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A New Measure Of The Authoritarian Personality: Untangling The Personal And The Political

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A NEW MEASURE OF THE AUTHORITARIAN PERSONALITY: UNTANGLING THE
PERSONAL AND THE POLITICAL

by

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ABSTRACT

Despite the existence of multiple scales designed to measure authoritarianism as a personality trait, current research disagrees as to whether current measures reliably measure all three dimensions of authoritarianism: submission, aggression, and traditionalism. This study focused on the development of a new scale in response to methodological and validity concerns of previously-used measures. This new scale was found to be a reliable measure of authoritarian belief in two subsequent studies of college-aged adults. Factor analysis of responses to the items of the new measure also provided evidence of the multidimensionality of authoritarianism as a construct. Further, significant correlations were found between the Graham and Haidt's Moral Foundations model and the dimensions of authoritarianism as measured by this scale. Analysis also revealed a significant relationship between authoritarianism and measures of social hierarchical belief, as well as salient political variables. These findings reaffirm current theoretical belief in the tridimensional model of authoritarianism and provide a new, reliable measure of the authoritarian personality. This has implications for the creation of a more productive dialogue between politically-divided groups, though further research is needed on the exact nature of authoritarianism itself.

ACKNOWLEDGMENTS

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INTRODUCTION

Authoritarianism, in the context of psychological personality research, refers to a particular personality trait that causes individuals to submit to authority figures (Altemeyer. 1996). These personality features include submission to "established, legitimate authorities", aggression "in the name of these authorities", and conventionalist beliefs (Altemeyer, 1996). In this context, followers of authoritarians are often referred to as "right-wing authoritarians," though it should be noted that "right" refers not to a political position, but rather to behavior considered by individuals to be lawful or correct.

Authoritarianism is currently measured via several scales, the most common of which is the Right-Wing Authoritarianism (RWA) Scale developed by Altemeyer. Altemeyer's scale is distinguished from its successors in that it measures the construct through the lens of a single dimension by assessing three clusters of attitudinal behavior: submission, conventionalism, and aggression (Altemeyer, 1981, 1988, 1996). Originally described in the 1950s following World War II, authoritarianism as a pattern of behavior initially comprised nine factors: destructiveness and cynicism; projectivism; sex; superstition and stereotyping; power; anti-intraception; authoritarian aggression; submission; and conventionalism (Adorno et al., 1950.) Altemeyer collapsed the latter three categories of behavior into a single dimensional scale, which to this day is considered the standard in assessing authoritarianism (Funke, 2005.) The general consensus within the discipline is that of a multidimensional construct of right-wing authoritarianism. This

idea of authoritarianism comprises three distinct traits: authoritarian aggression, conservatism, and traditionalism. Thus, authoritarians are primarily characterized by a lack of critical attitude towards an ideological ingroup, directed aggression (believed to be sanctioned by authorities) towards certain groups, and strict adherence to conservative, conventional values (Duckitt, 2010).

The unidimensionality of Altemeyer's RWA scale has been contested. Altemeyer contends that the three components of the scale have been written into each of its twenty-two items, with each item assessing at least two of the three dimensions. This method was justified by claims that the conceptualization of authoritarianism is inherently an overlap of its three main components, thus necessitating items that tapped two or three factors at once (Altemeyer, 1981). This technique, however, complicates the practice of extricating any single causative factor behind responses to items, and clouds objective judgment as to whether the concept is truly unidimensional (Duckitt, 2010). Scholars in the field have also leveled criticism at the scale's content validity, claiming it to be nothing more than another conservatism scale (Ray, 1985.) These psychometric concerns have prompted other researchers to posit construct of authoritarianism to be psychometrically composed of more than one dimension, with the literature varying on whether it is in reality comprised of two or three.

Methodological variables have confounded the results from these studies of authoritarianism. Issues with wording items either negatively or positively can falsely give the impression of the concept having two factors; this problem is common in Likert self-report

measures (Funke, 2005). Other studies, by contrast, have found there to be three distinct factors of RWA. Duckitt et al. argue that "measuring RWA as a set of three related ideological attitude dimensions may better explain" certain phenomena than the current unidimensional model developed by Altemeyer (Duckitt et al, 2010). Duckitt's work follows that of Kreindler, who also advocated for a tridimensional model of authoritarianism (Kreindler, 2005), as well as that of Van Hiel et al., whose comparison of several authoritarianism scales found that the results were best explained by a tridimensional model as opposed to a one-factor solution (Van Hiel et al., 2007). Other studies provide further support of the tridimensional model. Both Passini (2008) and Mavor (2010) found the three-dimensional solution to provide the best fit for existing data when compared to other one- and two-dimensional models. Mavor notes that existing problems with the scales prevent unbiased measurement of all three proposed components, e.g., biases in pro- or con-trait wording based on the dimension being assessed (Mavor, 2010).

These findings have all prompted the construction of new scales intended to measure only a single dimension per item. Products of this research include the scales developed by Duckitt et al. (2010) from New Zealand, Funke (2005) of Germany, and Zakrisson (2005) of Sweden. These scales, though they differ in the precise methods used to deconstruct items from the RWA scale, all seek to clearly define and test the three separate hypothesized dimensions. Duckitt (2010) developed his scale by dismantling two- or three-barreled items to create three separate subscales, while Zakrisson (2005) modified the language from the original scale to be shorter and less extreme in terms of language. Funke's (2005) approach, though similar to that of

Duckitt, is differentiated by a greater focus on creation of separate subscales while keeping Altemeyer's original language largely intact.

These scales, constructed to reflect what the authors believed to be the tri-dimensionality of right-wing authoritarianism, pose additional methodological questions for consideration: does the construction of a scale explicitly meant to be tridimensional impact the dimensionality of the resulting data? Do geographical considerations bring into question the validity of such scales? Given the current contentious political climate, these queries bring brings the uncertainty inherent in the literature to the forefront. Though scholars disagree about the exact nature and dimensionality of authoritarian belief, it is possible to elucidate this issue via comparison of multiple scales purporting to measure the same concept.

This study intended to create a new scale to measure levels of authoritarian belief, as well as assess Dark Triad personality traits (i.e., Machiavellianism, narcissism, and psychopathy) in conjunction with collectivism and individualism and Haidt & Graham's Moral Foundations Scale. Further, this initial study served to pilot the potential questions for the new authoritarianism scale presented here. Data gathered from the initial participants were used in this study to assess the validity of the new scale questions and were compared to the results obtained from prior authoritarianism scales. These results are discussed in detail below in conjunction with those from the current study.

By conducting this analysis, we hope to create a scale that more accurately assesses levels of authoritarian belief. Existing scales, though widely-used, do not conform to present

understanding of authoritarian beliefs due to issues with wording as well as inability to fully measure all three dimensions of authoritarianism. In summary, current research disagrees on the exact nature of authoritarianism as well as the number of dimensions it comprises. That is, the construct of authoritarianism as it is currently seen in the literature comprises several sub-components. Prevailing theory suggests that it is either unidimensional (i.e., authoritarianism is a concept unto itself that can be measured with a single scale) or tridimensional (i.e., composed of the separate spheres of belief, and as such, should focus on measuring all three hypothesized components) (Funke, 2005). If completed, this new scale will allow for better understanding of the complexities of this concept, which is more salient than ever in the midst of current divides between political groups.

To more effectively accomplish this goal, we opted to conduct two studies: the first focusing on piloting the items of the newly-developed scale, the second focusing on refinement of these items and establishing construct validity.

STUDY 1

The goal of this initial study was to pilot the modified authoritarianism scale, as well as investigate relationships with existing measures. In addition to testing the validity of this new measure, we also intended on investigating the underlying factor structure of authoritarianism. Participants of this study also completed measures related to authoritarianism to allow us to better assess the new measure's validity.

METHOD

Participants

The main participants of this study were 592 college students, who volunteered to take part in exchange for course credit. Of the 592 participants, 323 were female and 296 were male.

Prior to analysis, data determined to be irregular either based on lack of response variance or lack of meaningful response was removed from consideration, resulting in $n = 418$ responses being used for analysis. Of these participants, 230 were female and 188 were male, with an average age of 20.41 years old. Within this sample, 56% of respondents identified as white, 21% as Hispanic, 10% as African-American, 6% as Asian, and 4% as multiracial. In terms of political identification, 43% identified as Democrats, 26% as Republican, 21.2% as independent, and 8.6% as Libertarian.

