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Replacement thinking, status threat, and the endorsement of political violence among non-Hispanic white individuals in the US: A cross-sectional study

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ABSTRACT

Objective: This study investigates the association between replacement thinking, status threat perceptions, and the endorsement of political violence among non-Hispanic white adults in the United States. It explores how perceived threats to social status can drive support for extreme measures aimed at preserving white hegemony, addressing a gap in research on factors contributing to political violence, a public health concern.

Methods: The 2022 Life in America Survey provided data for this cross-sectional study, focusing on status threat and replacement thinking among non-Hispanic white respondents. Status threat was inferred from relative income, education level, and racial segregation in residential census tracts, while replacement thinking was derived through agreement with the statement "in America, native-born white people are being replaced by immigrants." The outcome was the endorsement of political violence. Analysis utilized a survey-weighted robust modified Poisson model.

Results: Among 5,976 non-Hispanic white respondents, 18.7 % supported political violence in at least one scenario. A U-shaped relationship was observed between racial segregation and political violence endorsement: respondents from more diverse communities were less likely to support political violence. Those endorsing replacement thinking were 233 %–229 % more likely to endorse political violence than those who did not, dependent on income levels. White respondents without a high school degree were 29 % more likely to endorse political violence.

Conclusion: The study found a positive association between replacement thinking, markers of status threat, and political violence endorsements among non-Hispanic white Americans. These findings emphasize the need for research and interventions to mitigate these perceptions and prevent political violence.

1. Introduction

Political violence, defined as physical harm inflicted on individuals or groups in order to advance specific political objectives, is emerging as a significant public health issue. The consequences of this violence extend beyond politics and beyond those directly impacted, affecting the broader social, emotional, and physical health of communities (De Jong, 2010; Dubow et al., 2009; Misiak et al., 2019; Sousa, 2013). In the United States (U.S.), political violence is thought to be occurring at a rate unseen since the 1970s and is more likely to result in injuries or deaths than in the past (Kleinfeld, 2021; Parker and Eisler, 2023). To understand and intervene on these occurrences, it is necessary to explore the underlying motivations that drive individuals to support or commit political violence.

Central to this exploration is the concept of white privilege, the result of systemic and structural racism embedded within societal norms, policies, and institutions, which collectively privilege white individuals in racially hierarchical societies (McIntosh, 1990). When these entrenched advantages are perceived to be challenged or diminished, it can lead to a sense of status threat among white individuals, as any

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perceived erosion of these privileges can evoke fear and anxiety about losing social, economic, and political dominance (Song, 2004).

Status threat posits that individuals or groups who feel their social status is threatened are more likely to endorse authoritarian behavior in order to protect that status (Feldman and Stenner, 1997; Isom et al., 2021; Parker, 2021). Factors such as income inequality and feelings of relative deprivation (Engler and Weisstanner, 2021; Mutz, 2018), including relative low education status, can exacerbate feelings of status threat, even when the decline is only perceived and there is no loss in relative group position (Siddiqi et al., 2019). When groups perceive their dominant societal position to be waning, they may become more receptive to ideologies that espouse or reinforce their dominance and, in some instances, condone or actively promote violence against those whom they perceive as threats (Feldman and Stenner, 1997; Isom et al., 2021; Parker, 2021).

Relatedly, a narrative that attributes the perceived loss of power to specific demographic changes and external groups can be described as "replacement thinking," or the perception that one's own group (ethnic, religious, etc.) is under imminent threat of being overshadowed, replaced, or dominated by a different group. While the replacement narrative itself is not novel (Blumer, 1958), contemporary iterations, such as the "Great Replacement Theory," often intersect with rapid sociodemographic shifts, globalization, and the rise of populist movements, which can fan the flames of perceived threats to social status or to the cultural hegemony of one's group. In the U.S. today, replacement thinking predominantly manifests among white individuals (Wilkins and Kaiser, 2014) who perceive that they are being supplanted in terms of social power—be it in jobs or through perceived loss of dominance—by immigrants or by individuals who do not resemble them ethnically or racially ("The 'Great Replacement' Theory, Explained," 2021). This fear of losing traditional social and cultural hegemony, rooted in white privilege, can lead to a heightened endorsement of white supremacist ideologies and support for extreme measures, including political violence (Giroux, 2017; Schwartz, 2017).

