

Rethinking the Differential in Precautionary Savings between Black and White Americans

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Abstract

This study investigates the differences in precautionary savings between black and white Americans using the theories of reasoned action and individualism and collectivism. A sample of 626 participated in the survey - 229 blacks and 397 whites. Study finds the reason for difference in savings between the groups is due to the influence of individualism and collectivism, which affects the saving decisions of the groups. While subjective norm and attitude affects saving behavior regardless of race, behavioral intent mediates the effects of both toward saving behavior. Attitude moderates the effect of individualism on saving behavior while subjective norm moderates the effect of collectivism on saving behavior. Blacks are highly different in collectivism compared to whites. Therefore, the influence on subjective norm and attitude and the relationship in moderation affects saving decisions differently between the groups, hence a difference in the precautionary savings behavior and outcome between blacks and whites.

Keywords: Precautionary savings, Attitude, Subjective norm, Individualism, Collectivism

1. Introduction

The difference in precautionary savings between black and white Americans has generated an increasing level of discussion over the years among policy makers and stakeholders, including scholars in research studies. According to Blau and Graham (1990), only about 25 percent of the wealth gap between blacks and whites can be attributed to racial differences in income and demographic variables. Blau and Graham and Terrell (1971) found that there are still differences in wealth between blacks and whites even after controlling for demographics. Blau and Graham states, “our results indicate that even if society were successful in eliminating all the disadvantages of blacks in terms of their lower incomes and adverse location and demographic characteristics, a large portion of the wealth gap—78 percent—would remain” (Blau and Graham, 1990, p. 332). The authors found this racial difference to be due to inheritance and other intergenerational transfers among blacks and whites and lack of a vision of the future among blacks.

Terrell also found that the past history of blacks regarding wealth accumulation affects their current economic status. He argues that this has become part of blacks’ way of life and thus concluded that “economic equality for black families will not be achieved when the current annual income gap between black and white families is eliminated because of the considerable wealth gap that will remain as legacy of economic deprivation” (Terrell, 1971, p. 377).

2.

This paper postulates that this differential is not only due to differences in demographic variables but also due to differences in personal attitudes and sub-culture subjective norms, individualism and collectivism concerning precautionary saving decisions. The theory of reasoned action as proposed by Ajzen and Fishbein (1980) provides a theoretical base for this paper. The theory posits that individual beliefs form the attitude and subjective norms. The favorable or unfavorable attitude and subjective norm determine the behavioral intention and consequently lead to a target behavior.

“Intentions are assumed to capture the motivation factors that influence a behavior; they are indications of how hard people are willing to try or how much an effort they are planning to exert in order to perform the behavior” (Ajzen, 1991, p. 181). For blacks and whites in this study, the argument is that the intention to save are influenced by attitude and subjective norm. Blacks and whites have the same beliefs but hold them with different strengths. While they may believe the same things to be true, they may hold these beliefs with different levels of confidence. The groups have similar beliefs and hold them with similar strength, but put different weight on personal attitudes and subjective norms in determining their savings behavior. Belief refers to a person’s subjective probability judgments concerning some discriminating aspect of his world; it deals with a person’s understanding of himself and his environment (Fishbein and Ajzen, 1975, p. 131). In this paper, it refers to both the behavioral and normative aspects of belief as it relates to precautionary savings. Behavioral belief regarding savings is subjected to evaluation and outcome in consequences.

H1a The strength of behavioral belief of blacks and whites is different regarding savings

H1b The strength of normative belief of blacks and whites is different regarding savings

Another way in which personal attitudes and subjective social norms could differentially influence precautionary savings is that the personal attitude or the norms for the two groups could be different. The posit is that the two groups could either hold different personal attitudes toward savings or respond to different subjective norms about savings and these differences in belief lead to different behaviors. Attitude is defined as a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor (Eagly and Chaiken, 1993).

Conversely, subjective norm is a normative-based cognition and represents the person’s evaluation of whether significant others want him or her to engage in the target behavior and, in turn, his or her motivation to comply with these others’ desires (Hagger et al., 2002, p. 4). In this case, blacks and whites may be responding to different subjective norms about precautionary savings and this may lead to these differences in savings decisions. From the theory of reasoned action, subjective norms are based on salient beliefs that are normative. Therefore, there may be differences between blacks and whites if both are responding to different norms and if these norms’ views of precautionary savings are different.

H2a Personal attitude of blacks and whites is different regarding precautionary savings decisions

H2b Subjective norm of blacks and whites is different regarding precautionary savings decisions

Finally, one more way in which personal attitudes and subjective social norms could differentially influence precautionary savings is that blacks and whites have similar beliefs and hold them with similar strength, but put different weight on personal attitudes and subjective norms in determining their savings behavior. Conversely, like the attitude, subjective norms are based on salient normative beliefs of what the significant people to the respondent think he or she should do regarding the action in question (Kalafatis and Pollard, 1999, p. 443). So, it is likewise possible for there to be differences in saving behavior even if all beliefs are similar and held with similar strength, if there is a difference in the weight given to subjective norms in the determining of precautionary saving behavior.

