

# Racial Differences in Anticipated Satisfaction With Life during Retirement

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## ABSTRACT

The ability of individuals to think about their goals and imagine themselves in the future is one of the keys to developing a strategic life plan (Beach, 1998). This is a particularly important task in the context of developing a satisfying plan for retirement. In this investigation, image theory (Beach & Mitchell, 1987) was used as a foundation for exploring racial differences in individuals' perceptions of the post-employment period. Specifically, Blacks, Whites, and Asians ( $n = 301, 300, 269$ , respectively) were asked to report perceptions of their future life satisfaction during retirement using a scale developed by Gutierrez and Hershey (2014). Mean score comparisons revealed that Blacks and Asians had significantly larger mean perceived future satisfaction levels than Whites. To explore the psychological mechanisms that underlie respondents' perceptions, 3 separate race-based path analysis models were calculated using anticipated satisfaction scores as the criterion. Predictors in the models included: engagement in financial planning activities, retirement-related financial knowledge, retirement goal clarity, future time perspective, and a set of sociodemographic indicators. Substantial differences were observed in the amount of variance captured in the criterion, with the most variability accounted for among Asians, and the least variability accounted for among Whites. From a theoretical perspective, the findings contribute to the growing literature on race and retirement processes, and from an applied perspective, the results have implications for practitioners who seek to take race into account when developing psychologically based intervention programs.

The issue of how we envision ourselves in the future is a matter of no small consequence (Hènkens et al., 2018). Perceptions of ourselves and our life situation years, or even decades, into the future can color our emotions, shape our goals and behaviors, and influences our life plans (Beach & Mitchell, 1987; Cross & Markus, 1991; Hearty & McCarthy, 2015; Hudomiet, Parker, & Rowedder, 2017; Markus & Nurius, 1986; Pillemer, Thomsen, Kuwabara, & Ivcevic, 2013). From both developmental and successful aging perspectives, retirement is a stage of life that is particularly important for individuals to envision (Craciun, Zaharia, Radu, & Rusan, 2012; Goodwin & O'Connor, 2012), because doing so allows one to formulate strategies that can lead to goal attainment, and ultimately, increase satisfaction with life (Bailly, Gana, Hervé, Joulain, & Alaphilippe, 2014). In the present investigation, we explore differences in perceptions of (future) life satisfaction in retirement among Asian Americans, non-Hispanic Black Americans, and non-Hispanic White Americans (hereafter: Asians, Blacks, and Whites). In doing so, we explore not only anticipated levels of retirement satisfaction, but also a set of psychological dimensions believed to underlie individuals' visions of the future.

The remainder of the introduction begins with a short synopsis of what is known about racial differences in life satisfaction. Next, a theoretical framework is provided that describes a set of psychological dimensions shown to shape individuals' views of the future. For this, we draw heavily upon Beach and Mitchell's (1987) image theory, and a theoretical model of satisfaction with life advanced by Gutierrez and Hershey (2014). The introduction concludes by describing the empirical objectives that guide this research.

## Racial Inequalities and Racial Differences in Life Satisfaction

### *Racial inequalities in context*

To provide a broader context from which to view racial differences in expected life satisfaction, it is instructive to first discuss the types of opportunities and barriers members of different racial groups face in the United States when striving to achieve a reasonable level of life satisfaction. Although race, as a construct, may not be linked to life satisfaction in many Western countries (such as countries in Europe, for example), race is definitely associated with different quality of

life outcomes in the United States. In particular, differences between Blacks and Whites have shown longstanding historical disparities, with Blacks attaining lower levels of achievement along a number of dimensions associated with quality of life (e.g., educational status, occupational status, health status, and financial status, to name just a few).

Specifically, relative to Whites, Blacks are less likely to complete the requirements necessary to obtain a college degree (63% for Whites, 41% for Blacks; Musu-Gillette et al., 2017), which has an impact on the likelihood of successful employment (OECD, 2012). Consistent with that notion, as of 2017, the unemployment rate was 4.6% for Whites, versus 9.0% for Blacks (Bureau of Labor & Statistics, 2017). Disparities in employment rates and the quality of jobs obtained by members of minority groups (Henkens et al., 2018) have resulted in not only differences in median annual household income (\$64K for Whites, \$40K for Blacks in the United States; Guzman, 2018), but also median household wealth levels (\$144K for Whites, \$11K for Blacks in the United States; Pew Research Center, 2016). The effect of differential income levels is reflected in the likelihood of home ownership rates, with 71% of Whites owning homes compared to only 41% of Blacks (Goodman, McCargo, & Zhu, 2018). Moreover, differences in life expectancy are pronounced, with the projected life expectancy from birth for Whites being 79.0 years and the comparable figure for Blacks being 75.6 years (Fuchs, 2016). Each of the above quality of life outcomes for Whites are superior to those of Blacks.

Quality of life outcomes between Whites and Asians show fewer discrepancies than those between Blacks and Whites, but differences do exist between the former two groups that might differentially shape individuals' expectations about the future. Data from the National Center for Educational Statistics reveal that Asians are 8% more likely than Whites to complete college (Asians 71%, Whites 63%; Musu-Gillette et al., 2017), and consistent with that finding, their respective rates of unemployment favors Asians (Asians 3.8%, Whites 4.6%; Bureau of Labor Statistics, 2017). Furthermore, median household incomes strongly favor Asians (\$83K) over Whites (\$64K) (Guzman, 2018), yet median household wealth levels based on 2013 data from the Federal Reserve Bank (Boshara, Emmons, & Noeth, 2015) favor Whites (\$134K) over Asians (\$91K). Finally, the home ownership rate among Asian adults is 57% (Lopez, Ruiz, & Patten, 2017), relative to the 71% figure cited above for Whites (Goodman et al., 2018).

In terms of health outcomes, Asians have been shown to outlive all other racial groups, with a life expectancy of 86.3 years (Acciai, Noah, & Firebaugh, 2015). That represents a longevity advantage of 7.3 years over Whites, and 10.7 years over Blacks. Moreover, late-life morbidity rates are higher for Blacks than they are for Whites, with higher prevalence rates of diabetes mellitus (Marshall, 2005), hypertension (Lackland, 2014), and obesity (National Center for Health Statistics, 2017). Asians, in contrast, have been found to have a substantially greater risk of tuberculosis than Blacks and Whites (Centers for Disease Control, 2016). Consistent with these differences in mortality and morbidity, Blacks spend a shorter amount of time in retirement and they spend a greater amount of time unable to engage in activities of daily living relative to non-Blacks (Ghilarducci & Webb, 2018).

Taken together, racial differences in the quality of life indicators described above paint a picture of systemic racially based inequalities in the United States. Presumably, those inequalities have spill-over effects when it comes to how members of the three different racial groups view not only themselves (reflected by differences in

race-specific self-schemas), but also in their perceived opportunities for future achievement and life satisfaction in retirement (reflected by differences in race-specific schemas of late-life outcomes). In combination, these two forms of self-schemas (i.e., race-specific schemas and late-life schemas) serve as proximate psychological mechanisms that underlie individuals' perceptions of life satisfaction. More will be said about the cognitive structure of these mechanisms in the theoretical framework for the investigation, below.

In sum, building on the literature cited above regarding racially based differences in quality of life outcomes, and keeping in mind the notion that individuals' self-schemas (i.e., the mechanisms by which perceptions of life satisfaction arise), in the following section of the article we summarize what is known about racial differences in perceived life satisfaction levels.

### *Racial differences in life satisfaction*

In the psychological literature, life satisfaction is considered to be a cognitive evaluation of subjective well-being (Diener, Emmons, Larsen, & Griffin, 1985). As a construct, it is purported to provide a global characterization of the quality of one's life (George, 2010). However, to date, research examining racial differences in life satisfaction is incomplete (i.e., systematic comparisons have not yet been made across all races), and many of the studies that have been carried out have resulted in equivocal findings.

In one investigation, Barger, Donoho, and Wayment (2009) found that compared with Whites, Blacks reported lower levels of life satisfaction, even after controlling for sociodemographic indicators such as socioeconomic status (SES), health, and the quality of respondents' social relationships. Black/White differences were also reported by Skarupski, Fitchett, Evans, and de Leon (2013), who examined data from nearly 7,000 individuals over the age of 65. These authors also found that Whites' perceptions of life satisfaction were superior to those of Blacks' and that one's degree of spirituality moderated the relationship between life satisfaction and race. Krause (1993) found that White retirees had higher levels of life satisfaction than Black retirees, an effect he attributed to group differences in financial strain, financial dependence on family members, and one's level of engagement in retirement planning activities (i.e., more planning associated with greater life satisfaction).

A large-scale study published by the Gallup organization (2013) suggested that Black/White disparities in life satisfaction diminished between 2008 and 2013, which was due in part to increases in life satisfaction reported by non-Hispanic Blacks. During that same time period, non-Hispanic Whites' satisfaction levels remained relatively unchanged. In an investigation that is particularly germane to the present study (Graham & Pinto, 2017), Blacks level of "optimism" was significantly greater than that of Whites, with optimism assessed using a measure of perceived life satisfaction 5 years in the future.

Fewer empirical investigations have focused on the life satisfaction of Asian Americans, and among those reported in the literature, life satisfaction was rarely examined within a race-comparative framework. Rather, the construct was typically assessed with respect to specific domains or life circumstances such as employment discrimination (Tran & Sangalang, 2016) and the quality of one's academic experiences (Sheu, Mejia, Rigali-Oiler, Primé, & Chong, 2016). One recent study, however, did compare the life satisfaction levels of European Americans, Hispanic Americans, and Asian Americans (Choi &

Chentsova-Dutton, 2017). These authors reported that the life satisfaction ratings of European Americans and Hispanic Americans did not differ, but mean scores for both groups were significantly larger than those of Asian Americans. A different study of Asian American and African American college students (Berkel & Constantine, 2005) failed to reveal a significant difference in the life satisfaction scores of members of these two groups.

