

## Dimensions of Frugality

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## **DIMENSIONS OF FRUGALITY**

This research presents four studies conducted to advance a theoretically and empirically based understanding of the frugality scale. Previous research has regarded frugality as a unidimensional consumer trait. We suggest that it has two distinct dimensions: spending carefully and consuming carefully. First, we elaborate on these distinct dimensions. Then, we show their convergent and divergent validities from other relevant constructs, namely, propensity to spend money, value consciousness, price consciousness, environmental consciousness and voluntary simplicity. We elaborate on the contradictory evidence on frugal consumer behavior that previous research has revealed so far, and present initial results for the consequential effects of the suggested sub-dimensions.

*Keywords: frugality, consumer trait, scale development*

*Track: Consumer behaviour*

## 1. Introduction

We live in an era where rampant consumption is highly encouraged. We are bombarded with advertising messages, offers, and other means of marketing campaigns with slogans such as “buy now pay later”, “buy two pay one”, “eat as much as you can” and “upgrade your choice”. On the positive side, rampant consumption has been associated with enhanced psychological well-being, life satisfaction and impression management in public. However, there is increasing concern about its damages to consumer’s budget and environmental resources. The UNDP 2030 Agenda for Sustainable Development, for example, acknowledges that fundamental reductions in spending and consuming are needed to achieve global sustainable development. Accordingly, particular consumption practices are getting more and more popular among consumers such as, keeping hands off expensive consumption, selling and purchasing used products, mending a broken house appliance instead of buying a new one, renting instead of purchasing, or spending time and effort to recycle. Such practices have been compiled under the umbrella term of ‘frugality’ in previous consumer literature (Bove, Nagpal, and Dorsett, 2009). While recent developments have drawn attention to importance of frugality, previous research has provided contradictory evidence until now. In this research, we develop a bi-dimensional scale of frugality mindset and elaborate on the roles of its distinct dimensions in explaining contradictory findings on frugal consumer behavior such as bargain hunting, stockpiling and recycling.

## 2. Conceptualization of Frugality

Frugality is first defined by DeYoung (1986: 285) as the “*careful use of resources and avoidance of waste*”, and it is usually conceptualized as the opposite of consumption (Gronow and Warde, 2001). While this initial conceptualization of frugality approached the phenomenon from a waste avoidance perspective, subsequent research defined frugality as “*a unidimensional lifestyle trait characterized by the degree to which consumers are both restrained in acquiring and in resourcefully using economic goods and services to achieve longer-term goals*” (Lastovicka, Bettencourt, Hughner, and Kuntze, 1999) and added the *acquiring* dimension into the conceptualization. Although the authors conceptually defined frugality as cited above, they explain their findings based only on the acquiring (or spending) dimension, such as by sampling

from Tightwad Gazette subscribers. Majority of subsequent research in consumer behavior has followed Lastovicka et al.'s (1999) conceptualization and used the scale developed by them to measure frugality (e.g., Goldsmith, Flynn, and Clark, 2014; Bove et al., 2009; Todd and Lawson, 2003). As opposed to this stream of research that has operationalized frugality as thriftiness, i.e., spending as less as possible, subsequent research of DeYoung (1996) operationalized frugality as waste avoidance and making full use of purchased products (e.g., Rao, 2013; Evans, 2011; Witkowski, 2003). We acknowledge that both perspectives are true in nature, because frugality has inherently two dimensions: careful spending and careful consuming. As a result, research following the works of DeYoung (1996) and Lastovicka et al. (1999) has yielded contradictory findings. For example, Ballantine and Creery (2010) argue that frugal consumers are motivated to keep their spending at minimum, while Evans (2011) shows that frugal consumers tend to be environmentally conscious, involve in green consumption and thus are willing to pay higher prices in their purchases. Similarly, bargain hunting for a lower price is regarded as a practice of frugality (Podkalicka and Potts, 2014), while spending time and money to reach the donation boxes is also another practice of it (Evans, 2011). Next, we briefly elaborate on the constructs that are theoretically related to frugality. Please note that due to space limitations, we are not able to present a discussion on all of the related constructs, but pick the most important ones.