Materials

Materials utilized in this study included several surveys administered to college-age participants. After collecting demographic information (including questions regarding political party), the study then directed participants to complete the Funke (2005) authoritarianism scale, discussed previously. Funke's 12-item scale, scored on a 5-item Likert scale, consists of items adapted from Altemeyer (1996). This scale has been found to be fairly reliable with a Cronbach's alpha of 0.80 and 0.86 in two separate samples (Dunwoody & Funke, 2016).

This survey was followed by the 24-item modified authoritarianism scale as developed by the authors. This scale consisted of 24 Likert items, 12 pro-trait and 12 con-trait, each meant to

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measure one of the three subscales of authoritarianism: authoritarian aggression, submission, and traditionalism. Items were expressly designed to test only a single dimension in order to mitigate the wording issues as seen in prior scales. Participants responded to the items on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Responses were then summed and scored in terms of each of the three subscales.

Participants then completed both portions of Haidt & Graham's Moral Foundations Questionnaire (2007). The first portion, which consists of 16 items, requires participants to rate on a Likert scale from 0 to 5 how relevant certain considerations are to their moral judgment process. This part is then followed by 16 items asking participants to rate, using the same scale, their agreement with statements about moral values (e.g., "Justice is the most important requirement for a society"). Higher scores within a dimension indicate a greater tendency to consider this dimension when making a moral judgment. These tendencies have been shown to differ depending on political leaning – liberals rely mostly on domains 1 and 2 (Harm and Fairness), while conservatives use all five (including ingroup loyalty, authority, and purity) in order to make decisions (Haidt & Graham, 2007). Cronbach's alpha for each of these subscales are as follows: 0.69 (Harm), 0.65 (Fairness), 0.71 (Ingroup), 0.74 (Authority), 0.84 (Purity) (Graham et al., 2011).

Following the Moral Foundations Questionnaire, participants completed the 27-item Dark Triad Scale (Paulhus, 2002). Participants were asked to indicate their agreement on a 5-point Likert scale for each of the three subscales, each meant to measure one of the three Dark Triad

personality traits: Machiavellianism (items 1-9), narcissism (items 10-18, and psychopathy (items 19-27). The coefficient alpha reliabilities for each subscale were 0.34 for Machiavellianism, 0.42 for narcissism, and 0.57 for psychopathy.

Lastly, participants completed the Triandis & Helmand (1998) scale in order to assess horizontal and vertical collectivism and individualism. This 16-item scale asks participants to rate on a 9-point Likert scale their agreement with various statements relating to the following four dimensions: horizontal individualism (i.e., "I'd rather depend on myself than others"), vertical individualism ("Competition is the law of nature"), horizontal collectivism ("I feel good when I cooperate with others"), and vertical collectivism ("It is important to me that I respect the decisions made by my groups"). For each subscale, the Cronbach's alpha values were as follows: $\alpha = 0.60$ (horizontal individualism), $\alpha = 0.62$ (vertical individualism), $\alpha = 0.68$ (horizontal collectivism), and $\alpha = 0.65$ (vertical collectivism) (Khoury, 2006).

Procedure

All analyses were conducted via SPSS with data collected from a prior study. For comparison purposes, data from this prior study were used in various analyses of scale validity, including demographic information and responses to Funke's 2005 authoritarianism scale.

The first analysis conducted was inter-item reliability in order to determine Cronbach's alpha. This analysis also generated various other statistics of interest, including Cronbach's alpha if each scale item was deleted, as well as an F-test of scale reliability.

Analysis of the factor structure of authoritarianism, as measured by the modified scale,

was done via unconstrained promax factor analysis. Factor analysis was exploratory, as the exact factor structure of authoritarianism remains disputed. The authors then conducted extensive analysis of the pattern and structure matrices from this analysis to determine which items failed to load factor coefficients above 0.3. The resulting three factors were then saved as separate variables (referred to as Factors 1, 2, and 3, respectively.)

Following exploratory factor analysis, the significance of these factors was then assessed via correlational and one-way ANOVA testing using demographic data. These analyses, along with the three authoritarianism factors, were tested alongside the averages of Funke's three sub-scales, Moral Foundation Theory averages, and vertical and horizontal collectivism and individualism averages.

RESULTS

Scale Reliability

Overall, the modified authoritarianism scale was found to be highly reliable in measuring level of authoritarian belief (α = 0.90). Additionally, the mean value of item-total correlation for the 24-item scale was 0.49, with values ranging from -0.07 to 0.68. Though two items, if deleted, would have resulted in a higher value of Cronbach's alpha, the difference of 0.02 was determined to not warrant their exclusion from further analysis, as this omission would result in the subscales no longer being balanced.

Factor Analysis

Principal components factor analysis revealed three factors that explained 32%, 8%, and 5% of the variance, respectively. Further, five eigenvalues had a value above 1 (λ_1= 7.70, λ_2= 1.97, λ_3= 1.42, λ_4= 1.12, λ_5= 1.03.) Due to previous work on the psychometric properties of the three-dimensional model of authoritarianism, the first three factors, which together explained 46.19% of variance, were selected. The pattern matrix of the promax rotation revealed that only items 10 and 16 did not load with coefficients above 0.3 for any of the first three factors (see Table 1.) The correlations among factors ranged from 0.11 to 0.57, indicating that the factors do not strongly correlate and are measuring distinct ideological components of authoritarian belief.

Table 1. Factor loading table based on a principal components analysis with varimax rotation for 24 items for the initial Modianos-Spiegel authoritarianism scale.

	Component		
	1	2	3
Item 1	.619		.411
Item 2			.657
Item 3	.546	.350	.324
Item 4		.582	
Item 5	.436		.434
Item 6		.735	
Item 7	.604	.389	
Item 8			.651
Item 9	.656		
Item 10	-.378		
Item 11	.549		.370
Item 12		.729	
Item 13	.508		
Item 14		.440	.376
Item 15		.375	.650
Item 16	.507		
Item 17		.672	
Item 18	.603		.356
Item 19		.694	
Item 20	.434	.347	
Item 21			.585
Item 22	.537	.376	
Item 23		.339	.458
Item 24	.630	.301	

Note. Factor loadings less than 0.3 are suppressed.

<div align="center">Relationships with Related Constructs</div>

Comparison of the modified authoritarianism scale with the established 2005 Funke scale found that the correlation between the scores correlated significantly with the three subscales of the latter (p <0.01). The scale average also correlated significantly with all five dimensions of the Moral Foundations model, with negative relationships with both Harm ($r_{(419)}$ = -0.31, p <0.01) and Fairness ($r_{(419)}$ = -0.68, p <0.01), and positive relationships with the other three dimensions (Loyalty, Authority, and Purity) typically associated with conservative ideology. A breakdown of these relationships by subscale is represented in Table 2.

Table 2. Correlation table depicting the relationships between the subscales of the MS authoritarian scale and the dimensions of Haidt & Graham's Moral Foundations Theory.

	Harm	Fairness	In-Group	Authority	Purity
MS Tradition	-0.16**	-0.28**	0.60**	0.68**	0.51**
MS Aggression	-0.42**	-0.51**	0.46**	0.51**	0.33**
MS Submission	-0.33*	-0.39**	0.44**	0.46**	0.38**

Note. ** p < 0.01

Additionally, scores on the modified authoritarianism scale correlated significantly with both vertical individualism ($r_{(419)}$ = 0.24, p < 0.01) and vertical collectivism ($r_{(419)}$ = 0.26, p < 0.01) scores, but negatively with horizontal individualism ($r_{(419)}$ = -0.10, p < 0.05) and horizontal collectivism ($r_{(419)}$ = -0.52, *n.s.*)

To further compare the two scales, a one-way ANOVA with political party as the

grouping factor was conducted; results indicated that the three factors of the modified authoritarianism scale returned higher F-ratios (F (3, 404) = 48.00, 68.66, and 31.73, $p < 0.01$) than those of the three subscales of the Funke scale (F (3, 404) = 32.40, 18.24, 28.33, $p < 0.01$). Further, the average across all twenty-four items of the scale returned a significant result in this one-way analysis of variance (F (3, 404) = 66.05, $p < 0.01$).

Overall, the scores for the modified authoritarianism scale averaged 2.53 ($SD = 0.63$), with 418 overall observations used in calculation of descriptive statistics.

