

Identifying Predictors of Compulsive Hoarding Tendencies in Young Adult Consumers

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Abstract

Compulsive hoarding becomes a problem when the spaces hoarded items are stored in become unusable due to clutter, health, or safety issues. Our research purpose was to document relationships between two non–normative consumer behaviors (compulsive hoarding, compulsive buying tendency) and two shopping–related variables: hedonic shopping motives and emotional attachment to possessions with everyday consumers. As hedonic shopping motives have been related to compulsive buying, we predicted these motives (e.g., adventure, gratification, role, value, social, and idea) are related to compulsive buying. We also examined the relationship between compulsive buying and compulsive hoarding tendency and whether emotional attachment to possessions moderated this relationship. Participants were 280 undergraduate and graduate students attending a Midwestern university in the U.S. Regression analysis revealed the enhancing emotion motive (a combined motive of adventure and gratification) positively influenced compulsive buying whereas the value motive negatively influenced compulsive buying. All other hedonic shopping motives were non–significant. Participants who tended to buy compulsively were likely to hoard compulsively. This relationship, however, was moderated by participants' emotional attachment to possessions. Participants with high emotional attachment to possessions showed a higher level of hoarding behavior than those with low emotional attachment to possessions. However, the increase in hoarding tendency among participants with low emotional attachment to possessions was larger between those who were low in compulsive buying and those who were high in compulsive buying than the increase between these two groups among participants with high emotional attachment to possessions.

Key words : compulsive buying, compulsive hoarding, emotional attachment to possessions, hedonic shopping motives

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1 . Introduction

Compulsive hoarding (CH) is a complex and little-studied disorder (Wincze, Steketee, & Frost, 2007). The term compulsive hoarding (disposophobia) is used to refer to individuals who acquire items or objects to an excessive degree and that may or may not be of use to them (Center for Compulsive hoarding, 2012). Compulsive hoarding affects approximately 2% of the U.S. population (Beck, 2009). This estimate is underrepresented since many compulsive hoarders do not realize that their behavior is a problem.

Frost and Hartl (1996) identified three characteristics of compulsive hoarding. These three characteristics are “the acquisition of, and failure to discard a large number of possessions that appear to be useless or of limited value; living spaces sufficiently cluttered so as to preclude activities for which those spaces were designed; and significant distress or impairment in functioning caused by the hoarding” (p. 341). These three components have helped to distinguish hoarding from the simple collecting of objects.

Hoarding is a dangerous problem as people fill the rooms of their homes with useless items including used food packaging, newspapers, magazines, used toys, used clothing, and other people’s garbage. Packing living spaces with such items can put people at risk for fires, personal injury from falling over items, and health risks due to poor sanitation (Damecour & Charron, 1998; Frost, Steketee, & Williams, 2000; Steketee et al., 2001; Thomas, 1997). Although popular press accounts highlight extreme outcomes linked to compulsive hoarding (e.g., death), little is known about the behavior. A number of researchers (e.g., Samuels, et al,

2008) have examined compulsive hoarding behavior in relation to Obsessive Compulsive Disorder (OCD), but there is still a debate whether compulsive hoarding is a subtype of OCD or not. In addition, effective treatments for compulsive hoarders still need to be developed. Since compulsive hoarding has often been studied as co-morbid with OCD, little is known about compulsive hoarding tendencies in ordinary consumers, especially as hoarding may reflect a type of non-normative consumer behavior.

According to Ridgway, Kukar-Kinney, and Monroe (2008), compulsive buying is a consumer's tendency to be preoccupied with buying that is revealed through repetitive buying and a lack of impulse control over buying. Faber and O’Guinn (1992) defined compulsive buying as chronic, repetitive purchasing behavior that is difficult to stop, causes marked distress, and results in harmful consequences. Compulsive buying has been identified as a growing problem among U.S. college students (Wang & Xiao, 2009) and among consumers in general (Palan, Morrow, Trapp II, & Blackburn, 2011).

