Giacomantonio, Mannetti, & Pierro, 2013).

Because materialism tends to be measured using self-report scales, experimental manipulations of materialism have been rare. One paper demonstrated that a materialistic mindset could be cognitively primed. Having participants view images of luxury consumer goods, referring to participants as “consumers,” and sentence completion tasks that involve materialistic concepts (e.g., buying, status, assets, and expensiveness) were effective in increasing materialistic aspirations, dissatisfaction with the self, interest in self-enhancement, competitiveness, selfishness, and depressive and anxious affect, while decreasing interest in social involvement and trust in others (Bauer, Wilkie, Kim, & Bodenhausen, 2012). Kim (2013) demonstrated that being entered into a lottery or simply imagining entering a lottery was effective in increasing materialistic thoughts.

The Escape Theory of Materialism

Escaping the Self

Early work proposed that self-awareness was inherently aversive and as a result people would seek to avoid and escape self-awareness (Duval & Wicklund, 1972). Subsequent work discarded the notion that self-awareness is universally unpleasant while sustaining the view that it is aversive at times. In particular, when people fail, misbehave, incur disapproval, violate personal standards, or in other ways invoke negative views of the self, self-awareness becomes unpleasant and motivates people to escape from it (e.g., Baumeister, 1991; Carver & Scheier, 1981, 1982). For example, after engaging in actions that betrayed their values, people preferred to sit with their backs to a wall of mirrors rather than facing it (Greenberg & Musham, 1981). Pyszczynski and Greenberg (1987) pointed out that self-awareness could amplify the severity of depressive symptoms. Likewise, Ingram (1990) reviewed evidence that intense, aversive self-awareness is implicated in a broad range of clinical psychopathologies and contributes to the suffering of afflicted individuals.

A systematic account of the process of escape from self-awareness was proposed by Baumeister (1988, 1989) to explain the paradoxical patterns of sexual masochism, such as the desire to experience pain, lose control, and suffer a loss of esteem. The theory was elaborated by extending it to cover suicide (Baumeister, 1990, 1991). The resulting six-step model furnished the basis for the present theory.

The motivation to escape the self begins with falling short of standards. This may occur either because standards are unrealistically high or because experiences are genuinely bad. Thus, we

began by considering the hypothesis that materialists experience disappointments in their aspirations more frequently than others.

The second step is self-blame. The shortfalls or setbacks are blamed on the self. If people do not blame themselves for falling short of standards, the self is not implicated and therefore there is little motivation to escape the self. These self-attributions of responsibility for failure create a focus on self, which is experienced as acutely high self-awareness (the third step). Fourth, this state is unpleasant and marked by aversive emotions, such as ongoing or recurring states of emotional distress.

The fifth step involves cultivating a state of cognitive deconstruction, characterized by concrete rather than abstract thinking, a focus on the present rather than past and future, a narrowing of attention, and a general avoidance of thinking about highly meaningful and emotional topics. This process is aimed at minimizing the emotional distress, insofar as emotion depends on meaningful understanding of circumstances and their comparison against abstract standards.

The sixth and final step reflects consequences of the deconstructed state. Maintaining a concrete, low-level focus disengages many inner controls that normally guide behavior, such as rational analysis and socially normative inhibitions. Accordingly, impulsive and irrational behavior may ensue. Failures to maintain the deconstructed state can lead to a resumption of emotional distress, causing a return of irrational and impulsive actions in the attempt to bring short-term relief. Successful escape may include the acquisition of a new identity (at least temporarily) that replaces the self from which the person seeks to escape.

Overview of Materialism as Escape

The six steps of escape theory constituted the current framework, which furnished the basis for hypothesizing that materialists would exhibit the following patterns more than other people (i.e., more than nonmaterialists). First, materialists should tend to be characterized by falling short of standards and feeling disappointed with their life. Second, they should be disposed to blame themselves for their setbacks, stresses, disappointments, perceived inadequate social standing, and other undesirable outcomes. Third, materialists should be prone to experience high self-awareness. Fourth, dysphoric moods should be common. Fifth, materialists should show signs of cognitive deconstruction, such as narrow, rigid, concrete, and present-focused thinking, which would aid escape from aversive moods and emotions. Last, materialism should be associated with impulsive, short-sighted, and irrational behavior patterns. There may also be attempts to embrace a new, different version of the self, which would complete the escape from the former self.

Review of Evidence

We conducted a systematic review of the literature (Table 1) to test whether escape from the self is a viable model to account for the thoughts, feelings, and behaviors of materialistic individuals. We restricted our operational definition of materialism to be the noneconomic value ascribed to the ownership and acquisition of material goods (Belk, 1984, 1985; Richins & Dawson, 1992). This definition is conceptually different from general consumerism (i.e., seeking to engage in marketplace activities rather than acquire

material goods specifically), greed, aspirations for financial success, and extrinsic orientation (e.g., Kasser & Ryan's, 1993, 1996, see Aspiration Index).

Method

Literature Search and Article Inclusion

Multiple techniques were used to retrieve studies for possible inclusion. Studies were identified via electronic library databases (EconLit, Family and Society Studies Worldwide, PsychARTICLES, PsycINFO, and *Dissertation Abstracts International*) through forward and backward searches, a web-based search engine (i.e., Google Scholar), selected manuscript reference lists (e.g., Bauer et al., 2012; Burroughs & Rindfleisch, 2002; Dittmar, Bond, Hurst, & Kasser, 2014; Kasser & Kanner, 2004; Richins, 2004; Shrum et al., 2013) and manual searches of issues of the *Journal of Consumer Psychology*, *Journal of Consumer Research*, *Journal of Economic Psychology*, *Journal of Experimental Social Psychology*, *Journal of International Marketing*, *Journal of Management*, *Journal of Marketing*, *Journal of Marketing Research*, *Journal of Public Policy and Marketing*, *Journal of Research in Personality*, *Personality and Social Psychology Bulletin*, *Organizational Behavior and Human Decision Processes*, *Personality and Social Psychology*, and *Psychological Science* published between January 1, 1984 and August 1, 2015. Computerized searches included search terms "materialism" and "materialistic." All potentially relevant studies that were written in English and published through July 2015 were evaluated for inclusion.

To be selected for inclusion, a study had to (a) measure materialism through self-report or (b) manipulate a participant's materialistic values through experimental design. Studies measuring materialism needed to have used the (a) Material Values Scale developed by Richins and Dawson, 1992 (MVS; or Richins, 1987, 2004); or (b) Materialism Scale developed by Belk (MS; Belk, 1984, 1985; Ger & Belk, 1990). Experimental work needed to manipulate materialism as an independent variable, examine the effect of another experimentally manipulated variable on materialism, or investigate materialism's mediating or moderating role in an experimental context. All experiments needed to concern materialism specifically, rather than a related construct (e.g., salience of money).

We evaluated 551 articles relating to materialism based on our search terms. Of these, 226 were eligible for our review of the evidence (Table 1). Our assessment did not include articles that did not assess materialism ($N = 325$), used measures outside of the inclusion criteria ($N = 56$), or that were not relevant for evaluating materialism's fit in the escape pathway (e.g., validations of scales or cross-cultural comparisons; $N = 32$).

Evidence

Falling Short of High Standards

The notion of falling short of standards from escape theory includes personally important domains that people use to measure their standing. For materialists, these domains are likely to include

satisfaction with one's material possessions, expectations about life outcomes (including standard of living, quality of life, and enjoying life), or success in academic or professional life. Ample evidence indicates that materialistic people possess high expectations when it comes to financial success and standards of living compared to people with low materialistic values. Sirgy (1998) proposed that highly materialistic people set expectations for their standard of living based on ideals. Sirgy et al. (2013) identified two ways that materialists evaluate their standard of living. One is simple entitlement: The more materialistic people are, the more likely they are to think they are entitled to live a life that matches their idea of the ideal life. The other is according to merit: Materialists may think that the extent to which they deserve the good life is linked to their attainments, such as current income. While both evaluations are done more by materialists than non-materialists, it was the entitlement-based expectations that predicted dissatisfaction with one's standard of living (Sirgy et al., 2013).

