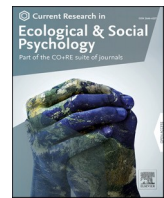



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Significance loss as the rhetoric of extreme ideologies: Evidence from the political and the terroristic context

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ABSTRACT

Drawing on the Significance Quest Theory (Kruglanski et al., 2022), we used the Honor Dictionary (Gelfand et al., 2015) in a word frequency textual analysis (Pennebaker et al., 2007) to investigate extreme rhetoric. We thus conducted two studies. The first, investigating the political context, compared speeches of fascist dictator Benito Mussolini (1918–1945, $N = 284$) with those of democratic Presidents of the Italian Republic (1949–2006, $N = 901$). The second, focused on lone-actors terrorists, examined texts from the Extremist Manifesto Database (EMD, Grigoryan et al., 2023) and compared writings by terrorists driven by political ideologies (left & right-wing, ethno-nationalists, and anti-government, $N = 65$) with those of terrorists motivated by religious ideologies ($N = 23$). Notably, we hypothesized and found that, compared to democratic rhetoric, fascist rhetoric contained (a) more words expressing feelings of lost honor and (b) fewer words reflecting gaining honor. Moreover, as expected, we found that lone-actor religious terrorists' rhetoric, compared to lone-actor political terrorists, contained more words expressing feelings of lost honor and fewer words expressing honor gain. Notably, this is the first research to use the Honor Dictionary to linguistically measure the activation of the need for significance, demonstrating a strong correlation with the endorsement of extreme ideologies. Further, our research supports the hypothesis that extreme rhetoric reflects—and aims to induce—significance loss feelings.

Introduction

The twentieth century, aptly termed the *Age of Extremes* (Hobsbawm and Cumming, 1995), was characterized by significant social and political upheavals, including the rise of totalitarian regimes and the proliferation of religious terrorism. Despite differing in context and manifestation, these phenomena are both fueled by extreme ideologies that captivate individuals (Arendt, 1973; Juergensmeyer, 2017). Extreme ideologies are belief systems at the far ends of the ideological spectrum, characterized by rigid views and a willingness to use radical measures to achieve their goals (Webber et al., 2020). They are often articulated in narratives satisfying individual motivational drivers. The cases of Fascist Italy, Nazi Germany, and Soviet Russia, among others,

are examples of how totalitarian regimes used such narratives to exploit individuals' psychological vulnerabilities to create a culture of fear and obedience (Hoffer, 1951). Similarly, the rise of religious terrorism in the late twentieth century (e.g. Al-Qaeda) highlights the destructive potential of extremist ideologies that exploit individuals' sense of identity, belonging, and purpose (Crenshaw, 2000) to perpetrate terror and violence. In this work, we aim to study the characteristics of extremist rhetoric, focusing on identifying linguistic markers that reveal underlying psychological states and contribute to the persuasive power of extremist narratives in captivating and mobilizing individuals.

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The appeal of the extremes

Given their profound impact on societies, scholars have long tried to explain what makes extreme ideologies appealing. The psychology of extremism suggests that individuals who are drawn to these ideologies often exhibit certain characteristics, such as a desire for meaning and purpose (Rappel and Vachon, 2024), a need for social connection (Capelos et al., 2024), and a sense of discontent with their current circumstances (Simi et al., 2019). These characteristics can make individuals more susceptible to extreme ideologies, which promise to provide a sense of belonging, identity, and redemption (Sageman, 2004).

The *Significance Quest Theory* (SQT, Kruglanski et al., 2009, 2014, Kruglanski et al., 2022b) posits that extremism holds appeal for individuals whose need for significance and respect has been frustrated. According to SQT, individuals have a fundamental need for significance—the motivation to be recognized and respected by others—and when this need is threatened or unfulfilled, it can drive them toward extremist ideologies as a means of restoring significance (Kruglanski et al., 2021). Personal significance can be either dispositional or situational. In other words, while individuals might differ in the degree of their own felt significance, situational need for significance can be activated through experiences of significance gain or loss. Experiences of gain occur when there is an opportunity to enhance one's sense of significance. On the other hand, significance loss involves the perception of being of low value due to situations such as humiliation (Webber et al., 2018), social exclusion (Bäck et al., 2018), or failure (Jaško et al., 2017). When feeling humiliated, disrespected, or socially excluded, individuals may become susceptible to narratives that promise the restoration of significance (Webber et al., 2018; Jaško et al., 2017).