For over 20 years, compulsive buying as a form of abnormal consumer behavior has been studied within consumer behavior and marketing (Faber & O’Guinn 1992; Kukar-Kinney, Ridgway, & Monroe, 2009; O’Guinn & Faber 1989). Compulsive buying has been related to numerous adverse consequences such as financial problems, negative feelings, feeling guilty, and damaged family relationships (Faber & O’Guinn, 1992; Lee, 2009). Researchers have documented a relationship between compulsive buying and compulsive hoarding (Frost et al., 1998; Mueller et al. 2007, 2010; Frost, Steketee, & Williams, 2002) such that many hoarders suffer from high levels of compulsive buying

(Frost et al. 1998, Mueller et al. 2007). However, all compulsive buyers are not compulsive hoarders. Thus, it is probable that there are additional factors that trigger hoarding problems among compulsive buyers. Therefore, our research purpose was to begin our investigation of hoarding with an examination of the relationship between these forms of non-normative consumer behavior (compulsive hoarding and compulsive buying tendencies) and to identify a possible antecedent (e.g., hedonic shopping motives) as well as a possible moderator (e.g., emotional attachment to possessions).

II. Conceptual Framework and Hypotheses

1. Hedonic shopping motives

Motivations are one of the factors that lead to a behavior and all behaviors have motives. In the field of marketing, the topic of shopping and buying motives has been of interest for some time (Kukar-Kinney et al., 2009). Tauber (1972) categorized motives as personal and social. Examples of personal motives are role-playing, self-diversion, self-gratification, learning about new trends, and sensory stimulation. Examples of social motives are social experiences outside the home, communication with others having a similar interest, peer group attraction, and status and authority. McGuire's (1974) review of literature presented a typology of 16 fundamental human motivations that relate to cognitive and affective motives. In addition, Westbrook and Black (1985)'s motivational typology posited that shopping motives fall into three categories: product-oriented, experiential, and a combination

of product and experiential. Hedonic motives should be considered as well as product-oriented motives (utilitarian motives) in order to understand consumer shopping behavior fully.

Hedonic motives have been accepted as important precursors of consumer behavior (Hirschman and Holbrook, 1982; Kwon, 2005). Arnold and Reynolds (2003) defined hedonic consumption as those facets of behavior that relate to the multisensory, fantasy, and emotive aspects of consumption. They investigated the hedonic motives underlying shopping and developed a six-factor scale. Factors were labeled adventure, gratification, role, value, social, and idea. According to Arnold and Reynolds (2003), the adventure shopping motive is for stimulation and exploration. Gratification as shopping motive is for stress relief and to alleviate a negative mood. Role as a shopping motive is for others. When a shopper finds the perfect gift for others, they feel excitement and intrinsic joy. The value shopping motive refers to shopping for sales and hunting for bargains. The social shopping motive refers to the enjoyment of shopping with friends and family. Idea as a shopping motive refers to shopping for trend knowledge and to see new fashion products.

2. Compulsive buying and hedonic shopping motives

Compulsive buyers often experience an emotional lift from their buying activity (Faber & O'Guinn, 1992). Since the positive feelings obtained during their shopping motivate compulsive buyers to continue to make purchases, they focus more on the buying process and the emotional aspects derived from this experience (e.g., the attention that sales

associates give them) rather than on consuming the products they purchase. In addition, compulsiveness is significantly related to hedonic value (Babin, Darden, & Griffin, 1994). Therefore, it was expected that compulsive buying was related to hedonic shopping motives. Since hedonic motives may be components of experiencing an emotional lift, we reasoned that consumers who have a high compulsive buying tendency would be likely to indicate hedonic motives for their buying. Therefore, hypothesis 1 was formulated.

Hypothesis 1: Hedonic motives (adventure, gratification, role, value, social, idea) are positively related to compulsive buying.

3. Compulsive buying and compulsive hoarding

Since Frost and Gross's (1993) observed that people who hoard possessions often excessively purchased items that are aesthetically pleasing, rather than utilitarian, they reasoned that compulsive buying would be associated with compulsive hoarding. Subsequently, Frost et al. (1998) and Frost, Steketee, and Williams (2002) found significant positive relationships between compulsive buying and compulsive hoarders. Since few researchers have examined the relationship between compulsive buying and compulsive hoarding, we confirm this relationship between compulsive buying and hoarding in the ordinary consumer sample. As compulsive buyers are more interested in the process of purchasing itself than in the use of the products purchased, compulsive buyers might repeatedly purchase and then store items in their homes after shopping, in effect, fill their living spaces with boxes of unused items. Thus, the following

hypothesis was developed.

Hypothesis 2: Participants who buy compulsively are likely to demonstrate compulsive hoarding tendencies.

