

## The influence of personality dimensions on material and frugal values

Rogelio Puente-Díaz<sup>1\*</sup> y Judith Cavazos Arroyo<sup>2</sup>

<sup>1</sup> Facultad de Economía y Negocios (Universidad Anáhuac México Norte) (México)

<sup>2</sup> Centro Interdisciplinario de Posgrados. Puebla (Universidad Popular Autónoma del Estado de Puebla) (México)

**Título:** La influencia de dimensiones de personalidad en valores materiales y frugales.

**Resumen:** Dos estudios fueron realizados para examinar la influencia de dimensiones de personalidad en valores materiales y frugales y las consecuencias cognitivas y afectivas de adoptar dichos valores entre estudiantes mexicanos. Los participantes completaron una batería de cuestionarios. Análisis de ecuaciones estructurales fue usado para poner a prueba las relaciones propuestas entre dimensiones de personalidad, valores materiales y frugales, satisfacción con la vida y financiera, y afecto positivo y negativo. Los resultados mostraron que la extroversión tuvo un efecto positivo en el materialismo y un efecto negativo en la frugalidad. De manera similar, el rasgo de personalidad de amabilidad (agreeableness) estuvo relacionado negativamente con el materialismo y positivamente con la frugalidad. La dimensión de personalidad de responsabilidad (conscientiousness) también tuvo en efecto positivo en la frugalidad. Por último, nuestros resultados también mostraron que el materialismo estuvo relacionado negativamente con el afecto positivo y satisfacción con la vida y financiera. Nuestra discusión se centró en entender la interacción entre los componentes clave de cada dimensión de personalidad y las características que definen a los valores materiales y frugales.

**Palabras clave:** Dimensiones de personalidad; materialismo; frugalidad; bienestar subjetivo; satisfacción financiera.

**Abstract:** Two studies were conducted to examine the influence of personality dimensions on material and frugal values and the affective and cognitive consequences of holding these values among college students from Mexico. Participants completed a battery of questionnaires. Structural Equation Modeling (SEM) was used to test the hypothesized relations between personality dimensions, material and frugal values, life and financial satisfaction, and positive and negative affect. Results showed that extraversion had a positive influence of materialism and a negative influence of frugality. Similarly, agreeableness was negatively related to materialism and positively related to frugality. Conscientiousness also had a positive effect on frugality. Lastly, our results showed that materialism was negatively related to positive affect and life and financial satisfaction. Our discussion centered on understanding the interplay between core components of each personality dimension and the defining features of material and frugal values.

**Key words:** Personality dimensions; materialism; frugality; subjective well-being; financial satisfaction.

### Introduction

Values play a central role in people's lives since they influence goals (Schwartz, 2005), emotions and life styles (García-Alandete & Perez Delgado, 2005). Given the importance of values for consumer research (Pepper, Jackson, & Uzell, 2009), investigators, interested in understanding the social psychology of consumer behavior, have turned their attention to the examination of some antecedents and consequences of holding material and frugal values. Personality dimensions also play a very important role since they are known to influence relevant life outcomes and variables (Lopez-Martinez & Navarro-Lozano, 2010; Nettle, 2006). However to this date, less attention has been given to the interplay between personality dimensions and values (Roberts & Robins, 2000). This is an interesting omission given that personality dimensions represent who we are and values and goals represent what we want to have or accomplish. It is very likely that who we are (personality dimensions) influence what we value and would like to accomplish in life (Roberts & Robins, 2000). Consequently, the purpose of the present investigation is to examine the influence of personality factors, extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience, on the adoption of frugal and material values, and also the affective, positive and negative affect and cognitive, judgments of life and fi-

nancial satisfaction, consequences of holding these values. In order to accomplish our goal, we briefly review some of the relevant theoretical models of values and personality.

### Values

Even though there are different values that individuals might hold, two are especially relevant for understanding consumer behavior. The first set of values gives importance to the acquisition of material goods and possessions (Richins & Dawson, 1992), whereas the second one gives importance to self-discipline in spending and efficient use of existing resources (Lastovicka, Bettencourt, Hughner, & Kuntze, 1999). The former is known as materialism whereas the latter is referred to as frugality. We propose that consumers constantly face two opposing forces: the desire to have material possessions and constrain of having limited resources.

One of the defining characteristics of materialism is that personal goals are more important than communal or social goals (Burroughs & Rindfleisch, 2002). Similarly, materialism is opposed to other values such as the importance given to family and cultivating warm relations, reflecting a more personal than collective focus. Consequently, materialism has been linked to low levels of gratitude, empathy and to more conflict in social relations (Belk, 1985; Kasser, Ryan, Couchman, & Sheldon, 2004; McCullough, Emmons & Tsang, 2002). Given that material values clearly prioritize some types of goals over others and that personality dimensions reflect dispositions that define who people are, materialism should show different associations with personality

**\* Dirección para correspondencia [Correspondence address]:**

Rogelio Puente-Díaz. Av. Lomas de Anáhuac 46, Col. Lomas de Anáhuac, Huixquilucan, C.P. 52786, Estado de México, (México)  
E-mail: [rogelio.puente@anahuac.mx](mailto:rogelio.puente@anahuac.mx)

dimensions (Roberts & Robins, 2000).