Taken together, the above studies provide strong evidence that Blacks are less satisfied with their lives compared with Whites, but that is not necessarily the case relative to Asians. The one exception to this finding (in which Blacks scored higher than Whites) is based on the result from the Graham and Pinto (2017) study, in which respondents were asked to consider their life satisfaction prospectively. Also, as indicated above, only one study could be identified that compared Asians' and Blacks' general life satisfaction levels, however, no difference in these scores were observed.

### Theoretical Framework

The present investigation rests on dual pillars. The first pillar is image theory (Beach, 1998; Beach & Mitchell, 1987), which is a cognitive theory of human motivation and decision making. Image theory posits the existence of three psychological “images,” which are construed as schematic knowledge structures (i.e., mental representations) individuals have about their lives. The first of the three images is the *trajectory image*, which is a schematic representation of individuals' long-term goals for the future. The second is the *value image*, which is a schematic representation of individuals' attitudes, values, and beliefs about themselves. The last of the three images is the *strategic image*, which is a schematic mental representation of a set of plans and tactics that allow individuals to achieve their long-term goals.

In the context of this investigation, the trajectory image is conceptualized not only as a mental representation of individual's specific retirement goals, but also as the individual's broad expectations of how satisfied they will be with their overall life in retirement. That is, the trajectory image moves beyond a simple goal set to specify how goal achievement impacts one's life. Thus, the measure of anticipated satisfaction with life—which was conceptualized by Gutierrez and Hershey (2014) as a global measure of postemployment life satisfaction—can be thought of as an expectation of one's future self (Cross & Marcus, 1991), stemming from a cognitive evaluation of the achievements individuals anticipate they will accomplish. The assumption that underlies the measurement approach is that to the extent one's goals are met by the time one enters retirement, the individual will experience positive affect—specifically, in the form of life satisfaction. In contrast, for individuals whose retirement goals fail to be achieved (e.g., insufficient financial security; poor health; lacking social relationships), a state of negative affect will occur and the individual will experience low levels of life satisfaction. The larger the negative discrepancy between the desired (retirement) goal state and expected goal outcomes, the lower the level of one's anticipated life satisfaction. This link between expected goal attainment and emotion (specifically, perceived well-being) has been well documented in the psychological literature (Bandura, 1989; Mitchell & Helson, 2016; Wong, Tschan, & Semmer, 2017). In this study, a scale that taps perceived future satisfaction with life in retirement (SWLR) will serve as the indicator of the trajectory image.

The second of Beach's three images—the value image—can be thought of as factors related to an individual's psychological makeup. The self-schema constituents of the value image are an individual's principles (Beach, 1993). In his 1993 article, Beach suggests the value image provides “... rigid criteria for the rightness or wrongness of any particular goal or plan” (p. 235). Therefore, in the retirement context, one's value image might specify that it is important to remain financially independent, to exercise to maintain good health, and to preserve high-quality relationships with friends and family members. To the extent that one is strongly future oriented, then there should be a clear sense of the degree to which retirement plans and goals fit with one's own values and principles. In the present investigation, self-report measures of future time perspective and retirement-related financial knowledge are used as indicators of the value image.

The last of the three images—the strategic image—is a schema representing the set of plans that allow an individual to reach his or her goals on the trajectory image. The concrete behavioral components of plans are called tactics, which are “... specific, palpable actions that are intended to facilitate implementation of a ... plan to further progress toward a goal” (Beach, 1993, p. 235). In the retirement context, the processes of (a) clearly envisioning one's set of retirement planning tactics, (b) gaining relevant information about strategies for goal achievement, and (c) actually engaging in instrumental behaviors aimed at goal fulfillment can all be thought of as elements of the strategic image (cf., Croy, Gerrans, & Speelman, 2010). In this investigation, the strategic image is operationalized as a sense of the clarity of one's retirement goals, and involvement in adaptive retirement planning tasks (referred to below as retirement goal clarity and financial planning activities, respectively).

Taken together, image theory provides an integrated road map of how one's view of the future can be achieved through a series of plans and behaviors, with the constraint that those behaviors do not violate an individual's values or sense of self. For example, one would not be likely to cheat or steal to obtain resources for retirement (i.e., a possible strategic image) to achieve a high future quality of life (i.e., the trajectory image) if they view themselves as having a high moral standard (i.e., the value image). One strength of this investigation is that indicators for all three of image theory's schematic images are operationalized and empirically measured for the trajectory image (i.e., the SWLR scale), the value image (future time perspective and financial knowledge), and the strategic image (retirement goal clarity and financial planning activities).

The second pillar that serves as a foundation for this study comes from a prospective retirement life satisfaction investigation carried out by Gutierrez and Hershey (2014). In that empirical study, the authors suggested a series of psychological mechanisms that underlie, and thus, could be expected to predict, an individuals' anticipated (future) satisfaction with life during retirement. To assess future life satisfaction, Gutierrez and Hershey developed a modified (prospective) version the well-known satisfaction with life (SWL) scale, originally developed by Diener and colleagues (1985). The investigators found that variability in anticipated SWLR was accounted for by individuals' financial knowledge about retirement, financial risk tolerance level, future time perspective, and parental influences on the tendency to plan for the future. A similar psychological model, which builds on existing work, will be tested in this investigation. Like the Gutierrez and Hershey model, SWLR scores will be predicted on

the basis of one's retirement-related financial knowledge (hereafter, simply referred to as financial knowledge) and future time perspective. However, unlike the previous model, risk tolerance and parental influences on planning will be replaced by measures of retirement goal clarity and retirement-linked financial planning activities. These substitutions in constructs were made in this investigation because retirement goal clarity and financial planning activities were deemed to better represent elements of one's strategic image, thereby forging more direct linkages between image theory (Beach, 1998; Beach & Mitchell, 1987) and the prospective retirement life satisfaction model (Gutierrez & Hershey, 2014).

In sum, elements of image theory, in combination with the underlying psychological constructs found in the Gutierrez and Hershey (2014) life satisfaction model, specify multiple psychological mechanisms that contribute to individuals' self-schemas. And it is these self-schemas, as indicated above, that serve as precursors to individuals' perceptions of future quality of life.

### Contributions

This investigation stands to make three contributions to the literature. First, only one study cited above describes individuals' prospective perceptions of life satisfaction in retirement (i.e., Gutierrez & Hershey, 2014). This study will build on that investigation in this nascent area of the literature. Second, this study is innovative in that it examines anticipated retirement satisfaction using a race-comparative framework. Race comparative research examining life satisfaction is sparse in the United States, and previous work examining three different races (Blacks, Whites, and Asians) is nonexistent. Thus, the findings from this study will help fill a significant gap in the literature. Third, this investigation will extend the set of predictors that have been used to examine anticipated satisfaction with life in retirement. As indicated in the preceding paragraph, retirement goal clarity and financial planning activities have not previously been examined as predictors of anticipated satisfaction with life in retirement. Implementation of these two constructs into the life satisfaction model represents an important theoretical extension of prior work, as doing so will forge a stronger bond between strategic elements of image theory and perceptions of future late life satisfaction (a proxy for the trajectory image).

### Theory-Driven Hypothesis Development

#### Mean score comparisons

The findings seen among existing studies on race and life satisfaction (reported above) make a priori predictions regarding mean race-specific SWLR scores difficult. The variation in published findings may be due, in part, to the fact that satisfaction with life in retirement

is heavily influenced by each person's individualized life experiences both before and after retirement (Heybroek, Haynes, & Baxter, 2015). On the basis of the Barger and colleagues (2009), Skarupski and colleagues (2013), and Krause (1993) findings, it can be expected that the (perceived future) SWLR scores of Whites will be higher than those of Blacks. That said, findings from the 2013 Gallup poll report suggest that differences in White/Black SWLR scores may be minimal or nonexistent. And findings from the Graham and Pinto (2017) investigation—the only study to examine life satisfaction scores prospectively—suggest Blacks' life satisfaction scores may turn out to be superior to those of Whites'. A somewhat clearer set of expectations can be formed regarding the way in which Asian's retirement satisfaction scores are likely to compare to Blacks and Whites. On the basis of comparative findings from the study by Berkel and Constantine (2005), it is predicted that Asians' SWLR scores will be equivalent to those of Blacks, but work by Choi and Chentsova-Dutton (2017) suggests Asian's SWLR scores will be lower than those of Whites.

### Path analysis models

A graphic representation of the path model that will be tested in this study is shown in Figure 1. As seen in the figure, seven separate hypotheses will be evaluated. The anticipated positive link between financial planning activities and perceived SWLR (H1) is formulated on the basis of findings that those who are actively engaged in life planning and financial planning activities report higher levels of life satisfaction (Krause, 1993; Prenda & Lachman, 2001).

H2 through H7 are formulated on the basis of previous work that has examined the relationships among psychological constructs shown to underlie retirement planning practices (Chou et al., 2015; França & Hershey, 2018; Gutierrez & Hershey, 2014; Hershey, Jacobs-Lawson, McArdle, & Hamagami, 2007; Koposko & Hershey, 2014; Segel-Karpas & Wener, 2014). Each of the resulting relationships among constructs for these six hypotheses are predicted to be positively related to one another.

It is believed that financial knowledge—an element of the strategic image—will be positively linked to the trajectory image (i.e., expected SWLR; H2), because those who have taken the time and effort to learn about long-range financial planning will be more likely than others to have already envisioned themselves in retirement (presumably, living a successful lifestyle). Furthermore, those who are financially knowledgeable (also an indicator of the strategic image) could be expected to be more engaged in planning activities (H3), because they presumably realize that careful planning is the most efficient way to achieve their long-range financial goals. This specific effect has previously been observed in numerous studies, including those by Chou and colleagues

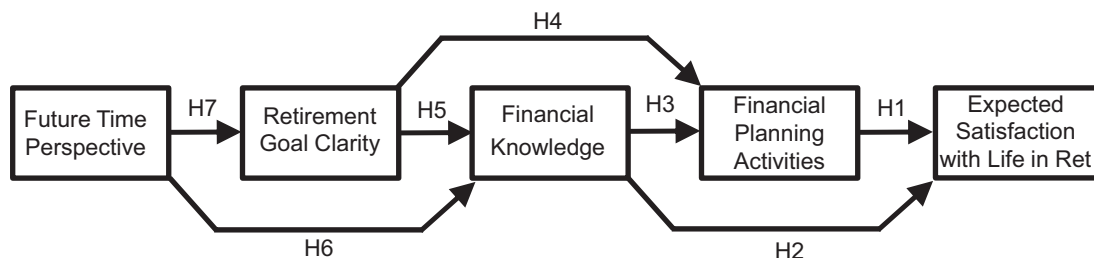


Figure 1. Conceptual model of hypothesized influences on anticipated satisfaction with life in retirement.