4. Emotional attachment to possessions

Pierce, Kostova, and Dirks (2003) suggested that ownership helps individuals define themselves, express to others who they are, and enable people to maintain a sense of continuity as well as to remain connected to the past. According to Grisaffe and Nguyen (2011), emotional attachment to possessions is different from emotional attachment to brands. Yet, antecedents of emotional attachment to brands (i.e., affectively laden memories, evoking or symbolizing nostalgic experiences, eras, people, places, or memories) parallels phenomena involved in emotional attachment to possessions.

Researchers have found hoarders demonstrate an excessive sentimental attachment to possessions (Frost & Gross, 1993; Frost & Hartl, 1996; Frost, Hartl, Christian, & Williams, 1995), rely on possessions for emotional comfort (Frost et al., 1995), and view their possessions as extensions of their selves (Furby, 1978; Warren & Ostrom, 1988). For example, Frost and Steketee's (2010) in-depth study of a compulsive hoarder revealed that possessions played a role in the compulsive hoarder's identity and that she preserved her history in things. These researchers also observed that the participant felt responsible for the well-being of objects and that having the objects gave her a sense of comfort and safety. In this sense, hoarding has been termed "sentimental saving" (Furby, 1978). These types of emotional attachment to things may contribute to the

difficulty compulsive hoarders experience when asked to get rid of possessions.

Although a relationship was predicted between compulsive hoarding and compulsive buying, not all compulsive buyers suffer from compulsive hoarding (Mueller et al., 2007). Since emotional attachment to possessions is one of the reasons for hoarding (Frost et al., 1995), it may be a key variable that distinguishes between compulsive buyers that hoard and those that do not. Therefore, the following hypothesis was developed.

Hypothesis 3: Compulsive buyers who have a high emotional attachment to possessions will engage in compulsive hoarding tendency.

III. Method

1. Sample selection and Procedure

According to Grisham, Frost, Steketee, Kim, and Hood (2006), mild symptoms of hoarding as an individual trait begin during the middle teens and moderate ones in the early to mid-20s. However, recognition of symptoms as a problem does not typically occur until individuals reach their early 30s or later. Therefore, undergraduates and graduate students are appropriate pool from which to recruit research participants and it was appropriate to assess their compulsive hoarding tendency rather than to assess compulsive hoarding.

Institutional Review Board (IRB) approval was obtained prior to data collection. Data were collected from a convenience sample of 310 undergraduate and graduate students attending a U.S. Midwestern university. Students who agreed to participate were given a consent form and a

questionnaire. The consent form detailed the voluntary nature of the research, that participants were at no risk to participate in the study, that their responses would be confidential, and that they could stop participating at any time. After reading the consent form, the participants were asked to complete the questionnaire. Thirty of the questionnaires were not completed. Therefore, responses from 280 individuals were used in data analyses. Regression analysis was used to test hypotheses. In all analyses, age, gender, education, and socially desirable responding were controlled.

2. Measurements

The questionnaire was developed using existing measures of all variables. With the exclusion of demographic variables, participants responded to all items using 5-point Likert scales (1= strongly disagree and 5 = strongly agree). To assess hedonic shopping motives, Arnold and Reynolds (2003) measure was employed. Each hedonic shopping motive (i.e., adventure, gratification, role, value, social, idea) was assessed with three items. To measure compulsive buying tendency, Edwards's (1993) 13-item scale was used. Edwards's compulsive buying measurement assesses tendency to spend, compulsion/drive to spend, feelings about shopping and spending, dysfunctional spending, and post-purchase guilt. Edwards's (1993) measurement allows the identification of low to high levels of compulsiveness in an individual's buying behavior, rather than simply grouping respondents into two categories (compulsive buyers versus non-compulsive buyers). Thus, it was appropriate for this research.

Compulsive hoarding tendency was measured

using Frost, Steketee, and Grisham (2004)'s Saving Inventory- Revised (SI-R) 23 item measure. Emotional attachment to possessions was measured using Frost, Hartl, Christian, and Williams (1995)'s four item measurement. In order to control respondent's tendency to answer in a socially desirable response, we

measured socially desirable responses by using 3 items (ex. "Do you tell the truth?", "I am always courteous, even to people who are disagreeable.", "I always apologize to others for my mistakes."). Table 1 provides examples of all measures.

