



I hear you call my name and it feels like home: Right-Wing Authoritarianism and academic major choice

Dritjon Gruda^{a,b,*}, Jim A. McCleskey^c

^a Universidade Católica Portuguesa, Católica Porto Business School, Research Centre in Management and Economics, Portugal

^b Maynooth University, School of Business, Maynooth, Ireland

^c Western Governors University, Salt Lake City, USA

ARTICLE INFO

Keywords:

Right-Wing Authoritarianism
Personality
Education
Gender
Academics

ABSTRACT

Right-Wing Authoritarianism (RWA) is characterized by a preference for order, hierarchy, and conformity to norms, and has been associated with conservative values and structured environments. Using a sample of 5762 participants across 18 majors, we examine the association between RWA and academic college major choice, proposing that individuals with higher RWA scores are more likely to select disciplines that align with their values of structure and authority. We found that individuals with higher RWA scores were more likely to choose disciplines emphasizing authority and tradition, such as Business, Law, and Medicine. We also found a moderating effect of gender, in that men with high RWA tended to select traditionally masculine fields (e.g., Engineering and Law), while women favored caregiving-oriented majors (e.g., Psychology and Social Work), reinforcing conventional gender roles. These findings suggest that RWA influences not only political and social attitudes but also academic choices, highlighting the importance of considering personality traits in understanding educational trajectories and their broader social implications.

Defined by a constellation of attitudes including authoritarian submission, authoritarian aggression, and conventionalism, RWA has traditionally been characterized as a personality trait, reflecting a preference for order, hierarchy, and conformity to established norms (Altemeyer, 1981, 2007). However, recent research has challenged this perspective, suggesting that RWA might be better understood as a social attitude rather than a stable personality trait. For example, Duckitt et al. (2010) argue that RWA reflects a set of ideological beliefs shaped by social context, experiences, and motivational goals rather than intrinsic personality dispositions. This alternative conceptualization emphasizes the fluidity of RWA in response to societal and environmental influences, suggesting that it may be a malleable construct influenced by social and cultural factors. In this study, we adopt the traditional definition of RWA as a personality trait while acknowledging these alternative perspectives.

Right-Wing Authoritarianism is further comprised of a belief in external influences on personal destiny and a heightened awareness of social and moral issues (Ludeke & Krueger, 2013). Additionally, RWA is associated with security values, particularly those related to national strength, religiosity, propriety in dress and manners, and honesty, further reinforcing its alignment with conservative ideologies (Bird

et al., 2022; Duckitt & Sibley, 2010; Heaven & Connors, 2001). Individuals who score high on RWA tend to support authoritarian leaders, favor punitive measures against norm violators, and exhibit prejudice against groups perceived as threats to social order (e.g., McFarland, 2010). Previous research also has revealed a negative relationship between RWA and subjective well-being as well as Openness to Experience (Liu et al., 2017, 2019).

While much of the existing literature has focused on the effects of RWA on political attitudes and behaviors, RWA likely influences other significant life decisions as well. In this paper, we argue and empirically test the association between trait RWA and individuals' college major choices. Several scholars consider RWA a stable personality trait (Ludeke & Krueger, 2013), while others endorse a conceptualization of RWA as a socio-political attitude (Duckitt et al., 2010). Based on either conceptualization, we would expect individuals with high RWA scores to be attracted to and seek out academic disciplines that align with their predispositions toward structure, authority, and tradition. Yet, structured majors can vary widely in their associations with status and economic power. For example, while fields like Mathematics and Geography are structured and methodologically rigorous, majors such as Law and Finance carry stronger associations with economic status and

* Corresponding author.

E-mail addresses: jgruda@ucp.pt (D. Gruda), jim.mccleskey@hotmail.com (J.A. McCleskey).

<https://doi.org/10.1016/j.paid.2024.113036>

Received 4 September 2024; Received in revised form 20 December 2024; Accepted 31 December 2024

Available online 6 January 2025

0191-8869/© 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC license (<http://creativecommons.org/licenses/by-nc/4.0/>).

power. This differentiation reflects not only differences in career prospects but also the broader cultural and economic values attached to these fields. This distinction is critical for understanding how ideological traits like RWA may influence academic major choice.

In short, we argue that individuals with higher RWA scores may be more inclined to select majors that emphasize traditional values, clear hierarchies, and structured environments, such as Business, Law enforcement, and Engineering. We explore these relationships in a large sample of 5762 individuals across 18 college majors.

1. Right-Wing Authoritarianism and education

Personality traits play a significant role in the choice of college major. Holland's (1997) theory of vocational personalities and work environments suggests that individuals seek academic disciplines and careers aligning with their personality traits. For example, students who score high on traits such as Openness to Experience may be more likely to choose majors in the Humanities or Social Sciences, which encourage critical thinking and the exploration of new ideas (De Fruyt & Mervielde, 1996). Conversely, highly Machiavellian students tend to gravitate toward power and status-enhancing majors like Economics, Law, Politics, and Finance (Gruda et al., 2023; Gruda & McCleskey, 2024). While our study focuses on RWA, a complementary ideological construct, Social Dominance Orientation (SDO), has similarly been linked to preferences for hierarchical and structured environments (Kteily et al., 2012). Research shows that individuals high in SDO tend to gravitate toward hierarchy-enhancing occupations, suggesting a dynamic interplay between personality traits and contextual influences over time (Zubielevitch et al., 2022). These findings align with our exploration of how RWA may shape academic major choices but also highlight the potential for ideological traits like RWA and SDO to adapt to social and occupational contexts.

Interestingly, research has consistently shown an inverse relationship between RWA and education, with higher levels of education associated with lower RWA scores (McFarland, 2010; Van Hiel et al., 2004). The direction of this relationship may result from exposure to diverse perspectives and the development of critical thinking skills in higher education, which may challenge authoritarian attitudes. However, this perspective primarily views education as a moderating factor for RWA, potentially overlooking the possibility that RWA influences educational choices from the outset. This aligns with previous research by Kandler et al. (2016), who found that individual differences in RWA (in contrast to social dominance orientation, another related construct) to some extent are due to genetic factors, including genotype-environment correlations, further reinforced by an authoritarian parenting style, characterized by high levels of control and discipline but low levels of warmth and support (Baumrind, 1991). Therefore, individual differences in RWA may partly stem from genetic predispositions, as approximately half the variance in RWA has been attributed to genetic components (Kandler et al., 2016). Hence, children raised in such environments are more likely to develop authoritarian traits themselves, which could influence their educational and career choices.