Replacement thinking and status threat have been directly linked to public violence in the past, including the mass shooting by a white man in Buffalo, New York in 2022 that resulted in the death of ten Black individuals (Stanley, 2022). Moreover, the January 6th, 2021 Capitol breach, resulting in seven deaths and over 150 officer injuries (Cameron, 2022), exemplifies the consequences of replacement thinking and status threat. Fueled by baseless election fraud claims and a perceived decline in straight white male dominance (Kydd, 2021), this event highlights how such perceptions can escalate to violence. Indeed, white identity, perceived victimhood from societal power loss, and conspiratorial thinking are all factors linked to this incident (Armaly et al., 2022).

Our previous work on the results of the 2022 Life in America Survey aimed to understand the rise in support for political violence in the U.S. We found that a third of respondents, when weighted to the non-institutionalized adult U.S. population, believed violence is often or usually justified for various political goals. Political violence endorsement was lower among those with higher education and income. Additionally, 16.2 % strongly agreed that "native-born white people are being replaced by immigrants" in America (Wintemute et al., 2023). These insights led us to explore the relationship between status threat, replacement thinking, and political violence.

The objective of this study is to estimate the association between markers of replacement thinking/status threat and the endorsement of political violence among white respondents of the 2022 Life in America Survey, and to see whether and how these variables interact with one another. Given replacement thinking and status threat as concepts are explicitly tied to whiteness in the U.S., we restricted our analysis to non-Hispanic white individuals in order to focus our study on this group. We hypothesize that white respondents who agree with replacement thinking or who have markers of relative disadvantage or "status dissonance" (Scott, 2018) that could be associated with status threat (i.e., those whose income is at least one standard deviation below the median of their census tract, those who did not earn a high school degree, and those who live in primarily non-white census tracts) would be more likely to endorse political violence related to maintaining white privilege than those without markers of replacement thinking/status threat.

2. Methods

The 2022 Life in America Survey provided the data for this cross-sectional, nationally representative survey study. The survey was designed by the authors and conducted online in English and Spanish by the Ipsos survey research firm from May 13 to June 2, 2022. Participants provided informed consent. The study has the approval of the University of California Davis Institutional Review Board and aligns with the American Association for Public Opinion Research guidelines. More details of the methods have been published previously (Wintemute et al., 2023) and are given in Appendix A.

3. Measures

3.1. Replacement thinking

Our first exposure variable measured replacement thinking. For this, we drew on each respondent's agreement with the statement, "in America, native-born white people are being replaced by immigrants." If the respondent agreed strongly or very strongly, they were coded as endorsing replacement thinking.

3.2. Status threat

We defined three measures of status dissonance, or markers of potential status threat, using American Community Survey (ACS) ("American FactFinder," n.d.) and IPSOS sociodemographic data. The first of these variables was relatively low income, which was calculated by comparing the respondent's income to the median income of the census tract in which they lived. If the respondent's income was greater than one standard deviation below the census tract median, the respondent was coded as having relatively low income. The second, relative education, was determined by the absence of a high school diploma, considering the high proportion of high school-educated individuals in the U.S ("Census Bureau Releases New Educational Attainment Data," 2022). The third was racial segregation, originally in ten 10 % bins, later recoded into three categories: 1 = 0–10 % white, 2 = 11–90 % white (reference category), and 3 = 91–100 % white, where 1 and 3 represent the most segregated census tracts.

3.3. Outcome

The outcome of this study was endorsing political violence related to maintaining white privilege and was measured with 10 items. An affirmative response to one or more items as usually or always justifying violence was coded as endorsement of political violence. These items employed a unipolar response array without a neutral midpoint (e.g., do not agree, somewhat agree, strongly agree, very strongly agree) to avoid satisficing, where respondents might choose minimally acceptable answers (Chyung et al., 2017). Respondents could indicate that political violence is usually or always justified in at least one of the following scenarios: 1) to preserve the American way of life I believe in, 2) to oppose Americans who do not share my beliefs, 3) to oppose the government when it does not share my beliefs, 4) to stop people who do not share my beliefs from voting, 5) to reinforce the police, 6) to stop illegal immigration, and/or 7) to preserve an American way of life based on Western European traditions. Respondents could also indicate that they are very or completely willing to engage in political violence because a person does not share their 1) race or ethnicity, 2) religion, or 3) political beliefs. Based on the objective of this study, some political

violence scenarios that were included in the survey were not included in our outcome measure because they were contraindicated by our driving theory; these include endorsing violence "to keep borders open," or "to prevent discrimination based on race or ethnicity.".