Materialists place relatively high value on economic competition and financial self-interest. When investing, materialists are more likely than other people to focus solely on profit, as opposed to societal benefit (Kashyap & Iyer, 2009) and endorse the corporate pursuit of profit, discounting social responsibility (Kolodinsky, Madden, Zisk, & Henkel, 2010).

Materialists worry more about their finances (Gardarsdottir & Dittmar, 2012) and value financial security more than do other people (Keng et al., 2000; Richins & Dawson, 1992). Not surprisingly, materialists desire money more than other people, often for power and prestige (Christopher et al., 2004; Durvasula & Lysonski, 2010; Lemrová, Reiterová, Fatěnová, Lemr, & Tang, 2014; Roberts & Clement, 2007; Tang, Luna-Arocas, Pardo, & Tang, 2014), as well as to relieve anxiety (Durvasula & Lysonski, 2010). Materialists expect their happiness to rise if they accumulate more wealth (Richins & Dawson, 1992) perhaps because more money could bring them closer to their goals.

Materialism may inspire people to move into higher socioeconomic strata, making the acquisition of material goods an important marker of that passage. More than other people, materialists desire new possessions beyond what they already have (Bose, Burns, & Folse, 2013; Chaudhuri & Halder, 2005; Norris & Larsen, 2011). This pattern may help explain why financial desires among materialists are linked to aspirations for upward economic mobility. Materialistic children have higher expectations for themselves and their families than do nonmaterialistic children. They anticipate earning more money when they enter the workforce and expect their families to spend more money on birthday and holiday presents, compared to less materialistic children (Goldberg, Gorn, Peracchio, & Pamosy, 2003).

Perfectionism is a sign of having excessively high standards, which materialistic buyers report more often than others when describing purchases (e.g., "My standards and expectations for products I buy are very high;" Lysonski & Durvasula, 2013). Materialists often expect that acquiring consumer goods will positively transform their appearance and relationships (Donnelly, Ksendzova, & Howell, 2013; Richins, 2011, 2013) and bring them closer to their ideal self (e.g., Dittmar, 2005a; Dittmar, Long, & Bond, 2007; Gardarsdottir & Dittmar, 2012). Further, materialists may possess high standards in realms other than finances and possessions. For example, materialists internalize and strongly

endorse body appearance ideals, more than other people (Felix & Garza, 2012). Thus, holding high standards may be a broad tendency associated with materialism.

In order for standards to affect emotions, beliefs, and behavior, people must use them as a way of evaluating the self. Materialism may stem from comparing one's own standing with that of others. Causal evidence for the link from social comparisons to heightened materialistic strivings comes from experimental work. One experiment asked participants to recall a time when either they compared themselves with others or when they were productive. After this task, all participants read four scenarios in which individuals made decisions on the basis of materialistic motivations or desires (e.g., "A college student spent all his money to buy a new smartphone in order to create a good impression among his friends") and then rated the extent to which they believed most people would make the same decision. Those who were induced to recall self-other comparisons later rated materialistic motives for consumption as more normal and prevalent than those who recalled productive experiences (Giacomantonio et al., 2013). In a second study, these authors showed that trait materialism correlated with the desire to buy goods that would signal their high status to others and help them gain acceptance. These findings fit an escape theory account that feeling inadequate when comparing oneself to standards (in this case, comparing one's qualities with those of other people) can motivate materialism.

Another investigation using experimental design supported the idea that exposure to high standards and success can determine materialistic strivings. Mandel, Petrova, and Cialdini (2006) found that materialism scores rose after people read about highly successful peers (e.g., when a business student read about another business student achieving social and economic success, compared with an unsuccessful peer) and could easily imagine themselves making similar advancements (vs. when the success was not easy to imagine for oneself). That finding indicates that exposure to high standards causes materialism to increase, partly because readers of such stories upgraded their own expectations for future success.

Kim, Callan, Gheorghiu, and Matthews (2016) also found that socially comparing personal abilities leads to increased materialistic strivings because the process of social comparisons leads people to believe they were relatively deprived. Perceiving the self as deprived of a deserved outcome contributes to materialism. First, a person's trait perception of being economically deprived, relative to peers, was positively correlated with his or her materialistic values (Zhang, Tian, Lei, Yu, & Liu, 2015). These authors also experimentally manipulated perceived deprivation by asking participants to play a forest-management game. In the game, participants acted as owners of a timber company who had to bid against other companies to harvest timber in a national forest (see Kasser & Sheldon, 2000). In the relative deprivation condition, participants learned that the government had implemented preferential policies allowing their industry competitors to harvest more of the forest. In the control condition participants did not learn of any government policies and were expected to simply bid for the job. The deprived participants expressed a greater desire to profit more in the coming year, and harvested more of the forest in the simulation game relative to the control condition.

Relative deprivation increases materialism even when the deprivation stems from one's own choices (as opposed to external,

governmental restrictions). In a second experiment by Zhang, Tian, Lei, Yu, and Liu (2015), participants reflected on a personal experience of not getting a desired outcome either because of their own actions or because of unjust treatment by others. Control participants simply reflected on a recent personal experience. Subsequently, in the forest management game, both deprivation conditions exhibited increases in seeking profits and harvesting more timber.

In a third experimental investigation, Kim et al. (2016) gave participants feedback about how their discretionary income compares with the discretionary income of similar others. Those who were made to feel relatively deprived (having less discretionary income than others) expressed a greater interest in increasing their discretionary income in order to purchase more material possessions, and were less interested in accumulating discretionary income for charitable donations. Taken together, these findings indicate that materialistic aspirations and actions increase when people feel their outcomes have fallen short of their expectations.

TV is an important medium for communicating societal standards, especially in its depiction of the good life. Watching TV predicts materialistic aspirations. Materialists watch more TV than do others (e.g., Bindah & Othman, 2012a; Chan, Zhang, & Wang, 2006; Saunders, 2007; Saunders & Munro, 2000; Sirgy et al., 2012; Sirgy et al., 1998; Speck & Roy, 2008). They also pay more attention to what they see on it (Shrum, Burroughs, & Rindfleisch, 2005; Shrum, Lee, Burroughs, & Rindfleisch, 2011). Richins (1987) found that more hours of TV exposure predicted higher materialism, especially among people who perceived advertising as realistic.

TV advertisements may be even more potent than programs themselves at inculcating high standards. After all, the purpose of advertising is to suggest that acquiring a particular product will improve one's life. Chan and Cai (2009), La Ferle and Chan (2008), and Jiang and Chia (2009) found that materialistic adolescents see more advertisements than do adolescents with low materialistic values. Further, they more often take advertisements to be valid sources of information and view them with more positive attitudes and less skepticism compared with their peers (Chan, 2013; Felix & Garza, 2012; Yoon, 1995). Materialistic adolescents report that advertising helps them decide which products to buy (Goldberg et al., 2003). Oprea, Buijzen, Van Reijmersdal, and Valkenburg (2014) theorized that this trend may occur because some young consumers have limited cognitive abilities and life experience and therefore may be susceptible to the promise of happiness via consumption. Chan, Zhang, and Wang (2006) showed that materialists viewed advertisements as information on how to garner social inclusion through owning products that increase a person's appeal. These findings dovetail with evidence that materialistic individuals were more likely than nonmaterialists to negatively evaluate their standard of living in relation to what is portrayed by advertisements (Sirgy et al., 1998).

Thus, there is consistent and methodologically diverse evidence that materialists aspire for high levels of success, especially to obtain financial security and material goods. There is also ample evidence that they perceive themselves and their circumstances to be falling short of these standards, to which we now turn.