### **3. Conceptually related Constructs**

#### *3.1. Thriftiness*

Thriftiness is “*the art of doing more consumption with less money*” (Evans, 2011), which stems from the notion of high pain of payment combined with a motivation to consume more (Rick, Cryder, and Loewenstein, 2007). Compared to frugal consumers, thrifty consumers are twice as more likely to feel pain of payment. Financially prudent consumers enjoy spending money to the extent they deem necessary (Bardhi and Arnould, 2005). Another aspect that differentiates thrifty consumers from frugal consumers is that they do not focus on the quality related attributes of what they purchase, as long as they are reasonably cheap. These consumers tend to purchase cheap food with beyond-use date or visit charities to get free clothes which they do not need (Miller, 2001; Wilk, 2001). Moreover, unlike thriftiness, frugality does not have to result from perceived deprivation of resources or effort to save each penny (Evans, 2011).

### 3.2. Propensity to Plan Spending

Lynch, Netemeyer, Spiller, and Zammit (2010) demonstrate that frugal consumers tend to plan how they spend money. Investigating frugality as a spending related trait, Todd and Lawson (2003) have shown that frugal consumers are better than their non-frugal counterparts at setting goals and sticking to them with ambition, capability and with a sense of responsibility. Bardhi and Arnould (2005) have further shown that such consumers tend to plan their shopping days only on sale days. Frugality motivates consumers to plan and monitor their spending, yet, planning is not sufficient to engage in frugal consumer behavior.

### 3.3. Voluntary Simplicity

Voluntary simplicity is defined as “*a system of beliefs and a practice centered on the idea that personal satisfaction, fulfillment and happiness result from a commitment to the non-material aspect of life*” (Zavestoski, 2002). Elaborating on simple lifestyle choices, some articles use frugality and voluntary simplicity as synonyms without pointing out their distinct aspects (e.g., Shama, 1981). In voluntary simplicity, reaching personal growth is the main motivation (Leonard-Barton, 1981). However, frugality relates to a simpler lifestyle only in the sense of spending and consuming as needed; not more than necessary.

### 3.4. Value Consciousness

Value consciousness is defined as “*a concern for paying low prices, subject to some quality constraints*” (Lichtenstein, Netemeyer, and Burton, 1990). It generates a concern about acquisition utility, which is relevant to, yet distinct from frugality. Lastovicka et al. (1999) empirically showed that frugality and value consciousness are distinct traits: frugal behavior is positively related to value consciousness, and this relationship has only medium strength (0.54). Later, Todd and Lawson (2003) demonstrated that the items on their frugality scale are not systematically related to value consciousness,.

### 3.5. Environmental Consciousness

Environmental consciousness is defined as “*the degree to which a person is oriented toward concern for the environment*” (Lin and Chang, 2012). Environmentally conscious consumers do not necessarily have frugality goals, and not all frugal consumers may avoid waste

due to environmental concerns. For example, buying fairly-traded products is regarded as an environmentally conscious choice (Evans, 2011). However, in fact, it has nothing to do with restraining acquisition and consumption of goods, and thus frugality. Moreover, compared to frugal consumers, environmentally conscious consumers are more likely to leave their purchased products unused, and they may even engage in overconsumption (Lin and Chang, 2012). Frugal consumers, on the other hand, try to make best use of their products without a focus on the environment.

### 3.6. *Price Consciousness*

Lichtenstein, Netemeyer, and Burton (1995: 235) define price consciousness as “*the degree to which the consumer focuses exclusively on paying a low price*”. It usually generates outcomes at the expense of other consumer judgments such as quality (Alford and Biswas, 2002). Regarding price consciousness as a consequence of frugality, Lastovicka et al. (1999) showed that the relationship between frugality and price consciousness has a medium strength (0.68).

## 4. **Dimensions of Frugality**

As depicted in its conceptual definition highlighted above, frugality has two dimensions: one is about the acquisition of goods and the other one is about the usage of goods. In other words, one dimension is related to careful spending; the other is related to careful consumption.