Given that RWA includes a preference for order and security values and an adherence to established norms, it is reasonable to assume that individuals with higher RWA scores are more likely to choose college majors that align with these preferences. Specifically, we expect students scoring high on RWA to be more likely to choose more traditional and structured fields. By 'structured,' we refer to academic disciplines characterized by clear frameworks, hierarchical organization, and established norms within both their curriculum and professional trajectories. For example, fields like Business and Law are considered structured because they often involve formalized systems, defined professional pathways, and a focus on adherence to established rules and procedures (Biglan, 1973; Holland, 1997). This expected relationship is consistent with the established notion that individuals with higher RWA tend to gravitate to environments that provide clear rules, stability, and

respect for authority and tradition — attributes commonly associated with these majors. Furthermore, research by De Fruyt and Mervielde (1996) suggests that personality traits like conscientiousness, often linked to preferences for order and structure, predict the selection of majors in fields such as Business and Law. Similarly, studies suggest that individuals with high RWA are more comfortable in environments that reinforce traditional values and social order (Smith & Gordon, 1998). Therefore, we posit that participants who score high on RWA are more likely to choose more structured and traditional fields, such as business, economics, and law. We hypothesize the following:

H1. Individuals who score high on Right-Wing Authoritarianism are likely to choose more traditional, structured college majors.

2. RWA and gender differences in college major choice

The intersection of gender and Right-Wing Authoritarianism (RWA) offers a complex view of how personality traits might influence college major selection. Research consistently shows that gender significantly impacts academic self-selection, with men and women typically gravitating toward different types of disciplines. Women often choose people-oriented majors, such as education, nursing, and social sciences, while men are more inclined toward "things-oriented" majors, such as economics, law, and engineering (Gruda et al., 2023; Kuhn & Wolter, 2022; Lippa, 1998). Both societal norms and individual personality traits, including RWA, likely shape these preferences.

Gender differences in RWA have been documented, with studies suggesting that men generally score higher on RWA than women (Lippa, 1998). This disparity may stem from traditional gender roles, where men are socialized to prioritize authority, power, and hierarchy — traits closely associated with RWA. Therefore, it seems reasonable that the relationship between RWA and major choice may vary by gender, influenced by societal expectations and traditional roles. Put differently, although RWA generally predisposes individuals to favor structured, hierarchical environments, the specific disciplines that align with these preferences likely differ between men and women.

We expect to find gendered patterns in the relationship between RWA and academic major choice, reflecting broader societal expectations and the reinforcement of traditional gender roles within specific fields. Highly RWA men might choose a *masculine* major to conform to societal expectations of strength, control, and dominance. Conversely, a woman with high RWA might choose traditionally *feminine* majors as a means of aligning with these values within a framework that upholds conventional gender roles, thereby affirming her place within a socially conservative structure. We therefore hypothesize that women with higher RWA scores are more likely to select traditionally feminine disciplines such as Education, Psychology, and Social Work. These fields resonate with traditional female roles emphasizing caregiving, social harmony, and community values, aligning with the desire for stability and social order (Kuhn & Wolter, 2022; Lippa, 1998). For these women, choosing such majors reflects their authoritarian values and affirms their adherence to conventional gender norms. In contrast, women with lower RWA scores may be more inclined to pursue unconventional fields that deviate from traditional gendered expectations, potentially including both less structured majors (e.g., arts) and more hierarchical ones (e.g., Law, Business). Thus, the choice of traditionally feminine majors by women with high RWA likely presents a broader alignment with a worldview that prioritizes continuity, stability, and the preservation of traditional social hierarchies. Conversely, fields such as Business, Economics, and Law, which emphasize power, control, and adherence to conventional norms, may be particularly attractive to men with higher RWA. These disciplines could provide a clear path to positions of authority and respect within society, resonating with the security-oriented values that RWA individuals prioritize (Heaven & Connors, 2001).

In short, while both men and women with high RWA may choose majors that reinforce traditional gender roles, the specific fields they

choose and the underlying motivations for these choices may differ based on gender. Based on these considerations, we hypothesize the following:

H2. Gender moderates the relationship between RWA and college major choice in that women (men) who score high on RWA are more likely to select traditionally feminine (masculine) majors.

3. Methods

This study's sample was based on a publicly available dataset (<http://openpsychometrics.org>) comprising 9881 observations across 69 countries. The data used in this study were collected in 2015 through an interactive online version of the Right-Wing Authoritarianism Scale (RWAS), following the scale described by Altemeyer (2007). Participants initially completed the test for personal amusement and, before receiving their results, were asked whether they would be willing to complete an additional survey and allow their responses to be saved for research purposes. Only those who agreed were included in the dataset. Individuals under the age of 13 were excluded from participation. The dataset also includes demographic information (e.g., age, gender, native language, education level, college major, etc.). The inclusion of detailed demographic and behavioral variables allowed for comprehensive analyses of the association between college majors and Right-Wing Authoritarianism. In total, 6241 participants indicated their college majors. To ensure data quality, the survey included three attention-check items embedded within a checklist of vocabulary terms. Participants were asked to 'check all the words whose definitions you are sure you know.' Among the 16 listed items, three ('cui vocal', 'florted' and 'verdid') were non-existent words, serving as validity checks. Participants who selected any of these fictitious words and specified English was not their native language or failed to answer the English native language question were excluded from the analysis. This criterion was applied to ensure the retention of high-quality, reliable responses in the final dataset. In total, 5952 (34.32 % female) participants passed these attention-check questions.

To ensure sufficient observations per category for meaningful statistical analysis, we grouped together majors with similar characteristics in terms of curriculum focus and professional trajectories, following the categorization process outlined in Gruda et al. (2023). The college majors reported by participants were grouped into 18 categories (Table 1), resulting in a final sample of 5762 participants. For the multinomial logistic regression analysis, the Natural Sciences category, which had the highest number of observations, was used as the baseline reference group. Each of the remaining 17 categories was coded as a separate categorical variable for comparison against this baseline. To account for the risk of inflated Type I errors due to the number of categories, robust standard errors were employed in all models. This approach ensures reliable statistical inference while mitigating the likelihood of spurious findings.

3.1. Measures

Right-Wing Authoritarianism. RWA ($\alpha = 0.96$; $M = 2.67$, $SD = 1.66$) was assessed using the online version of the 20-item scale (1 = strongly disagree, 9 = strongly agree) developed by Altemeyer (2007). Items were presented at random. Items included statements such as "The established authorities generally turn out to be right about things, while the radicals and protesters are usually just 'loud mouths' showing off their ignorance" and "Our country needs free thinkers who will have the courage to defy traditional ways, even if this upsets many people" (reverse scored).