Disappointment and dissatisfaction with material outcomes form a pervasive theme in the research literature on materialism. Materialists are disappointed with their income (Ahuvia & Wong,

1995, 2002; Richins & Dawson, 1992), housing (Ryan & Dziurawiec, 2001), standard of living (e.g., Ahuvia & Wong, 1995, 2002; Ryan & Dziurawiec, 2001; Sirgy et al., 2013; even when income is statistically taken into account, Richins, 1987), their jobs and careers (Deckop, Jurkiewicz, & Giacalone, 2010; Roberts & Clement, 2007), and life accomplishments (Ryan & Dziurawiec, 2001). Perhaps the broadest and most definitive sign of falling short of high standards is their general dissatisfaction with life. Multiple studies have confirmed that materialists are generally less satisfied than others with their lives (e.g., Burroughs & Rindfleisch, 2002; Felix & Garza, 2012; Otero-López, Pol, Bolaño, & Mariño, 2011; Sirgy et al., 1998; Swinyard, Kau, & Phua, 2001). They even complain that their lives lack satisfactory amounts of fun and enjoyment (Roberts & Clement, 2007; Ryan & Dziurawiec, 2001).

Having high goals for financial success may be daunting, a notion supported by findings that materialists worry more about their finances than nonmaterialists (Gardarsdottir & Dittmar, 2012) and view money as a source of anxiety, as well as a way to relieve it (Durvasula & Lysonski, 2010). Similarly, when asked about hypothetical monetary losses, materialists predict they will experience more negative affect and ruminate more than nonmaterialists (Hartnett & Skowronski, 2008). These worries suggest that materialists may often feel they have fallen short of their expectations.

Materialists tend to come from low socioeconomic backgrounds (Banerjee & Dittmar, 2008; Chaplin, Hill, & John, 2014; Dawson & Bamossy, 1990; Dittmar & Pepper, 1994; Flouri, 2004; Goldberg et al., 2003; Karabati & Cemalcilar, 2010; Narin, Ormrod, & Bottomley, 2007; Rindfleisch, Burroughs, & Denton, 1997; Roberts, Manolis, & Tanner, 2003; Speck & Roy, 2008). Feeling deprived is a sign that one is not living up to one's standards, and materialists are unusually prone to report they were economically deprived during childhood (Ahuvia & Wong, 2002; Manchiraju & Son, 2014).

Dissatisfaction with one's relatively impoverished background is itself a matter of comparing oneself to standards. Some evidence suggests that materialism may be a product of economic comparison rather than absolute scarcity. Zhang, Howell, and Howell (2014) found that materialistic desires can stem from being relatively poor among rich neighbors—precisely the situation that fosters an aversive contrast between one's standards and one's own reality.

Despite concerns about having enough money (Ahuvia & Wong, 1995; Gutter & Copur, 2011; Keng et al., 2000), materialists manage their money more poorly than do others (e.g., Donnelly, Iyer, & Howell, 2012; Lemrová et al., 2014; Watson, 2003). Thus, materialists want to be financially successful, but their own behaviors lead them to fall short of this goal. This discrepancy may be one central factor that motivates materialists to seek escape from self-awareness.

In summary, materialists are discontent with falling short of standards. They hold high standards and see their own outcomes as failing to measure up to them. Relative to nonmaterialists, they are more dissatisfied with life in general and many specific aspects of it—including their standard of living and possessions. In turn, they may buy tangible goods in the hope that these will elevate their status in others' eyes, only to feel disappointed frequently.

Self-Blame, Feelings of Inadequacy, Low Self-Esteem

The second step in escape theory predicts that materialists will see themselves as inadequate and blame themselves for personal shortcomings or falling short of standards (i.e., self-blame). This is a vital link in the causal chain. If one blames one's shortfalls on external factors, there is no need to escape from self-awareness.

Self-blame. Consistent with escape theory predictions, researchers have found that materialists tend to blame themselves more than nonmaterialists when reflecting on their purchases. Materialists feel guiltier and more irresponsible than others for purchases that they perceive as splurges (i.e., goods gained from spending money too freely; *Fitzmaurice, 2008*). Products that are intended to display high status constitute one of the categories of purchases that produce disappointment to materialistic consumers (*Wang & Wallendorf, 2006*). Materialists thus report that they splurge on material items that they hope will enhance their social status, especially highly visible things to accentuate their appearance or otherwise convey affluence (*Fitzmaurice, 2008*)—and then they feel guilty about having splurged.

Low self-esteem. Low self-esteem can make self-awareness unpleasant (e.g., *Brockner, 1979; Smith & Greenberg, 1981*). People wish to think well of themselves and are happy when they do so (e.g., *Caprara & Steca, 2005; Caprara, Steca, Gerbino, Paciello, & Vecchio, 2006; Leary & Baumeister, 2000*). Indeed, the contribution of high self-esteem to happiness is one of the most robust benefits of high self-esteem (*Baumeister, Campbell, Krueger, & Vohs, 2003*). Moreover, low self-esteem increases the tendency to blame oneself for failures, shortcomings, and inadequacies (*Tennen & Herzberger, 1987*).

Materialism is linked to low self-esteem (e.g., *Chaplin & John, 2007, 2010; Flouri, 2004; Mick, 1996; Reeves, Baker, & Truluck, 2012; Richins & Dawson, 1992; Ruvio, Somer, & Rindfleisch, 2014*; however, see *Chan, 2013*, and *Grougiou & Moschis, 2014* for contradicting positive relationships). *Wachtel and Blatt (1990)* found that materialism is positively related to self-criticism. *Chang and Arkin (2002)* also showed that materialistic values are positively associated with self-doubt. In an additional experiment, they showed that among people who experience high levels of self-doubt, a prime that activated those feelings increased materialism scores, consistent with the escape theory hypothesis that some people turn to materialism to escape negative feelings about the self. Experimental work has also shown that materialism can cause low self-esteem and negative self-views. Reading statements conveying materialistic behaviors or beliefs (e.g., reading of the self as a consumer rather than a citizen) decreased people's satisfaction with themselves (*Bauer et al., 2012*). Thus, materialism is likely to be infused with a negative view of oneself and portend problematic consequences that exacerbate self-doubt and low self-esteem, and the causation appears bidirectional.

Several lines of research on children highlight the role of low self-esteem in materialistic strivings. *Chaplin and John (2007)* found that age-related changes in materialism were mediated by changes in self-esteem from middle childhood to adolescence. Subsequent work found self-esteem to be particularly important in explaining materialism among low-income teens (*Chaplin, Hill, & John, 2014*). While materialism is negatively associated with self-esteem, social support is a positive influence (*Chaplin & John, 2010*). In a series of experiments, *Jiang, Zhang, Ke, Hawk, and*

Qiu (2015) made adolescents feel socially rejected by either asking them to recall past rejections by peers (in comparison to social acceptance) or leading them to believe that other participants were (or were not) ignoring them in a virtual game. Rejection led to a reduction in adolescents' self-esteem and, in turn, that led to increases in state materialism. The link through self-esteem was important, as other evidence shows. *Jiang et al. (2015)* induced self-esteem among socially rejected participants, and higher self-esteem led to less materialism.

Outside the laboratory, the same links among rejection, self-esteem, and materialism are evident. *Richins and Chaplin (2015)* showed that parental rejection, as well as a lack of parental warmth, related to personal and social insecurity in children, which predicted materialism scores in adulthood. These findings suggest that adolescents may turn to materialistic values when their self-esteem is lacking, creating materialistic values that are still in place in adulthood.

Feeling inadequate. Materialistic individuals show signs of feeling inadequate. They are prone to feeling insecure and may seek to compensate for such insecurity through material goods (e.g., "I want to buy things that make me feel more like the person I want to be;" *Christopher, Drummond, Jones, Marek, & Therriault, 2006; Dittmar, 2005a; Dittmar et al., 2007; Richins, 2011; Rindfleisch, Burroughs, & Wong, 2009; Zhang & Kim, 2013*). Materialists also tend to regard their bodies as relatively unattractive and otherwise inadequate. *Gudnadottir and Gardarsdottir (2014)* found that women's materialism was related to believing that the ideal woman's body is hyper-thin, as well as unhappiness with their own bodies, and chronic dieting. Among men, materialism was related to idealizing muscular bodies, dissatisfaction with their own bodies, and efforts to build muscle mass (*Gudnadottir & Gardarsdottir, 2014*). Additionally, materialists are highly aware of societal standards and fear negative judgments, more than do people with low materialistic values (*Christopher & Schlenker, 2004*). These results suggest that materialistic people may sense that they are falling short of societal standards. One experiment found that both a materialistic prime (viewing advertisements for luxury goods) and trait materialism resulted in women assigning more importance to appearance as part of their self-concept, compared with women who either scored low on materialism or who had not viewed the ads (*Ashkali & Dittmar, 2012*).