(2015), Hershey and colleagues (2007), Lusardi and Mitchell (2007), and Noone, O'Loughlin, and Kendig (2012).

Having clear goals for retirement should also facilitate financial planning activities (H4), because the goal formulation process requires one to envision what it is that will be required to achieve a reasonable retirement quality of life, which in this instance, involves competent planning. Indeed, image theory (Beach, 1998) would suggest that elements of the strategic image should covary with one another within domains. This link between retirement goals and planning activities has been empirically borne out in studies by Chou and colleagues (2015), Hershey and colleagues (2007), and Stawski, Hershey, and Jacobs-Lawson (2007). Similarly, individuals with clear retirement goals could be expected to be increasingly likely to seek out retirement information (i.e., financial knowledge; H5), because the act of goal formulation should lead one to recognize the need to fill in any existing gaps in their knowledge base (Hershey et al., 2007; Topa & Herrador-Alcaide, 2016).

Future time perspective—an indicator of image theory's self-image—is also expected to be positively linked to financial knowledge (H6), because those who differentially enjoy thinking about the future can see the need for information that will allow them to achieve their long-range objectives (in this instance, financial security; Noone et al., 2012). And finally, we posit that future time perspective will be related to retirement goal clarity (H7), because one needs to possess a strong future orientation to clearly envision the set of long-range goals that are most appropriate to select (Chou et al., 2015; Hershey et al., 2007; Rolison, Hanoch, & Wood, 2017).

It is worth noting why two financially oriented measures were incorporated into the path models as predictors of anticipated retirement life satisfaction (i.e., financial knowledge and financial planning activities). The reason for this is because it has been argued that from a dynamic resource perspective (Wang, Hènkens, & Van Solinge, 2011), finances are a particularly critical resource domain when it comes to facilitating retirement adjustment and subjective well-being (Barbosa, Monteiro, & Murta, 2016; Wang & Shi, 2014). Furthermore, retirement goal clarity was incorporated into the path models because having clear goals for retirement would seem to be a prerequisite to having the ability to formulate a meaningful trajectory image. Finally, future time perspective was chosen as a predictor because it was thought that having a long time perspective would facilitate the ability to clearly envision what life would be like after leaving the workforce, based on a mind's eye simulation carried out in the episodic buffer of working memory (Wynn & Coolidge, 2010).

The set of hypotheses shown in Figure 1 will be evaluated for Asians, Blacks, and Whites using a path analytic computational approach recommended by Olobutuyi (2006). Specifically, separate regression models will be estimated for each endogenous construct contained in each of the three race-based path models. Again, all constructs in these three models are expected to be positively related to one another. In addition to the seven hypothesized effects, other nonhypothesized effects that emerge as significant will be entertained as possible additions to the model, as long as they are theoretically reasonable and not inconsistent with the tenets of image theory. The three path analysis models that will be tested are designed to explore how the different constructs in the study are interrelated, and the extent to which the magnitude of those relationships differ as a function of race.

## METHOD

### Participants

Members of all three groups accessed the study questionnaire via Amazon Mechanical Turk (MTurk), a crowdsourcing platform specialized for data collection purposes. According to Chandler and Shapiro (2016), "MTurk is currently the dominant crowdsourcing market used by academic researchers" (p. 54). It is popular among social scientists due to its large pool of respondents, low cost, and great speed with which data can be collected (Berinsky, Huber, & Lenz, 2010; Marvit, 2014). Concerns have been voiced that some MTurk "workers" may engage in character misrepresentation (Wessling, Huber, & Netzer, 2017), and that some workers may be primarily motivated by payment opportunities (Chandler, 2017), resulting in inattentive responding. However, Buhrmester, Kwang, and Gosling (2011) found MTurk workers were primarily intrinsically motivated (e.g., taking surveys for enjoyment), and the data they provide are at least as reliable as those obtained via traditional methods. Moreover, Keith, Tay, and Harms (2017) found that MTurk samples are more diverse than college student samples, and Buhrmester and colleagues (2011) concluded that in terms of demographic characteristics, MTurk samples are not statistically different from a variety of internet samples. Nonetheless, based on the recommendations of Curran (2016; see also Meade & Craig, 2012), an eight-item validity scale (Lynam et al., 2011) was incorporated into the questionnaire in this investigation to detect careless or inattentive responding. Individuals who responded to four or more of the eight items in a questionable fashion (6.5% of respondents) were excluded from the dataset before analysis.

The initial data collection effort was carried out until the goal of approximately 300 respondents was achieved for members of the majority group. At that point, oversamples were collected for the two minority groups until each approximated the 300 person per group sampling goal. Black ( $n = 301$ ) and White ( $n = 300$ ) respondents ranged in age from 25 to 64 years, whereas Asians ( $n = 269$ ) ranged in age from 25 to 61. Demographic characteristics for the three groups are shown in Table 1. As seen in the table, Whites were significantly older than Blacks and Asians, and Blacks were older than Asians. Moreover, Asians and Whites were found to have larger household incomes than Blacks, and Asians had a significantly higher mean level of education than members of the other two groups. The ratio of genders for the three races was similar, with a somewhat higher percentage of males seen in the White group. Furthermore, a significantly larger percentage of Whites were married or partnered relative to members of the other two groups.

### Questionnaire/Measures

In addition to the SWLR scale, each participant provided responses to items from four other scales that in previous studies have been shown to be linked to retirement planning predispositions (described below). Respondents answered 23 different items that together made up the five constructs in the investigation (Appendix A). Items for all five scales used a 5-point Likert-type response format (1 = *strongly disagree*; 5 = *strongly agree*) and participants were asked to indicate the extent to which each statement reflected their personal attitudes, knowledge, or beliefs. Unweighted means (based on unit weighting) were computed for each of the multi-item scales. In previous investigations, the measures employed to assess future time perspective, retirement

**Table 1. Means and Standard Deviations (in Parentheses) for Demographic Variables Shown as a Function of Race**

Variable	Blacks ( <i>n</i> = 301)	Asians ( <i>n</i> = 269)	Whites ( <i>n</i> = 300)	All Participants ( <i>N</i> = 870)
Age	37.75 <sup>a</sup> (10.38)	35.94 <sup>b</sup> (9.51)	40.77 <sup>c</sup> (10.76)	38.23 (10.43)
Income (1,000s of dollars)	41.5K <sup>a</sup> (30.1K)	51.6K <sup>b</sup> (35.2K)	47.1K <sup>b</sup> (33.6K)	46.5K (33.2K)
Years of education	14.90 <sup>a</sup> (2.04)	16.01 <sup>b</sup> (1.75)	15.02 <sup>a</sup> (1.98)	15.28 (1.99)
Gender (% male)	49.2 <sup>a</sup>	53.9 <sup>ab</sup>	58.0 <sup>b</sup>	53.7
Married or partnered (%)	53.5 <sup>a</sup>	55.4 <sup>a</sup>	74.0 <sup>b</sup>	62.4

Note. Means that share the same superscript across rows are *not* statistically different from one another.

goal clarity, financial knowledge, and financial planning activities have been shown to possess reasonable psychometric properties.

As pointed out earlier in the introduction, the four-item (Gutierrez & Hershey, 2014) SWLR scale was designed to assess expectations of satisfaction with life after leaving the workforce. The SWLR measure is based on the well-known five-item satisfaction with life scale (Diener et al., 1985). [One item from the Diener and colleagues (1985) SWL scale was not included in the SWLR measure by Gutierrez and Hershey (2014). The omitted item was: "If I could live my life over, I would change almost nothing." The reason this item was eliminated is because answering such a question in a prospective context would require a counterfactual judgment that could potentially lead to confusion on the part of respondents.] In this investigation, the SWLR scale was shown to have internal consistency reliabilities of 0.87 for Blacks, 0.89 for Asians, and 0.90 for Whites.

A six-item financial planning activities scale was also included in the study. The full nine-item version of the measure, originally developed by Hershey and colleagues (2007), was designed to assess the tendency to consume financial planning information (e.g., reading books/brochures on finances; surfing the web for planning information) and engage in instrumental financial planning activities (e.g., organize one's financial records; assess one's own net worth). In this investigation, the internal consistency reliability for this scale was 0.81 for Blacks, 0.81 for Asians, and 0.84 for Whites. This scale (or a modified version of it) has been shown to predict anticipated satisfaction with life in retirement (Gutierrez & Hershey, 2014), workers' expected retirement income replacement rate, the perceived adequacy of future retirement savings (Van Dalen, Henskens, & Hershey, 2010), and retirement savings contributions (Stawski et al., 2007).

The self-rated financial knowledge scale was originally published by Jacobos-Lawson and Hershey (2005; see also Hershey et al., 2007; and Gutierrez & Hershey, 2014). This three-item measure is designed to assess individuals' perceptions of knowledge of financial planning for retirement, including beliefs about one's financial knowledge relative to others. In this study, the measure demonstrated a high degree of internal consistency reliability, with coefficient alpha values of 0.86 for Blacks, 0.88 for Asians, and 0.91 for Whites. In previous studies, this scale has been shown to be predictive of retirement savings tendencies and retirement-oriented financial planning activities.

The retirement goal clarity scale (Stawski et al., 2007) was designed to assess the extent to which individuals have a set of plans that will allow them to achieve their goals for the postemployment period.

Among other things, it queries individuals about the extent to which they have thought about retirement, have set savings goals for themselves, and have set goals for obtaining information about retirement. In the present investigation, this five-item measure was found to have a coefficient alpha value of 0.84 for Blacks, 0.88 for Asians, and 0.88 for Whites. In the Stawski and colleagues (2007) investigation, this scale was shown to be predictive of individuals' level of retirement planning activities.