Demographics. The participants varied significantly in age, with many having completed undergraduate degrees, as well as advanced and professional degrees such as an MBA or JD. Given that aspirations for future professional degrees could impact undergraduate major choices,

Table 1
Overview of college majors categories.

	n	Male	Female	Example majors
Art and Design	382	198	184	Design, Fine Art, Music, Theater
Business	275	193	82	Business, Commerce, Marketing
Communication	171	97	74	Communication, Journalism, Media
Computer Science	500	434	66	Computer science, Informatics, IT
Economics	192	152	40	Economics, Business Economics
Education	113	47	66	Education, Educational Science, Teaching
Engineering	524	450	74	Civil Eng*, Mechanical Eng*, Industrial Eng*
Geography	112	76	36	Geography, Forestry, Geology
Health and Medicine	168	102	66	Health, Medicine, Dentistry
History	333	253	80	History, Actuarial Sciences
Humanities	561	289	272	Humanities, Languages, Liberal Arts
Law	210	142	68	Criminal Justice, Law, Paralegal Studies
Mathematics	149	123	26	Math, Mathematics, Statistics
Natural Sciences	622	431	191	Biology, Chemistry, Physics
Philosophy	143	117	26	Philosophy, Philosophy and Logic
Politics	393	281	112	Political Science, Politicalology, Public Administration
Psychology	552	246	306	Behavioral Science, Cognitive Sciences, Psychology
Social Science	257	114	143	Anthropology, Social Science, Sociology
Social Work	105	21	84	Childcare, Social Work, Physical Therapy

Note: $n = 5762$.

we controlled for both age and educational level. We also included gender as both a control variable (main analyses) and moderator (subsequent analyses).

4. Results

Pairwise correlations are provided in Table 2.

RWA group-mean (i.e., between college majors) reliability was high ($=0.91$), and a one-way ANOVA concluded significant RWA score differences between college majors ($F(22) = 11.01$, $p < 0.001$). Right-Wing Authoritarianism (RWA) scores were standardized to facilitate comparisons across groups and variables. To do so, we subtracted the mean from each observation and dividing by the standard deviation (i.e., $M = 0$, $SD = 1$). We provide a visual overview of the distribution of standardized RWA scores across college majors in Fig. 1.

Results (Fig. 1) indicate significant differences in (standardized) RWA scores across several college majors. For example, participants who majored in Social Science reported much lower RWA scores ($= -0.31$) than participants who majored in more structured majors such as Accounting and Finance ($=0.42$) and Law ($=0.56$).

We also examined (standardized) RWA differences across majors based on gender. A mean comparison test ($t(5950) = 12.04$, $p < 0.001$) indicated that male participants ($M = 0.11$) had higher RWA scores than female participants ($M = -0.21$) across all majors. We plotted these

Table 2
Pairwise zero-order correlations between main variables.

	M	SD	1	2	3
(1) RWA	2.67	1.66	(0.96)		
(2) Age	35.81	14.93	-0.16***		
(3) Gender	1.34	0.47	-0.15***	0.01	
(4) Education	3.10	0.78	-0.13***	0.38***	-0.01

Note: Gender coded as 1 (male) and 2 (female); Education coded as 1 (less than high school), 2 (high school), 3 (university degree), and 4 (graduate degree); Cronbach alphas in parentheses; $n = 5762$.

*** $p < 0.001$.

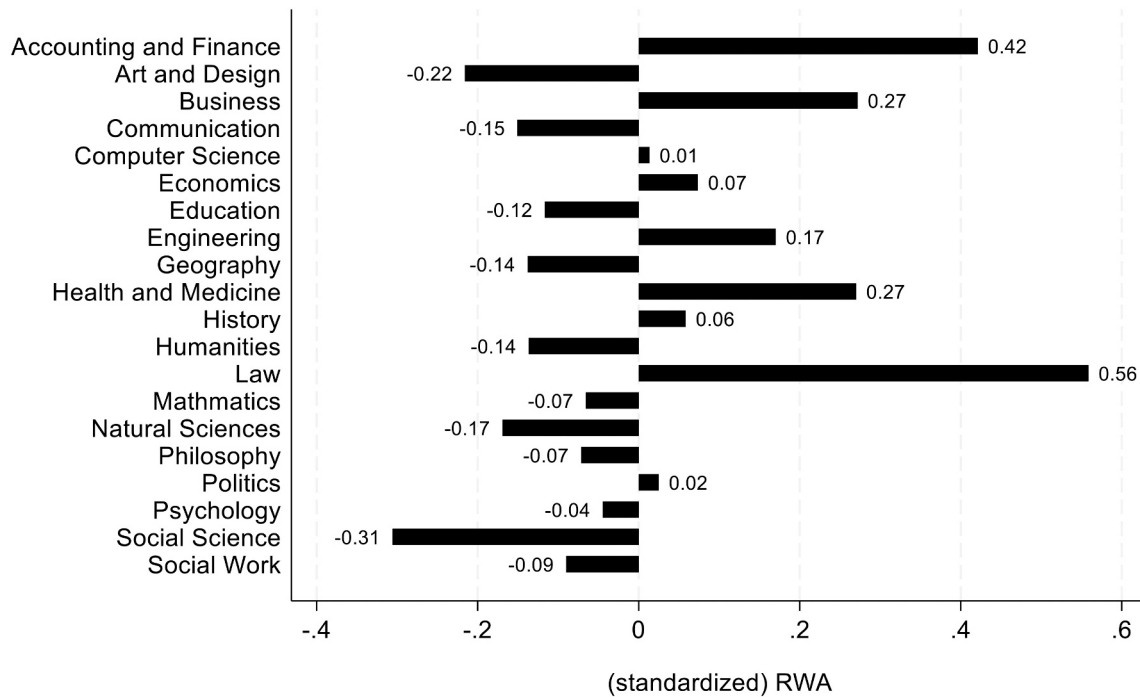


Fig. 1. Right-Wing Authoritarianism scores by academic major.

gender differences by major in Fig. 2. Effect sizes were interpreted using Cohen's (2013) guidelines for small ($d=0.2$), medium ($d = 0.5$), and large ($d = 0.8$) effects.