Table 1. Measurements

Constructs (Source)	Examples of Items
Hedonic Shopping Motives (Arnold & Reynolds, 2003)-18 items	<ul style="list-style-type: none"> • To me, shopping is an adventure. • For the most part, I go shopping when there are sales. • I like shopping for others because when they feel good I feel good. • I go shopping with my friends or family to socialize. • When I'm in a down mood, I go shopping to make me feel better.
Compulsive Buying (Edwards, 1993)-13 items	<ul style="list-style-type: none"> • I buy things even when I don't need anything. • I feel driven to shop and spend, even when I don't have the time or the money. • I get little or no pleasure from shopping (R) • I buy things even though I cannot afford them. • I feel guilty or ashamed after I go on a buying binge.
Compulsive Hoarding-Saving Inventory-Revised (SI-R) (Frost, Steketee, & Grisham, 2004)-23 items	<ul style="list-style-type: none"> • To what extent do you have difficulty throwing things away? • How distressing do you find the task of throwing things away? • To what extent do you have so many things that your room(s) are cluttered?
Emotional Attachment to Possessions (Frost, Hartl, Christian, & Williams, 1995)-4 items	<ul style="list-style-type: none"> • When I get upset, I turn to my possessions for comfort. • If I were to lose one of my possessions, I would feel as if someone had died. • My life would not feel complete if I were not surrounded by my possessions. • If I were to throw away a possession, I would feel as though I were betraying it.

IV. Results

1. Sample Characteristics

Men (12.1%) and women (87.9%) participated in the research. They ranged in age from 18 to 50 years with a mean age of 22.52 years (18–20 years, 33.2%; 21–23 years, 47.8%; 24–26 years, 9.7%; 27– 50 years, 9.3%). Participants were married (12.6%), single (73.5%) or divorced (7.4%). Participants ranged in their household income with 59.6% between \$0 –\$49,999, 22.3% between \$50,000 – \$99,999, 12.5% between \$100,000 – \$149,999, and 5.6% over \$150,000.

2. Preliminary Analysis

First, we conducted an exploratory factor analysis (EFA). The result of the EFA for

hedonic motives demonstrated that the adventure motive and gratification motive were highly correlated. Thus, we combined these items and renamed this motive as “enhancing emotion motive”. The result of the EFA for compulsive buying and compulsive hoarding revealed two items in compulsive buying did not load on the corresponding factor, therefore, they were removed from further analysis. In order to confirm the resultant factor structure shown in the EFA, we performed a confirmatory factor analysis (CFA). Table 2 presents the results. All factor loadings were significant ($p < .001$) and all loadings were greater than .39, which is above an acceptable value of .30 (Hair, Anderson, Tatham & Black, 1992). Table 3 presents the descriptive statistics, reliabilities, and correlations among the key variables. Cronbach’s alphas of all key measures were above .86, which is above an acceptable level of .70 (Nunnally, 1978).

Table 2. Confirmative Factor Loading

($n=280$)

	Emotion enhancing m.	Role motive	Value motive	Social motive	Idea motive	Compulsive buying	Compulsive hoarding	Attachment possession
x1	.74							
x2	.75							
x3	.73							
x4	.80							
x5	.87							
x6		.83						
x7		.91						
x8		.81						
x9			.79					
x10			.93					
x11			.87					
x12				.85				
x13				.85				
x14				.85				
x15					.96			
x16					.95			
x17					.63			
x18						.76		

Table 2. Continued

(n=280)

	Emotion enhancing m.	Role motive	Value motive	Social motive	Idea motive	Compulsive buying	Compulsive hoarding	Attachment possession
x19						.58		
x20						.64		
x21						.77		
x22						.80		
x23						.69		
x24						.69		
x25						.64		
x26						.67		
x27						.63		
x28							.44	
x29							.51	
x30							.39	
x31							.46	
x32							.50	
x33							.57	
x34							.69	
x35							.71	
x36							.80	
x37							.69	
x38							.44	
x39							.48	
x40							.55	
x41							.59	
x42							.58	
x43								.70
x44								.82
x45								.88
x46								.77

a: Questionnaires can be found in Appendix A.

3. Hypothesis Testing

Hypothesis 1 predicted that hedonic shopping motives are positively related to consumer's compulsive buying tendency. In order to test this hypothesis, multiple linear regression analysis was employed. Table 4 shows the results of regression analysis. Unlike our prediction, only two hedonic motives significantly influenced compulsive buying. When participants were motivated by a desire to experience an emotional arousal from their shopping

(enhancing emotion), they tended to buy compulsively ($\beta = .32, p < .001$). On the other hand, when they were motivated to shop because of sales or to get bargains (value shopping), participants were unlikely to shop compulsively ($\beta = -.19, p < .01$).