### 4.1 *Spending related Frugality*

Spending related frugality can be observed when consumers are motivated to make the necessary consumption with the least possible payment. According to Miller’s theory of shopping (1998), spending related frugality can be understood in terms of an attempt to carefully use economic resources for further and better acts of consumption -not saving due to pain of payment. We suggest that it is dominantly salient in the pre-purchase stage of consumption, where consumers search for product information, compare prices and make purchase decisions. Previous papers that conceptualize frugality as consumption related have found a positive relationship between frugality and market mavenism, bargain-hunting and price consciousness (Podkalicka & Potts, 2014, Bardhi and Arnould, 2005).

#### *4.2. Consumption related Frugality*

Consumption related frugality is observed when consumers are motivated to make the best use of their belongings leading to least possible waste or not trashing the items without being fully used such as, using a shampoo till the last drop and, once it is fully consumed, crafting a pencil box out of that shampoo bottle. Previous research that conceptualized frugality as consumption related have found a positive relationship between frugality and second-hand consumption, green consumption and recycling (Evans, 2011; Pepper, Jackson, and Uzzell, 2009). We suggest that it is salient both in the pre-purchase stage of consumption and during/after consumption. Specifically, it is evident during consumers' search for product information, while comparing product durability and when purchase is completed, during the consumption phase where they try to use the products carefully, and if possible repair and recycle them in later stages. Next, we present three studies for scale development, and an exploratory study that tests the consequential effects of sub-dimensions of frugality (SRF and CRF).

### **5. Development and Validation of the Scales**

#### *5.1 Study 1: Item generation*

To create an initial pool of items, we recruited a U.S. national sample using Prolific online panel. Our sample consisted of 12 respondents ( $M_{age} = 32$ , 33% female). Using a set of open-ended questions, we asked participants to elaborate on and write their thoughts in detail about : a) spending money carefully, b) consuming possessions carefully, and c) the most important things while purchasing/using/disposing of their possessions. Item generation relied on theoretical insights derived from previous research as well as investigating data gathered in this exploratory investigation. We identified and converted frequently mentioned answers into scale items. An initial pool of 81 items was generated to reflect the two dimensions of consumers' frugality. Two research assistants were provided with the definition and explanation of each dimension as well as the set of items. They were then asked to allocate the items to one of the two dimensions or remove them from the set. After allocating or eliminating the items, a total of 18 items remained.

#### *5.2. Study 2: Scale Development*

We recruited a U.S. national sample using Prolific online panel. Our sample consisted of 216 respondents ( $M_{age} = 32$ , 46% female). The 18 items generated in Study 1 were put into a seven-point Likert-type scale format (1: strongly disagree, 7: strongly agree). Respondents were asked to indicate the extent to which they agreed with these statements. We deleted items based on two criteria: if corrected item-to-total subscale correlations were below .50 and if they had statistically higher correlations with a dimension to which they were not hypothesized to be related to (Bearden, Netemeyer, and Teel, 1989). We used Varimax with Kaiser Normalization as the rotation method. The analyses generated a reduced scale of 9 items (see Table 1). Items that loaded under factor 1 constitute the scale of spending related frugality (SRF); items that loaded under factor 2 constitute the scale of consumption related frugality (CRF). We further calculated the Cronbach's alpha for each dimension (Cronbach's alpha for SRF = .784 and for CRF = .712).

Table 1  
Factor Loadings

<b>Rotated Component Matrix</b>		
<b>Factor</b>	<b>Component</b>	
	<b>1</b>	<b>2</b>
I like to keep my budget under control	.759	
When I purchase something, I want to get the best deal	.725	
I plan my purchases beforehand	.621	
When buying something, it is good to think carefully about how much I spend	.617	
I wait until I can get a product at the best price	.584	
I do not dispose of a product if it can still be useful in alternative ways		.718
I do not throw things away unless they get too damaged to be repaired		.684
I keep empty items such as containers or bags to use them again in the future		.662
I try to make products last (like toothbrushes, shampoos, pens...)		.527