The last of the five scales—future time perspective—was assessed using a five-item scale developed by Jacobos-Lawson and Hershey (2005; see also Hershey et al., 2007; Gutierrez & Hershey, 2014). Coefficient alpha values for the measure were 0.87 for Blacks, 0.88 for Asians, and 0.88 for Whites. In the Jacobos-Lawson and Hershey (2005) investigation, the measure of future time perspective was shown to be positively related to retirement saving tendencies (i.e., more future-oriented individuals saved more).

Among demographic variables, household income was assessed using 12 response bands (1 = *no income*; 12 ≥ \$155K USD), age was coded in years, gender was coded dichotomously (0 = *female*; 1 = *male*), education was coded as years of formal schooling completed, and marital status was scored using five response categories, but it was subsequently recoded dichotomously (0 = *single, widowed, divorced/separated*; 1 = *married or legal partnership*).

### Measurement Model

Before testing the hypotheses outlined in the introduction, a measurement model containing items from each of the five scales was computed based on the recommendations found in Anderson and Gerbig (1988), using the Analysis of Moment Structures statistical modeling software (AMOS v.23; Arbuckle, 2014). As per the multiple-group modeling recommendations contained in Byrne (2010), confirmatory factor analyses (CFA) were first computed separately for members of each racial group. Modification indices for the initial measurement models revealed three suggested changes for the Black group—correlating error terms for FPA1/FPA3, FPA2/FPA3, and FPA4/FPA5. Two other modifications were suggested for the Asian group—correlating errors for FPA1/FPA2 and FTP4/FTP5. No modifications were indicated for the White group. From a theoretical perspective, the process of respecifying the model to correlate exogenous error terms is recommended to improve model fit (Byrne, 2010); therefore, associations for the five error terms indicated above were incorporated into their respective models.

The graphic CFA structure for the second set of analyses, along with factor loadings for each of the three groups, is shown in Figure 2. All loadings were found to be in the acceptable range, and no substantial cross-loadings were found to exist. All three of the revised confirmatory models were found to be an acceptable fit to the data based on the criteria described by Hu and Bentler (1999), Schermelleh-Engel, Moosbrugger, and Muller (2003), and Steiger (2007). For Blacks, the fit indices were:  $\chi^2_{(217)} = 516.66, p = .000, \chi^2/df = 2.38, IFI = .928, CFI = .927, TLI = .915, RMSEA = .068$  (90% CI = .060, .075). For Asians, the fit indices were:  $\chi^2_{(218)} = 457.51, p = .000, \chi^2/df = 2.099, IFI = .930, CFI = .940, TLI = .930, RMSEA = .064$  (90% CI = .056, .072). And for Whites, the fit indices were:  $\chi^2_{(220)} = 518.77, p = .000, \chi^2/df = 2.36, IFI = .937, CFI = .937, TLI = .928, RMSEA = .067$  (90% CI = .060, .075). Taken together, these findings provide strong

confirmatory evidence for the hypothesized factor structure of the measures. Moreover, inspection of the magnitude of factor loadings shown in Figure 2 reveal minimal differences across races.

Table 2 contains bivariate Pearson correlations among all retirement constructs, as well as correlations between each of the five demographic indicators and the psychological variables. Correlations are presented for the aggregate sample, as well as separately for each of the three racial groups.

### Analysis Plan

The initial analytic goal is to use planned comparisons to examine the extent to which mean SWLR scores differ across races. In addition to the mean score comparisons for the SWLR measure, four other group-based sets of planned comparisons will be carried out—one

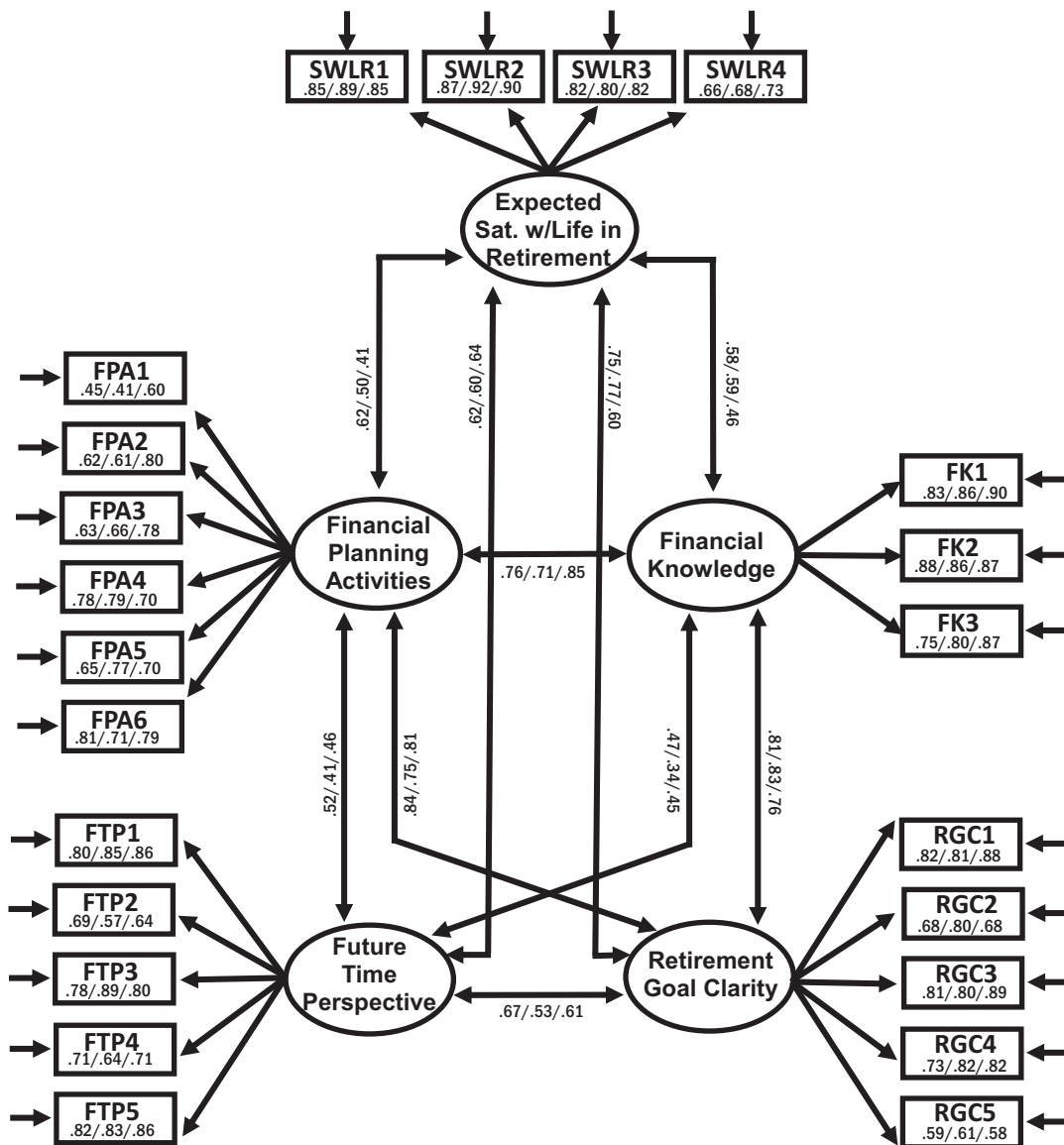


Figure 2. Measurement model for the five scales in the study. Factor loadings are shown in boxes for individual items, with the Black loading first, the Asian loading second, and the White loading last. Values on double-headed paths represent correlations between latent factors, using the same group-based mapping arrangement.

Table 2. Pearson Correlations Among Retirement Constructs and With Demographic Indicators

<b>All participants</b>					
	1.	2.	3.	4.	5.
1. Expected SWLR	—				
2. Financial planning activities	.43**	—			
3. Financial knowledge	.48**	.69**	—		
4. Retirement goal clarity	.62**	.69**	.69**	—	
5. Future time perspective	.57**	.42**	.39**	.54**	—
Age	-.11**	.09**	.08*	.06	-.13**
Household income	.24**	.29**	.28**	.27**	.14**
Years of education	.11**	.20**	.17**	.14**	.07
Gender	.01	.06	.06	.01	-.03
Marital status	.11**	.18**	.16**	.24**	.04
<b>Blacks</b>					
	1.	2.	3.	4.	5.
1. Expected SWLR	—				
2. Financial planning activities	.52**	—			
3. Financial knowledge	.52**	.66**	—		
4. Retirement goal clarity	.66**	.69**	.69**	—	
5. Future time perspective	.57**	.45**	.40**	.57**	—
Age	-.17**	.01	.01	-.02	-.09
Household income	.25**	.28**	.25**	.23**	.10
Years of education	.18**	.16**	.14*	.12*	.13*
Gender	-.08	.00	.00	-.08	-.07
Marital status	.09	.20**	.17**	.25**	.07
<b>Asians</b>					
	1.	2.	3.	4.	5.
1. Expected SWLR	—				
2. Financial planning activities	.41**	—			
3. Financial knowledge	.52**	.63**	—		
4. Retirement goal clarity	.68**	.65**	.73**	—	
5. Future time perspective	.55**	.37**	.34**	.49**	—
Age	.06	.14*	.10	.13*	-.04
Household income	.22**	.29**	.29**	.23**	.13*
Years of education	-.01	.13*	.17**	.07	-.01
Gender	.07	.13*	.14*	.09	-.04
Marital status	.28**	.19**	.27**	.31**	.09
<b>Whites</b>					
	1.	2.	3.	4.	5.
1. Expected SWLR	—				
2. Financial planning activities	.63**	—			
3. Financial knowledge	.42**	.76**	—		
4. Retirement goal clarity	.53**	.71**	.67**	—	
5. Future time perspective	.57**	.43**	.42**	.55**	—
Age	-.13*	.16**	.14*	.14*	-.18**
Household income	.26**	.31**	.31**	.32**	.20**
Years of education	.08	.27**	.21**	.17**	.05
Gender	.06	.07	.06	.04	.05
Marital status	.04	.14*	.03	.18**	.02

\* $p < .05$ . \*\* $p < .01$ .

set for each of the psychological dimensions believed to underlie respondents' SWLR ratings (i.e., financial planning activities, financial knowledge, retirement goal clarity, and future time perspective). These comparisons will be made strictly to ensure that the three groups

do not differ along dimensions thought to underlie perceptions of retirement satisfaction, which might possibly result in systematic, race-specific estimation biases when they are used as predictors in the path analysis model.