Hypothesis 2 predicted that consumers who had a compulsive buying tendency were likely to indicate a compulsive hoarding tendency. In hypothesis 3, we proposed that the relationship between participant's compulsive buying and their compulsive hoarding tendency was moderated by consumer's emotional attachment

Table 3. Means, Standard Deviations, Reliability Coefficients, and Correlations among Key Variables (n=280)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Enhancing emotion motive	1							
(2) Role motive	.485**	1						
(3) Value motive	.373**	.462**	1					
(4) Social motive	.463**	.471**	.484**	1				
(5) Idea motive	.596**	.315**	.207**	.491**	1			
(6) Compulsive buying	.306**	.099	-.064	.124*	.278**	1		
(7) Compulsive hoarding	.179**	.020	-.019	.079	.185**	.398**	1	
(8) Emotional attachment to possession	.146**	-.115	-.192**	-.070	.174**	.390**	.399**	1
Mean	3.28	3.71	3.90	3.44	2.93	2.42	1.90	1.77
Standard deviation	1.11	1.11	1.11	1.09	1.14	0.92	0.55	0.87
Reliability	0.88	0.88	0.89	0.88	0.87	0.90	0.87	0.86

*: correlation is significant at the .05 level (2-tailed)

**: correlation is significant at the .01 level (2-tailed)

Table 4. The Result of Multiple Linear Regression Analysis (N=280)

	Model 1	Model 2
Control variables:		
Age	-.11(-1.92)	-.07(-1.29)
Gender	-.02(-.42)	.07(1.20)
Socially	-.16**(-2.68)	-.15*(-2.45)
Independent variables:		
Emotion enhancing motivation		.32*** (3.99)
Role motivation		-.00(-.02)
Value motivation		-.19**(-2.69)
Social motivation		.04(0.60)
Idea motivation		.11(1.53)
R2	.04	.19
△R2	.04	.14*
F	3.78**	7.41***

Note. *: p<.05, **: p<.01, ***: p<.001 (two-tailed test)

T-value is in parentheses.

Dependent variable: compulsive buying

Table 5. The Result of Linear Regression Analysis

(N=280)

	Model 1	Model 2	Model 3	Model 4
Control variables:				
Age	-.16**(-2.64)	-.12*(-2.08)	-.10(-1.80)	-.07(-1.36)
Gender	-.10(-1.60)	-.09(-1.55)	-.07(-1.20)	-.07(-1.36)
Socially desirable responding	-.11(-1.83)	-.05(-0.93)	-.00(-0.14)	-.01(-0.22)
Independent variables:				
Compulsive buying(1)		.34*** (5.94)	.27*** (4.45)	.25*** (4.04)
Moderator:				
Attachment to possession(2)			.22** (3.51)	.29*** (4.42)
Interaction term: (1)*(2)				-.18** (-3.04)
R2	.04	.16	.20	.23
Δ R2		.11	.03	.02
F	4.220**	12.436***	12.858***	12.608***

Note. *: $p < .05$, **: $p < .01$, ***: $p < .001$ (two-tailed test)

T-value is in parentheses.

Dependent variable: compulsive hoarding

to possessions. Following Baron and Kenny (1986)'s recommendation, we conducted a hierarchical multiple regression analysis to test hypotheses 2 and 3. Table 5 displays the results. Both hypotheses were supported. As participant's scores on compulsive buying increased so did their scores on compulsive hoarding ($\beta = .34$, $p < .001$). In addition, as shown in Figure 1, the relationship between compulsive buying and hoarding was moderated by participant's attachment to possessions. Participants with high emotional attachment to possessions showed a higher level of hoarding behavior overall than those with low emotional attachment to possessions. However, the rate of increase in hoarding behavior between those low in compulsive buying tendency and those high in this tendency was larger in the low emotional attachments group than in the high emotional attachment group.

V. Discussion and Conclusion

The goal of the present research was to enhance knowledge about compulsive hoarding within ordinary consumers. Building on previous research on compulsive hoarding and compulsive buying, we investigated the relationships among hedonic shopping motives, compulsive buying, compulsive hoarding tendency, and emotional attachment to possessions.