Materialists' concern with using consumer goods to show off a positive view of self can be interpreted as indirect evidence of self-doubts and feelings of inadequacy. People high in materialism report shopping for self-aggrandizement, such as buying things that will make the self seem important, more so than other people (*Durvasula, & Lysonski, 2010*). Materialism correlates positively with placing value on enhancing the self (e.g., *Kilbourne & LaForge, 2010*).

In summary, there is ample evidence correlating materialism with negative views of self, including low self-esteem and self-blame, and there is even some experimental evidence that materialism causes these negative views. Doubting oneself, feeling inadequate, blaming oneself, and feeling rejected all seem to contribute to the wish to acquire goods that will elevate one's social status.

High Aversive Self-Awareness

The third step in escape theory involves an aversive awareness of self. The first two steps involve blaming the self for falling short

of standards. That combination casts the self in a bad light, producing an acutely unpleasant sense of self—from which one seeks to escape. This section focuses on evidence linking high and aversive self-awareness to materialism.

One form of high self-awareness is concern over how one is viewed by others (e.g., Carver & Scheier, 1981). There is ample evidence of such concern among materialists. Materialism is positively correlated with public self-consciousness (Chang & Arkin, 2002; Schroeder & Dugal, 1995; Wong, 1997), which is chronic awareness of how one appears to others (Carver & Scheier, 1981; Fenigstein, Scheier, & Buss, 1975).

Another form of self-awareness involves monitoring oneself, and materialists monitor themselves socially more than other people do (Browne & Kaldenberg, 1997; Cass, 2001; Chatterjee & Hunt, 1996; Giacomantonio et al., 2013; Rose & DeJesus, 2007). They likewise pay more attention to their actions and body image (Chatterjee & Hunt, 1996). Monitoring oneself typically indicates a concern with improving oneself and trying to impress others. At its most basic level, it involves comparing the self with social norms, as part of an effort to adhere to them (Rose & DeJesus, 2007).

Materialism is negatively correlated with a desire to feel unique (Schroeder & Dugal, 1995). Thus, materialists generally do not want to be different and would rather be like others in order to fit in (Saunders, 2007). This too suggests that awareness of oneself as a unique individual is aversive for materialists. At the same time, materialistic individuals have been shown to seek both conformity as well as uniqueness when making purchasing decisions (Park, Rabolt, & Jeon, 2008). Consumer uniqueness and conformity do not necessarily contradict each other (Park et al., 2008): People can conform to consumption norms by acquiring unique items, such as expensive paintings, whiskies, or tailor-made clothes, all while pursuing the operative goal of conforming.

Materialists are particularly interested in what other people think of their purchases (Fitzmaurice & Comegys, 2006; Schroeder & Dugal, 1995). Indeed, materialists' concern with how others perceive them likely explains their emphasis on purchasing items in order to be highly visible to others and purchase that symbolize high status (Chaudhuri, Mazumdar, & Ghoshal, 2011; Chen & Kim, 2013; Eastman Fredenberger, Campbell, & Calvert, 1997; Heaney et al., 2005; Kamineni, 2005; Podoshen & Andrzejewski, 2012; Richins, 1994; Velov, Gojkovic, & Duric, 2014), an effect that may be particularly strong among women (Handa & Khare, 2013). Once again, materialists tend to especially want things that will raise their status in the eyes of other people.

Christopher, Lasane, Troisi, and Park (2007) provided further evidence that materialists are deeply concerned with how they are perceived by others. They showed that materialists regulated their self-presentations to others more than nonmaterialists. Materialism scores had significant positive correlations with four of five categories measuring defensive self-presentation. Compared with others, materialists were prone to make excuses (e.g., trying to explain that they were not at fault for things going wrong) and make statements that justify themselves (e.g., trying to convince others that their bad behavior was done for good reasons). They also offered more disclaimers than others, such as seeking approval in advance to serve as a buffer against potential disapproval, and engaged more in self-handicapping, a strategy that manufactures excuses in advance for anticipated failure.

In addition to these defensive strategies, Christopher et al. (2007) showed that materialists favored self-enhancing forms of self-presentation, such as pointing out when they succeed at things that other people find difficult, and calling attention to their good deeds and successes when others fail to notice them. As opposed to nonmaterialists, they also tended to derogate other people in order to make themselves look good in comparison. Other work has confirmed the central theme that materialists have a relatively strong fear of being evaluated negatively by others (Christopher & Schlenker, 2004).

These patterns exemplify two key themes of this review, namely that materialists are highly concerned with their public image and they view consumption as strategic image management. (Presumably the strategy is not fully successful: If buying the right items really could redeem and burnish one's self-image, then one would not need to escape self-awareness.)

Adolescence involves a significant increase in self-awareness (e.g., Tice, Buder, & Baumeister, 1985), and also coincides with a substantial increase in materialism (e.g., Bindah & Othman, 2012b; Christopher et al., 2006; Christopher, Saliba, & Deadmarsh, 2009; Cleveland, Laroche, & Papadopoulos, 2009; Dawson & Bamossy, 1990; Felix, Ahmed, & Hinck, 2013; La Barbera & Gurhan, 1997; Lerman & Maxwell, 2006; Manchiraju & Son, 2014; Pepper, Jackson, & Uzzell, 2009; Promislo, Deckop, Giacalone, & Jurkiewicz, 2010; Ruvio et al., 2014; Saunders, 2007; Tang et al., 2014; Watson, 1998). The general trend is that materialism seems to peak during late adolescence, between the ages of 16 to 19 (Brouskeli & Loumakou, 2014; Burroughs & Rindfleisch, 2002; Chan, 2013; Chang et al., 2006; Dittmar & Kapur, 2011; Flouri, 2004), or perhaps even into early adulthood (Keng et al., 2000). The evidence indicating that materialism and self-awareness both spike in adolescence is consistent with the view that they are linked: During the years when people are most sensitive to how they are regarded by others, they are also the most materialistic.

One explanation as to why materialism peaks in and after adolescence is that adolescence is a relatively vulnerable stage in life, especially in the domains of identity and consumption. Teens whose sense of self is especially unstable (e.g., who score higher on the item "On one day I might have one opinion of myself and on another day I might have a different opinion") are especially prone to fall into the materialist pattern of acquiring and consuming items for the sake of impressing others (Koller, Floh, Zauner, & Rusch, 2013). Materialistic students more often report being influenced by their peers, whereas less materialistic students report being influenced by their personal attitudes, suggesting that students high in materialism may be more susceptible than others to peer influence (La Ferle & Chan, 2008; Roberts, Manolis, & Tanner, 2008; Xie, Bagozzi, & Yang, 2013).

One enduring view of adolescence has emphasized the central importance of developing one's identity (Erikson, 1959). This coincides with adolescents growing up to become consumers in their own right (e.g., rather than through their parents; see Barenboim, 1981; Goldberg et al., 2003; John, 1999). Modern adolescents become highly involved in consumer culture, facilitated by extensive exposure to TV, films, the Internet, and other sources, and exposure to these correlates strongly with brand awareness and consumer orientation (Bottomley, Nairn, Kasser, Ferguson, & Ormrod, 2010). These sources and the resulting attitudes tend to

foster dissatisfaction among adolescents (e.g., “I wish my parents gave me more money to spend”), which is related to indicators of a vulnerable sense of self, such as low self-esteem and parental conflict (Bottomley et al., 2010).

Adolescence has long been recognized as a time of heavy peer influence and peer orientation, which is presumably linked to the weak sense of self and heightened concern with developing an independent identity. Peer influences are robustly related to adolescent materialism (Bindah & Othman, 2012b; DeMotta, Kong-sompong, & Sen, 2013). For instance, adolescents look to their friends and other teen-oriented social influences for guidance as to what is fashionable and appropriate to acquire (Bindah & Othman, 2012b; La Ferle & Chan, 2008). Adolescents also report a higher willingness to accept and internalize the information they receive (Chan & Prendergast, 2007). Adolescents’ negative comparisons with friends (i.e., a feeling of having less than their friends do) has been found to explain 13% of the variance in their materialism scores (Chan, 2013).