Results indicate that gender plays an important role in predicting college major selection. For instance, gender differences were found in several majors, including Communication ($t(169) = 3.90, p < 0.001; d = 0.60, 95\% \text{ CI } [0.29, 0.91]; M_{\text{male}} = 0.09, SD = 0.11; M_{\text{female}} = -0.46, SD = 0.08$), Economics ($t(190) = 3.61, p < 0.001; d = 0.64, 95\% \text{ CI } [0.29, 0.99]; M_{\text{male}} = 0.20, SD = 0.09; M_{\text{female}} = -0.41, SD = 0.07$), Engineering ($t(522) = 3.13, p = 0.002; d = 0.39, 95\% \text{ CI } [0.15, 0.64];$

$M_{\text{male}} = 0.23, SD = 0.05; M_{\text{female}} = -0.18, SD = 0.09$), History ($t(331) = 4.28, p < 0.001; d = 0.55, 95\% \text{ CI } [0.29, 0.80]; M_{\text{male}} = 0.20, SD = 0.07; M_{\text{female}} = -0.38, SD = 0.07$), Law ($t(208) = 0.78, p < 0.001; d = 0.55, 95\% \text{ CI } [0.25, 0.84]; M_{\text{male}} = 0.78, SD = 0.12; M_{\text{female}} = 0.09, SD = 0.12$) and Politics ($t(391) = 2.83, p = 0.005; d = 0.31, 95\% \text{ CI } [0.10, 0.54]; M_{\text{male}} = 0.12, SD = 0.07; M_{\text{female}} = -0.21, SD = 0.07$). Except for the major Social Work ($M_{\text{male}} = -0.35, SD = 0.16; M_{\text{female}} = -0.02, SD = 0.10$), on average, male participants scored higher than female participants on RWA across all majors.

To test the relationship between RWA and specific college majors

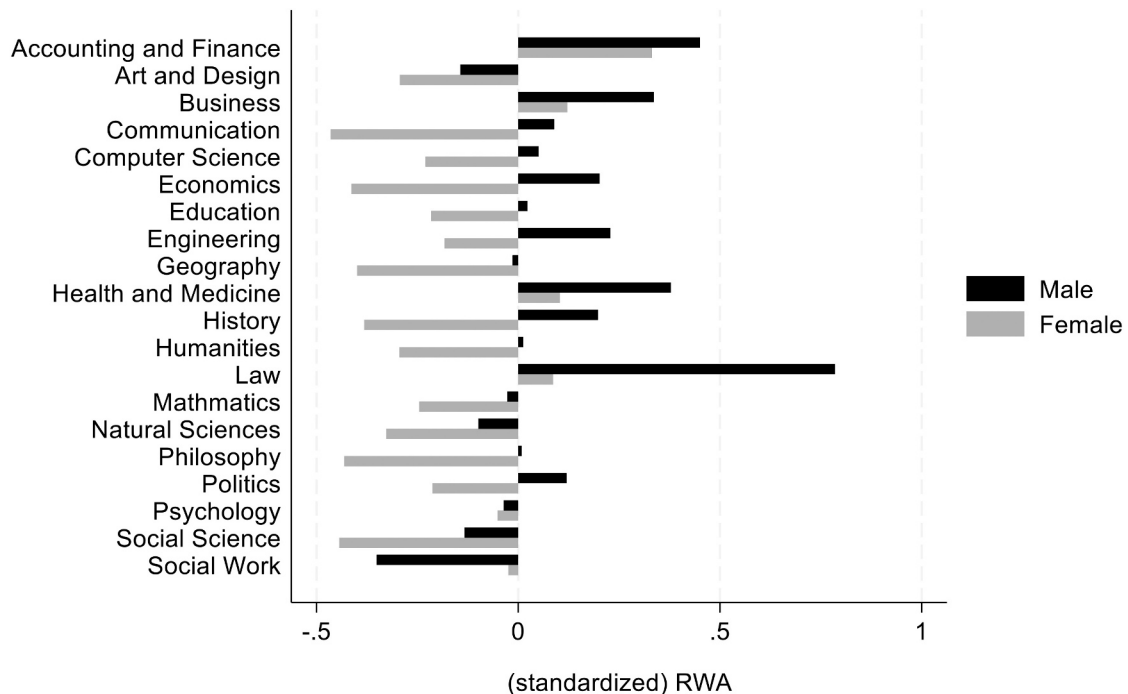


Fig. 2. Right-Wing Authoritarianism scores by academic major and gender.

while controlling for other factors, including demographics (i.e., age, gender, and educational attainment), we ran a multinomial logistic regression with robust standard errors. To ensure a large enough sample per college major, we limited this analysis to college majors with at least 100 observations in our sample. The college major, Natural Sciences, was designated as the baseline major, given that it was the most popular major in our dataset. The results are shown in Table 3 (for standardized coefficients see Table 4) and visually depicted in Fig. 3.

Results indicate that RWA was positively associated with several majors (Table 3) and most strongly with business ($b = 0.29, SE = 0.04, z = 6.54, p < 0.001$), Health and Medicine ($b = 0.29, SE = 0.05, z = 5.75, p < 0.001$), and law ($b = 0.38, SE = 0.05, z = 8.39, p < 0.001$).

4.1. Subsequent analyses

We also examined gender as a moderator of the relationship between RWA and college major choice. To do so, we ran the same multinomial regression model, specifying a two-way interaction between RWA and gender. Two-way interaction results are shown in Table 5 (unstandardized coefficients; for standardized coefficients see Table 6) and visually depicted in Fig. 4.

Two-way interactions between RWA and gender (Table 5) significantly predicted the likelihood of choosing five specific academic majors, including Communication ($b = -0.37, SE = 0.18, z = -2.01, p = 0.045$), Economics ($b = -0.31, SE = 0.14, z = -2.21, p = 0.027$), History ($b = -0.26, SE = 0.13, z = -2.06, p = 0.04$), Psychology ($b = 0.21, SE = 0.09, z = 2.32, p = 0.02$) and Social Work ($b = 0.51, SE = 0.24, z = 2.11, p = 0.035$).

Interpreting interaction coefficients in isolation is inherently complex because these coefficients represent changes in relationships rather than direct effects. Unlike main effects (Tables 3 and 4), which provide an average impact of a predictor on the outcome, interaction effects are conditional on the values of the interacting variables. Therefore, while the standardized coefficients for interactions appear larger than some main effects (e.g., Economics), their practical significance can only be fully understood through visualizations, such as marginal effects plots. Accordingly, we plotted these significant interactions ($\pm 1SD$). Interactions are shown in Fig. 5.

Results (Fig. 5) show that female participants who score high on

Table 3

Unstandardized regression coefficients for Right-Wing Authoritarianism predicting the likelihood of selecting specific academic majors.