H3a Blacks and whites have similar beliefs and strengths regarding savings but the influence of personal attitudes differs for different groups; the influence places different weight on the effect on saving behavior.

H3b Blacks and whites have similar beliefs and strengths regarding savings but the influence of personal attitudes differs for different groups; the influence places different weight on the intention to save.

H4a Blacks and whites have similar beliefs and strengths regarding savings but the influence of social norms differs for different groups; the influence places different weight on the effect on saving behavior.

H4b Blacks and whites have similar beliefs and strengths regarding savings but the influence of social norms differs for different groups; the influence places different weight on the intention to save.

Behavioral intention in precautionary savings as it relates to blacks and whites could be a consequence of how favorable or unfavorable are the subjective norm and person’s attitude. Thus, “the theory of reasoned action (TRA) hypothesizes that an individual’s stated intention to engage in a given behavior is the most immediate predictor of that behavior” (Ajzen and Fishbein, 1980).

Therefore, saving intention is defined in this study as an indicator of what decision individual blacks or whites will likely make regarding engaging in precautionary saving and the motivation to do so. Thus, how favorably behavioral saving intention is for blacks and whites would likely to depend on personal attitude and subjective norms.

H5 The intention to save mediates the effect of personal attitude and subjective norm on saving behavior.

Providing further explanation for this difference is the concept of individualism and collectivism, which has the implication of culture as it relates to blacks and whites. Individualism is defined as “a social pattern that comprises loosely linked individuals who view themselves as independent of collectives and are primarily motivated by their own preferences, needs, and rights and the contracts they have established with others” (Hui and Villareal, 1989; Triandis, McCusker, and Hui, 1990; Triandis, 1990, 1995). Conversely, collectivism is defined as a “close linkage among individuals who see themselves as parts of one or more collectives and are primarily motivated by the norms and duties of those collectives, emphasizing connectedness with other members of the collectives” (Durkheim, 1949; Singelis, 1994; Triandis, 1990, 1995). Moreover, Oyserman et al. (1995) in their study of socially contextualized identity and school performance found blacks to be collectivists and whites to be individualists. Therefore, if blacks and whites are collectivists and individualists, respectively, and if collectivists are more likely to be influenced by their subjective norms than individualists, then blacks should be more influenced by social norms than whites. Conversely, if individualists are more likely to be influenced by personal attitudes than collectivists, then whites should be more influenced by attitude than blacks.

H6a Whites are more individualists than blacks

H6b Blacks are more collectivists than whites

H7a Individualists are influenced more than collectivists by attitude

H7b The influence of personal attitude on individualism affects the intention to save of blacks and whites, hence the difference between the two in precautionary saving outcome

H7c The influence of personal attitude on individualism affects saving behavior of blacks and whites, hence the difference between the two in precautionary saving outcome

H7d The influence of subjective norm on individualism affects intention to save of blacks and whites, hence the difference between the two in precautionary saving outcome

H7e The influence of subjective norm on individualism affects saving behavior of blacks and whites, hence the difference between the two in precautionary saving outcome

H8a Collectivists are influenced more than individualists by subjective norm

H8b The influence of subjective norm on collectivism affects saving behavior of blacks and whites, hence the difference between the two in precautionary saving outcome

H8c The influence of subjective norm on collectivism affects intention to save of blacks and whites, hence the difference between the two in precautionary saving outcome

H8d Collectivism is influenced by personal attitude

H8e The influence of attitude on collectivism affects saving behavior of blacks and whites, hence the difference between the two in precautionary saving outcome

H8f The influence of attitude on collectivism affects intention to save of blacks and whites, hence the difference between the two in precautionary saving outcome

Precautionary savings is the dependent variable and it is described here as the percentage of income an individual puts in an approved financial instrument for the purpose of future consumption. These include money invested in a savings portfolio, retirement accounts, and other qualified and non-qualified plans. This becomes the precautionary savings behavior.

3. Factor Analysis and Reliability Estimates

Factor analysis was conducted with all items together that produced eight factors after trimming for cross loadings. The results in Table 1 show the factor loadings and reliability estimates for this study.

