From Personality to Saving Behavior: Bridging the Gap

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Integrating psychological concepts with saving behavior research has become increasingly important with the rise of behavioral finance and recognition that consumers do not always make rational financial decisions (Mullainathan & Thaler, 2000). Saving discretionary income is considered a rational behavior undertaken by older consumers to obtain financial security for the rapidly approaching golden years (Ando & Modigliani, 1963); however, financial preparedness for retirement is consistently identified as a problem, suggesting that actual behavior may deviate from rational expectations (Gallup, 2014; Helman, Copeland, & VanDerhei, 2012; Munnell, Webb, & Golub-Sass, 2012). From a life cycle perspective, this is somewhat surprising since older consumers would appear to be motivated and able to close the saving gap given their proximity to retirement and peak lifetime earnings (da Matta, Goncalves, & Bizarro, 2012; Shefrin & Thaler, 1988; U.S. Census Bureau, 2013). This scenario, however, also presents a saving and consumption dilemma with higher lifetime earnings associated with an increased temptation to spend (Shefrin & Thaler, 1988). The consistent concern expressed by older consumers about financial preparedness for retirement suggests that the act of saving and preparing for the future is psychologically challenging, even when the ability and motivation to save are present. Consequently, the purpose of this study is to investigate how psychological characteristics combine to support the saving behavior of older consumers in the years immediately preceding retirement.

A variety of psychological characteristics have been found to support saving behavior; however, these characteristics have rarely been systematically investigated with psychological theory to determine how they combine and inter-relate to explain saving behavior. This study builds upon the existing literature by utilizing an innovative theory, the Meta-Theoretic Model of Motivation and Personality (3M) (Mowen, 2000), to investigate how psychological characteristics combine to shape the saving behavior of older consumers.

According to the 3M, consumer behavior can be explained by four layers of psychological characteristics. Surface traits lie at the top of the 3M and represent concrete behavioral dispositions (e.g., saving behavior). Therefore, the 3M suggests saving behavior can be explained by a combination of the following underlying traits: (a) Elemental traits, (b) Compound traits, and (c) Situational traits. Elemental traits provide a broad foundation explaining narrower psychological characteristics and are defined as the ...basic, underlying predispositions of individuals that arise from genetics and a person's early learning history" (Mowen, 2000, p. 20). Compound traits are narrower in scope than elemental traits and are applicable in a variety of situational contexts. Compound traits are defined as unidimensional dispositions resulting from a combination of the elemental traits, one's learning history, and cultural perspective (Mowen, 2000). Compound traits and elemental traits combine with situational forces to form situational traits. Situational traits are defined as the "unidimensional predispositions to behave within a general situational context," such as the health, financial, or social environments (Mowen, 2000, p. 21). The 3M indicates that each trait level is connected to saving behavior (e.g., a surface trait), with situational traits exhibiting the strongest association given their adjacent location to surface traits within the hierarchy. Moreover, with compound traits and situational traits in the middle of the hierarchy, it is possible for full or partial mediation between the trait levels to occur.

The following hypotheses were derived from the existing saving behavior literature in addition to the 3M model. Elemental traits were operationalized through the widely known Big Five personality traits (Costa & McCrae, 1992). Compound traits were selected according to the criteria of the 3M and were based upon existing literature. Financial self-efficacy beliefs served as the key situational trait of interest. Lastly, saving behavior served as the dependent variable at the surface trait level measured as the natural logarithmic change in net worth from 2008 to 2012.

Direct Effects

Elemental traits:

H1: Openness to experience is positively associated with saving behavior.

H2: Conscientiousness is positively associated with saving behavior.

H3: Extroversion is positively associated with saving behavior.

H4: Agreeableness is negatively associated with saving behavior.

H5: Neuroticism is negatively associated with saving behavior.

Compound traits:

H6: Positive affect is positively associated with saving behavior.

H7: Negative affect is negatively associated with saving behavior.

H8: Mastery is positively associated with saving behavior.

H9: Task orientation is positively associated with saving behavior.