Among the five hedonic motives investigated, participants who focused on enhancing their emotional state through shopping were high in compulsive buying tendency. This finding is consistent with other researchers (Faber & O'Guinn, 1992) who noted that compulsive buyers find shopping to be an exciting event and experience a temporary emotional lift when they purchase. As long as they have a need for

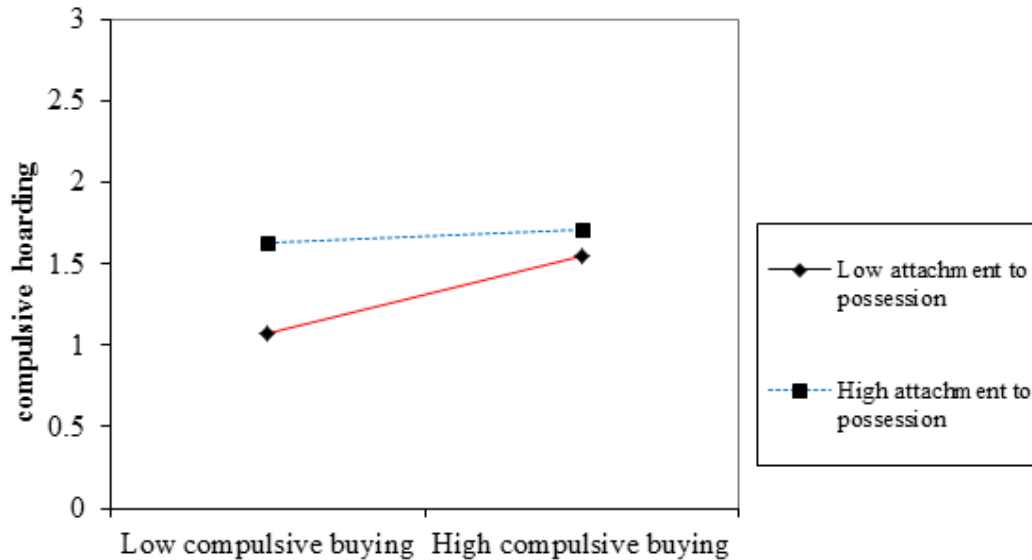


Figure 1. The Moderating Effect of Emotional Attachment to Possessions on the Relationship between Compulsive Buying and Compulsive Hoarding

an emotional lift, and buying provides it, the lift will fuel their purchases. In contrast, participants who were motivated to shop as a method to achieve value (i.e., purchasing discounted items, hunting for bargains) were low in compulsive buying tendency. Consumers who have a value shopping motive seek other types of achievement or goals via their shopping such as saving money. According to Westbrook and Black (1985), finding a discount or getting a good deal (value motives) may lead to satisfaction from being a smart shopper.

Role, social, and idea shopping motives did not have significant impacts on compulsive buying. Consumers who experience positive thoughts when they find the perfect gift for someone (role motive), shop because they want to socialize with others, or shop for knowledge (i.e., information about trends, new fashion products) all have less emotional motives for

their shopping. A role shopping motive may be tied to meeting a functional need, a desire to socialize is meeting a social need, a desire to gain information is meeting a need for knowledge, thus, rather than being hedonic motives in general that are forerunners to compulsive buying tendencies, it may be only those hedonic motives that specifically meet individuals' emotional needs that are antecedents to compulsive buying. Further research is needed between personal goals, emotional needs, and compulsive buying behaviors to validate this interpretation.

Participants who tended to buy compulsively also tended to hoard compulsively. This result supports previous researchers who found compulsive hoarding is associated with compulsive buying (e.g., Frost, et al., 1998). Although there was an association between compulsive buying and compulsive hoarding, not

all compulsive buyers suffer from hoarding (Mueller et al., 2007). Therefore, we investigated emotional attachment to possessions, a trait that has been frequently observed in compulsive hoarders, as a moderator between compulsive buying and compulsive hoarding. Overall, participants who had a compulsive buying tendency and reported high emotional attachment to possessions showed a higher level of compulsive hoarding tendency than did consumers who had a compulsive buying tendency but low emotional attachment to possessions. Thus, emotional attachment to possessions may be a key variable to moving from a modest compulsive buying tendency to both compulsive buying and hoarding.