Studies of motivations for buying provide further (indirect) support for the hypothesis that high and aversive self-awareness characterizes materialists. Materialists tend to expect that they can achieve positive transformations by purchasing the right items. Indeed, some materialist’s seem to think that a single excellent purchase can change their entire lives for the better by improving their appearance, strengthening their relationships with other people, and increasing their enjoyment and satisfaction with life (Richins, 2011). Getting a car, for example, is not just about a means of transportation but rather a means of self-transformation. It appears that actions in childhood may influence such perceptions, as adults who report receiving frequent material rewards from their parents as children express stronger beliefs that products can transform their sense of identity (Richins & Chaplin, 2015).

The aversiveness of self-awareness among materialists is suggested by evidence linking materialism to relatively large gaps between the actual self and ideal self (Dittmar, 2005a; Dittmar et al., 2007). Materialists seem quite aware of this gap, in the sense that they have more experiences and feelings of discrepancy between ideal and actual selves than others report having (Dittmar & Bond, 2010). Attending to the gap between one’s actual and ideal self is essentially a matter of focusing on the ways in which one falls short of standards, which is central to the escape model. It is almost by definition a state of aversive self-awareness.

Findings regarding the value orientations of materialists can also be construed as indicative of self-focus. Materialists’ values tend to focus on promoting the self rather than other people or society at large. Thus, materialism correlates negatively with various community-oriented values (Burroughs & Rindfleisch, 2002; Wong, 1997) and community concerns (Kilbourne & LaForge, 2010; Pace, 2013; Van Hiel, Cornelis, & Roets, 2010). Meanwhile, materialism correlates positively with self-enhancement values (Durvasula & Lysonski, 2010; Karabati & Cemalcilar, 2010; Pepper et al., 2009) and social dominance orientation (i.e., assertion of the self; Roets, Van Hiel, & Cornelis, 2006).

In summary, materialists tend to be highly aware of themselves, both in terms of private thoughts about self and in terms of sensitivity to how they are perceived by others. This self-awareness may bring intense focus on how far short of their ideals and aspirations they fall, which makes self-awareness aversive. Purchasing material goods thus may occur in a psychological

context of sharp focus on one’s inadequacies—presumably giving rise to the hope that buying the right thing will impress others and reduce those inadequacies.

Negative Affect

According to escape theory, negative views of oneself engender emotional distress. The acute unpleasantness of that state is the proximal motivation for wanting to escape, because people generally wish to avoid feeling terrible about themselves.

Materialism is associated with indicators of negative, self-directed emotion. Materialism is positively correlated with depression (Burroughs & Rindfleisch, 2002; Claes et al., 2010; Frost, Kyrios, McCarthy, & Matthews, 2007; Kashdan & Breen, 2007; Mueller et al., 2011b; Otero-López & Villardefrancos, 2013; Saunders, 2007; Saunders & Munro, 2000), as well as uncertainty about self-worth (Frost et al., 2007).

Materialists’ negative affect is sometimes specifically associated with material consumption. As previously mentioned, materialists tend to have more disappointment than other people after purchasing material items (Richins, McKeage, & Najjar, 1992). Further, they also feel more anger, disappointment, irritation, fear, nervousness, envy, and guilt after purchasing (Richins et al., 1992). Wang and Wallendorf (2006) found that materialism scores correlated with product dissatisfaction when the products carried implications about social status (e.g., jewelry).

Related to the idea that interpersonal acceptance concerns are strong among materialists, multiple studies have found that materialists are lonelier than others (Ang, Mansor, & Tan, 2013). One longitudinal investigation involving 2,500 consumers found the effect is associated with the dimensions of materialism that emphasize beliefs that objects can make one happier and are signs of success in life. In contrast, simply valuing and enjoying material objects was associated with less loneliness (Pieters, 2013).

If materialists have heightened needs for interpersonal security and acceptance, then strife and other social hardships likely have highly negative emotional consequences. More than others, materialists recall their childhood as being marked by high family stress (Burroughs & Rindfleisch, 1997; Grougiou & Moschis, 2014; Rindfleisch, Burroughs, & Denton, 1997; Roberts, Manolis, & Tanner, 2006; Roberts, Tanner, & Manolis, 2005; Weaver, Moschis, & Davis, 2011) and interparental conflict (Flouri, 2004; Poraj-Weder, 2014).

Meanwhile, several indicators of positive feelings are low among materialists, again suggesting a preponderance of negative affect. Individuals who strongly endorse material values, compared to others, report less self-actualization (defined as living autonomously, making good use of personal talents, and having a benevolent outlook; Chen, Yao, & Yan, 2014; Kasser & Ahuvia, 2002; Mick, 1996), report lower levels of satisfaction of psychological needs (Chen et al., 2014; Tsang, Carpenter, Roberts, Frisch, & Carlisle, 2014), and feel less gratitude (Froh, Emmons, Card, Bono, & Wilson, 2011; Lambert, Fincham, Stillman, & Dean, 2009; McCullough, Emmons, & Tsang, 2002; Tsang et al., 2014; Zhang et al., 2015).

More globally, materialists report lower levels of happiness (Belk, 1984, 1985; Burroughs & Rindfleisch, 2002; Kasser & Ahuvia, 2002; Manchiraju & Son, 2014; Saunders, 2007; Stone, Wier, & Bryant, 2008), lower well-being (e.g., Gardarsdottir &

Dittmar, 2012; Kasser et al., 2014), less satisfaction with life in general (e.g., Ahuvia & Wong, 1995; Ang et al., 2013; Baker, Moschis, Ong, & Pattanapanyasat, 2013; Belk, 1984, 1985; Burroughs & Rindfleisch, 2002; Chang & Arkin, 2002; Christopher et al., 2007; Gardarsdottir, Dittmar, & Aspinall, 2009; Gatersleben, White, Abrahamse, Jackson, & Uzzell, 2010; Keng, Jung, Juan, & Wirtz, 2000; Lambert et al., 2009; Li, Patel, Balliet, Tov, & Scollon, 2011; Manchiraju & Son, 2014; Manolis & Roberts, 2012; Norris & Larsen, 2011; Piko, 2006; Reeves et al., 2012; Saunders, 2007; Saunders & Munro, 2000; Shrum et al., 2011; Sirgy et al., 1995; Speck & Roy, 2008; Tsang et al., 2014; Wei & Talpade, 2009; Wright & Larsen, 1993; see Chen, Yao, & Yan, 2014 for mediating effect of psychological need fulfillment on this relationship).

Materialists feel less positively and more negatively about their social relationships. Compared with nonmaterialists, they report lower satisfaction with family and friendships (Ahuvia & Wong, 1995; Flouri, 1999; Keng et al., 2000; Roberts & Clement, 2007). In adulthood, materialistic values predict having more anxiety (Burroughs & Rindfleisch, 2002), general stress (Baker et al., 2013; Brouskeli & Loumakou, 2014; Burroughs & Rindfleisch, 2002), and more posttraumatic stress when faced with a mortal threat (such as a terrorist attack; see Ruvio et al., 2014; Somer & Ruvio, 2014). That combination of general and specific discontent sets up a pervasive vulnerability to negative emotions and possibly a pervasive desire to escape them.

Experimental manipulations that incited greater materialistic strivings (e.g., by showing participants images of luxury goods vs. nature scenes) also caused increases in various negative emotions, including depressed affect and anxiety (Bauer et al., 2012). Thus, increasing the focus on acquiring high-status goods diminished well-being and increased vulnerability to negative affect. A meta-analysis evaluating 753 effect sizes from 259 independent samples found materialism to be significantly associated with lower well-being (see Dittmar et al., 2014).