Table 1: Reliabilities, Factor Loadings, and Factor Correlations (Maximum Likelihood with Promax Rotation)¹

	Factor number	1	2	3	4	5	6	7	8
Factor 1 Collectivism									
Col2	don't feel successful unless helped others	0.53							
Col3	want opportunity to give back	0.79							
Col4	I am the type who lends a helping hand	0.80							
Col5	I consider myself a team player	0.63							
Col6	feels great to know others can count on me	0.65							
Col7	my heart reaches out to those less fortunate	0.71							
Col8	willing to share my ups and downs to help	0.62							
Factor 2 Attitude									
Att1	saving will ease financial burden in the future		0.89						
Att2	saving will help meet desirable retirement		0.89						
Att3	saving means no dependence on family		0.65						
Att4	there will be consequences for not saving		0.61						
Att5	will be hard to live later w/o adequate savings		0.65						
Factor 3 Individualism									
Indi1	I am a unique person different from others			0.42					
Indi2	I am not to be blamed for others misfortune			0.51					
Indi3	I feel that I'm the master of my own fate			0.57					
Indi5	I must first feel comfortable about myself			0.40					
Indi6	"pull-up-your-bootstraps" makes sense			0.64					
Indi7	I know myself better than anyone else			0.56					
Indi8	I see nothing wrong with self-promotion			0.54					
Factor 4 Subjective norm - referent friends, family, and others									
SN23	will meet the expectations of friends				0.96				
SN24	will meet the expectations of family members				0.81				
SN25	will meet the expectations of others				0.80				
Factor 5 Subjective norm - referent spouse									
SN2	spouse's opinion is important					0.72			
SN7	spouse thinks I should be saving regularly					0.80			
SN12	would do what spouse thinks I should do					0.75			
Factor 6 Subjective norm - know people who save									
SN28	friends I know save regularly						0.60		
SN29	family members I know save regularly						0.82		
SN30	other people I know save regularly						0.71		
Factor 7 Subjective norm - referent parent									
SN1	parent's opinion is important							0.71	
SN6	parent thinks I should be saving regularly							0.64	
SN11	will do what parent thinks I should do							0.76	
Factor 8 Behavioral intent									
BI1	I intend to save within one year								0.78
BI2	I intend to increase savings in next one year								0.86
Cronbach	α	0.86	0.86	0.74	0.89	0.80	0.76	0.72	0.81

Seven items measure individualism, which examines how individuals perceive their interest over others. Collectivism looks at how individuals perceive the interest of others over their own and this is measured also with seven items. An exploratory factor analysis on individualism and collectivism produced two factors. Loadings were substantive, indicating convergent validity. Also, estimated reliabilities for individualism and collectivism were .74 and .86, respectively.

Twelve items measured subjective norm and loaded on four factors. One factor measures parent as the referent group; another factor measures spouse as a referent group; the third measures those who would meet the expectation of friends, family, and others regarding savings; and the fourth measures those who know friends, family, and others who save regularly.

All twelve items loading were substantive for convergent validity. Estimated reliabilities for the four factors in subjective norm are .89, .80, .76, and .72. Five items measuring attitude loaded substantively indicating convergent validity with an estimated reliability of .86. The two items measuring behavioral intent also loaded substantively and with an estimated reliability of behavioral intent of .81.

The KMO in this study is .82, indicating sampling adequacy with the Bartlett test for sphericity significant at the .000 level. The factor correlation matrix in Table 2 shows the correlation between the factors.

Table 2: Factor Correlation Matrix

Construct	Factor number							
	1	2	3	4	5	6	7	8
1 Collectivism	1							
2 Attitude	0.45	1						
3 Individualism	0.47	0.53	1					
4 Subjective norm - referent friends, family and others	0.09	0.06	0.0	1				
5 Subjective norm - referent spouse	0.20	0.08	0.0	0.2	1			
6 Subjective norm - know people who save	0.19	0.06	0.0	0.4	0.2	1		
7 Subjective norm - referent parent	0.15	0.06	0.0	0.4	0.2	0.3	1	
8 Behavioral intent	0.13	0.27	0.0	0.1	0.1	0.1	0.1	1

Findings

The results in Table 3 show correlations between constructs in the model.

Table 3: Correlations of Study Measurement and Descriptive Statistics N = 626

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Subjective norm	3.63	0.56	1													
2 Attitude	4.37	0.66	0.11**	1												
3 Behavioral Intent	3.77	1.14	0.14**	0.29**	1											
4 Individualism	4.00	0.59	0.05	0.46**	0.12**	1										
5 Collectivism	4.08	0.62	0.24**	0.39**	0.17**	0.39**	1									
6 Racedummy	0.37	0.48	-0.01	0.05	0.04	0.13**	0.17**	1								
7 Racedummy x attitude	1.62	2.17	0.00	0.15**	0.00*	0.17**	0.19**	0.98**	1							
8 Racedummy x subjective norm	1.32	1.78	0.13**	0.06	0.05	0.14**	0.21**	0.97**	0.96**	1						
9 Individualism x attitude	17.70	4.03	0.12**	0.63**	0.25**	0.84**	0.41**	0.11**	0.20**	0.12**	1					
10 Individualism x subjective norm	14.50	3.29	0.73**	0.39**	0.18**	0.71**	0.46**	0.08*	0.11**	0.18**	0.65**	1				
11 Collectivism x attitude	18.00	4.06	0.25**	0.80**	0.29**	0.47**	0.83**	0.14**	0.22**	0.17**	0.73**	0.51**	1			
12 Collectivism x subjective norm	14.9	3.59	0.78**	0.33**	0.20**	0.31**	0.78**	0.10**	0.13**	0.22**	0.36**	0.77**	0.69**	1		
13 Race	2.27	0.96	0.01	-0.05	-0.04	-.13**	-0.17	-1.00**	-0.98**	-0.97**	-0.11**	-0.08*	-0.14**	-0.10**	1	
14 Saving behavior	2.83	1.44	0.11**	0.15**	0.41**	0.02	0.01	0.00	0.00	0.01	0.12**	0.09*	0.10**	0.09*	0.00	1