Situational traits:

H10: Financial self-efficacy beliefs are positively associated with saving behavior.

Indirect Effects

H11: Situational traits (i.e., financial self-efficacy beliefs) mediate the relationship between compound traits and saving behavior.

H12: Compound traits (i.e., positive affect, negative affect, mastery, and task orientation) mediate the relationship between elemental traits (i.e., openness, conscientiousness, extroversion, agreeableness, and neuroticism) and saving behavior.

H13: Combinations of situational and compound traits mediate the relationship between elemental traits and saving behavior.

Data were utilized from the 2008 and 2012 Health and Retirement Study (HRS), including the 2008 and 2010 Leave-Behind Psychosocial and Lifestyle survey and the RAND HRS produced by the RAND Center for the Study of Aging. The final analytic sample consisted of 1,370 observations of American pre-retirees and partially retired individuals age 50 to 70. Partially retired individuals were included to obtain an adequate observation to parameter ratio for the structural equation model. Several control variables were included: Age, marital status, gender, race, education, debt, homeowner status, adequate emergency fund, presence of stocks, presence of IRA/Keogh accounts, 2008 log income, and 2008 log net worth. This study employed a structural equation model with a confirmatory factor analysis measurement model.

The results provided evidence for the ability of the 3M to explain older consumers' saving behavior (see Figure 1). A positive direct relationship between financial self-efficacy beliefs and saving behavior (H10) was found. Broader psychological traits (i.e., elemental and compound traits) were not directly connected to saving behavior (H1-H9). Instead, elemental (i.e., openness, conscientiousness, extroversion, agreeableness, and neuroticism) and compound traits (i.e., positive affect, negative affect, mastery, and task orientation) were indirectly connected to saving behavior through financial self-efficacy (H11 & H13). Compound traits did not mediate the relationship between elemental traits and saving behavior (H12).

Overall, results suggest a complex network of psychological characteristics explain the saving behavior of older consumers. First, results highlight the key role financial self-efficacy (FSE) beliefs play in supporting saving behavior within a population that is generally able and motivated to save. Of the psychological characteristics investigated, FSE beliefs had the strongest and only direct relationship with saving behavior. Second, given the utility of FSE beliefs, it is useful for consumers and financial professionals to understand how FSE beliefs can be supported in the years preceding retirement. Results indicate that higher levels of positive affect, lower levels of negative affect, stronger mastery beliefs, and a higher orientation towards tasks and goal setting support FSE beliefs. Consequently, older consumers can benefit by enhancing their experience of positive psychological characteristics (e.g., positive affect, mastery, task orientation), and by effectively managing their negative emotional states (e.g., negative affect). Third, FSE served as a link between saving behavior and broad personality traits. This suggests that through FSE, older consumers can understand how broad personality traits (i.e., openness, conscientiousness, extroversion, agreeableness, and neuroticism) and other psychological characteristics (i.e., positive affect, negative affect, mastery beliefs, and task orientation) are related to saving behavior. Results revealed that the conscientiousness and extroversion personality traits indirectly support saving behavior; while the openness, agreeableness, and neuroticism personality traits indirectly undermine saving behavior.

By adapting and integrating psychological theory into retirement saving strategies, older consumers and financial professionals can more fully understand the psychological origins of financial behavior;

thereby providing opportunity to tailor retirement saving strategies to individual needs and circumstances. Policy supporting programs offering psychological support is needed to help older consumers save for retirement. For example, workplace programs could be implemented that offer coaching and counseling services focused on retirement planning.

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Figure 1. Structural Equation Model Results



* Note: * p < .05. **p < .01. ***p < .001. Model Fit Indices: $X^2(1,431) = 2,774.15$, p = <.001; RMSEA = .026, 90% CI [.025, .028], CFI = .911, TLI = .905. All results were computed with Mplus in theta parameterization and STDYX standardization. The structural model was estimated with indicators from the measurement model (CFA) for the latent variables, and controls for age, marital status, gender, race, education, non-mortgage debt, homeowner status, emergency fund, stocks, IRA/Keogh, 2008 natural logarithmic net worth.