To test the three separate race-specific partial mediation path models predicting expected satisfaction with life in retirement (shown in Figure 1), a multi-stage (i.e., layered) path analysis (Ahn, 2002; Streiner, 2005) was computed. In light of the fact that differences were observed among groups for certain demographic dimensions, which could bias parameter estimates in the path models, the five demographic indicators were incorporated into the path models as exogenous control variables.

## RESULTS

Before beginning the analyses, frequency distributions were generated and descriptive statistics were computed for each item and each aggregate variable (i.e., scales), both for the entire sample and for each of the three groups. Distributions were inspected to ensure their characteristics were appropriate and that there were no outliers or excessive skew or kurtosis that would violate the assumptions of general linear model statistics. No aberrations were identified in this regard.

Initial descriptive analyses focused on the response distribution of SWLRS scores for the three groups. Among Whites, 24.3% disagreed or strongly disagreed with the notion that they would experience a satisfying retirement. This is in contrast to 14.3% of Black individuals and 14.5% of Asians. Roughly equal percentages of individuals for the three races indicated neutral responses to the SWLRS scale (i.e., a mean score of ~3.0). Finally, 73.4% of Blacks and 71.0% of Asians agreed or strongly agreed with the notion that they would experience a satisfying retirement, which stands in contrast to only 58.7% of Whites. Overall, these differences suggest that Blacks and Asians are generally more optimistic about what the future holds in terms of life satisfaction relative to White respondents.

### Mean Difference Analyses

Mean differences were then explored across groups for each of the five major constructs in the study (Table 3) using a priori planned comparisons (i.e., *t*-tests). Consistent with the descriptive analyses reported in the preceding paragraph, the mean SWLRS scale score for Whites ( $M = 3.34$ ) was significantly lower than the means for Blacks ( $M = 3.56$ ) and Asian ( $M = 3.56$ ). No group differences were observed for the financial planning activities or financial knowledge

variables; however, goal clarity and future time perspective scores were found to differ across groups. In terms of the former, Whites exhibited the smallest mean retirement goal clarity score ( $M = 3.47$ ), which was significantly lower than the mean for Asians ( $M = 3.64$ ). The mean goal clarity of Black respondents ( $M = 3.52$ ) failed to reliably differ from either of the other two groups. Furthermore, the mean future time perspective scores for Blacks and Asians (3.97 and 3.90, respectively) were significantly larger than the mean for Whites ( $M = 3.75$ ).

In light of the fact that racial group differences in demographic indicators were identified, the mean difference analyses for major constructs in the study described above were also separately calculated using the five demographic variables as covariates (Appendix B). Importantly, with respect to SWLRS, Whites' estimated marginal mean was still significantly smaller than that of Blacks and Asians once racially based demographic differences were taken into account.

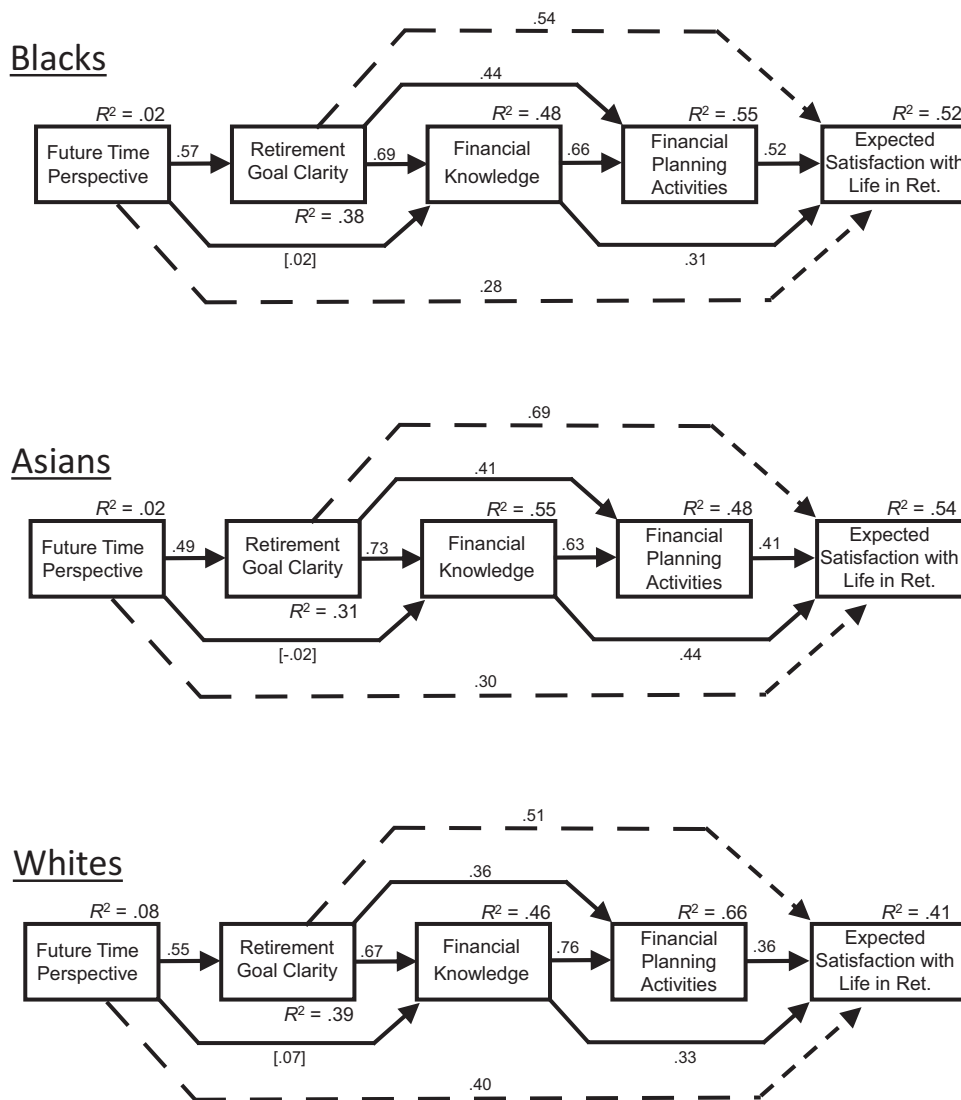
### Path Model Analyses

For the first hierarchical model, scores on the SWLRS scale (the criterion) were regressed on financial planning activity scores (Stage 1), financial knowledge scores (Stage 2), retirement goal clarity scores (Stage 3), future time perspective scores (Stage 4), and demographic indicators (Stage 5). The second hierarchical model took a similar form, with financial planning activity scale scores (the criterion) regressed on financial knowledge (Stage 1), goal clarity (Stage 2), future time perspective (Stage 3), and demographic indicators (Stage 4). For the third of the five models, financial knowledge scores (the criterion) were regressed on goal clarity (Stage 1), future time perspective (Stage 2), and demographic indicators (Stage 3). The fourth model regressed retirement goal clarity (the criterion) on future time perspective (Stage 1) and demographic indicators (Stage 2). And for the final (flat) multiple regression model, the five demographic indicators served as the sole predictors of future time perspective. The computation of these models for each of the three groups allowed for evaluation of the seven a priori hypotheses shown in Figure 1, while at the same time, potentially identifying any statistically significant nonhypothesized paths.

**Table 3. Means and Standard Deviations (in Parentheses) for Each of the Variables in the Hypothesized Model as a Function of Race**

Variable	Blacks ( <i>n</i> = 301)	Asians ( <i>n</i> = 269)	Whites ( <i>n</i> = 300)	All Participants ( <i>N</i> = 870)
Future time perspective	3.97 <sup>a</sup> (0.77)	3.90 <sup>a</sup> (0.69)	3.75 <sup>b</sup> (0.76)	3.88 (0.75)
Goal clarity	3.52 <sup>ab</sup> (0.91)	3.64 <sup>b</sup> (0.86)	3.47 <sup>a</sup> (0.92)	3.54 (0.90)
Financial knowledge	3.18 <sup>a</sup> (1.01)	3.22 <sup>a</sup> (0.91)	3.14 <sup>a</sup> (1.01)	3.18 (0.98)
Financial planning activities	3.43 <sup>a</sup> (0.90)	3.45 <sup>a</sup> (0.82)	3.39 <sup>a</sup> (0.97)	3.42 (0.90)
Expected satisfaction with life in retirement	3.56 <sup>a</sup> (0.86)	3.56 <sup>a</sup> (0.80)	3.34 <sup>b</sup> (0.86)	3.48 (0.85)

Note. Means that share the same superscript across rows are *not* significantly different from one another based on findings from a priori planned comparisons (i.e., *t*-tests).



**Figure 3.** Observed path models for members of the three racial groups. Path coefficients shown are standardized beta weights. All coefficients are significant at the .01 level, except for those in brackets. Solid lines represent a priori hypotheses, dashed lines represent nonhypothesized effects. For clarity, the five demographic control variables are not shown, but included in the computations.

The observed path models developed for each of the three races are shown in Figure 3. [To preserve the clarity of the path diagrams, beta weights and paths for demographic indicators have been omitted from this figure. All statistically significant paths involving demographic indicators were found to have small beta weights (with most paths  $\leq .20$ , up to a maximum value of .25). Although these paths were omitted from the figure, their effects are reported in text, below.] In this figure, standardized beta weights are shown for each path as well as multiple  $r^2$  values for each of the five endogenous variables. The overall hierarchical regression predicting satisfaction with life in retirement among Blacks was statistically significant,  $F(9, 291) = 36.85$ ,  $p < .01$ ,  $R^2 = .52$ . H1 and H2 both received support, with SWLR scores shown to be positively related to financial planning activities ( $\beta = .52$ ) and financial knowledge ( $\beta = .31$ ). Furthermore, two nonhypothesized paths (shown as dashed lines in the figure) were found to emerge

between SWLR and retirement goal clarity ( $\beta = .54$ ), and SWLR and future time perspective ( $\beta = .28$ ). These effects suggest that individuals with higher goal clarity scores and a longer future time perspective expect to be more satisfied with their life in retirement. Of the five demographic indicators, only age was found to significantly impact prediction of SWLR scores ( $\beta = -.12$ ).