Conversely, some of the features that characterized frugality (e.g., reduced consumption, re-using things, efficient use of resources) reflect more emphasis on communal than personal goals (Schultz et al., 2005). Thus, it is not surprising to find that frugality is related to variables that show a greater concern for the common good such as ecological and environmental awareness (Elgin & Mitchell, 1977; Jeurissen & van de Ven, 2011). Frugal values show an emphasis on some types of goals, communal or social, which are the counterpart of goals prioritized by material values. Thus, frugality should also be related to personality dimensions (Roberts & Robins, 2000), but some of the associations might have the opposite directionality as materialism.

### Personality

The Five-Factor Model of personality suggests that variations in personality traits can be summarized by five dimensions: Extraversion, Neuroticism, Agreeableness, Conscientiousness, and Openness (McCrae & Costa, 1999). Hundreds of empirical investigations have shown pervasive relationships between these five personality dimensions and relevant life outcomes (Nettle, 2006; Roberts & Robins, 2000). However, relative less attention has been given to the role of personality in value adoption (Roberts & Robins, 2000). Specifically, scant research has examined how personality dimensions might be related to materialism and frugality. It is important to note that, given the lack of extensive research, some of the possible links between personality dimensions and frugal and material values are speculative in nature. Thus, our study is exploratory. In order to understand how personality might influence values, it is important to discuss the central feature of each of the five dimensions of personality.

### Extraversion

The core feature of extraversion is social attention (Asthon, Lee, & Paunonen, 2002). People with high levels of extraversion behave in ways that attract social attention and they enjoy those behaviors (Asthon, Lee, & Paunonen, 2002). Attracting social attention has many advantages including an increased status and the attraction of possible mates (Nettle, 2011). Material values reflect a desire to have possessions in part because it is socially desirable and advantageous, from an evolutionary perspective, for mate attraction and selection (Rose & Colon, 2009). Thus, we propose that extraversion should have a positive influence on materialism. The link between extraversion and frugality is less clear. Yet, if we consider that people with high levels of extraversion tend to value ambition and power (Nettle, 2006), two goals opposed to frugality, we might then speculate that extraversion might have the opposite influence on frugality, a negative effect. Thus, two hypotheses are formulated:

- 1a. Extraversion would have a positive effect on materialism
- 1b. Extraversion would have a negative effect on frugality

### Agreeableness

The core features of agreeableness are altruistic behavior, empathy and cooperation. Thus, agreeableness reflects a concern for others. Given that people with high levels of materialism show more concern for personal than communal goals, we would expect a negative relationship between agreeableness and materialism. Conversely, since people with high levels of frugality show more concern for communal goals, we would expect a positive relationship between agreeableness and frugality. These two propositions have received some empirical support (Hirsh & Dolderman, 2007). Thus, two hypotheses are proposed:

- 2a. Agreeableness would have a negative effect on materialism
- 2b. Agreeableness would have a positive effect on frugality

### Conscientiousness

The central features of conscientiousness are trustworthiness, dependability, enduring commitment and tenacity (Denissen & Penke, 2008). Conscientiousness does not seem to be connected with a lower/higher probability of adopting material values. However, it has been suggested as a predictor of frugality since people with high levels of frugality tend to be cautious and careful with their consumption and spending levels (Lastovicka et al., 1999). Thus, one hypothesis is formulated:

3. Conscientiousness would have a positive effect on frugality

### Neuroticism

The defining feature of neuroticism is sensitivity to social and non-social dangers, which include striving for and maintaining social status (Denissen & Penke, 2008; Nettle 2011). Material possessions are used as a mean to show success, which in turn communicates social standing (Veblen, 2004). Since people with high levels of neuroticism show oversensitivity to social dangers, we would expect neuroticism to be related to materialism. This proposition has received some empirical support (Burroughs & Rindfleisch, 2002). Conversely, we would not expect neuroticism to be a predictor of frugality. Hence, one hypothesis is proposed:

4. Neuroticism would have a positive effect on materialism

## Openness to Experience

The defining features of openness to experience are high levels of cognitive activity and flexibility, creativity and ability for imagination (Denissen & Penke, 2008; Nettle 2011). Given that frugal values represent more the exception than the norm in today's society (Bauman, 2007), their adoption might involve greater cognitive flexibility, which makes openness to experience a likely predictor. This proposition has received empirical support (Hirsh & Dolderman, 2007). Conversely, we would not expect openness to experience to influence the adoption of material values. One hypothesis is formulated:

5. Openness to experience would have a positive effect on frugality

## Consequences of holding material and frugal values

After explaining the possible links between personality dimensions and values, we now turn our attention to some consequences of holding material and frugal values. The importance of values lies in that individual differences in the endorsement materialism and frugality are expected to lead to different cognitive, affective and behavioral outcomes (Kasser, 2002). For example, materialistic values affect how individuals related to possessions, work and spend money on themselves and friends (Deckop, Jurkiewicz, & Giancalone, 2010; Roberts, 2011). Similarly, frugal values are related to quality of life, slow consumption and environmental awareness, and happiness (Corral-Verdugo, Mireles-Acosta, Tapia-Fonllem, Fraijo-Sing, 2011; Jeurissen & van de Ven, 2011). Among the different outcomes that materialism and frugality are likely to influence, consumers' subjective well-being and financial satisfaction are particularly relevant.