Academic major	b	SE	z	CI 95 %
Art and Design	-0.02	0.05	-0.34	[-0.12; 0.08]
Business	0.29***	0.04	6.54	[0.20; 0.37]
Communication	0.05	0.07	0.73	[-0.08; 0.18]
Computer Science	0.07	0.04	1.74	[-0.01; 0.15]
Economics	0.15**	0.05	2.94	[0.05; 0.24]
Education	0.15*	0.07	2.06	[0.01; 0.28]
Engineering	0.19***	0.04	4.99	[0.12; 0.27]
Geography	0.04	0.08	0.59	[-0.11; 0.19]
Health and Medicine	0.29***	0.05	5.75	[0.19; 0.38]
History	0.16***	0.05	3.50	[0.07; 0.25]
Humanities	0.07	0.04	1.69	[-0.01; 0.15]
Law	0.38***	0.05	8.39	[0.29; 0.47]
Mathematics	0.06	0.07	0.96	[-0.07; 0.19]
Philosophy	0.07	0.07	1.01	[-0.07; 0.21]
Politics	0.11**	0.04	2.57	[0.03; 0.20]
Psychology	0.13***	0.04	3.19	[0.05; 0.21]
Social Science	-0.08	0.06	-1.23	[-0.20; 0.04]
Social Work	0.17*	0.08	2.32	[0.03; 0.32]
$\chi^2(72) = 936.64$				
Pseudo R ² = 0.033				

Note: CI = Confidence interval; n = 5762.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

Table 4

Standardized regression coefficients for Right-Wing Authoritarianism predicting the likelihood of selecting specific academic majors.

Academic major	b	SE	z	CI 95 %
Art and Design	-0.03	0.08	-0.34	[-0.19; 0.14]
Business	0.48***	0.07	6.54	[0.33; 0.62]
Communication	0.08	0.11	0.73	[-0.14; 0.30]
Computer Science	0.12	0.07	1.74	[-0.01; 0.25]
Economics	0.24**	0.08	2.94	[0.08; 0.40]
Education	0.24**	0.12	2.06	[0.01; 0.47]
Engineering	0.32***	0.06	4.99	[0.19; 0.44]
Geography	0.07	0.13	0.59	[-0.17; 0.32]
Health and Medicine	0.47***	0.08	5.75	[0.31; 0.63]
History	0.26***	0.07	3.50	[0.11; 0.41]
Humanities	0.12	0.07	1.69	[-0.02; 0.26]
Law	0.63***	0.07	8.39	[0.48; 0.77]
Mathematics	0.10	0.11	0.96	[-0.11; 0.32]
Philosophy	0.12	0.12	1.01	[-0.11; 0.35]
Politics	0.19**	0.07	2.57	[0.04; 0.33]
Psychology	0.22***	0.07	3.19	[0.08; 0.35]
Social Science	-0.12	0.10	-1.23	[-0.32; 0.07]
Social Work	0.29*	0.12	2.32	[0.04; 0.53]
$\chi^2(72) = 936.64$				
Pseudo R ² = 0.033				

Note: standardized coefficients; CI = Confidence interval; n = 5762.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

RWA were significantly less likely to study Communication (slope = $-0.011, SE = 0.005, z = -2.11, p = 0.035$), and more likely to study Psychology (slope = $0.023, SE = 0.006, z = 4.01, p < 0.001$) and Social Work (slope = $0.008, SE = 0.003, z = 2.44, p = 0.015$) compared to male participants. On the other hand, male participants who scored high on RWA were more likely to study History (slope = $0.005, SE = 0.002, z = 2.33, p = 0.02$). Nonetheless, the effect sizes of these interactions are quite small, especially in comparison to the main effects (Tables 3 and 4).

5. Discussion

In this study, we explored whether RWA serves as a predictor of college major choice among a large sample of participants, in addition to examining the moderating role of gender. Consistent with our first hypothesis, results indicated that individuals with higher RWA scores were more likely to study traditionally structured and hierarchical majors, such as Accounting and Finance, Business, Health and Medicine, and Law. These fields emphasize order, authority, and adherence to established norms — characteristics that align well with the predispositions associated with RWA (Altemeyer, 2007). This finding reinforces the notion that RWA influences political and social attitudes and extends into significant life decisions such as educational and career choices. However, the predictive power of RWA seems to diminish for majors such as Geography, Mathematics, and the Natural Sciences. These fields may possess a mix of characteristics, such as analytical rigor and structured methodologies, but without the explicitly traditional or hierarchical cultural associations that resonate with higher RWA scores. This attenuation suggests that RWA's influence is strongest in fields where ideological alignment with traditional or untraditional values is most apparent. Additionally, the differentiation between structured majors, such as Mathematics and Geography, and similarly structured majors, such as Law and Finance, lies in their associations with economic status and power. Majors tied to economic power may carry an additional symbolic or instrumental value that could amplify their appeal to individuals with high RWA scores.

Moreover, we also found significant gender differences in the relationship between RWA and major selection, supporting our second hypothesis. For men, higher RWA scores were associated with a greater

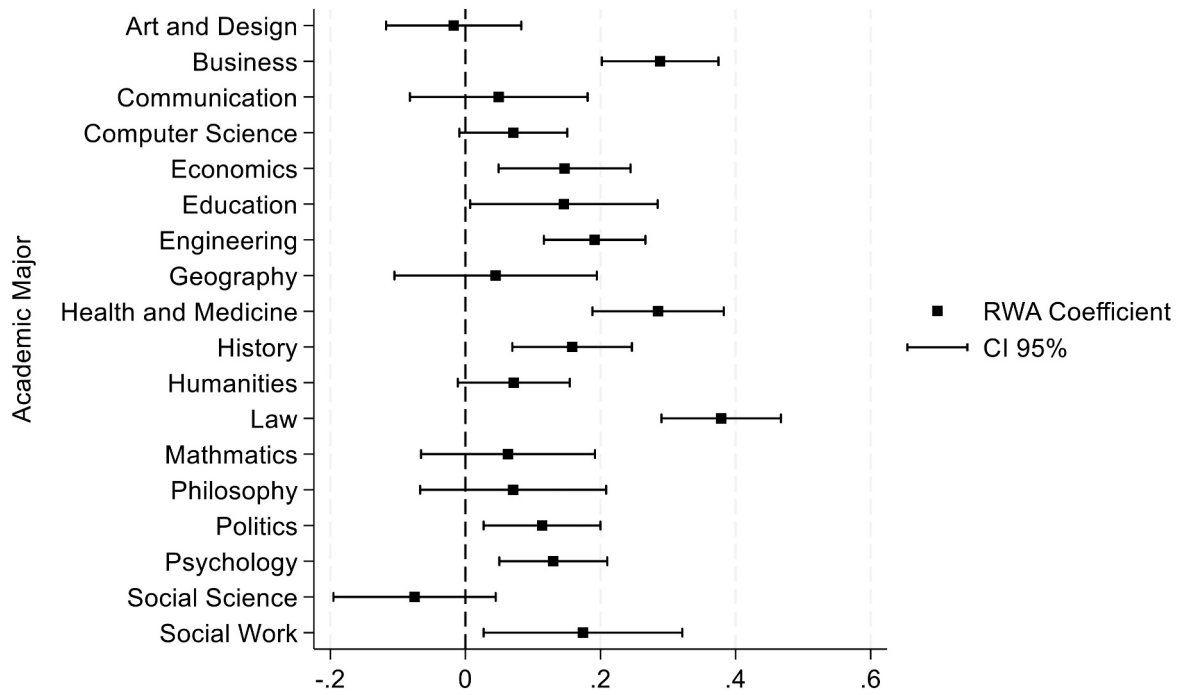


Fig. 3. Main effect of Right-Wing Authoritarianism predicting the likelihood of selecting specific academic majors.