The overall five-stage hierarchical model for Asians predicting SWLR scores was also statistically significant,  $F(9, 259) = 35.66$ ,  $p < .01$ ,  $R^2 = .54$ . H1 and H2 received support in this model, with SWLR shown to be positively related to financial planning activities ( $\beta = .41$ ) and financial knowledge ( $\beta = .44$ ). The two nonhypothesized paths that emerged in the Black model—retirement goal clarity and future time perspective to SWLR—also emerged in the Asian model (with  $\beta$  weights of .69 and .30, respectively). None of the demographic indicators emerged as significant in the final hierarchical step.

The overall five-stage hierarchical model predicting SWLR for Whites was statistically significant,  $F(9, 290) = 24.12, p < .01, R^2 = .41$ . Both H1 ( $\beta = .36$ ) and H2 ( $\beta = .33$ ) received support among Whites, which is consistent with what was found for these two hypotheses among members of the other two races. Also, the two nonhypothesized paths found for the other two groups emerged in the White model. Both retirement goal clarity ( $\beta = .51$ ) and future time perspective ( $\beta = .40$ ) were found to predict SWLR. Among demographic indicators, both age ( $\beta = -.13$ ) and income ( $\beta = .11$ ) emerged as significant.

The second set of (four-stage) hierarchical regressions—in which financial planning activities served as the criterion—also revealed a significant overall effect for Blacks,  $F(8, 292) = 46.31, p < .01, R^2 = .55$ . In support of H3, financial knowledge scores were strongly positively related to financial planning activities ( $\beta = .66$ ). Specifically, Blacks who had more financial knowledge were more likely to engage in financial planning activities. Retirement goal clarity was also predictive of planning activities (H4;  $\beta = .44$ ). The only other significant predictor of planning activities to emerge was income ( $\beta = .09$ ). The hierarchical model for Asians predicting financial planning activities was also statistically significant,  $F(8, 260) = 31.73, p < .01, R^2 = .48$ , which was driven, in part, by the strong positive relationship stemming from financial knowledge ( $\beta = .63$ ), thereby supporting H3. Retirement goal clarity was also predictive of financial planning activities (H4) for members of this group ( $\beta = .41$ ). Finally, the overall regression model predicting financial planning activities for Whites was statistically significant,  $F(8, 291) = 72.37, p < .01, R^2 = .66$ . Both H3 ( $\beta = .76$ ) and H4 ( $\beta = .36$ ) received support in the White model, which is consistent with findings from the other two groups. The one remaining variable to emerge as a significant predictor of planning activities was education ( $\beta = .11$ ).

The third set of (three-stage) regression models, in which financial knowledge scores served as the criterion, was statistically significant for Black respondents,  $F(7, 293) = 40.00, p < .01, R^2 = .48$ . In support of H5, retirement goal clarity was found to be positively linked to financial knowledge, with a substantial standardized beta weight of .69. That is, Blacks with higher goal clarity scores were more likely to have higher levels of financial knowledge. The Asian model designed to account for variation in financial knowledge also exceeded the significance threshold,  $F(7, 261) = 47.03, p < .01, R^2 = .55$ . The magnitude of the beta weight for H5 (goal clarity to financial knowledge) in this model was .73; gender ( $\beta = .10$ ) was the only significant predictor among demographic variables. The White model also revealed a significant omnibus effect,  $F(7, 292) = 37.43, p < .01, R^2 = .46$ . In this model, H5 received support ( $\beta = .67$ ), with goal clarity shown to be positively linked to financial knowledge. Unexpectedly, the path in which future time perspective predicted financial knowledge scores (H6) failed to emerge for all three racial groups.

The fourth set of (two-stage) regression models predicting retirement goal clarity revealed a significant omnibus effect for Blacks,  $F(6, 294) = 31.50, p < .01, R^2 = .38$ . As hypothesized, time perspective had a significant positive relationship with retirement goal clarity ( $\beta = .57$ ). Furthermore, both income ( $\beta = .17$ ) and marital status ( $\beta = .18$ ) were related to goal clarity, with higher wage earners and married respondents reporting significantly clearer goals for retirement. The retirement goal clarity regression model for Asians also emerged as significant,  $F(6, 262) = 21.10, p < .01, R^2 = .31$ . H7 (time perspective predicting goal clarity) revealed a statistically reliable effect ( $\beta = .49$ ), as did a

path that showed married individuals tended to have higher goal clarity scores than those who are single, divorced, or widowed ( $\beta = .21$ ). Furthermore, a path revealing a gender effect ( $\beta = .11$ ) was observed, in which men had higher levels of goal clarity than women. Finally, the omnibus model in which Whites' goal clarity scores served as the criterion was significant,  $F(6, 293) = 33.33, p < .01, R^2 = .39$ . Future time perspective was positively associated with goal clarity ( $\beta = .55$ ), as was household income ( $\beta = .14$ ), age ( $\beta = .21$ ), and marital status ( $\beta = .10$ ). As for these three control variable effects, higher goal clarity scores were observed among those who had higher household incomes, were older, and married or partnered.

A final set of three, race-based (flat) multiple regression models were computed in which future time perspective was the criterion and the five demographic indicators served as predictors. The omnibus model for both Blacks and Asians failed to emerge as significant ( $F[5, 295] = 2.12, ns$ , and  $F[5, 263] = 2.02, ns$ , respectively). The overall model for Whites, however, was statistically significant ( $F[5, 294] = 5.92, p < .01, R^2 = .08$ ). Whites with higher household incomes ( $\beta = .25$ ) and younger respondents in this group ( $\beta = -.23$ ) reported having longer future time perspectives.

Pairwise comparisons of path coefficients across the three models revealed numerous instances of differences between groups (Table 4). These analyses were carried out using *t*-tests for comparing standardized beta weights (cf., Cohen & Cohen, 1983; Ziaiontz, 2013). In fact, only 4 of the 27 comparisons failed to reach the significance threshold. [When conducting 27 pairwise comparisons as we did, we acknowledge the possibility that one or two false positives could emerge. One would expect that for every 20 slope comparisons calculated, one will emerge as significant due to chance alone based on an alpha of .05. However, the bigger picture in this situation, and the point we want to stress, is that 23 of the 27 comparisons emerged as statistically significant in our study. We feel that this is overwhelming evidence of racially based parametric invariance among slope parameters.] And although many of the significant effects were small, a number of differences between slope values were appreciable (i.e., in the .10 to .20 range). These analyses demonstrated that although the overall structure of the models did not differ as a function of race (i.e., revealing structural invariance across models), differences in the magnitude of path coefficients were clearly evident (i.e., revealing parametric invariance).

In sum, looking across the three models shown in Figure 3, six of the seven a priori hypotheses for path coefficients were supported for each of the three groups. The one hypothesis not confirmed for any of the groups involved the link between future time perspective and financial knowledge. Moreover, among control variables, age was found to be inversely related to SWLR scores for Blacks and Whites, however, the magnitude of these effects were quite small. [Based on the 40-year age range of the sample, one additional analysis was carried out to explore the possibility of interactions between age and race in relation to SWLR scores. However, age-based comparisons involving all three groups failed to suggest younger and older individuals differed in terms of their anticipated late-life satisfaction.] Beyond hypothesized effects, two nonhypothesized pathways emerged for all three groups—a link between future time perspective and SWLR, and a second link between goal clarity and SWLR. Finally, as pointed out above, appreciable differences were observed in the magnitude of beta weights for a number of parallel paths across racial groups.

**Table 4. Results of Beta Weight Comparisons Across Races for Parallel Paths Shown in the Observed Models**

Hypothesis	Path	Blacks Vs Asians	Blacks Vs Whites	Asians Vs Whites
H1	Financial planning activities → Expected satisfaction with life in retirement	0.12**	0.16**	0.04*
H2	Financial knowledge → Expected satisfaction with life in retirement	0.13**	0.03	0.10**
H3	Financial knowledge → Financial planning activities	0.04*	0.10**	0.14**
H4	Retirement goal clarity → Financial planning activities	0.03*	0.08**	0.06**
H5	Retirement goal clarity → Financial knowledge	0.04*	0.02	0.06**
H6	Future time perspective → Financial knowledge	0.04**	0.05**	0.09**
H7	Future time perspective → Retirement goal clarity	0.08**	0.02	0.06**
	Retirement goal clarity → Expected satisfaction with life in retirement	0.15**	0.03*	0.18**
	Future time perspective → Expected satisfaction with life in retirement	0.02	0.12**	0.10**

Note. Values in the table represent differences in standardized beta weights between groups.

\* $p < .05$ . \*\* $p < .01$ .

## DISCUSSION

The goals of this study were to determine whether anticipated satisfaction with life in retirement differs across races, and to the extent that it does, whether differences exist in the psychological dimensions that underlie individuals' perceptions of the future. Both conceptual objectives revealed intriguing empirical effects. The data clearly demonstrated that individuals' perceived future life satisfaction differed as a function of race, and those perceptual differences stem from a set of psychological individual difference dimensions previously shown to be predictive of retirement planning practices (cf., Earl, Bednall, & Muratore, 2015; Hershey et al., 2007, 2010; Petkoska & Earl, 2009). These findings make a unique contribution to the retirement literature by demonstrating group differences that covary with an understudied demographic dimension—race.