3.4. Statistical Analysis

We initially examined the bivariate associations between each of the ten 10 % bins—representing the proportion of white residents in respondents' census tracts—and endorsement of political violence. By graphing this association, we aimed to identify any logical cut-points for this variable in the regression model. Based on these results and for ease of interpretation, we used the three-category variable of racial segregation described above in the regression model.

To focus our analysis specifically on non-Hispanic white individuals from the survey, which initially included all races and ethnicities, we utilized R's survey package, using the 'subset' function. This ensured an accurate analysis that reflects the survey's complexity and weighting. Given the minimal level of missing data (Table 1), a complete case analysis was performed. To estimate the relationship between our primary exposures and the outcome, we employed a survey-weighted, robust modified Poisson model, adjusted for age and gender (binary variable). These models yield less biased risk ratio estimates than logistic models, especially in instances of model misspecification (Chen et al., 2018; Zou and Donner, 2013). Results should be interpreted as prevalence ratios. Due to potential associations among the exposures of interest, all four were incorporated into the same model and their interactions were assessed. Only those interactions with a p-value of <0.20 were retained in the final model (Jewell, 2003). Additionally, given documented differences by gender on the exposures and outcome of this study (Boehme and Isom Scott, 2020; Isom et al., 2022), we ran separate models for men and women.

Political party identification was excluded from the model due to its high collinearity with replacement thinking exposure (e.g., 38 % of strong Republicans vs. 4 % of strong Democrats endorse this view). The causal role of party identification is also unclear, as it may act as a mediator influenced by status dissonance. Our previous work has already addressed political violence and party identification (Wintemute et al., 2024).

We also conducted two sensitivity analyses. The first included all 17 political violence scenarios assessed in the survey (Wintemute et al., 2023). The second modeled each exposure individually in case one exposure was mediating another. These models all adjusted for age and gender.

4. Results

In the Life in America survey, 15,449 panel members were invited, and 8,620 (55.8 %) completed the survey. Baseline characteristics—unweighted and weighted—of the 5,976 non-Hispanic white respondents included in this study are given in Table 1. Specifically, 342 of these respondents (6.4 %) did not possess a high school diploma, 753 respondents (14.5 %) had an income that was at least one standard deviation below the average of the census tract in which they resided, 1,304 (24.4 %) respondents lived in a census tract that that was 91–100 % white, and 49 (0.9 %) respondents lived in a census tract that was 0–10 % white, and 990 (18.5 %) either strongly or very strongly agreed with the sentiment that "in America, native-born white people are being replaced by immigrants". (Table 1). Finally, 990 (18.5 %) expressed support for political violence in at least one scenario. These counts and proportions represent weighted estimates. Although not included in our analyses, we also include measures of political party identification and region in Table 1 to illustrate the representativeness of our sample.

Bivariate analyses revealed a U-shaped relationship between racial segregation and endorsement of political violence, such that white respondents who lived in a super-majority white (91–100 % white) or super-majority non-white (0–10 % white) census tract, were more likely to endorse political violence than those living in more diverse communities (Fig. 1). Those living in a census tract where 41–50 % of the population were white were the least likely to endorse political violence.

Table 1
Weighted and unweighted prevalences of characteristics among white, non-Hispanic adults in the US (2022).