DISCUSSION

Results indicate that the proposed scale is a reliable measure of right-wing authoritarian belief, with high internal reliability between items. The significant correlation between the constituent factors and measure of vertical collectivist and individualist belief further demonstrates the construct validity of the modified scale. Further, this result reveals interesting implications regarding the relationship between authoritarianism and this ideological paradigm. Specifically, the positive correlations between level of authoritarianism and both vertical collectivism and individualism are of interest, as this indicates that those who are more authoritarian respond more to the idea of well-defined hierarchical distinctions between people, as opposed to a specific ideology's beliefs about society. This belief reaffirms authoritarianism as a construct relatively independent of ideological boundaries; that is, authoritarianism in itself is a response to societal hierarchical differences rather than differences in political beliefs.

Additionally, significant relationships between authoritarianism and the latter three moral dimensions of Haidt & Graham's Moral Foundations model indicate that authoritarianism is related to what is seen as a more typically conservative moral profile. That is, each of the three proposed dimensions as measured by this scale correlated positively with the in-group, loyalty, and purity foundations. Conversely, these three dimensions were negatively correlated with the first two dimensions, fairness and harm, the main basis of liberal morality (as opposed to conservative morality, which relies on all five of the moral foundations). Though authoritarianism is not necessarily beholden to any particular political ideology, it is clear that in

the current political climate, it is mainly associated with traditionally conservative values. This association makes sense in the context of a multidimensional model of authoritarianism at least partially characterized by traditionalist ideology (i.e., closely aligning with conservative political beliefs). These relationships elucidate how authoritarianism coexists with other paradigms of political belief.

Finally, the proposed authoritarianism scale was tested along with the Dark Triad to determine whether or not significant relationships existed with these personality traits. Ultimately, the data revealed no significant correlation with authoritarianism. These traits appear to have little impact on level of authoritarian belief, and vice-versa, implying that the incidence Machiavellianism, narcissism, and psychopathy in individuals remains independent of political leaning, similar to authoritarianism.

Given the discrepancy in prior research, an additional purpose of the scale development was to investigate whether the construct of authoritarianism was unidimensional or multidimensional. The 24-item measure was constructed with the tridimensional model in mind, and this perspective was taken into account when interpreting factor analysis results. That being said, factor analysis results did support a multidimensional model of authoritarianism. These results reaffirm recent research (Dunwoody & Funke, 2016). The resulting three factors correlated significantly with the three subscales of the Funke (2005) scale, which also measured authoritarianism as a tri-dimensional construct. The correlation between these factors and those of the Funke scale are encouraging in establishing overall validity for the modified measure.

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Overall, the development of this scale and the subsequent factor analysis adds to the growing body of literature affirming authoritarianism as multidimensional.

A hypothesized cause for these results is growing political polarization in the past decade. The wording of the scale items — either positive or negative — greatly affected which factor best explained them, even after controlling for whether the items were pro- or con-trait. The influence of social media and increasingly polarized politics has affected the political beliefs of American voters, especially younger people (such as the sample whose responses were used to analyze the validity of this scale). The potential effects of current events on political beliefs, especially one as salient as authoritarianism (which is frequently used as a buzzword to refer to certain political actors) may influence a study that investigates intrinsically political questions. In a hyper-polarized era of American politics, individuals' opinions may have grown more ideologically extreme in response. Though responses were skewed positively, with an average of 2.53 of a possible 5 and almost no responses over 4, this distribution may be a result of sample demographics. Despite the ethnic and racial diversity of the sampled population, age of participants averaged around 20, with a standard deviation of 4.2. Younger voters, especially American millennials, tend to be far more liberal by nature (Pew Research Center, 2018). This tendency predisposes them to score on the lower end of authoritarianism (given the previously-mentioned positive relationship with conservative ideology). Additional work should be done investigating the effects of polarization on levels of authoritarian belief in order to clarify the direction of this trend.

Further, though the sample used was both large and relatively diverse, the self-reported nature of this scale undoubtedly played a role in participants' responses. The newly-developed scale was administered following the Funke scale, leading to potential response fatigue, especially because many of the items were worded similarly or tapped similar concepts. As previously mentioned, current events may have impacted responses – the items used language that alluded to salient political events and issues, including immigration, mass incarceration, and political protests. Because these issues invoke strong feelings and emotions, answers may have been skewed strongly either in favor or strongly against the item in question.

Though the developed scale is both a valid and reliable measure of authoritarian belief, further work is needed in order to refine wording and ensure that the items are prompting accurate responses. The scale will continue to be used in future studies as development continues. Additionally, this study raises questions regarding the relationship between authoritarianism and various ideologies, particularly collectivism and individualism. Further work should be done in order to further elucidate these relationships and explore the connection between these constructs, as well as others, thus necessitating a follow-up study.

STUDY 2

The goal of this study was to refine the wording of the items of the Modianos-Spiegel (MS) scale and to determine whether changes in item construction would significantly alter the measure's underlying factor structure. We also intended to further explore connections with related concepts and demographic variables. To achieve this goal, we expanded the demographics questionnaire to include questions regarding political affiliation and 2016 presidential choice. In lieu of testing the MS scale against the Funke's 2005 scale, we opted for participants to instead complete the Duckitt 2010 scale alongside the newly-developed measure. To compare results between the studies, we also decided to continue the inclusion of the Moral Foundations scale. Finally, we added the Social Dominance Orientations scale developed by Pratto (1994) to the overall survey to assess the scale's external validity.

METHODS

Participants

The main participants of the second phase of this study included 281 college students who participated in exchange for course credit in an introductory psychology class. Within this initial sample, 145 of the participants were female and 136 were male.

As with the previous study, prior to analysis, those who failed to pass manipulation checks or responded in an insufficiently variable way were eliminated from the dataset. This resulted in a final sample size of 197 participants. Of those remaining, 112 participants were female and 85 were male, with an average age of 20.51 years old. In terms of race, 53.80% of respondents identified themselves as white, 22.80% as Hispanic, 9.60% as African-American, 6.60% as Asian, and 6.60% as multiracial. The sample also reported fairly diverse political views, with 45.70% identifying with the Democratic party, 32% with the Republican party, 19.8% as independent, and 1.5% as libertarian.

Materials

Participants first completed a demographic questionnaire similar to that used in the previous study. Additional questions included those asking about 2016 presidential choice, and whether or not participants had voted in the 2016 and 2018 elections.

Following the completion of the demographic portion of the questionnaire, participants completed the revised version of the Modianos-Spiegel scale. Half of the scale items were reworded to reflect a pro-trait rather than a con-trait construction; as a result, all 24 items for

each of the three subscales (intended to measure authoritarian aggression, submission, and traditionalism) were pro-trait. Respondents used a 5-point Likert scale to indicate their agreement or disagreement for each item (listed in Appendix II). The averages for each subscale were scored in the same manner as they were in the previous study.

Participants then completed Duckitt's 2010 authoritarianism scale, consisting of 36 items. The Duckitt scale is similarly broken into three subscales to measure the three hypothesized facets of authoritarianism, each consisting of 12 items, half of which are pro-trait. Participants responded via a seven-point Likert scale. Duckitt's authoritarianism measure has been found to be reliable across populations, with a Cronbach's alpha of $\alpha = 0.92$ in a United States sample (Duckitt et al., 2010).

After the administration of both authoritarianism scales, participants completed Haidt & Graham's 2007 Moral Foundations Questionnaire in an identical manner to the previous study. None of the items were altered, nor were the scoring procedures used when calculating averages for each of the five subscales.

Finally, participants finished the survey with Pratto's 1994 Social Dominance Orientation (SDO) scale. The SDO scale requires participants to indicate their agreement or disagreement with various statements about group relationships in society (e.g., "Inferior groups should stay in their place", "Group equality should be our ideal") via a seven-point Likert scale. We used the 16-item version of Pratto's scale (listed in Appendix VII), which was scored by summing pro-trait items 1-8 and con-trait items 9-16. SDO is considered unidimensional (Pratto

1994), and is found to be reliable in American samples ($\alpha = 0.93$) (Leeuwen et al., 2017).

<div align="center">Procedure</div>

All statistical analyses were conducted in SPSS. Analysis focused on the same statistics as the prior study, namely those related to scale reliability, factor structure, and relationships with related constructs.

Before conducting further analyses comparing between scales, we first completed scale reliability analysis with all 24 items of the revised Modianos-Spiegel scale. This function returned Cronbach's alpha in addition to descriptive statistics for both the scale as a whole as well as each item. This phase of analysis also included summaries of item-total correlations for each of the 24 items.