In summary, materialism is correlated with emotional reactions, including general increases in negative emotions and decreases in positive ones. There is also some evidence that a materialistic orientation can cause and intensify these emotional shifts, and materialists may treat consumption as a way to escape negative affect.

Materialists Show Signs of Cognitive Deconstruction

The first four steps of the escape model refer to creating the motivation to escape, insofar as people wish to be free from negative emotions that stem from an awareness of the self as bad. The fifth step, cultivating a state of cognitive deconstruction, is the first that reflects actual attempts to escape from self-awareness. The essence of this mental state involves curtailing meaningful thinking, because such thoughts evoke rumination about the problems and their negative implications about the self (leading to the associated emotional distress). It is marked by (a) a lack of creative or open thinking; (b) a narrow focus on immediate thoughts and sensations rather than abstract thinking about ideas and emotions; and (c) the pursuit of proximal, rather than distal, goals (Baumeister, 1990). All these should serve the goal of escaping from emotional distress associated with the negative view of self.

Lack of open thinking. Two important features of cognitive deconstruction are uncreative thinking and a lack of openness to new ideas. These thought patterns lead to a focus on only specific, immediate stimuli and direct consequences, rather than alternative options and ideas. Materialists exhibit both patterns. Materialists score lower than average on the trait of openness to experience (Sharpe & Ramanaiah, 1999; Troisi, Christopher, & Marek, 2006).

There may be something inherently uncreative and close-minded about materialists' outlook. Hunt, Kernan, and Mitchell (1996) theorized that materialistic individuals tend to categorize themselves and others based on material possessions and consumption, rather than on personality traits and values.

An empirical indicator that materialists may avoid high-level, open thinking is that materialism correlates negatively with the need for cognition (Chatterjee & Hunt, 1996). Need for cognition involves seeking information about the world and mentally elaborating on incoming information (Cacioppo, Petty, Feinstein, & Jarvis, 1996).

An experimental study that elicited materialistic thoughts by entering participants into a lottery showed that it led to more concrete thoughts than a control condition. Low-level thinking is specific and detailed, such as thinking about which particular products one would buy if one won a lot of money (Kim, 2013).

A focus on the present. Escapists pursue highly pleasurable experiences, focus on present pleasures, and neglect future possibilities and consequences (Baumeister, 1990). A present focus can reduce concerns about whether one's current behaviors will solve one's problems. Materialists exhibit some of these patterns. Materialists place high priority on fun, enjoyment, and excitement (Keng et al., 2000; Troisi et al., 2006). They focus on enjoying life in the present moment (Burroughs & Rindfleisch, 2002; Karabati & Cemalcilar, 2010; Pepper et al., 2009), even though they feel they lack enough time for what they want to do (Manolis & Roberts, 2012). Scores on a measure of chronic time perception (Zimbardo & Boyd, 1999) showed that materialists, compared with others, report that their thoughts prioritize the present (as opposed to the future or past) and are aimed at experiencing pleasure in the moment; Donnelly et al., 2012). Striving for good feelings in each moment seems to be more typical of materialists than others.

The financial behaviors and spending patterns of materialists reflect their concern with maximizing current pleasures. One experiment asked participants to select a cable TV package that they would (hypothetically) prefer to purchase (Goodman & Irmak, 2013). Participants could choose between a "plus package" with 86 channels that cost \$83 a month, or a "basic package" which had 37 channels and cost \$67 a month. Half of the participants first rated how frequently they would watch each of the 86 TV channels in a regular week, while the other half completed this estimation after making their package choice. The estimation task made people reflect on their viewing habits, which when done before deciding whether to purchase could easily cause people to realize that the extra cost for the plus package was not worth it. Nonmaterialists responded just that way, rejecting the plus package after doing the estimation task and choosing the plus package if they had not yet done the estimation. Materialists, however, chose the plus package regardless of when they had done the estimation task. The implication is that materialists choose based on impulsive desires for pleasure and are rather rigid, so that their selections may be

irrational. Apparently, materialists may be more influenced by the idea of having a high-quality product than consideration of how much they may actually use it.

A focus on the present also is reflected in devaluing the future. One standard research tool measures discounting rates, defined as a preference for a smaller but immediate reward over a larger but delayed one. Materialists have higher discount rates than others, thus favoring the present over the future, as shown by Dittmar and Bond (2010). Kim (2013) found similar results, using an experimental method (i.e., being entered in a lottery or not), which established causality. Dittmar and Bond (2010) also found that the relationship between materialism and discounting the future was strongest when people were made aware of identity deficits, defined as the discrepancy between actual and ideal self-concepts. This finding is highly relevant to escape theory, because it indicates that materialists focus most on the present at the expense of the future when they have been thinking about how they fall short of their standards—which is precisely when they should be most motivated to escape from self-awareness.

Absence of distal goals. A deconstructed mental state entails an absence of long-term thinking. As reviewed, a focus on present rather than future is one aspect of this state. Other aspects include the absence of long-term goals and lack of consideration of high-level, abstract values and concerns. Again, materialism conforms to this pattern. For example, materialists treat the environment with little long-term regard, scoring low on environmentalism (Banerjee & McKeage, 1994; Clump, Brandel, & Sharpe, 2002; Hultman, Kazeminia, & Ghasemi, 2015; Joung, 2013; Kilbourne & Pickett, 2008; Polonsky, Kilbourne, & Vocino, 2014; Saunders, 2007; Saunders & Munro, 2000) and self-reported ecologically oriented intentions and behavior (Banerjee & McKeage, 1994; Gatersleben et al., 2010; Kilbourne & Pickett, 2008; Richins & Dawson, 1992; Westerman, Beek, Westerman, & Whitaker, 2014). A meta-analysis, which combined the results of 13 studies, came to the conclusion that materialism is negatively associated with both proenvironmental attitudes and behaviors (Hurst, Dittmar, Bond, & Kasser, 2013).

The purchasing and consumption patterns of materialists likewise reflect a lack of high-level values and distal goals. Materialists are less likely to set and achieve concrete, specific financial goals (such as saving a specific amount for the future; Stone et al., 2008). Further, the pursuit of long-range financial security is prioritized less than is immediate consumption among materialists (e.g., Richins, 2011).

Materialists place possessions at the center of their lives, use possessions as indicators of their success, value possessions as a means of achieving happiness, and purchase with the motivation to attain interpersonal and self-esteem goals (Richins & Dawson, 1992). In principle, the quest to achieve satisfactory levels of social standing and identity by purchasing objects would be facilitated by managing one's money effectively. One would therefore expect materialists to be careful money managers. But they are not. Materialists use fewer money management strategies than other people (e.g., Donnelly et al., 2012; Gardoarsdottir & Dittmar, 2012; Walker, 1996). Materialists' expectations of transformation through purchasing lead them to buy compulsively (Donnelly et al., 2013). This is important evidence that materialists are likely to be escapists—individuals who are focused on the present would lack the very distal goals to help them attain the financial success

that is at the core of their value system. This likely occurs because their proximal goals are prioritized over their long-term financial well-being. In other words, materialists' day-to-day consumption behavior may be guided by a narrow focus on the present.

Motivated emotional avoidance. A smattering of evidence is consistent with the hypothesis that materialists seek to minimize emotion, especially unpleasant emotion. They have an avoidance rather than approach orientation (Claes et al., 2010), which means they place greater emphasis on avoiding bad outcomes than pursuing good ones. In the domain of posttraumatic stress, materialists are more likely than others to prefer avoidant coping strategies, such as gaining psychological distancing from the traumatic event (Somer & Ruvio, 2014). More broadly, materialists more than others avoid experiences that suggest the potential to elicit negative feelings (Kashdan & Breen, 2007). In our view, these findings provide a useful context for understanding the other evidence covered in this section. Materialists want to avoid feeling bad and are highly sensitive to the possibility.

Summary. A deconstructed state of mind entails rigid, close-minded, and conventional patterns of thought. People in a deconstructed state prioritize the present moment and neglect the future and long-term goals. Materialists show these cognitive patterns more so than others, especially so after being made aware of their shortcomings. Causal evidence indicates that getting people to think about materialistic pursuits can narrow the mind and inhibit high-level thought. As a result of a narrow mental focus on the present, without adequate consideration of future consequences, materialists are predisposed to lack restraint and act impulsively.