Researchers have suggested that subjective well-being has three components: cognitive assessment of life satisfaction, positive, and negative affect (Diener, 1984). Across different investigations, materialism seems to exert a negative effect on subjective well-being (Burroughs & Rindfleisch, 2002). However, in our opinion, many of these investigations have had limitations. First, several investigations have not conceptualized well-being as a three component psychological construct (Burroughs & Rindfleisch, 2002). That is, investigations have focused mainly on assessing the impact of materialism on judgments of general or domain specific satisfaction, paying less attention to the influence of materialism on positive and negative affect. Second, most investigations have been conducted with participants from individualistic cultures (Burroughs & Rindfleisch, 2002), limiting our ability to generalize results to other cultures. For example in collectivistic cultures of honor such as Mexico, reputation and the opinion of others are two important factors that could potentially influence materialism and its effect on subjective well-being (see Podoshen, Li & Zhang, 2010; Workman & Lee, 2010; Xiao & Kim, 2009 for recent exceptions

examining materialism among members from Confucian based collective cultures such as China and Korea). Thus, the present investigation tries to overcome some of these limitations by testing the effect of materialism on the three components of subjective well-being among participants from a collectivistic culture of honor. The following hypotheses are formulated:

- 6a. Materialism would have a negative effect on satisfaction with life.
- 6b. Materialism would have a negative effect on positive affect.
- 6c. Materialism would have a positive effect on negative affect.

Michalos' (1985) multiple discrepancies theory suggests that people's satisfaction in different life domains is a function of the discrepancy between what one has and various standards including what one wants, referred to as desire discrepancy. Research indicates that among different life domains, financial satisfaction shows the biggest gap or discrepancy between what one has and what one wants (Solberg, Diener, & Robinson, 2004). We suggest that this discrepancy can be explained by materialism. For example, one investigation found support for the idea that materialism is related to a higher endorsement of goals related to wanting to make more money (Srivastava, Locke, & Bortol, 2001). The problem with wanting more money is that it should lead to a somewhat permanent discrepancy between what one has and what one wants since it is difficult to determine when one has enough.

Conversely, frugality is a voluntary act about reducing consumer wants and desires toward a more conscious consumption (Jeurissen & van de Ven, 2011). Frugal values serve as a guide for self-regulated consumer behavior where the primary motives are to reduce or avoid waste and achieve higher-order goals (Bove, Nagpal, & Dorsett, 2009; De Young, 1986), centered on the idea that personal satisfaction and happiness come from the nonmaterial aspects of life (Zavestoski, 2002). Thus, high levels of frugal values should be related to higher financial satisfaction since one's focus is on achieving higher order goals. Two hypotheses are proposed:

- 7a. Materialism would have a negative effect on financial satisfaction
- 7b. Frugality would have a positive effect on financial satisfaction

## Overview of the present investigation

The purpose of the present investigation was to examine the influence of personality dimensions on frugality and materialism and also the influence of material and frugal values on subjective well-being and financial satisfaction. Study 1 examined the influence of extraversion and neuroticism on materialism and the effect of material values on positive and negative affect and life satisfaction. Study 2 assessed the role

of extraversion, neuroticism, agreeableness, conscientiousness and openness to experience as predictors of material and frugal values and the effect of these two types of values on financial satisfaction.

## Method

### Participants study 1

Participants were 386 (247 females and 139 males) college students from two private universities in the Mexico City area and Puebla. The mean age was 22.47 ( $SD = 2.45$ ). Students received extra credit for their participation.

### Procedure study 1

Participants completed the questionnaires in small groups of two or three. The questionnaires took between 15 to 20 minutes to complete. All participants were thanked and debriefed after their participation. The present investigation obtained the approval from the institutional human subjects committee.

### Measures study 1

It is very important to use valid and reliable measures to assess psychological constructs (Muñiz, Elosua, & Hambleton, 2013). Most of the scales in this investigation have been widely used among Spanish speaking participants, including participants from Mexico. Thus, when applicable, we provide a citation of previous investigations where these specific measures have been used.

The Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is a five-item questionnaire designed to measure satisfaction with life. The questionnaire uses a Likert-type scale and total scores range from 5 to 35. The scale has shown adequate psychometric properties in previous investigations (e.g., Victorio, 2008) and our results are consistent with these investigations (e.g., significant loadings and a coefficient of internal consistency of .84).

The Scale of Positive and Negative Experience (SPANE) (Diener et al., 2009). The SPANE is a twelve-item questionnaire that includes six items to assess positive feelings and six items to assess negative feelings. Each item is scored on a scale ranging from 1 to 5, where 1 represents "very rarely or never" and 5 represents "very often or always." The positive and negative scales are scored separately. The scale showed adequate psychometric properties for scientific research (e.g., significant loadings and coefficients of internal consistency above .67)<sup>1</sup>.

<sup>1</sup> Since this scale is relatively new, we were unable to find published validation studies. Yet, we have used this scale extensively ( $N > 1000$ ) and all analyses conducted so far indicate that the scale has good psychometric properties. All analyses and raw data are available upon request.