As emotional attachment to possessions was a significant moderator between compulsive buying tendency and tendency to hoard, this finding raises the question of whether clothing and textile educators are discussing level of emotional attachment to material objects as part of discussions of relationships between one's identity and one's possessions, specifically clothing and accessories. How much emotional attachment to material objects such as clothing is the "right" amount? How many items should we as ordinary consumers be attached to? Appropriate relationships between clothing and identity for ordinary consumers could be discussed in a social psychology of clothing course or in a consumer behavior course.

As compulsive buying was related to compulsive hoarding, what responsibilities do current and future retailers have relative to their goal of being socially responsible businesses? Lee (2009) noted in her research that retailer's social responsibility is emphasized and increasing. Although retailers need their customers to purchase to stay in business, what

practices could they adopt to discourage or deter consumer's compulsive buying? Would changes in return policies discourage compulsive buying or could changes in advertising focus on fulfilling other than emotional needs?

As with any research, there are limitations to this study. As we gathered a convenience sample of participants, generalizations of these results to other groups should be limited. Random samples of consumers who reflect greater diversity in age, ethnicity, and gender might provide further insights into antecedents of both compulsive buying and hoarding and enable generalization. Additional antecedents of compulsive buying and hoarding could be tested (e.g., anthropomorphism, personality traits, social influences, cultural influences, education level, need vs greed) along with possible moderators (e.g., family influences, materialism) between compulsive buying and hoarding.

In terms of future research, acquisition is not limited to shopping (e.g., dumpster diving) and hoarding behavior is not limited to individuals' homes. Consumers practice in-store hoarding as retailers are shifting to shorter production runs and by default are creating competitive environments for fashion goods (e.g., fast fashion retailers). There is little research on how the in-store hoarding behavior of consumers impacts both the store environment and perceptions of the store brand. Findings might be useful for merchandising practices of some retailers.

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Appendix A. Measurement used in this Study: Hedonic Motives, Compulsive Buying and Compulsive Hoarding

variables	Survey items
Emotion enhancing motive	I find shopping stimulating.
	Shopping makes me feel like I am in my own universe.
	When I'm in a down mood, I go shopping to make me feel better.
	To me, shopping is a way to relieve stress.
Role motive	I go shopping when I want to treat myself to something special.
	I like shopping for others because when they feel good I feel good.
	I enjoy shopping for my friends and family.
Value motive	I enjoy shopping around to find the perfect gift for someone.
	For the most part, I go shopping when there are sales.
	I enjoy looking for discounts when I shop.
Social motive	I enjoy hunting for bargains when I shop.
	I go shopping with my friends or family to socialize.
	I enjoy socializing with others when I shop.
Idea motive	Shopping with others is a bonding experience.
	I go shopping to keep up with the trends.
	I go shopping to keep up with the new fashions.
	I go shopping to see what new products are available.

Appendix A. Continued

variables	Survey items
compulsive hoarding	How much of your home is difficult to walk through because of clothing clutter?
	To what extent does the clutter in your home prevent you from using parts of your home for their intended purpose? (For example, cooking, using furniture, washing dishes, cleaning, etc.)
	How much of the living area in your home is cluttered with clothing? (Consider the amount of clutter in your kitchen, living room, dining room, hallways, bedrooms, bathrooms or other rooms.)
	How much does the clothing clutter in your home interfere with your social, work or everyday functioning? Think about things that you don't do because of clutter.
	To what extent does clothing clutter prevent you from using parts of your home?
	How frequently does the clothing clutter in your home prevent you from inviting people to visit?
	To what extent do you have difficulty throwing clothing away?
	How often do you avoid trying to discard clothing because it is too stressful or time-consuming?
	How distressing do you find the task of throwing clothing away?
	How strong is your urge to save clothing you know you may never use?
	How often do you feel compelled to acquire something you see (e.g., when shopping or offered free things)?
	How strong is your urge to buy or acquire free things for which you have no immediate use?
	How much control do you have over your urges to acquire clothing?
	How distressed or uncomfortable would you feel if you could not acquire something you wanted?
How often do you actually buy (or acquire for free) clothing for which you have no immediate use or need?	
Attachment to possession	When I get upset, I turn to my possessions for comfort.
	If I were to lose one of my possessions, I would feel as if someone had died.
	My life would not feel complete if I were not surrounded by my possessions.
	If I were to throw away a possession, I would feel as though I were betraying it.