		Unweighted (%)	Weighted (%)
Gender	Male	2970 (49.7)	2604 (48.8)
	Female	3006 (50.3)	2734 (51.2)
Age	18–29	580 (9.7)	922 (17.3)
	30–44	1187 (19.9)	1223 (22.9)
	45–59	1338 (22.4)	1274 (23.9)
	60+	2871 (48.0)	1919 (36.0)
Education	No high school diploma or GED	253 (4.2)	342 (6.4)
	High school graduate (or GED)	1486 (24.9)	1412 (25.7)
	Some college or Associate's degree	1617 (27.1)	1480 (27.7)
	Bachelor's degree	1424 (23.8)	1169 (21.9)
	Master's degree or higher	1196 (20.0)	935 (17.5)
Income	Less than $10,000	149 (2.5)	164 (3.1)
	$10,000 to $24,999	448 (7.5)	419 (7.8)
	$25,000 to $49,999	983 (16.4)	829 (15.5)
	$50,000 to $74,999	942 (15.8)	825 (15.5)
	$75,000 to $99,999	839 (14.0)	719 (13.5)
	$100,000 to $149,999	1100 (18.4)	1013 (19.0)
	$150,000 or more	1515 (25.4)	1370 (25.7)
Relative low income?	Yes	861 (14.8)	753 (14.5)
	No	5115 (85.2)	4585 (85.5)
Geographical Region	Northeast	1125 (18.8)	997 (18.7)
	Midwest	1540 (25.8)	1370 (25.7)
	South	1975 (33.0)	1902 (35.6)
	West	1336 (22.4)	1069 (20.0)
Political Party Identification	Strong Republican	1237 (20.8)	1106 (20.8)
	Not Strong Republican	761 (12.8)	699 (13.1)
	Leans Republican	1147 (19.3)	1046 (19.6)
	Undecided/ Independent/ Other	170 (2.9)	156 (2.9)
	Leans Democrat	1114 (18.7)	1013 (19.0)
	Not Strong Democrat	549 (9.2)	492 (9.2)
	Strong Democrat	978 (16.2)	811 (15.2)
	Missing	20 (0.3)	15 (0.2)
"in America, native-born white people are being replaced by immigrants"	Do not agree	3121 (52.2)	2800 (52.4)
	Somewhat agree	1689 (28.2)	1485 (27.8)
	Strongly agree	634 (10.6)	581 (10.8)
	Very strongly agree	465 (7.8)	409 (7.7)
	Missing	67 (1.1)	63 (1.1)
Segregation	>90 % white	1454 (24.3)	1304 (24.4)
	11–89 % white	4468 (74.8)	3985 (74.7)
	<10 % white	54 (0.9)	49 (0.9)

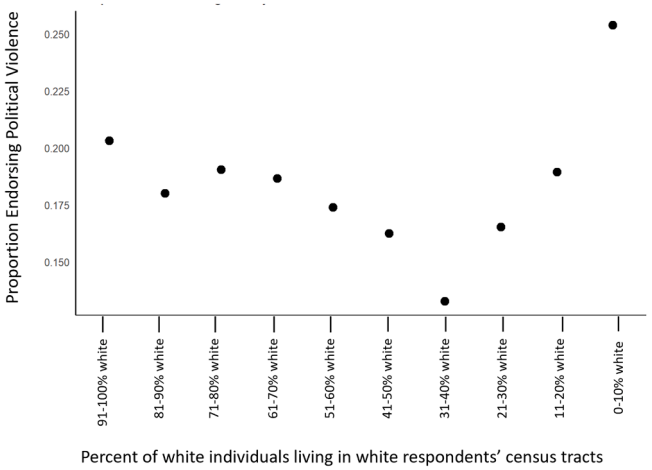

Fig. 1. U-shaped bivariate relationship between racial segregation and political violence among white non-Hispanic adults in the US (2022).

The adjusted prevalence ratios between each of the exposures and outcome are given in Table 2. There was a significant negative interaction between replacement thinking and relatively low income, but no other interactions were present. Among white respondents who did not have a relatively low income, those who endorsed replacement thinking were 249 % (95 % confidence interval [CI]: 213 %, 287 %) more likely to endorse political violence than those who did not endorse replacement thinking. Among white respondents who did not endorse replacement thinking, those having a relatively low income were 24 % (95 % CI: 1 %, 52 %) more likely to endorse political violence than those not having a relatively low income. White respondents who both endorsed replacement thinking and had a relatively low income were 233 % (95 % CI: 187 %, 288 %) more likely to endorse political violence compared with those who neither endorsed replacement thinking nor had a relatively low income. White respondents without a high school degree were 29 % (95 % CI: 1 %, 64 %) more likely to endorse political violence than white respondents who did graduate from high school. White respondents living in a census tract that was 91 to 100 % white were 11 % (95 % CI: 0.1 %, 23 %) more likely to endorse political violence than those living in more diverse census tract. Finally, while white respondents living in a census tract that was 0 to 10 % white were 25 % more likely to endorse political violence than those living in more diverse census tracts, this association was not statistically significant (95 % CI: −28 %, 89 %).