Big Five Inventory (BFI) (Benet-Martínez & John, 1998). This measure uses 44 short phrases to assess extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Respondents rated each of the 44 short phrases on a 5-point scale ranging from 1 (disagree strongly) to 5 (agree strongly). For the purpose of this study, we used an abbreviated scale, four items for each variable, to measure extraversion and neuroticism. The scale has shown adequate psychometric properties for scientific research in previous investigations (e.g., Benet-Martínez & John, 1998; Rodríguez & Church, 2003) and our results are consistent with these investigations (e.g., significant loadings and coefficients of internal consistency above .67).

The Material Value Scale (MVS) (Richins, 2004). We used the abbreviated nine-item measure of materialistic values. Each item is scored on a scale ranging from 1 to 5, where 1 represents "strongly disagree" and 5 represents "strongly agree." The scale possesses good psychometric properties, especially when it is used to measure materialism at the general level. The scale has shown adequate psychometric properties in previous investigations for scientific research (e.g., Felix & Garza, 2012) and our results are consistent with these investigations (e.g., significant loadings and a coefficient of internal consistency of .78).

### Results study 1

Since data obtained from Likert-type scales should be treated as ordinal instead of continuous, we used the Robust Diagonally Weighted Least Square (*DWLS*) estimation with LISREL 9.1 to conduct all our analyses<sup>2</sup>. *DWLS* is recommended to model non-normally distributed data. We report the  $\chi^2$ , Root Mean Square Error of Approximation (*RMSEA*), the Comparative Fit Index (*CFI*) and the Incremental Fit Index (*IFI*) for each of the analysis conducted. We used the cutoff scores of *RMSEA* < .08 and *CFI* and *IFI* > .90 as the minimum acceptable levels of model fit (West, Taylor, & Wu, 2012).

We first examined the measurement model for the latent variables neuroticism, extraversion, materialism, positive and negative affect and satisfaction with life. Results showed that the model fit was adequate Satorra-Bentler  $\chi^2 = 912.55$ ,  $p < .00$  ( $df = 512$ ), *RMSEA* = .01, *CFI* = .96, *IFI* = .96. Examination of individual parameters revealed that all factor loadings were significant and in the expected direction. Thus, we decided to keep this measurement model and proceed to test the latent model.

Results showed that the model fit was adequate Satorra-Bentler  $\chi^2 = 984.33$ ,  $p < .00$  ( $df = 518$ ), *RMSEA* = .01, *CFI* = .96, and *IFI* = .96. Examination of individual parameters revealed that extraversion and neuroticism had positive effects on materialism,  $\gamma = .36$ ,  $p < .05$ ;  $\gamma = .48$ ,  $p < .05$ , respectively. Similarly, materialism had a significant negative effect on positive affect,  $\beta = -.39$ ,  $p < .05$ , and a marginally significant

<sup>2</sup> We thanked one of the reviewers for bringing this issue to our attention

positive effect on negative affect,  $\beta = .10$ ,  $p = .08$ , while controlling for the influence of extraversion and neuroticism, respectively. Materialism also had a significant negative effect on satisfaction with life while controlling for the effects of positive affect,  $\beta = -.17$ ,  $p < .05$ .

### Brief discussion study 1

Study 1 found support for the role of extraversion and neuroticism as antecedents of material values. Materialism was related to lower levels of positive affect and life satisfaction and to higher levels of negative affect, yet this last effect was only marginally significant. One limitation of our investigation is that we used an abbreviated measure of personality dimensions. Even though abbreviated measures can have acceptable psychometric properties, some information is lost (Rammstedt & John, 2007). A closely related limitation is we only assessed two dimensions of personality. Thus, study 2 was conducted to address these two limitations, provide further evidence for the validity of some of our results from study 1, and to explore the role of personality dimensions as predictors of frugality.

### Participants study 2

Participants were 339 (194 females and 145 males) college students from two private universities in the Mexico City area and Puebla. The mean age was 21.54 ( $SD = 2.61$ ). Students received extra credit for their participation.

### Procedure study 2

Participants completed the questionnaires in small groups of two or three. The questionnaires took between 15 to 20 minutes to complete. All participants were thanked and debriefed after their participation. The present investigation obtained the approval from the institutional human subjects committee.

### Measures study 2

For study 2, the same materialism scale was used. Thus, the explanation of the materialism scale was omitted. Only the new measures were described.

Frugality Purchasing Scale (Pepper, Jackson, & Uzzell, 1999). The frugality scale is a six-item questionnaire designed to measure individual differences in frugality. Each item is scored on a scale ranging from 1 to 7, where 1 represents "never" and 7 represents "always." The scale has shown adequate psychometric properties for scientific research in previous investigations (e.g., Cavazos, Sanchez, & Cavazos, 2012) and our results are consistent with these investigations (e.g., significant loadings and a coefficient of internal consistency of .68).

Satisfaction with financial situation: Questions were taken from Michalos' multiple discrepancies theory (1985).