Table 5

Two-way interaction unstandardized coefficients (Right-Wing Authoritarianism and gender) for all academic majors.

Academic major	b	SE	z	CI 95 %
Art and Design	0.05	0.11	0.45	[-0.17; 0.27]
Business	0.12	0.11	1.07	[-0.10; 0.33]
Communication	-0.37*	0.18	-2.01	[-0.73; -0.01]
Computer Science	0.00	0.13	-0.02	[-0.25; 0.25]
Economics	-0.31*	0.14	-2.21	[-0.59; -0.04]
Education	0.00	0.15	0.01	[-0.29; 0.30]
Engineering	-0.05	0.11	-0.44	[-0.27; 0.17]
Geography	-0.18	0.18	-1.00	[-0.52; 0.17]
Health and Medicine	0.09	0.11	0.85	[-0.12; 0.31]
History	-0.26*	0.13	-2.06	[-0.52; -0.01]
Humanities	-0.06	0.10	-0.59	[-0.24; 0.13]
Law	-0.04	0.11	-0.39	[-0.26; 0.17]
Mathematics	0.04	0.21	0.21	[-0.37; 0.46]
Philosophy	-0.25	0.25	-0.98	[-0.74; 0.25]
Politics	0.00	0.10	-0.01	[-0.21; 0.20]
Psychology	0.21*	0.09	2.32	[0.03; 0.39]
Social Science	-0.16	0.13	-1.25	[-0.41; 0.09]
Social Work	0.51*	0.24	2.11	[0.04; 0.99]
$\chi^2(90) = 979.02$				
Pseudo R ² = 0.034				

Note: CI = Confidence interval; n = 5762.

* p < 0.05.

likelihood of choosing majors that align with traditional masculine roles. Often perceived as more authoritative and less empathetic, these disciplines may appeal to men with high RWA (Kuhn & Wolter, 2022; Lippa, 1998). Conversely, women with high RWA scores were more likely to choose traditionally feminine majors, such as Psychology and Social Work. These disciplines, which emphasize caregiving, social harmony, and community-oriented values, are aligned with the nurturing and supportive roles historically assigned to women (Kuhn & Wolter, 2022; Lippa, 1998). This suggests that women with high RWA may seek to affirm their adherence to conventional gender norms through their academic choices, selecting fields that allow them to express their authoritarian values within a context that upholds traditional female roles.

Table 6

Two-way interaction standardized coefficients (Right-Wing Authoritarianism and gender) for all academic majors.

Academic major	b	SE	z	CI 95 %
Art and Design	0.08	0.19	0.45	[-0.28; 0.45]
Business	0.19	0.18	1.07	[-0.16; 0.54]
Communication	-0.61*	0.31	-2.01	[-1.21; -0.01]
Computer Science	-0.01	0.21	-0.02	[-0.42; 0.41]
Economics	-0.52*	0.23	-2.21	[-0.97; -0.06]
Education	0.00	0.25	0.01	[-0.49; 0.49]
Engineering	-0.08	0.19	-0.44	[-0.45; 0.28]
Geography	-0.29	0.29	-1.00	[-0.87; 0.28]
Health and Medicine	0.16	0.18	0.85	[-0.20; 0.51]
History	-0.44*	0.21	-2.06	[-0.86; -0.02]
Humanities	-0.09	0.16	-0.59	[-0.40; 0.22]
Law	-0.07	0.18	-0.39	[-0.43; 0.29]
Mathematics	0.07	0.35	0.21	[-0.62; 0.77]
Philosophy	-0.41	0.42	-0.98	[-1.23; 0.41]
Politics	-0.00	0.17	-0.01	[-0.34; 0.34]
Psychology	0.35*	0.15	2.32	[0.05; 0.64]
Social Science	-0.26	0.21	-1.25	[-0.67; 0.15]
Social Work	0.85*	0.40	2.11	[0.06; 1.64]
$\chi^2(90) = 979.02$				
Pseudo R ² = 0.034				

Note: CI = Confidence interval; n = 5762.

* p < 0.05.

However, it is important to recognize that while the main effects of RWA on academic major choice are robust for several disciplines, such as Law, Business, and Health and Medicine, the interaction effects of RWA and gender are generally smaller in magnitude (some exceptions were observed, e.g., Social Work and Economics), operate at the margins and likely impact a smaller subset of individuals. This distinction underscores the need to interpret the interactions cautiously and view them as complementary, rather than equivalent, to the main effects. These results may be influenced by smaller sample sizes for certain majors and could reflect the dynamics of a limited sub-sample, particularly of female participants. These results suggest that while gender moderates the relationship between RWA and major choice in certain fields, the primary drivers remain the overarching tendencies captured