Disinhibition in the Deconstructed State

The low-level focus of a deconstructed state reduces central control over behavior, as one becomes oriented toward the immediate present and does not alter one's responses to enable achievement of long-term outcomes (Baumeister, 1990). This pattern can produce a variety of behavioral manifestations characterized by passivity and impulsivity. Thinking in this state can become irrational, as it loses the disciplining influence of top-down cognitive control. In this section, we review research on materialists' mindsets and behavioral judgments, as well as limited evidence of how disinhibition characterizes their behavior.

Passivity. Materialists exhibit some signs of passivity. Materialism correlates positively with an external locus of control (Christopher et al., 2009; Donnelly et al., 2012; Hunt, Kernan, Chatterjee, & Florsheim, 1990), which corresponds to a belief that what happens to the self is largely beyond the self's control. Still, we stipulate that the evidence for passivity is much weaker than for many other aspects of the theory. Fortunately, it is a relatively minor aspect of escape theory.

Fantasy and irrational thought. The main evidence of irrational thinking on the part of materialists involves their expectations about consumption. They imagine that they can transform their identities in positive ways by acquiring items. This assumption of the transformative power of material consumption is central to the belief systems of materialists (Dittmar et al., 2007; Richins & Dawson, 1992). Richins (2011) found that materialists believe that their purchases will improve their selves, appearances, relationships, and hedonic enjoyment (e.g., enjoying life and having interesting things to do). The fantasy or delusional

quality of these beliefs is evident in the fact that they are not fulfilled, in the sense that materialists' purchases often fail to deliver the hoped-for transformations.

For some materialists, these expectations for transformation through acquisition and consumption may be a genuine delusion. For others it may be merely a fantasy that they enjoy but would not explicitly endorse as something they seriously believe. Either of those is consistent with the escapist mentality.

Disinhibition of standards and behavior. Cognitive deconstruction loosens standards for acceptable behavior, and impulsive self-control failures may occur as a result.

Materialists tend to judge many actions as acceptable when others would question or disagree, thus suggesting a relative lack of inhibitions. For instance, materialists are less concerned with disclosing personal identity information online than people who scored low on materialism (Ward, Bridges, & Chitty, 2005). Materialism is also negatively related to ethical consumer attitudes (e.g., about benefitting at the expense of the seller, see Chowdhury & Fernando, 2013; Lu & Lu, 2009), negative judgment of deceptive practices (Muncy & Eastman, 1998), and concern over borrowing money (Watson, 1998, 2003). Kwak, Zinkhan, and French (2001) looked at materialistic values in relation to product involvement with illegal drugs. They defined product involvement as the extent to which people think a product is important for their needs, values, and interests (e.g., "important/unimportant," "worthless/valuable"). Consumption of these potentially harmful products is more acceptable to materialists than to nonmaterialists. Together, these judgments suggest that materialism may predispose people to loosen standards of which behaviors are acceptable.

A loosening of standards gives way to impulsivity, and materialism is positively correlated with self-reported chronic impulsiveness (Pirog & Roberts, 2007; Roberts & Pirog, 2013), and negatively related to impulse control (Rose, 2007). Behavioral evidence has amply confirmed materialists' propensity for impulsive buying (e.g., Podoshen & Andrzejewski, 2012; Ruvio et al., 2014; Troisi et al., 2006; Zhang, Howell, & Howell, 2014).

More generally, materialists engage in other disinhibited financial behaviors, including compulsive buying (e.g., Claes et al., 2010; Cole & Sherrell, 1995; Dittmar, 2005a, 2005b; Dittmar & Kapur, 2011; Donnelly et al., 2012; Donnelly et al., 2013; Faber & O'Guinn, 1992; Frost et al., 2007; Gardarsdottir & Dittmar, 2012; Joung, 2013; Khare, 2014; Manolis & Roberts, 2008; Mowen & Spears, 1999; Mueller et al., 2011a; Mueller et al., 2011b; Pham, Yap, & Dowling, 2012; Ruvio et al., 2014; Xu, 2008), overspending (Gardarsdottir & Dittmar, 2012; Troisi, Christopher, & Marek, 2006), and credit card overuse (Donnelly et al., 2012; Pirog & Roberts, 2007; Ponchio & Aranha, 2008; Richins, 2011). Materialism is also more prevalent among gamblers than nongamblers, including people who gamble pathologically in the United States, where gambling is in some places illegal and difficult to access (Netemeyer et al., 1998), and Macao, a Chinese city with legal gambling (Wu, Lai, & Tong, 2014). Wu (2013) found that materialists were more prone than others to become addicted quickly to an online game involving the accumulation of virtual wealth.

Bankers who are reminded of their occupational identity become more materialistic than otherwise, and cheat more than others. Cohn, Fehr, and Marechal (2014) had bank employees' reflect on their professional identity or activities unrelated to their job. Bankers thinking about being bankers cheated more (opera-

tionalized as falsely reporting financially favorable outcomes in a coin-flipping task) than others and endorsed materialistic strivings, which predicted cheating rates. Momentary bursts of materialism corresponded to greedy selfishness reflective of loosened moral standards.

Materialists may also be disinhibited beyond the financial domain. More than other people, materialists report engaging in aggressive driving behavior (Efrat & Shoham, 2013). Some experimental evidence causally links materialism to disinhibited action. Participants who were entered into a lottery (a manipulation that increased materialistic cognitions) ate more candy from a bowl on their desk, as compared with a neutral control group. Moreover, materialistic thoughts (as measured by response times to materialistic stimuli) statistically accounted for the effect of the lottery manipulation on the amount of ad hoc eating (Kim, 2013). Thus, when put into a materialistic mindset, people exhibited poorer self-control.

In summary, when people disengage from standards, goals, and self-reflection in order to abate feelings of intense negative affect, the stage is set for escaping the self. This section reviewed consequences of those processes, such as avoidance of unpleasant emotion, passivity, disinhibition of behavioral standards and behaviors, and impulsivity, which are more apparent in materialists than in others. Materialists find potentially harmful behaviors to be more acceptable (e.g., benefitting unfairly, consuming illegal drugs) than other people and act in ways that suggest little consideration of possible long-term consequences, as seen in excessive buying and gambling. Behaviors independent of spending also seem to reflect disinhibited motivations, such as poor self-control in food consumption and aggressive driving. These consequences are consistent with a deconstructed state.

Discussion

What motivates materialistic pursuits? To some extent, acquiring material possessions is rational and requires no elaborate explanation, because possessions have pragmatic value. Yet materialists often acquire and consume beyond what is useful for pragmatic benefits. Moreover, there is a paradoxical and self-defeating quality about materialism, insofar as materialists do not end up happy even when they succeed in acquiring many possessions.

The present article sought to make sense of the complex and conflicting research findings on materialism by applying the conceptual framework associated with escaping from self-awareness. That is, materialistic pursuits may be motivated by efforts to terminate aversive awareness of oneself. We organized our review of the literature according to the six steps of Baumeister's (1990, 1991) model of escape from self.

The first step in the escape process involves falling short of standards. This can occur either because standards are unrealistically high or because events and circumstances are bad. There was evidence of both in the materialism literature. Materialists typically come from disadvantaged backgrounds. They aspire to move upward economically and gain status, and they desire money and possessions as means to accomplish that goal. They think that acquiring the right items will facilitate social acceptance, and are often disappointed with their purchases for failing to produce that result (and for other reasons too). The hope that acquiring material

possessions will transform the self into a more admired, more envied, more glamorous, and widely beloved version of self is an expression of the materialistic desire to escape from one's current self via acquiring tangible goods.

The second step involves blaming oneself and feeling inadequate: The shortfalls are experienced as reflecting badly on the self. We found ample evidence that materialists are more prone than others to endure self-blame, guilt, low self-esteem, disappointment, self-doubt, and other negative appraisals of self. Feelings of inadequacy are well documented, and the very term *inadequacy* reflects a falling short of standards and expectations. In particular, materialists seem prone to worry about being rejected and excluded by desirable social groups.