Four items were used to assess financial satisfaction. Items were worded as follow: (1) "Consider your present financial situation (the material possessions you have) in relation to your wants or goals: How well does your financial situation (material possessions) approach what you want?", measured in a scale from 1 (not at all matches) to 7 (better than what I want). "Considering your present financial situation (material possessions you have), how acceptable to you is the gap between what you have right now and what you want?", measured in a scale from 1 (not all at acceptable) to 8 (there is no gap). Coefficient of internal consistency for financial satisfaction was acceptable,  $\alpha = .94$ .

Big Five Inventory (BFI) (Benet-Martínez & John, 1998). For this study, we used the full 44 item questionnaire to assess extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Respondents rated each of the 44 short phrases on a 5-point scale ranging from 1 (disagree strongly) to 5 (agree strongly). The scale has shown adequate psychometric properties for scientific research in previous investigations (e.g., Benet-Martínez & John, 1998; Rodríguez & Church, 2003) and our results are consistent with these investigations (e.g., significant loadings and coefficients of internal consistency above .65).

### Results study 2

We first examined the psychometric properties of each of the subcomponents of the personality questionnaire. We decided to drop several items that either have low factors loadings or communalities<sup>3</sup>. We then examined the measurement model for the latent variables extraversion, neuroticism, conscientiousness, agreeableness, openness to new experience, materialism, frugality and financial satisfaction. Results showed that the model fit was adequate Satorra Bentler  $\chi^2 = 1773.50$ ,  $p < .00$  ( $df = 874$ ),  $RMSEA = .01$ ,  $CFI = .92$  and  $IFI = .92$ . Examination of individual parameters revealed that all factor loadings were significant and in the expected direction. Thus, we decided to keep this measurement model and proceed to test the structural model.

Results showed that the model fit was not adequate  $\chi^2 = 1990.81$ ,  $p < .00$  ( $df = 883$ ),  $RMSEA = .01$ ,  $CFI = .89$  and  $IFI = .89$ . Additionally, the effect of neuroticism on materialism,  $\gamma = -.03$ ,  $p > .05$ , and the effect of openness to new experiences on frugality were not significant,  $\gamma = .05$ ,  $p > .05$ . Given the exploratory nature of our investigation, we dropped all non-significant effects and conducted the analysis again. Results showed a better model fit Satorra Bentler  $\chi^2 = 1148.62$ ,  $p < .00$  ( $df = 485$ ),  $RMSEA = .01$ ,  $CFI = .92$  and  $IFI = .92$ . Examination of the individual parameters showed that extraversion, agreeableness, and conscientiousness were significant antecedents of frugality,  $\gamma = -.76$ ,  $p < .05$ ;  $\gamma = .89$ ,  $p < .05$ ;  $\gamma = .20$ ,  $p < .05$ , respectively. Similarly, extraversion

<sup>3</sup> The items dropped were: 2, 13, 24, 28, and 33 for agreeableness, 11 and 40 for extraversion, 14, 21, and 29 for conscientiousness, 10, 12, 17, and 36 for openness, and 26 for neuroticism; we also dropped item 6 for the frugality scale.

and agreeableness were significant predictors of materialism,  $\gamma = .72, p < .05$ ;  $\gamma = -1.18, p < .05$ , respectively. Lastly, materialism and frugality had a significant effect on financial sat-

isfaction,  $\beta = -.82, p > .05$ ;  $\beta = -.56, p > .05$ , respectively (See Figure 1 for final model).