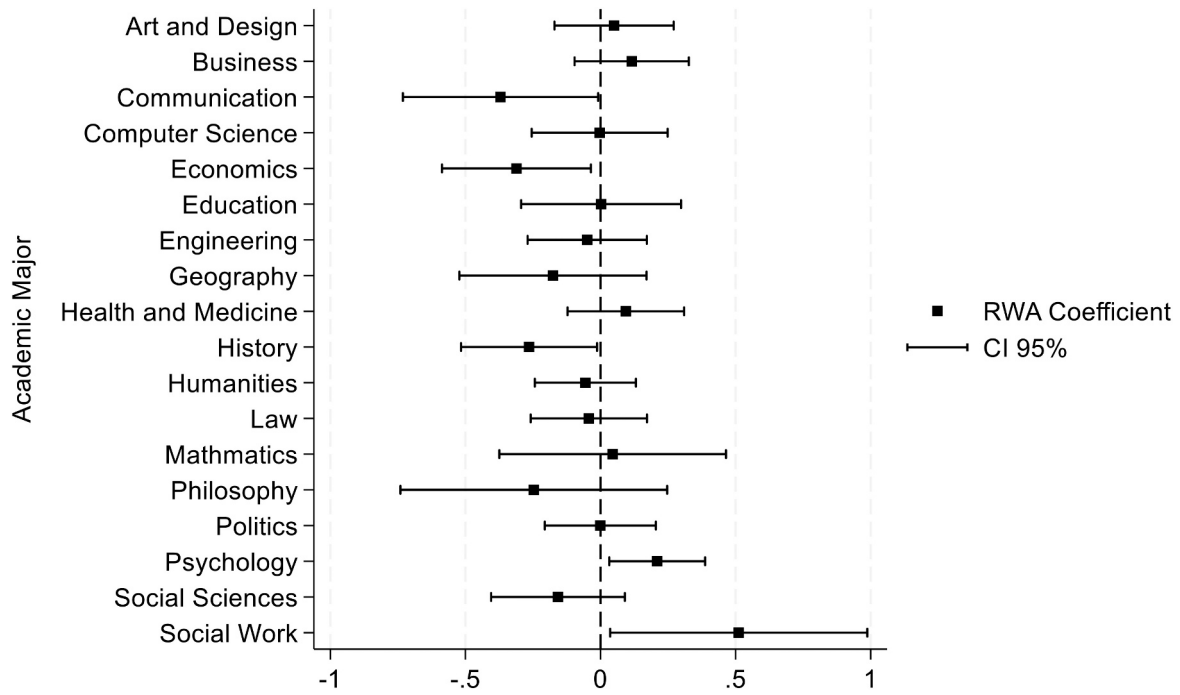


Fig. 4. Two-way interaction (Right-Wing Authoritarianism and gender) for all academic majors.

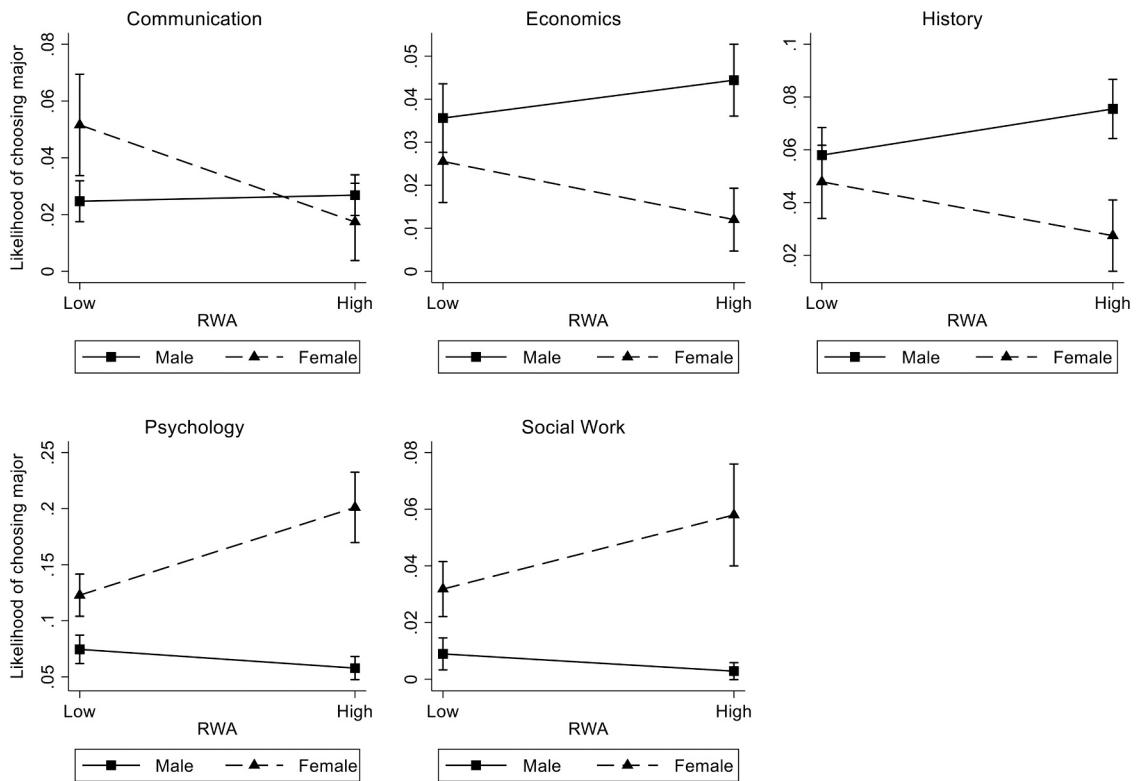


Fig. 5. Two-way interaction between Right-Wing Authoritarianism and gender predicting the likelihood of selecting specific academic majors. Note: RWA = Right-Wing Authoritarianism; y-axis scales differ across plots to accurately reflect the range of predicted probabilities for each major.

by the main effects. We encourage future research to validate these findings with larger, more representative samples to better understand gender moderation in specific fields, particularly those tied to traditional gender roles or caregiving-oriented professions.

Our findings also speak to the discussion on the relationship between RWA and education more broadly. While higher education generally

correlates with lower RWA scores (McFarland, 2010; Van Hiel et al., 2004), in line with our findings (see negative correlation between RWA and education in Table 2), the specific context and structure of the educational environment seems to play a crucial role in either reinforcing or moderating authoritarian tendencies. Hence, certain educational environments may reinforce rather than challenge authoritarian

attitudes, particularly in disciplines or institutions where hierarchy and traditional values are emphasized (Hurley & Hurley, 2015). Nevertheless, it seems that academic major choices are influenced by individual predispositions and the social as well as cultural context in which these individuals operate. This conclusion also aligns with the conceptualization of RWA as a socio-political attitude shaped by context, rather than as a stable personality trait.

For educators and counselors, these findings highlight the importance of recognizing how personality traits like RWA can shape students' academic trajectories. By acknowledging the role of RWA in men and women, educators could better support students in making informed and fulfilling educational choices that align with their values and long-term goals. For policymakers, our study suggests the need for educational environments that respect individual differences and promote critical thinking and exposure to diverse perspectives. It is not sufficient to point to the inverse relationship between RWA and higher education, rather specific efforts should be made to create academic environments that are both challenging and more inclusive, to encourage students who score high on RWA to explore a broader range of disciplines.

6. Limitations

While this study provides important insights, it also has several limitations. First, we recognize critiques of viewing RWA (and relatedly SDO) as a stable personality trait. For example, Guimond et al. (2003) argued that intergroup attitudes like RWA and SDO are shaped not only by dispositional factors but also by social and contextual determinants.

Second, our sample exhibited a gender imbalance, with a lower proportion of women than men. This imbalance may influence the generalizability of our findings. Future research could explore whether these patterns hold across more balanced or female-dominated student populations.