Before recounting the observed findings, it is again worth considering the context in which Blacks, Whites, and Asians live out their lives in the United States. As pointed out in the introduction, across multiple objectively defined life dimensions (e.g., unemployment rate, home ownership rate, median household income, life expectancy) Blacks have been found to fare more poorly than Whites. More subtle differences in quality of life dimensions have been observed between Whites and Asians, with some dimensions favoring Whites (e.g., college completion rates; home ownership rates; median household wealth) and others favoring Asians (e.g., annual household income; life expectancy). These documented differences between races allowed for a clear set of a priori hypotheses that characterize how members of the three groups could expect to view their retirement experience. With those differences serving as a backdrop for the study findings, we now turn to a description of how members of the three groups viewed their future retirement quality of life, and in a subsequent section, the psychological and behavioral predictors of expected retirement satisfaction.

### Findings Regarding Anticipated Satisfaction With Life

Analysis of SWLR scores revealed that an overwhelming majority of individuals in all three groups envisioned being satisfied with their lives during retirement. However, the data also suggest that Blacks and Asians saw a more optimistic outcome for themselves than Whites. Group differences were further magnified when the focus was on

the percentage of individuals who disagreed or strongly disagreed with the notion that they would have a satisfying retirement. From that perspective, nearly twice the percentage of Whites envisioned a negative life outcome compared with Asians and Blacks. The mean score comparisons reported in Table 3 for the SWLR scale mirrored the group differences found among the percentages reported, with no difference in anticipated life satisfaction between the means of Blacks and Asians, but the mean scores for both of these groups were significantly larger than the mean SWLR score for Whites.

Group differences in mean SWLR scores described in the preceding paragraph could not be attributed to preexisting group differences in either financial knowledge or financial planning activities, as neither of these dimensions were found to differ across groups. However, both retirement goal clarity and future time perspective revealed group-based mean differences, with Whites reporting lower levels of goal clarity and a more present orientation than members of the other two groups. Group differences in these cognitive (goal clarity) and personality (future time perspective) dimensions were evident not only in the race-based planned comparisons for these variables, but also in the conceptually parallel ANCOVA model that took into account preexisting group differences in demographic variables by examining estimated marginal means. [To ensure that the differences in SWLR as a function of race were not due to preexisting differences in future time perspective and retirement goal clarity (both IVs revealed differences between racial groups), a hierarchical regression was computed. Specifically, SWLR was regressed on time perspective and goal clarity in step one, and in the second step race-based dummies were entered for Blacks and Asians (using Whites as the baseline). After the first-level IVs were entered into the model, the dummies for both Blacks and Asians emerged as statistically significant at the .05 level. This suggests that racial differences in SWLR scores exist, even after controlling for IVs that revealed initial racial effects.] Findings from the path analysis models provide converging evidence for a particularly strong association between goal clarity scores and SWLR, with the magnitude of beta weights between these two variables in the 0.51 to 0.69 range. In fact, the (nonhypothesized) impact of goal clarity scores on SWLR scores were some of the strongest effects seen across all three models.

The race-based pattern of effects that emerged for anticipated SWLR—particularly the effect showing that Blacks envision a more

optimistic life outcome for themselves relative to Whites—stands in stark contrast to multiple studies reported in the literature that have shown Whites have higher levels of actual life satisfaction than Blacks (e.g., Barger et al., 2009; Krause, 1993; Skarupski et al., 2013). Interestingly, only one study could be identified that examined life satisfaction scores between Blacks and Whites *prospectively* (5 years into the future). That investigation revealed Blacks' life satisfaction scores were superior to those of Whites' (Graham & Pinto, 2017). These authors conceptualized Blacks' future life satisfaction as a case of optimism; in their article these authors wrote: "After controlling for individual characteristics, African Americans are by far the most optimistic, while Whites and Asian Americans are the least optimistic, and these differences are largest among low-income groups" (2017, p. iv). Graham and Pinto concluded that Blacks' optimism (relative to Whites) stemmed from a reduction in the wage gap between Blacks and Whites that has occurred since 1970s, as well as a reduction in educational disparities that occurred in that same time frame. Presumably, these disparities became smaller following the civil rights movement of 1960s, which brought to light significant inequalities between Blacks and Whites. In that same investigation, Asians were found to be somewhat less likely to envision high levels of satisfaction in their future relative to Whites, which is inconsistent with the finding from the present study. In this investigation, Asians reported higher anticipated retirement satisfaction scores than Whites.

Beyond positing an individual difference explanation for racial differences in SWLR scores, it is possible to look to the basic cognitive processes associated with (image theory) visualization to gain a fuller understanding of why SWLR scores may have differed across races. When activating the schemata necessary to carry out a minds-eye simulation of what life will be like in retirement, individuals have to imagine not only the socioenvironment in which they will live, but also the nature of the life tasks they will face. Implicit in that visualization process is a comparison to one's current life tasks and environment, thereby allowing for a *relative* evaluation of quality of life. Considering respondents' judgments from that perspective, it becomes clearer why the groups' satisfaction with life scores may have differed the way they did.

Relative to Whites, American Black preretirees face numerous sociocultural challenges and quality of life impediments, including job disparities, pay inequities, and institutionalized forms of discrimination that effectively limit opportunities for advancement. That being the case, when a Black individual looks to retirement, many of the (present) factors that diminish current quality of life could conceivably be lessened. Job disparities are either removed or attenuated in an environment in which there is, for most, no formal employment. And it would seem that forms of institutionalized discrimination at the macro (i.e., societal) and meso (i.e., organizational) level would also lessen, once individuals divorce themselves from the social institutions associated with full-time employment in favor of an increasingly self-selected lifestyle. Further, it is well documented that Black families in the United States tend to be particularly supportive of retired family members, viewing filial support for parents more positively than Whites (Lee, Peek, & Coward, 1998; Rimer, 1998; Roth, Dilworth-Anderson, Huang, Gross, & Gitlin, 2015). Indeed, the possibility of Graham and Pinto's (2017) "optimism" taking place among Blacks when they envision their future retirement, due in part to changes in the quality of life

factors described above, could be a contributing factor for why Blacks' mean SWLR scores were larger than those of Whites'.

Near the turn of the 20th century, Asians Americans faced discrimination in the United States as did Blacks. However, between 1940 and 1970, the stereotype of Asian Americans was changing, with newspapers often glorifying them as hard-working, industrious, and law-abiding citizens (Guo, 2016). Negative attitudes toward Asians Americans continued to change since that time, which resulted in increased educational and employment opportunities, a reduction in the wage gap to the point where they were at parity with Whites, and an average household wealth level that was well above that of Blacks. According to Wu (2013), Asian Americans became the "model minority" group. Those factors, combined with generally good health in retirement (relative to members of other races), prolonged longevity, and strong family support mechanisms in place to care for retired elders, set the stage for a positive impression of future satisfaction with life in retirement. Indeed, the high SWLR scores seen among Asians in this study could conceivably be not a case of optimism, as it is with Blacks, but instead a case of a continuation of what amounts to a high preretirement quality of life.

Although the foregoing interpretation of racial differences in SWLR scores based on image theory considerations is admittedly speculative, further research would seem warranted that examines disparities between anticipated and actual satisfaction with life scores (i.e., systematic group biases in SWLR scores), and the reasons why they may exist.

### Determinants of Anticipated Satisfaction With Life

A major goal of this study was to identify individual difference dimensions that underlie anticipated life satisfaction in retirement. Toward that end, three path analysis models were estimated that included as predictors both psychological variables and demographic individual difference dimensions. And although the demographic dimensions were found to play a small role in predicting future life satisfaction, the psychological indicators proved to be potent predictors of SWLR for members of all three groups.

Looking across the three models shown in Figure 3, one notices clear evidence of structural invariance, but a lack of parametric invariance. In the path analysis context, structural invariance holds in instances in which the variables and pattern of significant paths found across models fail to differ appreciably. That was indeed the case for Blacks, Whites, and Asians, as witnessed by the structural similarities seen across models. Parametric invariance, in contrast, is said to occur in instances in which the observed slopes across models fail to differ, which was not the case in this investigation. In fact, as seen in Table 4, 23 of the 27 slope comparisons across groups revealed significant effects. Taken together, these two broad findings suggest that the set of psychological mechanisms that underlie perceptions of future life satisfaction were comparable for the three races, but the relative import of the predictor sets differed. Further indirect evidence of parametric invariance is reflected in the explained variance estimates observed for constructs across groups. Notably, relative to Whites, the explained variance for SWLR was some 25% higher for Blacks and Asians. For Asians, this difference in explained variance stemmed largely from the strong observed link between retirement goal clarity and SWLR, and for Blacks, it resulted from a particularly strong link between financial

planning activities and SWLR. This is not to say that goal clarity and financial planning scores were larger or more important, on average, for Asians and Blacks, respectively, but rather, that the bivariate relationships between these two predictors and SWLR were more lawful in the context of the path model.

### Theoretical Implications

From a theoretical perspective, the findings from the path model analyses serve to replicate certain relationships seen in the psychological model advanced by *Gutierrez and Hershey (2014)*. Specifically, the path models depicted in their article revealed that both financial knowledge and future time perspective were critical psychological dimensions underlying SWLR scores. The observed models in this investigation replicate those two effects, but further contribute to the literature by revealing that one's engagement in financial planning activities and one's level of retirement goal clarity also play a key role in determining one's vision of the future. In fact, these two variables (goal clarity and planning activities) produced some of the strongest effects when it came to prediction of SWLR. Moreover, the effects involving the relationship between goal clarity and SWLR are consistent with previous motivational studies that have shown one's long-range goals serve to shape expectations of the future (*Austin & Vancouver, 1996*).

The findings from this study also support the theoretical assumptions outlined by Beach and his colleagues' in their formulation of image theory (*Beach, 1998; Beach & Mitchell, 1987*). According to that psychomotivational model, long-range views of life satisfaction (i.e., the trajectory image) set the stage for the types of goals that will be set and behaviors that will be carried out (i.e., the strategic image). This is true as long as those goals and behaviors are internally consistent with the individual's view of their own values and beliefs (i.e., the value image). In this study, respondents' retirement goal clarity (a marker of the strategic image) was particularly strongly related to expectations of satisfaction with life in retirement. This provides theoretical support for the notion of a particularly strong relationship between the trajectory image and the strategic image. This observed link between the trajectory and strategic images was most pronounced for Asians, but the relationship was still strong for Blacks and Whites.