** Correlation is significant at the 0.01 level * Correlation is significant at .05 level

Subjective norm is positively correlated to attitude $r = .11$ ($p < .01$), behavioral intent $r = .14$ ($p < .01$), collectivism $r = .24$ ($p < .01$), and saving behavior $r = .11$ ($p < .01$). Attitude is positively correlated to individualism $r = .46$ ($p < .01$), behavioral intent $r = .29$ ($p < .01$), collectivism $r = .39$ ($p < .01$), and saving behavior $r = .15$ ($p < .01$). Behavioral intent is positively correlated to individualism $r = .12$ ($p < .01$), collectivism $r = .17$ ($p < .01$), and saving behavior $r = .41$ ($p < .01$).

4. Test of Hypotheses

Hypotheses 1a, 1b, 2a and 2b are not supported as the results in Tables 4 and 5 do not show significant differences between the groups due to race.

Table 4: Test of Mean Differences and Standard Deviation

	Black N = 229			White N = 397		
	Mean	SD	Std Error	Mean	SD	Std Error
Attitude	4.42	0.65	0.04	4.35	0.66	0.03
Subjective norm	3.62	0.63	0.04	3.63	0.51	0.03
Saving Behavior	2.82	1.42	0.09	2.83	1.46	0.07

Table 5: Result of Independent Samples Test

	t-value	df	Sig.
Attitude	1.34	624	0.181
Subjective norm	-0.33	402.45	0.741
Saving Behavior	-0.09	624	0.932

Normative and behavioral beliefs lead to subjective norm and attitude, respectively. In Table 4 the mean of attitude for blacks of 4.42 compared to whites of 4.42 is very close, and the standard deviation of 0.65 for blacks and 0.66 for whites is close as well. Also close are the mean and standard deviation in subjective norm and savings behavior of the two groups. Mean and standard deviation for blacks in subjective norm are 3.62 and 0.63 compared to whites of 3.63 and 0.51. Saving behavior for blacks is a 2.82 mean and a 1.42 standard deviation. Whites with a 2.83 mean and a 4.16 standard deviation show there is not much difference between the two groups in this regard.

Table 5 shows the result of independent sample tests of the groups. This indicates there is no evidence to show that there is difference in the mean of attitude, subjective norm, and saving behavior between the two groups that is due to race. In attitude, t – value = 1.33 ($p = 0.18$); in saving behavior, t – value = -0.09 ($p = 0.93$); and in subjective norm, t – value = -0.33 ($p = 0.74$).

Hypotheses 3a and 3b state that blacks and whites have similar beliefs and strengths regarding savings but the influence of personal attitude differs for different groups; the influence places different weight on the effect on saving behavior and the intention to save, respectively. Hypotheses 4a and 4b state that blacks and whites have similar beliefs and strengths regarding savings but the influence of social norms differs for different groups; the influence places different weight on the effect on saving behavior and the intent to save, respectively. Hypothesis 5 states that the intention to save mediates the effect of attitude and subjective norm on saving behavior. Results are displayed in Tables 6, 7, and 8.

Table 6: Test for Difference in Attitude and Subjective Norm with Racedummy

	B Coefficient	Std. Error
Attitude (DV)		
Racedummy	0.07	0.03
Subjective norm (DV)		
Racedummy	-0.02	0.05

**p<.01 *p<.05

Table 7: Test for Interaction Effect with Racedummy

	1	2	3	4	Mean	SD
	B Coefficient					
Saving Behavior (DV)						
Racedummy	-0.01	-0.04	-0.03	1.46	0.37	0.48
Attitude		0.34**	0.31**	0.41**	4.37	0.66
Subjective norm			0.27*	0.30*	3.63	0.56
Racedummy x attitude				-0.29	1.62	2.17
Racedummy x subjective norm				-0.06	1.32	1.78
Behavioral Intent (DV)						
Racedummy	0.11	0.08	0.08	0.44	0.37	0.48
Attitude		0.50**	0.48**	0.44**	4.37	0.66
Subjective norm			0.23**	0.34**	3.63	0.56
Racedummy x attitude				0.11	1.62	2.17
Racedummy x subjective norm				-0.23	1.32	1.78