There were some differences based on gender. While men who had a relatively low income (but did not endorse replacement thinking) were more likely to endorse political violence, there was no association among women (Appendix Table 1). Additionally, while women who lived in a super majority non-white census tract were more likely to endorse political violence, there was no association among men (Appendix Table 1).

In the first sensitivity analysis where all 17 political violence scenarios were included in the outcome, the magnitude of the exposure estimates were reduced, although the conclusions remained the same (Appendix Table 2). In the second sensitivity analysis assessing each exposure independently, associations were largely unchanged from the primary analysis. The magnitude of the estimates for white respondents without a high school diploma, white respondents living in a census tract that was 91 to 100 % white, and white respondents living in a census tract that was 0–10 % white marginally increased (Appendix Table 3), while those for replacement thinking and white respondents with relatively low income marginally decreased.

Table 2
Adjusted prevalence ratios for replacement thinking/status threat and endorsement of political violence related to white privilege among white, non-Hispanic adults in the US (2022).[a]

	Prevalence Ratio	95 % Confidence Interval
Replacement thinking (among those without relatively low income)	3.49	(3.13, 3.87)
Relatively low income (among those who did not endorse replacement thinking)	1.24	(1.01, 1.52)
Replacement thinking + Relatively low income	3.33	(2.87, 3.88)
No high school diploma	1.29	(1.01, 1.64)
Super-majority white (91–100 % white)[b]	1.11	(1.00, 1.23)
Super-majority non-white (0–10 % white)[b]	1.25	(0.82, 1.89)

[a] adjusted for age and gender.
[b] Reference: 11–90% white.

5. Discussion

The objective of this study was to determine if replacement thinking and status threat were associated with higher endorsement of political violence among non-Hispanic white Americans. We operationalized potential status threat by considering three relative sociodemographic variables representing status dissonance—relatively low income, relatively low education, and racial segregation—that could represent scenarios engendering feelings of being replaced or left behind by society. We also included a direct measure of replacement thinking: a question asking the respondents if they believed that immigrants were replacing native born Americans. The results of this study support the hypothesis that status threat and replacement thinking are linked to political violence.

Specifically, we found that non-Hispanic white respondents who endorse replacement thinking were 233 %-249 % more likely to endorse political violence than those who did not (estimates depend on whether the respondent also had a relatively low income). This association was significant, and its magnitude was large, indicating that intervening on this perception, if possible, may be one important way to prevent political violence in the future.

Our analyses showed a U-shaped relationship between racial segregation and political violence endorsement among white respondents. Specifically, those in predominantly white (91–100 %) or non-white (0–10 %) areas were likelier to endorse political violence than those in diverse areas. Regression analysis confirmed this, with white respondents in super-majority white areas 11 % more likely to endorse violence, and those in super-majority non-white areas 25 % more likely, although the latter was not statistically significant, possibly due to a small sample size (there were only 49 white respondents in 0–10 % white areas). These results may be directly related to replacement thinking and status threat: white respondents living in primarily non-white communities may perceive that they are indeed being replaced, as they may feel like an outsider or share little in common with their neighbors. For white respondents living in communities that are greater than 90 % white, respondents may have little interaction with people of color, and therefore are more susceptible to conspiratorial theories related to replacement thinking and racism. Overall, this U-shaped relationship demonstrates that diversity in neighborhoods is associated with lower levels of support for political violence. These results support the theory of intergroup contact, which posits that under appropriate conditions, direct contact between members of different groups can reduce intergroup prejudices, stereotypes, and discrimination (Allport et al., 1954; Brown and Hewstone, 2005; Crisp et al., 2009). They also support policies aimed at reducing racial residential segregation, a strategy that is linked to other improved public health outcomes beyond political violence prevention (Steil and Arcaya, 2023).

One unexpected finding was that, while having relatively low income

resulted in increased support for political violence, this variable negatively interacted with replacement thinking, resulting in a slightly lower endorsement of political violence among those that had both exposures. This could imply that there is some overlap in the causal mechanisms linking each exposure to political violence (e.g., economic anxiety), such that there is redundancy when both exposures are present.