After this analysis, we then assessed the factor structure of the revised scale. Unlike the previous study, we elected to use the confirmatory factor analysis procedure to verify that the tridimensional model still accurately represented the data. Based on this analysis, which similarly constrained factor loadings to only those greater than 0.3, the resulting three factors were again saved as separate variables (referred to as Factors 1*, 2*, and 3*, respectively, to distinguish them from their Study 1 counterparts) and compared to the three MS subscales.

Lastly, various correlational analyses and analyses of variance were conducted to assess the strength of relationships between the revised MS scale and the other tested variables. These comparisons included correlations between the MS subscales and those of the Duckitt (2010) scale as a means of measuring scale reliability. Additionally, we ran multiple correlational

analyses between the MS and Duckitt scale averages and the averages of each of Haidt &

Graham's Moral Foundations. The relationships between each of these variables with Social

Dominance Orientation was also assessed during this phase of analysis. To evaluate the effects

of demographic variables of interest (mainly political party and religious views) on responses to

the MS scale, we then conducted various analyses of variance.

RESULTS

Scale Reliability

The revised MS scale was found to be highly reliable ($\alpha = 0.91$). Item-total correlations between each of the 24-items averaged 0.29, ranging from 0.22 (Item 10) to 0.73 (Item 22). Most items, if deleted, would not have impacted Cronbach's alpha – two items would have improved Cronbach's alpha by 0.01, and two by 0.02, were they removed from the scale. These differences were not considered large enough to justify their exclusion from further analysis.

Factor Analysis

Confirmatory principal components factor analysis revealed three factors explaining 34%, 7%, and 5% of the variance. Five components returned an eigenvalue greater than 1 ($\lambda_1 = 8.11$, $\lambda_2 = 1.72$, $\lambda_3 = 1.21$, $\lambda_4 = 1.13$, $\lambda_5 = 1.05$.) The factors with the three highest eigenvalues, Factors 1*, 2*, and 3*, respectively, together explained 45.98% of variance. All 24 items of the scale returned at least one factor loading greater than 0.3 (see Table 3.)

Table 3. Factor loading table based on a principal components analysis with varimax rotation for 24 items for the revised Modianos-Spiegel authoritarianism scale.

	Component		
	1	2	3
Item 1		0.56	
Item 2	0.68	0.39	
Item 3		0.65	
Item 4	0.31	0.64	
Item 5	0.69		
Item 6	0.68		0.38
Item 7	0.32	0.48	
Item 8	0.56		0.41
Item 9	0.36		
Item 10	0.48	0.39	
Item 11		0.70	
Item 12	0.32		
Item 13		0.60	
Item 14		0.63	
Item 15			0.42
Item 16	0.45	0.39	
Item 17	0.48		
Item 18	0.40	0.52	
Item 19	0.65		0.38
Item 20	0.54		
Item 21		0.66	0.35
Item 22	0.41	0.57	0.37
Item 23	0.75		
Item 24			0.78

Note. Factor loadings less than 0.3 are suppressed.

As a follow-up to the previous study, which did not fully explore the relationships between factors and the three authoritarian subscales, we also explored correlations among Factors 1*, 2*, 3*, and the MS authoritarian submission, aggression, and traditionalism scales. This analysis revealed significant relationships between Factor 1* and all three MS subscales, returning the highest correlation coefficient for the authoritarian aggression subscale ($r_{(197)} = 0.78$, $p < 0.01$). This pattern held for Factors 2* and 3*, which returned the highest correlation coefficients with the authoritarian submission subscale ($r_{(197)} = 0.73$, $p < 0.01$) and the authoritarian traditionalism subscale ($r_{(197)} = 0.55$, $p < 0.01$), respectively. These correlations are summarized in table 4.

Table 4. Correlation table depicting the relationships between the subscales of the MS authoritarian scale and the three extracted factors.

	MS submission subscale average	MS aggression subscale average	MS traditionalism subscale average
Factor 1[a]	0.57**	0.78**	0.51**
Factor 2	0.73**	0.49**	0.54**
Factor 3	0.18*	0.24**	0.55**

Note. [a]All factors are those extracted from confirmatory factor analysis, not to be confused with the factors extracted from Study 1.
*$p < 0.05$. **$p < 0.01$.

<h1 style="text-align:center">Relationships with Related Constructs</h1>

In order to assess construct validity, we correlated the scale averages against those of

Duckitt's 2010 authoritarianism measure. MS-scale total averages correlated significantly with

Duckitt total averages ($r_{(197)} = 0.81$, $p < 0.01$), a trend reflected in the correlations between

subscales. Averages for the aggression ($r_{(197)} = 0.66$, $p < 0.01$), submission ($r_{(197)} = 0.70$, $p < 0.01$),

and traditionalism scales ($r_{(197)} = 0.58$, $p < 0.01$) also followed this pattern (see Table 5.)

Table 5. Correlation table depicting the relationships between the subscales of the MS authoritarian scale and the subscales of Duckitt (2010) authoritarianism scale.

	Duckitt submission subscale average	Duckitt aggression subscale average	Duckitt traditionalism subscale average	Duckitt total average
MS submission subscale average	0.70**	0.59**	0.68**	0.78**
MS aggression subscale average	0.68**	0.66**	0.60**	0.75**
MS traditionalism subscale average	0.63*	0.55**	0.58**	0.69**
MS total average	0.66**	0.68**	0.73**	0.81**

Note. **$p < 0.01$

Similar analyses were also conducted to evaluate existing relationships with social

dominance orientation. SDO correlated significantly with the MS total averages ($r(197) = 0.58$, p

< 0.01), as well as with the aggression, submission, and traditionalism subscales with

correlations of $r(197) = 0.56$, 0.55, and 0.47, respectively ($p < 0.01$).

Finally, relationships with each of the five Moral Foundations were assessed. MS total

averages correlated significantly with all of Haidt & Graham's Moral Foundations, with a negative relationship with Harm ($r_{(197)} = -0.19$, $p < 0.05$) and Fairness ($r_{(197)} = -0.31$, $p < 0.01$), and a positive relationship with Loyalty ($r_{(197)} = 0.60$, $p < 0.01$), Authority ($r_{(197)} = 0.62$, $p < 0.01$), and Purity ($r_{(197)} = 0.48$, $p < 0.01$).

Relationships with Demographic and Political Variables

To investigate the impact of potential demographic confounds, we conducted a one-way ANOVA of MS total scores using race as a grouping factor. This result proved to be statistically significant (F (4, 191) $= 3.04$, $p < 0.05$). A Bonferroni post-hoc test revealed that African-American respondents ($M = 2.36$, $SD = 0.50$) scored significantly lower than did white respondents ($M = 2.86$, $SD = 0.65$), though this was the only significant difference among racial groups ($p < 0.05$). A means plot of racial group differences is depicted in Figure 1.
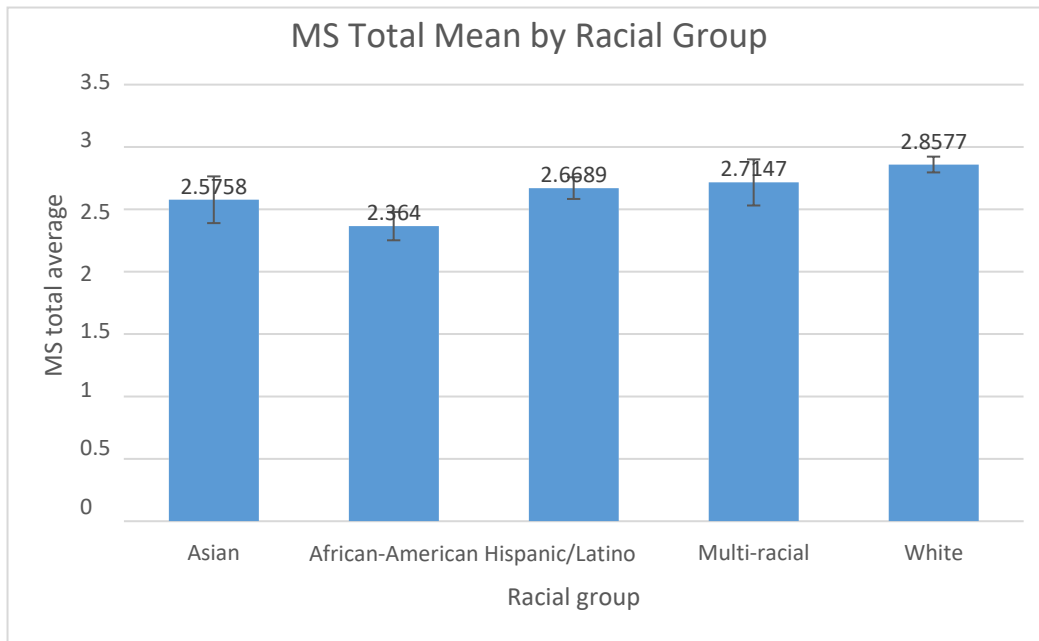
Figure 1. Difference in MS total average based on racial group. Error bars represent the standard error of the mean.