Third, we categorized academic majors based on theoretical frameworks and prior research linking personality traits to academic and professional preferences. While this approach provided a strong foundation for examining RWA's predictive power, we did not formally quantify the structure or hierarchy orientation of majors using independent measures, such as expert ratings or external indicators such as perceived status or median income associated with relevant professions. Incorporating such measures could provide a more objective and replicable basis for categorization, reducing potential bias and enhancing the robustness of future analyses.

7. Conclusion

In this study, we empirically examined and found support for the influence of RWA on college major choice, with gender playing a moderating role. Men with high RWA tended to gravitate toward majors that reinforce traditional masculine roles. In contrast, women with high RWA were more likely to choose traditionally feminine fields that align with their values of social order and stability. Nevertheless, the primary determinants of academic major choice in our study were the main effects of RWA and gender, with interaction effects offering additional but less influential insights into gender-specific patterns in a subset of disciplines. These findings underscore the complex interplay between personality, gender, and societal norms in shaping educational trajectories.

CRedit authorship contribution statement

Dritjon Gruda: Writing – review & editing, Methodology, Formal analysis, Data curation, Conceptualization. **Jim A. McCleskey:** Writing – original draft.

Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used ChatGPT 4o and o1 preview in order to clarify and rephrase several written paragraphs throughout the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Declaration of competing interest

The authors declare that they have no conflicts of interest regarding the publication of this manuscript. All research was conducted in an unbiased manner, and there are no financial or personal relationships with other individuals or organizations that could inappropriately influence the work or its interpretation.

Data availability

Our study uses publicly available data. A link to the respective dataset has been provided in the manuscript.

References

- Altemeyer, B. (1981). *Right-wing authoritarianism*. University of Manitoba Press.
- Altemeyer, B. (2007). *The authoritarians*. University of Manitoba Press.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, 11(1), 56–95.
- Biglan, A. (1973). The characteristics of subject matter in different academic areas. *Journal of Applied Psychology*, 57(3), 195–203. <https://doi.org/10.1037/h0034701>
- Bird, R. T., Hickey, H. K., Leavitt, M. J., & Robinson, J. L. (2022). The Dark Authoritarians: Profiling the personality, emotional style, and authoritarian attitudes of the major American parties. *Personality and Individual Differences*, 186, Article 111298. <https://doi.org/10.1016/j.paid.2021.111298>
- Cohen, J. (2013). *Statistical Power Analysis for the Behavioral Sciences*. Routledge.
- De Fruyt, F., & Mervielde, I. (1996). Personality and interests as predictors of educational streaming and achievement. *European Journal of Personality*, 10(5), 405–425.
- Duckitt, J., Bizumic, B., Krauss, S. W., & Heled, E. (2010). A tripartite approach to right-wing authoritarianism: The authoritarianism-conservatism-traditionalism model. *Political Psychology*, 31(5), 685–715.
- Duckitt, J., & Sibley, C. G. (2010). Personality, ideology, prejudice, and politics: A dual-process motivational model. *Journal of Personality*, 78(6), 1861–1894.
- Gruda, D., McCleskey, J., & Khoury, I. (2023). Cause we are living in a Machiavellian world, and I am a Machiavellian major: Machiavellianism and academic major choice. *Personality and Individual Differences*, 205, Article 112096.
- Gruda, D., & McCleskey, J. A. (2024). I keep my mind on my money and my money on my mind: Trait Machiavellianism in business majors. *Acta Psychologica*, 250, Article 104567.
- Guimond, S., Dambrun, M., Michinov, N., & Duarte, S. (2003). Does social dominance generate prejudice? Integrating individual and contextual determinants of intergroup cognitions. *Journal of Personality and Social Psychology*, 84(4), 697.
- Heaven, P. C. L., & Connors, J. R. (2001). A note on the value correlates of social dominance and right-wing authoritarianism. *Personality and Individual Differences*, 31(6), 925–930.
- Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Psychological Assessment Resources.
- Hurley, R., & Hurley, M. (2015). Education alone is not the answer: The effects of college environment on authoritarian attitudes. *Journal of Political Psychology*, 20(4), 120–134.
- Kandler, C., Bell, E., & Riemann, R. (2016). The structure and sources of right-wing authoritarianism and T dominance orientation. *European Journal of Personality*, 30(4), 406–420.
- Kteily, N., Ho, A. K., & Sidanius, J. (2012). Hierarchy in the mind: The predictive power of social dominance orientation across social contexts and domains. *Journal of Experimental Social Psychology*, 48(2), 543–549.
- Kuhn, A., & Wolter, S. C. (2022). Things versus people: Gender differences in vocational interests and in occupational preferences. *Journal of Economic Behavior & Organization*, 203, 210–234.
- Lippa, R. (1998). Gender-related individual differences and the structure of vocational interests: The importance of the people-things dimension. *Journal of Personality and Social Psychology*, 74(4), 996–1009. <https://doi.org/10.1037/0022-3514.74.4.996>
- Liu, H., Peng, F., Zeng, X., Zhao, J., & Zhang, X. (2019). Authoritarian personality and subjective well-being in Chinese college students: The moderation effect of the organizational culture context. *Personality and Individual Differences*, 138, 79–83. <https://doi.org/10.1016/j.paid.2018.09.030>
- Liu, J., Ludeke, S. G., & Zettler, I. (2017). The HEXACO correlates of authoritarianism's facets in the U.S. and Denmark. *Personality and Individual Differences*, 116, 348–352. <https://doi.org/10.1016/j.paid.2017.05.015>

- Ludeke, S. G., & Krueger, R. F. (2013). Authoritarianism as a personality trait: Evidence from a longitudinal behavior genetic study. *Personality and Individual Differences, 55* (5), 480–484. <https://doi.org/10.1016/j.paid.2013.04.015>
- McFarland, S. (2010). Authoritarianism, social dominance, and other roots of generalized prejudice. *Political Psychology, 31*(3), 453–477.
- Smith, E. R., & Gordon, R. A. (1998). The impact of values on college major choice: An investigation of the theoretical and empirical linkages. *Journal of Career Assessment, 6*(1), 1–16.
- Van Hiel, A., Pandelaere, M., & Duriez, B. (2004). The impact of need for closure on conservative beliefs and racial prejudice: The mediating role of authoritarianism and social dominance. *Personality and Social Psychology Bulletin, 30*(7), 824–837.
- Zubielevitch, E., Cheung, G. W., Sibley, C. G., Sengupta, N., & Osborne, D. (2022). People and the place: Social dominance orientation is reciprocally associated with hierarchy-enhancing occupations over time. *Journal of Management, 48*(5), 1243–1269.