**p<.01 *p<.05

Table 8: Test for Mediation Effect of Behavioral Intent

	Model	Std Error
	B Coefficient	
Behavioral Intent		
Behavioral Intent - BI (DV)		
Attitude → BI	0.48**	0.07
Subjective norm → BI	0.23*	0.08
Saving Behavior - SB (DV)		
Attitude → SB	0.31**	0.09
Subjective norm → SB	0.27*	0.10
Saving Behavior - SB (DV)		
Attitude → SB	0.07	0.08
Subjective norm → SB	0.15	0.10
Behavioral Intent → SB	0.50**	0.05

**p<.01 *p<.05

The results in Table 6 show no significant β values for racedummy on attitude and racedummy on subjective norm. This means there is no difference between blacks and whites in subjective norm and attitude due to race. This suggests that blacks and whites have similar strengths and beliefs in this regard. The results in Table 7 show no moderation effect of race, with racedummy x attitude showing non-significant β value of -.29, and racedummy x subjective norm also showing a non-significant β value of -.06, which means there is no direct relationship between race and subjective norm and race and attitude that affects savings behavior.

The results also show there is main effect of attitude and subjective norm on saving behavior with a β value of attitude of .41 ($p < 0.01$) and subjective norm of .30 ($p < 0.05$). This indicates an influence of attitude and subjective norm on saving behavior. This result suggests that there is influence of subjective norm and attitude toward saving behavior. However, this influence is not due to race, which means that subjective norm and attitude affects a person's saving behavior regardless of his or her race.

The results in Table 7 show that behavioral intention to save is also influenced by attitude with .44 ($p < 0.01$) and by subjective norm with .34 ($p < 0.01$). This result suggests that saving decision regarding intent to save is influenced by subjective norm and attitude regardless of the race of the individual.

Attitude is considered the major determinant of behavior and it is a learned behavior that enables people to respond to an object either favorably or unfavorably, hence it can be learned by blacks or whites. Conversely, subjective norm, as explained earlier, is a normative-based cognition and represents the person's evaluation of whether significant others want him or her to engage in the target behavior and, in turn, his or her motivation to comply with these others' desires (Hagger et al., 2002, p. 4). Therefore, its subjective nature and referent expectation are applicable to both blacks and whites.

The results in Table 8 show the mediation effect of behavioral intent on attitude and subjective norm on saving behavior. It shows a full mediation of behavioral intent of attitude and subjective norm with a β value of .50 ($p < 0.01$). According to the theory of reasoned action, behavioral intent mediates the effect of attitude and subjective norm on a behavior. This is true in this study as findings show the mediation of attitude and subjective norm by intent to save regarding saving behavior.

Hypothesis 6a states that whites are more individualists than blacks and hypothesis 6b states that blacks are more collectivists than whites. This result is displayed in Table 9.

Table 9: Test for Difference in Individualism and Collectivism with Racedummy

	B Coefficient	Std. Error	Black		White	
			Mean	SD	Mean	SD
Individualism(DV) Racedummy	0.17**	0.05	4.10	0.54	3.93	0.61
Collectivism (DV) Racedummy	0.22**	0.05	4.22	0.55	4.00	0.63

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

The results in Table 9 show there is a difference between blacks and whites due to race—individualism with .17 ($p < 0.01$) and collectivism with .22 ($p < 0.01$). This suggests that being black or white has a significant relationship with a person's individualist or collectivist view. This means that blacks are different from whites regarding individualism and collectivism. Expressing the equation model with collectivism = a + racedummy and individualism = a + racedummy provides the level of difference between the two regarding the two variables. In collectivism, the value for blacks is 4.22 and whites is 4.00. In individualism blacks show a value of 4.10 and whites have a value of 3.93. These results show significant differences between two groups with blacks more collectivists than whites. However, it does not show that whites are more individualists than blacks.

Hypothesis 7a states that individualists are influenced more than collectivists by attitude. Hypotheses 7b and 7c state that influence of attitude on individualism affects saving behavior and intention to save, respectively. Hypotheses 7d and 7e further state that the influence of subjective norm on individualism affects intention to save and saving behavior, respectively.

Hypothesis 8a states that collectivists are influenced more than individualists by subjective norm. Hypotheses 8b and 8c state that the influence of subjective norm on collectivism affects saving behavior and intention to save, respectively. Hypothesis 8d states that collectivism is influenced by personal attitude. Hypotheses 8e and 8f further state that the influence of attitude on collectivism affects saving behavior and intention to save, respectively. The results on these hypotheses are displayed in Tables 10 and 11.