Further, an independent-samples T-test was also conducted to assess the impact of gender. This result was not significant ($t(195) = 1.5$, *n.s.*). Finally, we examined the potential differences within religious groups with an ANOVA. This analysis indicated that the differences between groups were significant ($F(5, 189) = 6.75$, $p < 0.01$). Christians reported far higher levels of authoritarianism as measured by MS totals ($M = 2.93$, $SD = 0.59$) than did atheists or agnostics ($M = 2.44$, $SD = 0.61$), a significant difference as indicated a Bonferroni post-hoc test ($p < 0.01$). This was the only significant difference among religious groups.

The final phase of this analysis consisted of analyses of variance using political party and

2016 presidential choice as grouping factors. The former analysis indicated significant differences in reported authoritarianism between political parties (F (4, 191) = 31.38, $p < 0.01$). Bonferroni post-hoc tests revealed significant differences between Democrats ($M = 2.39$, $SD = 0.50$), Independents ($M = 2.69$, $SD = 0.62$), and Republicans ($M = 3.30$, $SD = 0.42$), with all differences significant at the 0.05 level (see Figure 2). Similarly, an ANOVA with 2016 presidential choice as the grouping factor found significant differences between voters (F (6, 189) = 6.23, $p < 0.01$), with Clinton voters reporting far lower authoritarianism scores ($M = 2.28$, $SD = 0.64$) than Trump voters ($M = 3.22$, $SD = 0.50$) (see Figure 3).
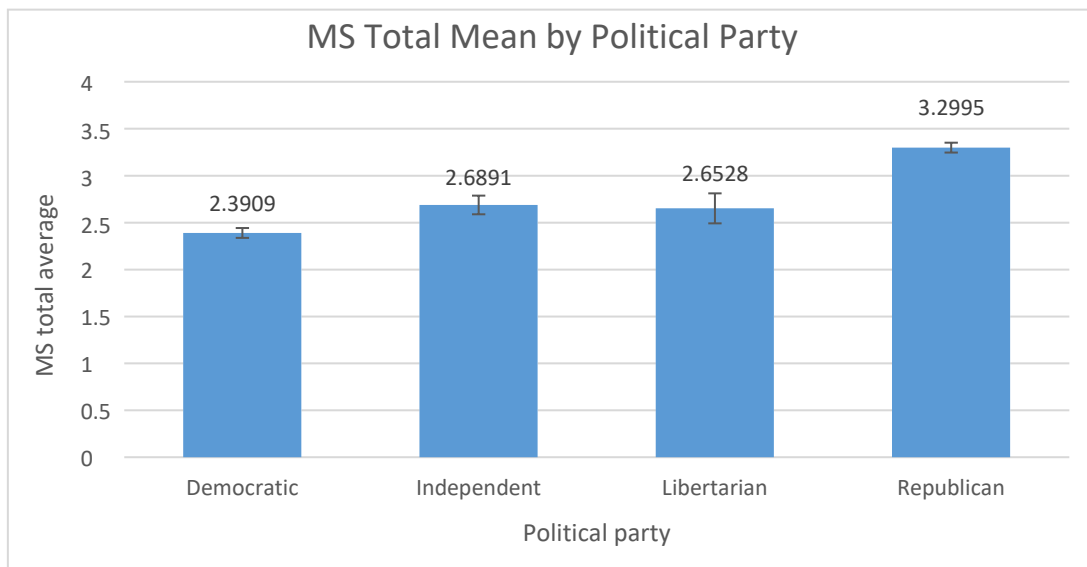
Figure 2. Difference in MS total average based on political party. Error bars represent the standard error of the mean.
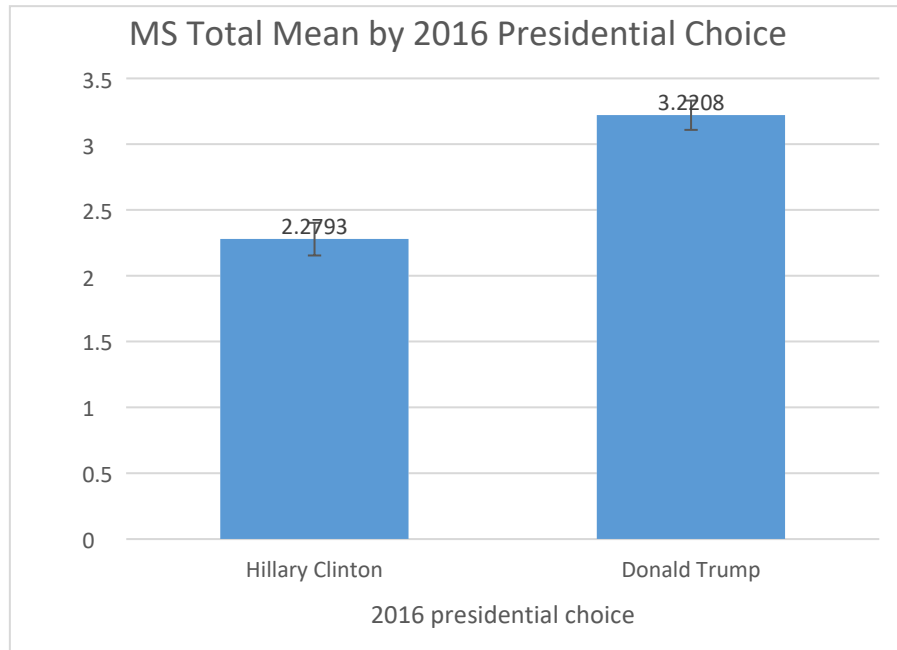
Figure 3. Difference in MS total average based on 2016 presidential choice. Error bars represent the standard error of the mean.

DISCUSSION

Overall, MS scale reliability and factor analysis remained relatively unchanged from the previous iteration. It appears that changing item construction did not significantly alter internal reliability, nor underlying factor structure. This result indicates that the items of the MS scale, regardless of whether they were written as pro- or con-trait, are consistently measuring authoritarian belief, which serves to bolster the scale's external reliability.

An interesting development, however, comes in the form of the factors' relationships with the MS subscales. The previous study did not fully explore what the three extracted factors might be – thus, the analysis of these relationships presented novel information. Though all factors correlated strongly with all subscales, the difference in correlation strength may be indicative that the factors correspond to distinct dimensions of authoritarian belief. This development becomes more noteworthy when one considers that the largest eigenvalue, that of Factor 1*, has the strongest relationship with authoritarian aggression – this provides insight to the core of authoritarianism itself. Could aggression be the strongest of the proposed three dimensions? That is, is it the most explanatory of differences in reported authoritarianism? Further research may be needed to uncover which aspects of authoritarian belief may be the most "characteristic" as scale development continues. For the time being, it is perhaps easiest to consider Factors 1*, 2*, and 3* as roughly analogous to authoritarian aggression, submission, and traditionalism, respectively.

The MS scale's relationships with other related constructs conformed to our initial

expectations. As with the previous study, the MS scale displayed a significant relationship with an already-established authoritarianism measure. This relationship with Duckitt's measure provides an even stronger case for the measure's construct validity, which had been previously established by the relationship of the MS scale with that of Funke. However, the correlations between subscales, though significant, did display an interesting pattern in that the strongest relationships were not necessarily between each scale's counterpart. For instance, the MS traditionalism subscale correlates most strongly with Duckitt's submission subscale, though the difference is relatively small. This discrepancy may be due to the complexity and inherent overlap of the subscales – though the items of each scale were written to tap only one of the three dimensions, it is difficult to ensure that the other dimensions are not tapped as well.

The MS scale also conformed to the previous study's findings regarding relationships with the Moral Foundations Scale. As it had previously, the MS scale correlated positively with the latter three dimensions of Moral Foundations, associated closely with conservative belief, and negatively with the former two, associated with liberal belief. This result is consistent with the conclusion that authoritarianism, in the present political climate, is associated with modern conservatism. We discuss this further in relation to the demographic variables of political party and 2016 presidential choice.