Additionally, meaningful gender differences exist: men with relatively low income (without endorsing replacement thinking) were more likely to endorse political violence, whereas no such association was found among women. Conversely, women living in predominantly non-white census tracts were more likely to endorse political violence, with no corresponding association observed among men. These differences may result from a complex interplay of social, psychological, and contextual factors that shape how men and women differently experience and respond to perceived threats and inequities.

Knowing that replacement thinking and status threat are associated with political violence introduces several potential interventions for preventing future acts of political violence. Many of these interventions are upstream, including addressing economic stressors such as income inequality that may amplify feelings of status threat through, for example, universal basic income programs (Link and Phelan, 1995). Other interventions could be implemented to improve relations between racial and ethnic groups through intercommunity dialogue and programs that allow different communities to interact and understand that people who look different are not inherently a threat, which may reduce feelings of status threat and replacement thinking ("Dialogues on Immigration: Empowering New Voices," n.d.; Koff, 2002). More downstream interventions may include the promotion of media literacy to prevent or remediate conspiratorial thinking or consumption of disinformation as well as mental health counseling to help people address their underlying insecurities related to replacement thinking and status threat (Baker-Bell et al., 2017). Finally, legislation can be passed to further discourage hate speech, discrimination, and other acts that may fuel replacement thinking and feelings of status threat.

Our study has several limitations. The findings are cross-sectional and subject to sampling error and nonresponse bias. We also did not ask respondents directly about status threat, and instead used relative disadvantage or status dissonance as potential markers of status threat. While the survey was weighted to be nationally representative, those electing to participate may be different than those who did not participate. Additionally, during the survey period, high-profile mass shootings took place in Buffalo, NY, and Uvalde, TX. Notably, the Buffalo shooting was a race-related hate crime driven by replacement thinking, which might have influenced the respondents' opinions related to this study. Finally, this is one of the first studies on the topic, and future, longitudinal studies are needed to confirm whether these findings persist.

We narrowly defined the outcome as political violence linked to upholding white privilege, excluding scenarios more aligned with opposing white hegemony, like endorsing violence to "keep our borders open" or "stop police violence." Recognizing these exclusions might be viewed as subjective, we conducted a sensitivity analysis including all forms of political violence in the survey. As anticipated, results were moderated; individuals aligned with replacement thinking were less likely to endorse political violence for causes like border openness. This indicates that political violence is a multifaceted concept, with varied underlying motivations depending on its type.

6. Conclusion

Replacement thinking and markers of status threat are positively associated with endorsements of political violence. Given the increasing rate of political violence occurring in the U.S., interventions to prevent and remedy status threat and replacement thinking among non-Hispanic white individuals are needed. Additionally, there is a need for future longitudinal studies to more deeply study the underlying causes of specific types of political violence.

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CRediT authorship contribution statement

Paul M. Reeping: Writing – review & editing, Writing – original draft, Visualization, Software, Methodology, Investigation, Formal analysis, Conceptualization. **Garen J. Wintemute:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Funding acquisition, Conceptualization. **Sonia L. Robinson:** Writing – review & editing, Methodology, Data curation. **Andrew Crawford:** Writing – original draft, Methodology, Data curation. **Elizabeth A. Tomsich:** Writing – review & editing, Methodology, Data curation. **Veronica A. Pear:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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This work was supported by grants from the Joyce Foundation, the California Wellness Foundation, and the Heising-Simons Foundation, and by the California Firearm Violence Research Center and UC Davis Violence Prevention Research Program. External funders played no role in the design of the study; the collection, analysis, and interpretation of data; or writing of the manuscript.

Appendix A

Participants were recruited from the Ipsos KnowledgePanel, a well-established online research panel frequently utilized in population-based studies. To create a nationally representative sample, members are continually recruited using address-based probability sampling using data from the US Postal Service's Delivery Sequence File ("KnowledgePanel®: a methodological overview," n.d., "KnowledgePanel sampling and weighting methodology," n.d.). The recruitment process includes repeated contact attempts via mail and telephone when necessary. Adults in households without internet access are provided with a web-enabled device and complimentary internet service. Additionally, a modest incentive program, primarily based on points, is implemented to encourage participation and enhance retention in the KnowledgePanel over time ("KnowledgePanel®: a methodological overview," n.d., "KnowledgePanel sampling and weighting methodology," n.d.).