### 5.3. Study 3: Convergent and Divergent Validities

We recruited a U.S. national sample using Prolific online panel. Our sample consisted of 302 participants ( $M_{age} = 35$ , 55% female). After the respondents responded to a set of conceptually related trait scales, we analyzed the correlations between them. In accord with



Campbell and Fiske's (1959) suggestion, the traits were distinct and not perfectly correlated (see Table 2). The correlation between SRF and CRF was  $r = .448$ . Although SRF tends toward propensity to plan spending money and value consciousness, both dimensions are not perfectly correlated with other traits. Therefore, we can conclude that the dimensions are distinct from each other as well as from other traits<sup>1</sup> listed below.

Table 2  
Correlations between Consumer Traits

		<b>Correlations</b>						
		Price Consciousness	Propensity to Plan Spending	Value Consciousness	Deal Proneness (active)	Deal Proneness (passive)	Voluntary Simplicity	Environmental Consciousness
<b>SRF</b>	<b>Pearson Correlation</b>	.242	.700	.691	.406	.392	.033	.252
	<b>Sig (2-tailed)</b>	.000	.000	.000	.000	.000	.564	.000
<b>CRF</b>	<b>Pearson Correlation</b>	.217	.374	.422	.301	.314	.171	.331
	<b>Sig (2-tailed)</b>	.000	.000	.000	.000	.000	.003	.000

#### 5.4. Study 4: Exploratory Test of Consequential Effects

We conducted an exploratory study to test the consequential effects of the identified sub-dimensions of frugality (SRF and CRF). Specifically, we hypothesized that 1) consumers with a higher trait consumer related frugality would be more likely to repair their items rather than buy a new one, and 2) consumers with a higher trait consumer related frugality would have a more positive attitude towards using second-hand items. However, we did not expect to find these effects for consumers with a higher trait spending related frugality. Our sample consisted of 218 student participants from a European university ( $M_{age} = 21,57$ , 51% female). After responding to a set of trait scale items including SRF and CRF, participants indicated their preference between buying a new outfit versus repairing the torn one, provided that both options cost the same. Then, they indicated their attitudes towards using second-hand goods (1= very negative, 7= very positive) and how willing they would be to buy a second-hand accessory at half the price of a new one (1= not at all, 7= very much). As expected, having an outfit repaired (vs. buying a new one) was strongly positively correlated with CRF ( $r = 0.23$ ,  $p = 0.001$ ), but not with SRF ( $r =$

<sup>1</sup> Scales are received from: price consciousness (Lichtenstein et al. 1993), propensity to plan spending money (Lynch et al.2010), value consciousness (Lichtenstein et al. 1990), deal proneness (Lichtenstein et al. 1995), voluntary simplicity (Leonard-Barton 1981), environmental consciousness (Dunlap et al. 2000).

0.09,  $p > 0.05$ ). Also, CRF was strongly positively correlated with positive attitudes towards using second-hand goods ( $r = 0.21$ ,  $p < 0.05$ ), and higher willingness to purchase a second-hand accessory over a new one ( $r = 0.15$ ,  $p < 0.05$ ). However, there was no correlation between participants' SRF and the measured DV's ( $p$ 's  $> 0.05$ ). These results provide initial evidence and shows that the two sub-dimensions of frugality identified in this research (SRF and CRF) have different behavioral correlates.

## 6. Discussion

This research explores the two distinct dimensions of consumer trait frugality scale, which is identified as unidimensional consumer trait by previous research. We suggest that frugality incorporates two distinct elements: *consumption related frugality* refers to careful spending; *spending related frugality* refers to careful consumption. Our findings support that CRF and SRF are theoretically and empirically distinct from each other, as well as from other frugality related constructs that are identified in consumer literature, and have different consequential effects. As the next step, we are at the stage of manipulating CRF and SRF to identify cause-and-effect relationships with consumers' preference for mending (vs. buying) goods, attitudes towards second-hand consumption, recycling, and quantity versus quality preference in purchases.

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