Authoritarianism has a well-documented relationship with social dominance orientation, as acknowledged by Pratto at the time of the scale's construction (Pratto, 1994). Duckitt himself has also demonstrated the intricacy of the relationship between SDO and right-wing

authoritarianism, both in a 2007 study on the dimensions of prejudice and on a follow-up study published in 2010 (Duckitt, 2007; Asbrock, 2010). Thus, the relationship between MS scale total averages and SDO averages is a logical product of the relationship between MS and Duckitt's scale, and is not particularly exciting nor unexpected. Rather, this further validates the ability of the MS scale to effectively measure authoritarian belief.

Study 2 introduced a novel focus of analysis – namely, that of demographic variables. The inclusion of politically-oriented demographic questions allowed us to investigate the closeness of the relationship between authoritarianism, as measured by the MS scale, and more specifically American political variables. Though the majority of respondents were too young to vote in the 2016 election, those remaining were evenly split, with 27 voting for Clinton, 20 voting for Trump, and 2 voters each for Jill Stein and Gary Johnson. The sample size for the latter two candidates prevents us from drawing solid conclusions on these voters' authoritarian inclinations, but the results from the biggest two are telling. Clinton and Trump voters' authoritarianism means differed by 0.95 – nearly a full point difference. This is unsurprising when taking into consideration the difference in rhetoric between these two candidates, as well as their respective political parties. Similarly, when considering the marginal means by political party, the difference between Democrats and Republicans is equally as stark, at 0.91. Independent voters, fittingly, sat between the two at 2.67, though they leaned closer to Democrats (at 2.39) than Republicans (3.29). These figures strongly indicate that authoritarian belief is associated with Republican political belief, at least in the current political environment

in the United States.

The other demographic variables of interest – gender and religion – also have implications of their own. Gender did not return a significant difference, indicating that men and women are equally predisposed to authoritarian thought. This is perhaps unexpected, given the tendency of men to score more highly on measures of social dominance, which is closely associated with authoritarianism, as discussed previously (Pratto, 1994). However, these this disparity is not seen as clearly in authoritarianism studies – or rather, has not been studied extensively. As for religion, the sample size limited our ability to draw firm conclusions on faiths other than Christianity and nonreligion (as fewer than 10 respondents reported adherence to Buddhism, Hinduism, Judaism, or Islam.) That being said, mean differences in authoritarianism between nonreligious participants and Christian participants were significant – this difference persists even considering political party, as the number of Democratic Christian respondents was nearly equal to that of Republican Christian respondents. We could perhaps ascribe this discrepancy to the structural differences between both traditions. That is, the existence of hierarchical differences inherent to certain branches of Christianity could predispose adherents to a more authoritarian way of thinking, as opposed to the lack of structure, or even rejection of structure, within atheism or agnosticism.

GENERAL DISCUSSION

Both Study 1 and Study 2 indicated that the newly-developed authoritarianism scale proved to be a reliable and valid measure of authoritarian belief. Results from Study 2 validated the factor structure initially uncovered in Study 1 despite changes in item construction. Both studies also established connections with existing authoritarian measures, as well as related constructs related to prejudice and morality. The similarity in reliability and factor analysis indicate that the newly-developed scale is a valid measure of authoritarianism, written from a more modern perspective that takes current political events into consideration.

These results also validate the existing tridimensional model of authoritarianism, established by contemporary researchers such as Duckitt (2010). The validation of the tridimensional model highlights the inherent complexity of authoritarianism. That is, the concept itself is comprised of three separate components which also share intrinsic relationships – for instance, aggression and submission, though they may seem ostensibly contrasting reactions to authoritarian power, are closely related behaviors catalyzed by the presence of a powerful leader.

Each study also addressed the closeness of the relationship between authoritarianism and related social hierarchical views. Study 1 established the authoritarian tendency towards vertical individualism and collectivism, which we followed up on by investigating social dominance orientation with the newly-developed MS scale. Authoritarians, as revealed by these two studies, are more finely attuned to hierarchical distinctions between individuals and groups, and possess strong beliefs that validate existing hierarchical structures. These beliefs are not necessarily

beholden to a political ideology, but reinforce differences in status between people. Because authoritarianism in itself requires the presence of an authoritarian – an individual at the top of a social hierarchy – this seems a logical conclusion.

Further, data from each of these studies highlight the relevance of political affiliation in relation to what we currently conceive of as authoritarianism. The relationships between the MS scale and Haidt & Graham's Moral Foundations reinforce this idea – the significance of these relationships indicates that morality is strongly related to authoritarian belief. By extension, the positive relationship between authoritarianism and the latter three moral foundations, considered to be characteristic of conservative belief, also forces us to consider the political affiliations of those who espouse authoritarian values. Demographic data from Study 2 revealed a great disparity in authoritarianism scores between those of contrasting parties, with Republican respondents recording the highest of the marginal means. Additionally, the size of the disparity between Republicans and Democrats highlights the growing influence of political polarization. We discussed this issue in Study 1, but it seems unlikely to decrease as the American political environment grows ever muddier and more complex.

This research has practical as well as theoretical implications, especially in the realm of political discourse. Communications between opposing political groups are notoriously fraught, an issue only increasing in prevalence. Difference in fundamental beliefs prevent opposing groups from communicating effectively – thus, providing additional insight into how these groups differ could allow for more productive discourse in the future. For instance, knowing that

one group may be more inclined to follow a strong leader, an opposing group may frame their arguments to appeal to this tendency, rather than directly attack it. This tactic may prove more effective, as it represents cooperation between groups in contrast to direct opposition, a concept anathema to authoritarian strongmen.

Additionally, the rise of concern regarding authoritarian regimes can create an atmosphere of paranoia and fear-mongering, creating a need for an objective scientific measure. It is easy to throw around political terms without a clear definition, especially when this definition is contentious in nature. This definition is especially prone to shifting with the development of ongoing political events, highlighting the need for a contemporary measure of authoritarianism.

The scope of this study was limited by sample size and composition constraints. Because the newly-developed study was normed on college students, responses may not be reflective of the population at large despite the racial and political diversity of our sample. Further, because respondents averaged around 20 years old, their political beliefs are inherently different than those of other populations – the rapid pace and prevalence of political events may have impacted younger populations, who, in turn, may have developed stronger political opinions than their older counterparts. This concern is especially salient due to the nature of the scale items, which tapped into recent events that may invoke strong responses.

Future research should primarily focus on expanding the scope of norming. Because this scale was developed with a contemporary American audience in mind, testing on different

populations, especially those in parts of the world with vastly different political systems, would yield interesting and valuable results. The American political system, due to its idiosyncrasy, likely lends itself to its own particular type of authoritarian belief – especially due to the presence of a presidential rather than parliamentary system. Residents of nations with parliamentary systems would not necessarily respond the same way to questions regarding the importance of authority. Similarly, citizens of more centralized regimes or more societally hierarchical systems would perhaps respond more strongly. Results of these types of studies would allow for even further refinement of item wording, and ultimately, a stronger, more valid measure.

Authoritarianism itself should also be a topic of further study. This study validated the tridimensional model of authoritarianism, but further research is needed on the nature of these three distinct, yet overlapping dimensions, and how these dimensions may differ based on geographic or temporal context. Certain demographic and political variables are strongly associated with authoritarian tendencies, a curious relationship that undoubtedly is more complex than it seems at first pass. Recent events have increased the salience of the authoritarian personality and the nascent field of political psychology as a whole in the cultural consciousness – as popular and scientific interest proliferates, there is far more work to be done untangling the political and the personal.

CONCLUSION

This research adds to the growing body of literature addressing the nature of authoritarianism as a construct. Construction of this new scale takes into account prior viewpoints within the literature and sheds new light on the dimensionality of the authoritarian personality as well as its connections with other political and personality measures. Data analysis has found this measure to be both a valid and reliable means of assessing authoritarian belief in individuals, and reveals the multidimensionality of authoritarianism as a construct. This revised scale has the potential to be used in multiple contexts to measure levels of authoritarianism. This study also addressed the relationship between authoritarianism and various social beliefs and demographic variables, though there is need for additional work investigating the effects of political polarization on ideological affiliation and authoritarianism. As political psychology grows as a field, so does the salience of these issues. In our current era fraught with political strife, it is more important than ever to be able to accurately assess levels of authoritarian belief. The distinction between actual authoritarianism and political behavior of which we disapprove is an important one, thus highlighting the need for an objective scientific measure.