Table 10: Test for Effect of Individualism and Collectivism

	B	Coefficient	Std. Error
Attitude (DV)			
Individualism	0.40**		.04
Collectivism	0.26**		.04
Subjective norm (DV)			
Individualism	-0.05		.04
Collectivism	0.24**		.04

**p<.01 *p<.05

Table 11: Test for Interaction Effect with Individualism and Collectivism

	B Coefficient				
	1	2	3	4	5
Saving Behavior (DV)					
Individualism	0.06	0.05	-0.12	-0.10	-0.49
Collectivism		0.01	-0.10	-0.18	-0.62
Attitude			0.42**	0.41**	-0.02
Subjective norm				0.30*	-0.18
Individualism x attitude					0.36*
Individualism x subjective norm					-0.33
Collectivism x attitude					-0.24
Collectivism x subjective norm					0.45*
Behavioral Intent (DV)					
Individualism	0.24*	0.13	-0.06	-0.05	0.20
Collectivism		0.27*	0.14	-0.09	-0.46
Attitude			0.48**	0.47**	-0.11
Subjective norm				0.21*	0.46
Individualism x attitude					0.14
Individualism x subjective norm					-0.22
Collectivism x attitude					0.02
Collectivism x subjective norm					0.15

**p<.01 *p<.05

The results in Table 10 show that attitude and subjective norm are influenced differently by individualism and collectivism. Attitude is influenced by individualism by .40 ($p<.01$) and collectivism by .26 ($p<.01$). Subjective norm is more influenced by collectivism by .24 ($p<.01$) and no significant influence by individualism. This suggests that collectivists take more subjective norm views regarding saving than individualists. They respond more to the norm in their environment regarding saving than individualists and have referent expectation in this regard as well. They have less personal attitude toward saving compared to individualists. The consequence is the residual effect of subjective norm about savings and personal attitude toward saving.

This finding also suggests that individualists subscribe more to personal attitude toward savings than collectivists, and they do not share the collectivist view of subjective norm as a result of no significant value on their subjective norm.

The results in Table 11 show the interaction effects of individualism and collectivism of attitude and subjective norm on saving behavior. These results show attitude moderates individualism on saving behavior by .36 ($p<.05$). Subjective norm moderates collectivism on saving behavior by .45 ($p<.05$). This suggests that there is a relationship between attitude and individualism that reflects the saving behavior. This finding also suggests that there is a relationship between subjective norm and collectivism that impacts saving behavior. However, the nature of these effects on individualism and collectivism depends on the level of attitude and subjective norm, respectively. So a person high in personal attitude toward savings will possess a different outcome in individualism and saving behavior compared to someone with low personal attitude toward savings.

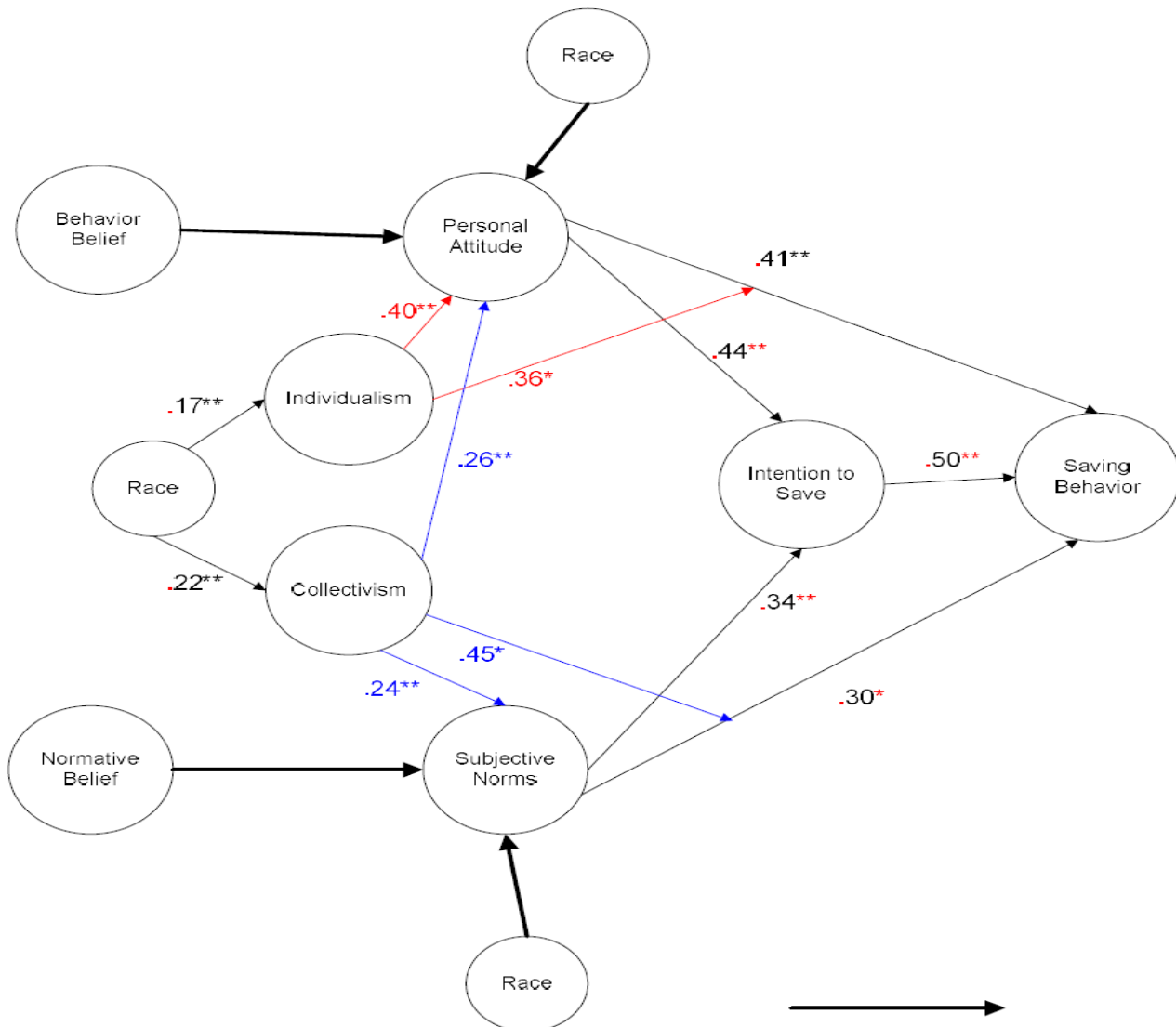
Similarly in subjective norm, a person high on subjective norm will have a different view on collectivism compared to a person who is less affected by subjective norm. Race influences individualism and collectivism differently, hence the outcome of moderation will vary between the two groups and consequently affect their saving decisions differently. Moreover, blacks are higher in collectivism than whites; the influence and relationship with subjective norm affects the two groups differently, hence the different saving decision and outcome. Since blacks are higher in collectivism, which is moderated by subjective norm, the result is less favorable saving behavior compared to whites and the difference in precautionary saving outcome between the two groups.