A probability-proportional-to-size method was used to select a study-specific representative sample from KnowledgePanel members. All panelists aged 18 and older were eligible for selection. Invitations were distributed via e-mail, and automatic reminders were sent to non-respondents by e-mail and telephone starting three days later ("KnowledgePanel®: a methodological overview," n.d., "KnowledgePanel sampling and weighting methodology," n.d.).

Ipsos provided a final survey weight variable to adjust for the initial probability of selection into the KnowledgePanel, as well as for survey-specific nonresponse and over- or under-coverage. This adjustment utilized design weights with post-stratification raking ratio adjustments. Through these weighting methods, the sample is intended to be statistically representative of the noninstitutionalized adult population of the United States, as reflected in the 2021 March supplement of the Current Population Survey.

Ipsos translated the questionnaire into Spanish, with the translation reviewed by interpreting services staff at UC Davis Medical Center. A pretest of the English version was conducted with forty KnowledgePanel members from April 27 to May 2, 2022.

To minimize order effects, respondents were randomized 1:1 to receive response options either in ascending order of valence (e.g., from 'do not agree' to 'strongly agree') or in descending order throughout the questionnaire. For questions presenting multiple statements, the order of these statements was randomized unless a specific sequence was necessary. Logic-driven questions, which might trigger a skip pattern based on responses, included non-response prompts to reduce bias.

Demographic variables were complete. The primary outcome was derived from various measures, and among white individuals, fewer than 0.5 % had missing responses for all questions related to endorsing political violence in the different scenarios. Only 1.1 % of white individuals did not answer the question related to replacement thinking.

Table A1
Adjusted prevalence ratios for replacement thinking/status threat and endorsement of political violence related to white privilege among subsets of white non-Hispanic men and women in the US (2022).[a]

	MEN		WOMEN	
	Prevalence Ratio	**95 % Confidence Interval**	**Prevalence Ratio**	**95 % Confidence Interval**
Replacement thinking (among those without relatively low income)	3.52	(3.07, 4.06)	3.42	(2.94, 4.05)
Relatively low income (among those who did not endorse replacement thinking)	1.45	(1.11, 1.88)	1.05	(0.77, 1.43)
Replacement thinking + Relatively low income	3.49	(2.92, 4.18)	3.25	(2.54, 4.67)
No high school diploma	1.32	(0.96, 1.83)	1.22	(0.85, 1.75)
Super-majority white (91–100 % white)[b]	1.06	(0.91, 1.23)	1.16	(0.99, 1.35)
Super-majority non-white (0–10 % white)[b]	0.66	(0.38, 1.13)	1.75	(1.11, 2.77)

a. adjusted for age.
b. reference: 11–90 % white.

Table A2
Adjusted prevalence ratios for exposures of interest and endorsement of any political violence scenario by white non-Hispanic adults in the US (2022).[a]

	Prevalence Ratio	**95 % Confidence Interval**
Replacement thinking (among those without relatively low income)	2.40	(2.26, 2.55)
Relatively low income (among those who did not endorse replacement thinking)	1.18	(1.05, 1.32)
Replacement thinking + Relatively low income	2.50	(2.34, 2.69)
No high school diploma	1.27	(1.11, 1.47)
Super-majority white (91–100 % white)[b]	1.08	(1.02, 1.15)
Super-majority non-white (0–10 % white)[b]	1.10	(0.89, 1.35)

a. adjusted for age and gender.
b. reference: 11–90 % white.

Table A3
Adjusted prevalence ratios for exposures of interest and endorsement of political violence by white non-Hispanic adults in the US, each exposure modeled independently (2022).[a]

	Prevalence Ratio	**95 % Confidence Interval**
Replacement thinking	3.38	(3.09, 3.72)
Relatively low income	1.18	(1.03, 1.36)
No high school diploma	1.36	(1.01, 1.81)
Super-majority white (91–100 % white)[b]	1.14	(1.01, 1.28)
Super-majority non-white (0–10 % white)[b]	1.42	(0.93, 2.15)

a. adjusted for age and gender.
b. reference: 11–90 % white.

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