APPENDIX A: ITEMS OF THE INITIAL MODIANOS-SPIEGEL SCALE (2018)

1. Policy statements by the president should be supported by all Americans.

2. Protests and demonstrations are a sign of a healthy society.

3. Protests against the police make our society less safe.

4. America should be governed by modern ideas, not ideas from over 200 years ago.

5. Social revolutions can only lead to anarchy.

6. The police in our country are much too quick to use extreme force when performing their duties.

7. People should have great respect for the American flag.

8. A press that questions American values and policies actually makes us stronger.

9. People who defile the American flag should be punished.

10. Too many people in our country want to enforce their own views on sex and morality.

11. People who seem to always challenge authority are a danger to the nation.

12. We are much too quick to punish people whose views do not support traditional values.

13. The president is the embodiment of America. When the president acts, America acts.

14. There must always be a place of respect for those who question our fundamental values.

15. Using overwhelming force against countries that threaten us politically is the only way to guarantee our survival as a nation.

16. It is a mistake to view the president as the ultimate judge of right and wrong.

17. Professional athletes should stick to their role as athletes.

18. America has far too many people who are in prison.

19. There should be no place in our country for those who do not respect American values.

20. American young people should be taught that it is important to be willing to question the authority of elected leaders.

21. Our courts should be much stronger in upholding the laws of the US.

22. America should be much more welcoming to immigrants.

23. Entertainment personalities who insult our government should not have a role in the media.

24. Strict law enforcement is NOT helping our country.

APPENDIX B: ITEMS OF THE REVISED MODIANOS-SPIEGEL SCALE

(2019)

1. Policy statements by the president should be supported by all Americans.

2. Protests and demonstrations are a sign of an unhealthy society.

3. Protests against the police make our society less safe.

4. America should be governed by the ideas of the Founding Fathers, not modern ideas.

5. Social revolutions can only lead to anarchy.

6. People are much too quick to accuse police of using extreme force when performing their duties.

7. People should have great respect for the American flag.

8. A press that questions American values and policies weakens us as a nation.

9. People who defile the American flag should be punished.

10. Too many people in our country want to enforce their own views on sex and morality.

11. People who seem to always challenge authority are a danger to the nation.

12. People whose views do not support traditional values should be suppressed.

13. The president is the embodiment of America. When the president acts, America acts.

14. We should not respect those who question our fundamental values.

15. Using overwhelming force against countries that threaten us politically is the only way to guarantee our survival as a nation.

16. The Supreme Court is the ultimate judge of right and wrong in America.

17. Professional athletes should stick to their role as athletes.

18. It is not at all true that too many people are in prison.

19. There should be no place in our country for those who do not respect American values.

20. American young people should be taught that it is important to respect the authority of elected leaders.

21. Our courts should be much stronger in upholding the laws of the US.

22. Immigrants are the main source of unrest and crime in our country..

23. Entertainment personalities who insult our government should not have a role in the media.

24. America needs strict law enforcement.

APPENDIX C: FUNKE (2005) AUTHORITARIANISM SCALE

1.	People should develop their own personal standards about good and evil and pay less attention to the Bible and other old, traditional forms of religious guidance.

2.	What our country really needs instead of more "civil rights" is a good stiff dose of law and order.

3.	The days when women are submissive should belong strictly in the past. A "woman's place" in society should be wherever she wants to be.

4.	The withdrawal from tradition will turn out to be a fatal fault one day.

5.	There is no such crime to justify capital punishment.

6.	Obedience and respect for authority are the most important values children should learn.

7.	Homosexual long-term relationships should be treated as equivalent to marriage.

8.	What our country really needs is a strong, determined Chancellor which will crush the evil and set us on our right way again.

9.	It is good that nowadays young people have greater freedom "to make their own rules" and to protest against things they don't like.

10.	Being virtuous and law-abiding is in the long run better for us than permanently challenging the foundation of our society.

11.	It is important to protect the rights of radicals and deviants in all ways.

12.	The real keys to the "good life" are obedience, discipline, and virtue.

APPENDIX D: HAIDT & GRAHAM (2007) MORAL FOUNDATIONS

QUESTIONNAIRE

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
[1] = not very relevant
[2] = slightly relevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

_____Whether or not someone suffered emotionally

_____Whether or not some people were treated differently than others

_____Whether or not someone's action showed love for his or her country

_____Whether or not someone showed a lack of respect for authority

_____Whether or not someone violated standards of purity and decency

_____Whether or not someone was good at math

_____Whether or not someone cared for someone weak or vulnerable

_____Whether or not someone acted unfairly

_____Whether or not someone did something to betray his or her group

_____Whether or not someone conformed to the traditions of society

_____Whether or not someone did something disgusting

_____Whether or not someone was cruel

_____Whether or not someone was denied his or her rights

_____Whether or not someone showed a lack of loyalty

_____Whether or not an action caused chaos or disorder

_____Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement: [0]

[1]	[2]	[3]	[4]	[5]
Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

_____Compassion for those who are suffering is the most crucial virtue.

_____When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

_____I am proud of my country's history.

_____Respect for authority is something all children need to learn.

_____People should not do things that are disgusting, even if no one is harmed.

_____It is better to do good than to do bad.

_____One of the worst things a person could do is hurt a defenseless animal.

_____Justice is the most important requirement for a society.

_____People should be loyal to their family members, even when they have done something

wrong.

_____Men and women each have different roles to play in society.

_____I would call some acts wrong on the grounds that they are unnatural.

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_____It can never be right to kill a human being.

_____I think it's morally wrong that rich children inherit a lot of money while poor children

inherit nothing.

_____It is more important to be a team player than to express oneself.

_____If I were a soldier and disagreed with my commanding officer's orders, I would obey
anyway because that is my duty.

_____Chastity is an important and valuable virtue.

APPENDIX E: PAULHUS (2002) DARK TRIAD PERSONALITY

QUESTIONNAIRE

Please rate your agreement or disagreement with each item using the following guidelines.

12	3	4	5
StronglyDisagree	Neither Agree	Agree	Strongly Agree
Disagree	nor Disagree		

Machiavellianism subscale:

1. It's not wise to tell your secrets.

2. Generally speaking, people won't work hard unless they have to.

3. Whatever it takes, you must get the important people on your side.

4. Avoid direct conflict with others because they may be useful in the future.

5. It's wise to keep track of information that you can use against people later.

6. You should wait for the right time to get back at people.

7. There are things you should hide from other people because they don't need to know.

8. Make sure your plans benefit you, not others.

9. Most people can be manipulated.

Narcissism subscale:

1. People see me as a natural leader.

2. I hate being the center of attention. (R)

3. Many group activities tend to be dull without me.

4. I know that I am special because everyone keeps telling me so.

5. I like to get acquainted with important people.

6. I feel embarrassed if someone compliments me. (R)

7. I have been compared to famous people.

8. I am an average person. (R)

9. I insist on getting the respect I deserve.

Psychopathy subscale:

1. I like to get revenge on authorities.

2. I avoid dangerous situations. (R)

3. Payback needs to be quick and nasty.

4. People often say I'm out of control.

5. It's true that I can be mean to others. (or I enjoy having sex with people I hardly know.)

6. People who mess with me always regret it.

7. I have never gotten into trouble with the law. (R)

8. I like to pick on losers.

9. I'll say anything to get what I want.

APPENDIX F: TRIANDIS ET AL. (1998) INDIVIDUALISM/

COLLECTIVISM SCALE

All items are answered on a 9-point scale, ranging from 1= never or definitely no and 9 = always or definitely yes.

Horizontal individualism items:

1. I'd rather depend on myself than others.

2. I rely on myself most of the time; I rarely rely on others.

3. I often do "my own thing."

4. My personal identity, independent of others, is very important to me.

Vertical individualism items:

1. It is important that I do my job better than others.

2. Winning is everything.

3. Competition is the law of nature.

4. When another person does better than I do, I get tense and aroused.

Horizontal collectivism items:

1. If a coworker gets a prize, I would feel proud.

2. The well-being of my coworkers is important to me.

3. To me, pleasure is spending time with others.

4. I feel good when I cooperate with others.

Vertical collectivism items:

1. Parents and children must stay together as much as possible.

2. It is my duty to take care of my family, even when 1 have to sacrifice what I want.

3. Family members should stick together, no matter what sacrifices are required.

4. It is important to me that I respect the decisions made by my groups.

APPENDIX G: DUCKITT (2010) AUTHORITARIANISM SCALE

Authoritarian Submission

1. It's great that many young people today are prepared to defy authority (R).

2. What our country needs most is discipline, with everyone following our leaders in unity.

3. Students at high schools and at university must be encouraged to challenge, criticize, and confront established authorities (R).