Further evidence for the underlying principles of image theory was found in the moderately strong links between financial planning activities—an element of the strategic image—and anticipated satisfaction with life in retirement. This effect was observed for members of all three groups, although it was strongest for Blacks. This observed relationship also supports *Krause's (1993)* and *Barbosa and colleagues' (2016)* conclusion regarding the critical role finances and financial security play when it comes to structuring perceptions of life satisfaction. Finally, it is worth noting that future time perspective—a proxy indicator for the value image—had both direct and indirect influences on SWLR, which is also consistent with the fundamental propositions of image theory.

### Applied Implications

Applied implications can be inferred from both similarities and differences found among the three racial groups. One similarity was that in all three groups, goal clarity was the strongest direct predictor of expected life satisfaction; the implication of this is that increasing individuals' goal clarity should be a priority for those who advise

others about retirement. Moreover, the remaining three variables in the models were significant predictors in all three groups, which means that guiding individuals to practice taking a long-term perspective, increasing their financial knowledge, and motivating them to carry out financial planning tasks are all good applied strategies for increasing engagement (*Báčová, Dudeková, Kostovičová, & Baláz, 2017*).

Another similarity was that expected life satisfaction levels were squarely in the moderate range for members of all three racial groups. In light of the fact that many people struggle to plan and save for retirement, this finding is optimistic because professionals could use perceptions of expected life satisfaction as an avenue to help individuals set strategic goals (*Mikelman, 1981*). For example, individuals might struggle with setting savings goals if they lack a clear vision of the goals they hope to achieve during retirement. But, if individuals have moderate to high expectations of life satisfaction in their future retirement, they should be able to identify the types of things that would lead to a satisfying life—perhaps frequent travels to visit long distance family members—and then use that determinant of satisfaction to guide current savings goals (e.g., save enough to take annual trips to New York, California, and Pennsylvania).

Numerous differences were observed in the magnitude of the beta weights among members of the three racial groups. The parametric invariance observed in the magnitude of beta weights has been observed in other demographically dissimilar groups, such as between younger and older individuals (*Hershey, Hènkens, & Van Dalen, 2010*), and between men and women (*Grace, Weaven, & Ross, 2010*). Retirement counseling professionals could apply these findings to decide which dimensions of retirement planning are most likely to influence individuals of the particular races, ages, et cetera. In the long run, professionals could potentially be able to develop programs and advising objectives that cater to the unique needs of members of different demographic groups.

### Limitations and Future Directions

This study is not without its limitations. One limitation involved the sampling method that was used to obtain participants. The self-selection by respondents in the MTurk worker pool and their unique demographic characteristics could have contributed to some unknown form of response bias that colored the observed findings. Perhaps in future investigations, a more representative sampling approach could be adopted. A second limitation involved the broad specificity of the race construct. Racial groups such as Blacks, Whites, and Asians each represent multiple subgroups that can differ markedly depending on individuals' country of origin, ethnic background, and cultural milieu. Perhaps future research could begin to investigate how subgroups of Black, White, and Asian working adults from different national, cultural, and ethnic backgrounds perceive their future retirement satisfaction.

A third limitation involved an exclusive reliance on psychological predispositions as determinants of future life satisfaction. The path models tested could likely be enhanced by examining subjective life expectancy and anticipated retirement age as determinants of perceptions of future well-being. Also, by incorporating elements reflecting life-course development (*Elder & Johnson, 2002*) into the predictor set, it could be beneficial to examine how experiences individuals have before retirement (e.g., work role status; social support mechanisms;

health shocks, physical job demands, and physical health) shape racial differences in individuals' perceptions of well-being in the postemployment period (Damman, Hènkens, & Kalmijn, 2015). In terms of future studies, when examining the role of prior experiences on perceptions of the future, a longitudinal or cross-lagged design would be preferred over the cross-sectional approach used in this investigation. Use of a more sophisticated methodological approach would also allow for the elimination (or identification) of the magnitude of common method bias operating, and/or reverse causality in the path models.

In addition to the limitations identified above, the literature would stand to benefit from studies that explore linkages between one's current life satisfaction and anticipated future retirement satisfaction. By controlling for (current) baseline satisfaction levels, it should be possible to identify developmental continuities in perceptions of life satisfaction and wellbeing. It might also be beneficial to delve deeper into the attitudes and beliefs that underlie perceptions of retirement wellbeing, and how those attitudes and beliefs differ as a function of age. We found little in the way of evidence for age effects in this investigation (based on a global indicator of subjective wellbeing), but that does not mean that the content or clarity of younger and older adults' thoughts were equivalent when envisioning the future.

### CONCLUSION

In sum, the findings from the three path models help explain why it is that Blacks, Whites, and Asians envision different retirement quality of life outcomes. This understanding of the role of psychological determinants of SWLR—notably, the role of retirement goal clarity and financial planning activities—makes a unique contribution to the literature on racial differences in life satisfaction. Whereas it is well established that there exist differences in life satisfaction across races (Barger et al., 2009; Choi & Chentsova-Dutton, 2017; Gallup, 2013; Skarupski et al., 2013), this investigation provides a clearer picture of why those differences exist.

From an applied motivational perspective, it is important for working adults to cultivate a positive impression of future retirement well-being and quality of life. Doing so should help to stimulate not only key goal-setting behaviors consistent with an adaptive trajectory image (Beach, 1998), but also strategic instrumental behaviors that lead toward goal attainment (Austin & Vancouver, 1996). With this in mind, we would suggest that retirement counselors, financial advisors, and human resource professionals could benefit from developing programs and advising objectives that cater to the unique needs of members of different racial groups. Toward that end, the models presented in this article should help to shine a light on the subset of psychological dimensions financial advisers and retirement practitioners might profitably explore when developing interventions for members of different racial groups.

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## APPENDIX A

## Items from the Five Scales in the Investigation and Their Source

- Satisfaction with life in retirement (Gutierrez & Hershey, 2014)*
- SWLR1. I expect that in retirement my life will be close to ideal.
- SWLR2. Once I enter retirement, the conditions of my life will be excellent.
- SWLR3. After I retire, I will be satisfied with life.
- SWLR4. After I retire, I will have gotten the important things I wanted in life.
- Financial planning activities (Hershey et al., 2007)*
- FPA1. I have tuned into TV/radio shows on investing or financial planning.
- FPA 2. I have read brochures/articles/books on investing or financial planning.
- FPA 3. I have visited investing or financial planning sites on the World Wide Web.
- FPA 4. I have gathered or organized my financial records.
- FPA 5. I have assessed my net worth.
- FPA6. I have identified specific spending plans for the future.
- Financial knowledge (Jacobs-Lawson & Hershey, 2005)*
- FK1. I know a great deal about financial planning for retirement.
- FK2. I have informed myself about financial preparation for retirement.
- FK3. I know more than most people about retirement planning.
- Retirement goal clarity (Stawski et al., 2007)*
- RGC1. I have set clear goals for gaining information about retirement.
- RGC 2. I have thought a great deal about my quality of life in retirement.
- RGC 3. I have set specific goals for how much will need to be saved for retirement.
- RGC 4. I have a clear vision of how life will be in retirement.
- RGC 5. I have discussed retirement plans with a spouse, friend, or significant other.
- Future time perspective (Jacobs-Lawson & Hershey, 2005)*
- FTP1. I enjoy thinking about how I will live years from now in the future.
- FTP2. It is important to take a long-term perspective on life.
- FTP3. I look forward to life in the distant future.
- FTP4. My close friends would describe me as future oriented.
- FTP5. I like to reflect on what the future will hold.

Note: Item numbers in this table correspond to item numbers shown in the measurement model (Figure 2).

## APPENDIX B

TECHNICAL APPENDIX: ANALYSIS OF  
COVARIANCE RESULTS FOR MAJOR  
CONSTRUCTS

A set of five race-based analysis of covariance (ANCOVA) models were computed for future time perspective, retirement goal clarity, financial knowledge, financial planning activities, and expected satisfaction with life in retirement. For each ANCOVA, age, gender, household income, years of education, and marital status (dichotomized) were used as covariates. Main effects were then compared for estimated marginal means. The adjusted mean scores, as well as the results of the main effect comparisons, are shown below.

**ANCOVA Results Showing Means and Standard Errors  
(in Parentheses) for the Variables Shown in Table 3, Using  
Demographic Indicators as Covariates.**

Variable	Blacks ( <i>n</i> = 301)	Asians ( <i>n</i> = 269)	Whites ( <i>n</i> = 300)
Future time perspective	4.00 <sup>a</sup> (.043)	3.86 <sup>b</sup> (.046)	3.77 <sup>b</sup> (.043)
Goal clarity	3.59 <sup>a</sup> (.050)	3.61 <sup>a</sup> (.054)	3.43 <sup>b</sup> (.051)
Financial knowledge	3.26 <sup>a</sup> (.055)	3.17 <sup>a</sup> (.059)	3.11 <sup>a</sup> (.055)
Financial planning activities	3.50 <sup>a</sup> (.050)	3.40 <sup>ab</sup> (.054)	3.36 <sup>b</sup> (.050)
Expected satisfaction with life in retirement	3.61 <sup>a</sup> (.047)	3.51 <sup>a</sup> (.051)	3.34 <sup>b</sup> (.058)

*Note.* Means with the same superscript across rows are *not* significantly different from one another. Due to a technical error, data for the marital status dimension were not collected for 141 individuals (16% of the sample). Therefore, to maintain full ranks in the ANCOVA, group-specific means for this variable were imputed in instances where it was missing (i.e., a dichotomized marital status mean score specific to each race was imputed).

Relative to the effects shown in Table 3—which revealed five significant *t*-test effects among the 15 tests conducted—two additional significant outcomes were observed in the table in Appendix B showing estimated marginal means. A close comparison of the effects shown in Table 3 and the table in Appendix B reveal that adjusting mean scores based on demographic indicators in the ANCOVA made very little difference in terms of the overall pattern of outcomes.