5. Conclusions

This study concludes that the reason for the difference in precautionary savings between blacks and whites is the influence of individualism and collectivism between the two groups. Individualism and collectivism influence the personal attitude toward saving and the subjective norm about savings differently. Since blacks are more collectivists than white, this influence affects the savings decisions of both groups differently, hence the saving behavior and difference in precautionary saving outcome. Behavioral intent to save mediates the effect of attitude and subjective norm toward saving behavior. Therefore, the more favorable the subjective norm and attitude are toward intention to save, the more the favorable the intention and precautionary saving behavior. Blacks are highly different from whites in collectivism but this study does not show that whites are more in individualism. Collectivists respond more to group norm compared to individualists. Attitude moderates the impact of individualism on saving behavior while subjective norm moderates the effect of collectivism on saving behavior. The nature of effect depends on the level of attitude and subjective norm on individualism and collectivism, respectively. Moreover, race influences individualism and collectivism, so the outcome in moderation of attitude and subjective norm will be different between the two group hence their saving decisions. Furthermore, since blacks are more collectivists than whites, the influence and relationship of subjective norm and attitude will affect the two groups differently, hence the different savings outcome.

6. (** $p < .01$ * $p < .05$) Thick line – Non-significant Path

Figure 2: Final Model



References

Ajzen, Icek. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 50, 179–211.

———. (2001). Nature and Operation of Attitudes. *Annual Reviews Psychology* 52, 27–58.

Ajzen, Icek, and Fishbein, Martin. (1980). *Understanding Attitude and Predicting Social Behavior*. Eaglewood Cliff, N.J.: Prentice-Hall, Inc.

Ajzen, Icek, and Madden, T. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology* 22, 453–74.

Armitage, J., and Conner, Mark. (2001). Efficacy of the Theory of Planned Behavior: A meta-analytic review. *British Journal of Social Psychology* 40, 471–99.

Bandura, A., Adams, N. E., Hardy, A. B., and Howells, G. N. (1980). Test of the generality of self-efficacy theory. *Cognitive Therapy and Research* 4, 39–66.

Bearden, Dale. (1999). Financial Education leverages 401(k) investing power. *Employee Benefit News* 67–69.

Blau, F. D., and Graham, J. W. (1990). Black-White Differences in Wealth and Asset Composition. *Quarterly Journal of Economics* 105, 2.

Dardanoni, V. (1991). Precautionary Savings Under Income Uncertainty: A Cross-sectional Analysis. *Applied Economics* 23, 153–60.