4. Obedience and respect for authority are the most important virtues children should learn.

5. Our country will be great if we show respect for authority and obey our leaders.

6. People should be ready to protest against and challenge laws they don't agree with (R).

7. People should be allowed to make speeches and write books urging the overthrow of the government (R).

8. The more people there are that are prepared to criticize the authorities, challenge and protest against the government, the better it is for society (R).

9. People should stop teaching children to obey authority (R).

10. The real keys to the "good life" are respect for authority and obedience to those who are in charge.

11. The authorities should be obeyed because they are in the best position to know what is good for our country.

12. Our leaders should be obeyed without question.

Traditionalism

1. Nobody should stick to the "straight and narrow." Instead people should break loose and try out lots of different ideas and experiences (R).

2. The "old-fashioned ways" and "old-fashioned values" still show the best way to live.

3. God's laws about abortion, pornography, and marriage must be strictly followed before it is too late (Not included in original version of Traditionalism scale).

4. There is absolutely nothing wrong with nudist camps (R).

5. This country will flourish if young people stop experimenting with drugs, alcohol, and sex,

and pay more attention to family values.

6. There is nothing wrong with premarital sexual intercourse (R).

7. Traditional values, customs, and morality have a lot wrong with them (R).

8. Everyone should have their own lifestyle, religious beliefs, and sexual p

9. The radical and sinful new ways of living and behaving of many young people may one day destroy our society.

10. Trashy magazines and radical literature in our communities are poisoning the minds of our young people.

11. It is important that we preserve our traditional values and moral standards.

12. People should pay less attention to the bible and the other old-fashioned forms of religious guidance, and instead develop their own personal standards of what is moral and immoral (R).

Authoritarianism ("Authoritarian Aggression")

1. Strong, tough government will harm not help our country (R).

2. Being kind to loafers or criminals will only encourage them to take advantage of your weakness, so it's best to use a firm, tough hand when dealing with them.

3. Our society does NOT need tougher government and stricter laws (R.)

4. The facts on crime and the recent public disorders show we have to crack down harder on troublemakers, if we are going preserve law and order.

5. Our prisons are a shocking disgrace. Criminals are unfortunate people who deserve much better care, instead of so much punishment (R).

6. The way things are going in this country, it's going to take a lot of "strong medicine" to straighten out the troublemakers, criminals, and perverts.

7. We should smash all the negative elements that are causing trouble in our society.

8. The situation in our country is getting so serious, the strongest methods would be justified if they eliminated the troublemakers and got us back to our true path.

9. People who say our laws should be enforced more strictly and harshly are wrong. We need

greater tolerance and more lenient treatment for lawbreakers (R).

10. The courts are right in being easy on drug offenders. Punishment would not do any good in cases like these (R).

11. What our country really needs is a tough, harsh dose of law and order.

12. Capital punishment is barbaric and never justified (R).

APPENDIX H: PRATTO (1994) SOCIAL DOMINANCE ORIENTATION

SCALE

1. Some groups of people are simply inferior to other groups.

2. In getting what you want, it is sometimes necessary to use force against other groups.

3. It's OK if some groups have more of a chance in life than others.

4. To get ahead in life, it is sometimes necessary to step on other groups.

5. If certain groups stayed in their place, we would have fewer problems.

6. It's probably a good thing that certain groups are at the top and other groups are at the bottom.

7. Inferior groups should stay in their place.

8. Sometimes other groups must be kept in their place.

9. It would be good if groups could be equal.

10. Group equality should be our ideal.

11. All groups should be given an equal chance in life.

12. We should do what we can to equalize conditions for different groups.

13. Increased social equality.

14. We would have fewer problems if we treated people more equally.

15. We should strive to make incomes as equal as possible.

16. No one group should dominate in society.

APPENDIX I: DEMOGRAPHIC FORM FOR PILOT STUDY

1.　　　　What is your age?
2.　　　　What is your gender?
   a. Male
   b. Female
   c. Other
3.　　　　Which race do you identify as?
   a. Asian
   b. Black/African-American
   c. Hispanic/Latino
   d. American Indian/Alaska Native
   e. Multi-racial
   f. Native Hawaiian/Other Pacific Islander
   g. White
4.　　　　How would you describe your religious views?
   a. Atheist/Agnostic
   b. Buddhist
   c. Christian
   d. Hindu
   e. Jewish
   f. Muslim
   g. Other (please specify)
5.　　　　How frequently do you attend religious services?
   a. Never
   b. Rarely
   c. Sometimes
   d. Very often
   e. Always
6.　　　　Which political party do you identify with the most?
   a. Democratic
   b. Independent
   c. Libertarian
   d. Republican
   e. Other (please specify)
7.　　　　How accurately does your political party describe your views?

a. Extremely accurately
b. Very accurately
c. Moderately accurately
d. Slightly accurately
e. Not accurately at all

APPENDIX J: DEMOGRAPHIC FORM FOR FOLLOW-UP STUDY

1. What is your age?
2. What is your gender?
    a. Male
    b. Female
    c. Other
3. Which race do you identify as?
    a. Asian
    b. Black/African-American
    c. Hispanic/Latino
    d. American Indian/Alaska Native
    e. Multi-racial
    f. Native Hawaiian/Other Pacific Islander
    g. White
4. How would you describe your religious views?
    a. Atheist/Agnostic
    b. Buddhist
    c. Christian
    d. Hindu
    e. Jewish
    f. Muslim
    g. Other (please specify)
5. How frequently do you attend religious services?
    a. Never
    b. Rarely
    c. Sometimes
    d. Very often
    e. Always
6. Did you vote in the 2016 election?
    a. Yes
    b. No, I chose not to vote
    c. No, I was too young to vote in the 2016 election
    d. No, I did not register in time
    e. No, I am not eligible to vote
7. Did you vote in the 2018 election?
    a. Yes

b. No, I chose not to vote
c. No, I was too young to vote in the 2018 election
d. No, I did not register in time
e. No, I am not eligible to vote

8. Which presidential candidate did you vote for in the 2016 election?
   a. Hillary Clinton
   b. Donald Trump
   c. Jill Stein
   d. Gary Johnson
   e. Other (please specify)
   f. I did not vote for president in the 2016 election
   g. I did not vote in the 2016 election at all

9. Which political party do you identify with the most?
   a. Democratic
   b. Independent
   c. Libertarian
   d. Republican
   e. Other (please specify)

10. How accurately does your political party describe your views?
    a. Extremely accurately
    b. Very accurately
    c. Moderately accurately
    d. Slightly accurately
    e. Not accurately at all

APPENDIX K: INSTITUTIONAL REVIEW BOARD APPROVAL FOR

2017 STUDY

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Determination of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Melodie Spiegel** and Co-PI: **Doan T. Modianos**

Date: **December 18, 2017**

Dear Researcher:

On 12/18/2017, the IRB reviewed the following activity as human participant research that is exempt from regulation:

Type of Review:	Exempt Determination
Project Title:	Antecedent Conditions of Right-Wing Authoritarianism
Investigator:	Melodie Spiegel
IRB Number:	SBE-17-13596
Funding Agency:	
Grant Title:	
Research ID:	n/a

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

This letter is signed by:

Signature applied by Gillian Morien on 12/18/2017 04:09:05 PM EST

Designated Reviewer

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APPENDIX L: INSTITUTIONAL REVIEW BOARD APPROVAL FOR 2018

STUDY

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Determination of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Doan T. Modianos** and Co-PI: **Melodie Spiegel**

Date: **December 20, 2018**

Dear Researcher:

On 12/20/2018, the IRB reviewed the following activity as human participant research that is exempt from regulation:

Type of Review:	Exempt Determination
Project Title:	Antecedent Conditions of Authoritarianism
Investigator:	Doan T. Modianos
IRB Number:	SBE-18-14526
Funding Agency:	N/A
Grant Title:	N/A
Research ID:	N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

This letter is signed by:

Signature applied by Kamille Chaparro on 12/20/2018 12:16:21 AM EST

Designated Reviewer

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