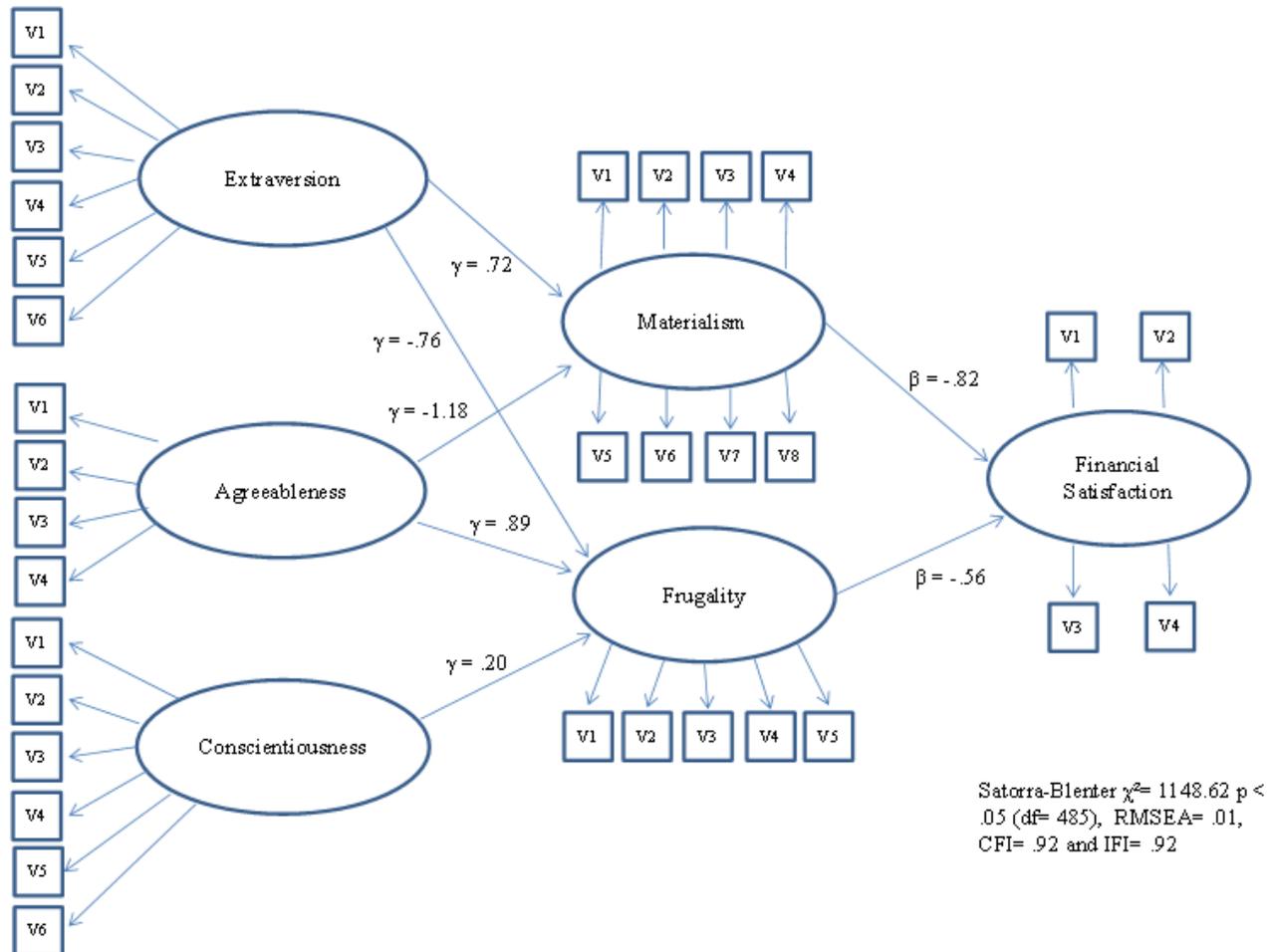


Figure 1. Final structural equation model for study 2.

### Brief discussion study 2

Study 2 found support for the role of extraversion, agreeableness and conscientiousness as antecedents of frugality. Similarly, extraversion and agreeableness were significant predictors of materialism. Lastly, materialism and frugality were related to lower levels of financial satisfaction.

### General Discussion

The purpose of the present investigation was to examine the influence of personality dimensions on frugal and material values and some consequences of holding these types of values. To our knowledge, scant attention has been given to the interplay between personality dimensions and frugal and material values. Thus, we tried to make a contribution by connecting the key features that define each personality di-

mension and proposing how these features might be related to the core components of materialism and frugality.

### Materialism

Material values reflect a desire to obtain material possessions. This desire comes at a cost, in terms of the quality of social relations and social acceptance (Kasser, Cohn, Kaner, & Ryan, 2007). This cost might come from the importance given to personal goals over social and collective goals and also from the established connection between material and self-enhancement values. It is precisely the emphasis on self-enhancement and personal goals what makes some personality dimensions likely predictors of material values. Our results found strong evidence for the role of extraversion as an antecedent of materialism. Recent formulations on the evolution of personality dimensions state that even though extraversion is related to several benefits, it also

has some costs such as social conflict (Nettle, 2011). Since our investigation found a negative effect of materialism on subjective well-being, another cost of extraversion might be an increased tendency to adopt material values. The link between materialism and extraversion is that the core defining feature of extraversion is social attention and having socially desirable material possessions represent one strategy to achieve this goal.

We found, as predicted, a negatively relationship between agreeableness and materialism. Our results are consistent with other investigations (Hirsh & Dolderman, 2007). This relationship can be explained by understanding the key features of agreeableness. Agreeableness is related to higher investment in cooperative ventures and harmonious alliances (Nettle, 2011). Thus, agreeableness is defined in terms of communal and social goals, which represent the opposite goals prioritized by material values.

Lastly, we found mixed support for the influence of neuroticism on materialism. Study 1 found a positive relationship between materialism and neuroticism, which is consistent with other investigations (Burroughs & Rindfleisch, 2002). Yet, we failed to replicate this effect in study 2. The lack of replication is a limitation of our findings. More research is needed to establish the role of neuroticism as a predictor of materialism.

In terms of the consequences of holding material values, we found support for the negative relationship between materialism and positive affect and life and financial satisfaction. Similarly, we also found some support for the positive relationship between materialism and negative affect since the effect was marginally significant. Thus, it is safe to conclude that materialism is related to non-optimal outcomes in terms of the different components of subjective well-being. Our results are consistent with other investigations conducted in individualistic cultures (Burroughs & Rindfleisch, 2002) and, in our opinion, provide further evidence for the detrimental effects of materialism among members from collectivistic cultures of honor.

### Frugality

Frugal values are characterized by self-discipline in spending and efficient use of existing resources (Lastovicka et al., 1999). Frugality is related to variables such ecological and environmental awareness (Elgin & Mitchell, 1977; Jeurissen & van de Ven, 2011), which reflect a concern for communal and self-transcendent goals. Given the importance given to communal and self-transcendent goals, frugal values represent the counterpart of materialism and are expected to be related to different personality dimensions as well.