- Davidson, Andrew R., Triandis, Harry C., Diaz-Guerrero, Rogelio, Morales, Maria Luisa, and Jaccard, James J. (1976). Cross-Culture model testing: toward a solution of the etic-emic dilemma. *International Journal of Psychology* 11, 1–13.
- Dutta-Bergman, Mohan J., and Wells, Williams. (2002). The Values and Lifestyles of Indiocentrics and Allocentrics in Individualist Culture: A Descriptive Approach. *Journal of Consumer Psychology* 12, 231–42.
- Eagly, Alice H., and Chaiken, Shelly. (1993). *The Psychology of Attitudes*. New York: Harcourt Brace Jovanovich College Publishers.
- Fishbein, Martin, and Ajzen, Icek. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, Mass.: Addison-Wesley Publishing Company.
- Gaines, Stanley O., Jr., Marelich, William D., Bledsoe, Katrina L., Steers, Neil W., Henerson, Michael C., Granrose, Cherlyn S., Rios, Diana I., Farris, Karlyn R., Page, Mary S., Garcia, Ben F., Barajas, Lisa, Hicks, Diana, Lyde, Michael, Takahashi, Yumi, and Yum, Nancy. (1997). Links Between Race / Ethnicity and Cultural Values as Mediated by Racial / Ethnic Identity and Moderated by Gender. *Journal of Personal and Social Psychology* 72, 1460–76.
- Gunter, Michael S., Johnathan J. Fox, and Catherine P. Montalto. (1999). Racial Differences in Investor Decision-making. *Financial Services Review* 8, 149–62.
- Hagger, Martin S., Chatzisarantis, Nikos L. D., and Biddle, Stuart J. H. (2002). A Meta-Analytic Review of the Theories of Reasoned Action and Planned Behavior in Physical Activity: Predictive Validity and the Contribution of Additional Variables. *Journal of Sport & Exercise Psychology* 24, 3–34.
- . (2002). The influence of autonomous and controlling motives on physical activity intentions within the Theory of Planned Behavior. *British Journal of Health Psychological Society* 7, 283–97.
- Hill, Oliver W., Block, Richard A., and Buggie, Stephen E. (2000). Culture and Beliefs About Time: Comparisons Among Black Americans, Black Africans, and White Americans. *The Journal of Psychology* 134 (4), 443–61.
- Joinson, Carla. (2001). Invest in Minority Pension Participation. *Society for Human Resource Management* 46, 80–86.
- Kalafatis, Stavros P., and Pollard, Michael. (1999). Green Marketing and Ajzens Theory of Planned Behavior, A Cross Market Examination. *Journal of Consumer Marketing* 16, 441–61.
- Landis, Dan, Triandis, Harry C., and Adamopoulos, John. (1978). Habit and Behavioral Intentions As Predictors of Social Behavior. *The Journal of Social Psychology* 106, 227–37.
- Oyserman, Daphna, Grant, Larry, and Ager Joel. (1995). A Socially Contextualized Model of African American Identity: Possible Selves and School Persistence. *Journal of Personality and Social Psychology* 69, 1216–32.
- Ryan, Michael J. (1982). Behavioral Intention Formation: The Interdependency of Attitudinal and Social Influence Variables. *Journal of Consumer Research* 9, 263–78.
- Stevenson, Thomas H., and Anthony D. Plath. (2002). Marketing Financial Services to the African American Consumer: A Comparative Analysis of Investment Portfolio Composition. *California Management Review* 44, 39–64.
- Sideridis, Georgios D., and Kaissidis-Rodalfinos, Aggelos. (2001). Goal importance within planned behavior theory as ‘the’ predictor of study behavior in College. *British Journal of Educational Psychology* 71, 595–618.
- Terrell, H. S. (1971). Wealth Accumulation of Black and White Families: The Empirical Evidence. *Journal of Finance* 26.
- Trafimow, David, and Finlay, Kristina A. (2002). The prediction of attitudes from beliefs and evaluations: The logic of the double negative. *British Journal of Psychology* 41, 77–87.
- . (2001). The Relationship Between Normatively versus Attitudinally controlled people and Normatively versus Attitudinally controlled Behaviors. *Social Science Journal* 38.
- Triandis, Harry C. (1999). Cross-culture psychology. *Asian Journal of Social Psychology* 2, 127–43.
- Triandis, Harry C., Chan, Darius K., and Bhawuk, Dharm P., Iwao, Sumiko. (1995). Multimethod Probes of Allocentrism and Idiocentrism. *International Journal of Psychology* 30, 461–80.
- Triandis, Harry C., and Gelfand, Michael. (1998). Converging Measurement of Horizontal and Vertical Individualism and Collectivism. *Journal of Personality and Social Psychology* 74, 1, 118–28.
- Triandis, Harry C., and Suh, Eunkook. (2002). Cultural Influences on Personality. *Annual Review Psychology* 53, 133–60.
- Williams-Harold, Bevolyn, and Smith, Eric L. (1998). Closing the retirement savings gap. *Black Enterprise* 29, 24–25.
- Yieh, Kaili, and Chen Ching-Yao. (2000). Desired Precautionary Savings in the U.S. *Consumer Interest Annual* 46, 49–55.
- Zhong, L., and J. Xiao. (1995). Determinant of Family Bond and Stock Holdings. Program to help blacks build Wealth. (August 30, 2002). *The Houston Chronicle*. African Americans’ savings fall short. (January 19, 2004). The CNBC Report.