High self-awareness constitutes the next step toward escape. Materialists experience both kinds of self-awareness: concern about how one is regarded by others (public self-consciousness) and attention to one's own inner processes and reactions (private self-consciousness). Adolescence, in particular, is a time of high self-consciousness, high worry about social acceptance—and high materialism. The problematic aspect of high self-consciousness is attested by materialists' focus on how they fall short of standards, such as the gap between real self and ideal self.

The fourth step involves negative affect and emotional distress. Materialism has been linked to a panoply of aversive emotional states, including anxiety, depression, guilt, anger, sadness, uncertainty about self-worth, and loneliness. Conversely, materialists have fewer positive emotions than other people, so materialism is not just a high level of all emotions. These negative feelings reflect badly on the self and often pertain to purchases as well. Materialists are often dissatisfied with their possessions, with themselves, and with life in general.

The first four steps create the background and desire to escape. The fifth step is the attempt to reduce the aversive emotion and self-awareness by cultivating a state of cognitive deconstruction. Researchers have documented multiple signs of this state among materialists. These include rigid, narrow, and uncreative thinking, a shrinking of mental time to focus on the immediate present (in particular minimizing and discounting the future), and a corresponding absence of distal goals. Materialists also exhibit motivated avoidance of emotion, consistent with the view that escapist cognitions reflect a quest for numbness rather than emotional distress.

The sixth and final step encompasses various consequences of the escape into the deconstructed state. Materialism has been linked to these behaviors. Materialists exhibit impulsive and disinhibited behavior, including excessive shopping and spending as well as signs of broader disinhibition, such as in overeating, risky driving, and gambling. Their thinking is prone to irrationality and even fantasy, such as the belief that the act of acquiring goods and buying things will transform the self.

Materialism focuses specifically on acquiring things but is also intertwined with a broad attitude toward life. We have documented both: For example, materialists are dissatisfied with life, career, and romance in general and are prone to dissatisfaction with specific purchases. They have low self-esteem generally and reproach themselves for spending too much or purchasing the wrong things. Likewise, materialists are disinhibited with regard to managing money and buying impulsively, and disinhibition can be seen in their other behaviors, such as eating and driving.

Thus, the theory of escaping self-awareness broadly fits the diverse findings on materialism and can constitute a coherent account of the phenomenon. The next sections will briefly compare our theory with other explanations of materialism.

Consumption as Escaping Versus Fixing the Self

One theory portrays materialism as reflecting the pursuit of a new identity. Shrum et al. (2013) proposed that materialism is a motivated approach toward identity construction through symbolic goods. This theory may seem the opposite of our emphasis on escaping self-awareness. Yet in an important sense the two are compatible: The construction of a new identity for oneself can be regarded as a culmination of escaping from one's current identity. Shrum et al. (2013) are in our view quite correct that the desire for a new, improved self is an important driving force behind materialism. Our theory adds to that idea by pointing out that a new self is desired precisely because the current one is unsatisfactory. The first four steps in our model, all of which found ample evidence in the research literature, emphasize the extent of that dissatisfaction.

Motivation Theory and Escape Theory

Motivation theory proposes that materialism is the product of a failure to meet higher-order psychological needs (Burroughs et al., 2013), such as the formation of close loving relationships with others or a healthy self-concept (Rindfleisch et al., 2009). When one of these core needs goes unfulfilled, a sense of insecurity develops, resulting in people's reliance on material objects to fulfill such needs. Burroughs et al. (2013) suggest that to lower materialism, the underlying insecurities (e.g., low self-esteem) must be addressed.

In many ways, Burroughs et al.'s (2013) motivation theory complements the escape model. The materialistic escape cycle claims that attributing a gap between where one wants to be and perceptions of one's current state results in negative self-awareness, which heightens painful emotions, such as anxiety and feelings of insecurity. The process results in the narrowing of thought (to reduce painful feelings), which allows for disinhibited buying behaviors. The primary difference between the theories is that whereas Burroughs et al. (2013) start with the notion of insufficient support of high-level, abstract needs, the escape model starts with discrepancies in concrete goals, such as financial success, accomplishment, social comparisons, and the desire for special treatment as origins. Further, the motivation model posits that treating the underlying insecurities is key to assuaging materialistic strivings, about which we agree, whereas the escape model additionally posits that treating any number of steps leading to escape (e.g., shifting attributions for failure away from the self; boosting positive mood or reducing negativity, hindering deconstructed thought) would be helpful. Thus, escape theory elaborates on motivation theory in identifying linked mechanisms associated with materialistic strivings in a cycle of disappointment and coping.

Limitations and Future Directions

Using a model that outlines six sequential steps to any complex phenomenon, such as materialism, often means that there are parts of the model that have stronger support than others. Where there is less or weaker evidence, there is an opportunity for more research to flesh out the empirical backing of that process. Breaking down the evidence

by escape model steps, more evidence exists for Steps 1 (high standards), 3 (self-awareness), and 4 (negative affect), whereas relatively less exists for Steps 2 (self-blame), 5 (cognitive deconstruction), and 6 (disinhibition). Thus, work on how materialistic people see themselves as a root cause of their disappointing lives, how they reduce self-awareness by viewing the self's actions in a low-level, concrete state, and uncontrolled responses and behaviors would benefit a test of the proposed theory.

Much of the evidence on materialism consists of zero-order correlations, which cannot provide evidence of causality. There have been some successful efforts to establish experimental paradigms that manipulate materialistic strivings (Bauer et al., 2012; Cohn et al., 2014; Kim, 2013) or manipulate factors that subsequently affect state materialism, such as inducing social comparisons (Giacomantonio et al., 2013; Kim, Callan, Gheorghiu, & Matthews, 2016; Mandel et al., 2006) and being socially excluded (Jiang et al., 2015). They featured prominently in our review. Future work using experimental manipulations is likely to be especially important, as much will be gained from distinguishing causal effects from correlates.

This paper focused on people who strongly endorse materialistic values. Materialism though can coexist with other psychological phenomena that can contribute to the escape pathway, including other problematic coping responses, such as eating disorders, drug use, and self-harming behaviors. These relationships may either dampen or amplify people's proneness to each of the six escape steps. Beyond comorbidity with other mental health styles, materialism can engender processes that can serve to put or keep them in the escape pathway. For instance, materialists seem to think about money more than do others (Durvasula & Lysonski, 2010; Gardarsdottir & Dittmar, 2012; Lemrova et al., 2014). Thoughts about money can take on both self-motivating and intimacy-reducing roles (Vohs, 2015). Hence, work on whether chronically thinking about money contributes to escape-related behavior is but one avenue to investigating the role that forces outside of the six steps can inform materialistic escape from the self.

Concluding Remarks

Materialism is the quest to acquire material possessions, generally linked to the view that acquiring these things will transform the self into a new, better self that will be admired and desired by other people. It is motivated by dissatisfaction with oneself, stemming from a sense that one has fallen short of high standards. Many people experience temporary or chronic dissatisfaction with themselves and cope with this in various ways. Materialists seek to cope with it by acquiring possessions. The process of shopping and buying brings a promising new identity as an owner of an item—and if the item symbolizes wealth, success, and romantic appeal, the materialist may easily hope and even expect that the inadequate self will be duly transformed into a more glamorous and enviable one.

Acquiring things does not transform the self to the extent materialistic individuals would like. This may become apparent all too rapidly, causing the materialist to view the purchase as yet another failure: a waste of money that reflects badly on oneself. Nonetheless, the materialist may fail to learn the futility of shopping as a means for self-transformation, and instead may seek to escape from this new, latest edition of dissatisfaction with self by purchasing something else. The result may be a vicious circle in

which negative self-views fuel purchasing, and purchasing fuels further negative self-views.

The likely futility of building identity by acquiring material possessions should seemingly discourage people from using that strategy. It also suggests, however, that what they get from it is not a long-term benefit (which is absent) but rather something much more short-term. Escaping from painful self-awareness and the attendant emotional distress would be precisely that sort of short-term gain that people could pursue, despite its lack of long-term benefit.

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