We found support for the hypothesized negative effect of extraversion on frugality. Given that the core component of extraversion is social attention (Asthon, Lee, & Paunonen, 2002), we predicted and found a negative relationship with a value that reflects an emphasis on self-

transcendent and communal goals, frugality. Conversely, we found a positive association between agreeableness and frugal values. This association is due to the fact that agreeableness is characterized by cooperative joint ventures and harmonious alliances (Nettle, 2011), two features that are consistent with the key goals of frugal values: self-transcendent and social goals.

Lastly, conscientiousness had a positive effect on frugality. Our results are consistent with the propositions set by Lastovicka et al. (1999). Since the central features of conscientiousness are trustworthiness, dependability, enduring commitment and tenacity (Denissen & Penke, 2008), it is theoretically consistent to find a positive influence of conscientiousness on frugality. Individuals with high levels of conscientiousness are likely to value disciplined spending.

Regarding financial satisfaction, frugality did have a significant effect, but in the opposite direction as predicted. Specifically, frugality had a negative relationship with financial satisfaction. It appears then that endorsing frugal values does not translate into being more satisfied with one's financial situation.

### Limitations

Our investigation had several limitations. First, we used a sample of convenience, college students, to test our hypotheses. Future research might want to include more diverse samples to examine how personality dimensions influence the adoption of material and frugal values. Another limitation is that we collected data at point in time only, which limits our ability to assess causal effects. In our statistical analysis, we assumed and tested a causal order, based on previous theoretical developments, in which personality dimensions act as antecedents of values, which then influence subjective well-being. However, we cannot be certain about the proposed causal order. Future research might want to use longitudinal designs to have a better understanding of how who we are (personality dimensions) influences what we want to accomplish (values) across time. Lastly, another limitation is that we were unable to replicate the influence of neuroticism on materialism. When conducting multiple studies within a single investigation, it is best to be able to replicate the findings obtained in previous studies to increase the validity of research findings. Future research might continue exploring not only the influence of neuroticism on materialism, but also the influence of different personality dimensions on materialism and frugality<sup>4</sup>.

In sum, our investigation tried to make a contribution by examining the influence of personality dimensions on the adoption of material and frugal values. We found support for the role of extraversion and agreeableness as predictors of both set of values, but with different directionality. Conscientiousness was also a significant predictor of frugality. Lastly, we found, as expected, negative relationships between materialism and cognitive and affective consequences such as life and financial satisfaction and positive and negative affect.

<sup>4</sup> We thanked one of the reviewers for pointing out this limitation.

## References

- Ashton, M. C., Lee, K., & Paunonen, S. V. (2002). What is the central feature of extraversion? Social attention versus reward sensitivity. *Journal of Personality and Social Psychology, 83*, 245-252.
- Bauman, Z. (2007). *Consuming life*. Hoboken, NJ: John Wiley & Sons.
- Belk, R. W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research, 12*, 265-280.
- Benet-Martínez, V., & John, O. P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology, 75*, 729-750.
- Bove, L., Nagpal, A., & Dorsett, A.D. (2009). Exploring the determinants of the frugal shopper. *Journal of Retailing and Consumer Services, 16*, 291-297.
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research, 29*, 348-370.
- Cavazos, J., Sánchez, A. P., y Cavazos, R. (2012). Análisis de las características sociodemográficas que caracterizan el comportamiento de compra frugal y socialmente consciente en consumidores mexicanos. *XVII Congreso Internacional de Contaduría, Administración e Informática*. Retrieved from <http://congreso.investigacion.unam.mx/docs/antiores/xvii/docs/N02.pdf>
- Corral-Verdugo, V., Mireles-Acosta, J., Tapia-Fonlle, C., & Fraijo-Sing, B. (2011). Happiness and correlate of sustainable behavior: A study of pro-ecological, frugal, equitable, and altruistic actions that promote subjective wellbeing. *Human Ecology Review, 18*, 95-104.
- De Young, R. (1986). Encouraging environmentally appropriate behavior: The role of intrinsic motivation. *Journal of Environmental Systems, 15*(4), 281-291.
- Deckop, J. R., Jurkiewicz, C. L., & Giacalone, R. A. (2010). Effects of materialism on work-related personal well-being. *Human Relations, 63*, 1007-1030.
- Denissen, J. J. A. & Penke, L. (2008). Motivational individual reaction norms underlying the Five-Factor model of personality: First steps towards a theory-based conceptual framework. *Journal of Research in Personality, 42*, 1285-1302.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research, 39*, 247-266.
- Elgin, D., & Mitchell, A. (1977). Voluntary simplicity: Lifestyle of the future? *The Futurist, 11*, 200-261.
- Felix, R., & Garza, M.R. (2012). Rethinking worldly possessions: The relationship between materialism and body appearance for female consumers in an emerging economy. *Psychology and Marketing, 29*, 980-994.
- García-Alandete, J., & Pérez Delgado, E. (2005). Actitudes religiosas y valores en un grupo de jóvenes universitarios españoles. *Anales de Psicología, 21*, 149-169.
- Hirsh, J. B., & Dolderman, D. (2007). Personality predictors of consumerism and environmentalism: A preliminary study. *Personality and Individual Differences, 43*, 1583-1593.
- Jeurissen, R. J. M., & van de Ven, B.W. (2011). Frugal marketing: Can selling less make business sense? In L. Bouckaert, H. Opdebeeck, & L. Zsolnai (Eds.), *Frugality. rebalancing material and spiritual values in economic life* (pp. 227-248). Bern: Peter Lang.
- Kasser, T. (2002). *The high price of materialism*. Cambridge, MA: MIT Press.
- Kasser, T., Ryan, R. M., Couchman, C., & Sheldon, K. M. (2004). Materialistic values: Their causes and consequences. In T. Kasser & A. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp. 11-28). Washington, DC, US: American Psychological Association.
- Kasser, T., Cohn, S., Kanner, A. A., & Ryan, R. M. (2007). Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts. *Psychological Inquiry, 18*, 1-22.
- Lastovicka, J. L., Bettencourt, L. A., Hughner-Shaw, R., & Kuntze, R. J. (1999). Lifestyle of the tight and frugal: Theory and measurement. *Journal of Consumer Research, 26*, 85-98.
- Lopez-Martínez, O. & Navarro-Lozano, J. (2010). Rasgos de personalidad y desarrollo de la creatividad. *Anales de Psicología, 26*, 151-158.
- McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*, 112-127.
- McCrae, R. R., & Costa, P. T. (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality: Theory and Research* (pp. 139-153). New York: NY: The Guilford Press.
- Michalos, A. C. (1985). Multiple discrepancies theory (MDT). *Social Indicators Research, 16*, 347-413.
- Muñiz, J., Elosua, P., & Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: Segunda edición. *Psicothema, 25*, 151-157.
- Nettle, D. (2006). The evolution of personality variation in humans and other animals. *American Psychologist, 61*, 622-631.
- Nettle, D. (2011). Evolutionary perspectives on the Five-Factor model of personality. In D. M. Buss, & P. A. Hawley (Eds.), *The Evolution of Personality and Individual Differences* (pp. 5-28). New York: Oxford University Press.
- Pepper, M., Jackson, T., Uzzell, D. (2009). An examination of the values that motivate socially conscious and frugal consumer behaviours. *International Journal of Consumer Studies, 33*, 126-136.
- Podoshen, J. F., Li, L., & Zhang, J. (2010). Materialism and conspicuous consumption in China: A cross-cultural examination. *International Journal of Consumer Studies, 35*, 17-25.
- Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41*, 203-212.
- Richins, M. L. (2004). The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research, 31*, 209-219.
- Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*, 303-16.
- Roberts, B. W., & Robins, R. W. (2000). Broad dispositions, broad aspirations: The intersection of personality traits and major life goals. *Personality and Social Psychology Bulletin, 26*, 1284-1296.
- Roberts, J. A. (2011). *Shiny objects: Why we spend money we don't have in search of happiness we can't buy*. New York: Harper One.
- Rodríguez, C. & Church, A. T. (2003). The structure and personality correlates of affect in Mexico: Evidence of cross-cultural comparability using the Spanish language. *Journal of Cross-Cultural Psychology, 34*, 211-230.
- Rose, P., & Colon, K. (2009). Materialism: An evolutionary perspective. In F. Saito (Ed), *Consumer Behavior* (pp. 185-196). New York: Nova Science Publishers.
- Schwartz, S. H. (2005). Basic human values: Their content and structure across countries. In A. Tamayo & J. B. Porto (Eds.), *Valores e comportamento nas organizações* (pp. 21-55). Petrópolis, Brazil: Vozes.
- Schultz, P. W., Gouveia, V. Y., Cameron, L. D., Tankha, G., Schmuck, P., & Franeck, M. (2005). Values and their relationship to environmental concern and conservation behavior. *Journal of Cross-Cultural Psychology, 36*, 457-475.
- Solberg, E.C., Diener, E., & Robinson, M. (2004). Why are materialists less satisfied? In T. Kasser & A.D. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp.29-48). Washington, DC: American Psychological Association.
- Srivastava, A., Locke, E. A., & Bortol, K. M. (2001). Money and subjective well-being: It's not the money, it's the motives. *Journal of Personality and Social Psychology, 80*, 959-971.
- Veblen, T. (2004). *Teoría de la clase ociosa*. México: Fondo de Cultura Económica.
- Victorio, A. (2008). La Relación entre la Percepción de Estrés y Satisfacción con la vida de Morbilidad. *Psicología Iberoamericana, 16*, 52-58.
- West, S. G., Taylor, A. B., & Wu, W. (2012). Model fit and model selection in structural equation modeling. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (pp. 209-231). New York: Guilford Press.
- Workman, J. E., & Lee, S. H. (2010). Materialism, fashion consumers and gender: A cross-cultural study. *International Journal of Consumer Studies, 35*, 50-57.
- Xiao, G., & Kim, J. O. (2009). The investigation of Chinese consumer values, life satisfaction, and consumption behaviors. *Psychology & Marketing, 26*, 610-624.
- Zavestoski, S. (2002). The social-psychological bases of anticonsumption attitudes. *Psychology & Marketing, 19*(2), 149-165.

(Article received: 25-1-2013; revision received: 30-7-2013; accepted: 20-10-2013)