An individual's significance is shaped by how others perceive their worth. This perception is influenced by the individual's alignment to important social values (Kruglanski et al., 2022a, 2022b). Thus, acquiring or restoring significance can involve various means socially important, including adopting extreme ideologies that promise to heal one's sense of worth (Kruglanski et al., 2014). Extreme ideologies are particularly appealing not only because they provide simple explanations and solutions to complex problems (van Prooijen and Krouwel, 2019) but also because they foster a sense of belonging and community by offering significance and purpose to their adherents (Webber et al., 2020). These ideologies present clear values to endorse unambiguous norms to follow, while promising respect and recognition to those who commit to and sacrifice for these values. Accordingly, several findings indicate that when individuals feel devalued or insignificant, they are more likely to endorse extreme ideologies and support radical actions to restore their sense of worth. For example, Kruglanski and colleagues (2009) analyzed the motivations of suicide bombers and concluded that the quest for personal significance is a central factor driving their commitment to violent extremism. Similarly, Bélanger and colleagues (2014) found that the motivation for personal significance predicts individuals' willingness to engage in extreme self-sacrificial behaviors, including martyrdom. Additionally, experiences of economic and social loss are key predictors of violent behavior in perpetrators of ideologically motivated crimes (Jaško et al., 2017). Moreover, Webber and colleagues (2018) conducted a series of field and experimental studies across different cultural contexts, demonstrating that experiences of significance loss—such as social rejection or humiliation—can lead individuals to endorse violent extremism. Molinaro and colleagues (2024) showed that individuals who are going through an event perceived as threatening (i.e. COVID-19 pandemic) report higher quest for personal significance and in turn are more susceptible to populist narratives that promise empowerment and social recognition. Other examples of how the need for significance can drive individuals toward extreme behaviors come from various contexts, including romantic relationships (Bonarska et al., 2025; Contu et al., 2023a; Contu et al., 2025), the workplace (Contu et al., 2023b), politics (Di Cicco et al., 2025), and

self-care behaviors (Contu and Pierro, 2024).

Need for significance and honor cultures

Honor, according to Cross and colleagues (2014), is defined as a tripartite construct comprising self-respect, moral behavior, and social status. Importantly, while these three prototypical factors are consistent across cultures, their achievement can motivate people to act differently based on their culture's *honor logic*—i.e., the amount of values, norms, and rules that center on the concept of honor and that one must observe to be considered honorable in an honor culture (Leung and Cohen, 2011; Vignoles et al., 2024). However, even if in different honor cultures the specific honor-bestowing means could differ, what is common across honor cultures is that honor is gained through adherence to values (e.g., good and bad reciprocity, reputation, respect), and heavily relies on external validation (Leung and Cohen, 2011). Importantly, the concept of honor is different from dignity, that is defined as the inherent worth that is equal to every other person, and that for this reason cannot be subtracted or diminished by others' evaluation (Leung and Cohen, 2011). And it also differs from the concept of face, that is defined by what others see. Unlike honor, face does not directly depend on the *individualistic* ability to gain or defend it through specific actions (e.g., retaliation), but it is settled by one's own position in a hierarchy that is built upon collectivism and collaboration (Ho, 1976; Leung and Cohen, 2011). Notably, this distinction paved the way for the conceptualization of three different types of cultures: the *honor* cultures, the *face* cultures, and the *dignity* (non-honor) cultures.

In the present paper, we argue that the concept of honor and that of significance are heavily intertwined with each other. More specifically, we claim that honor became *the* pivotal cultural value in those cultures where the defense of one's own significance became central because of the lawless environment (cfr. Leung and Cohen, 2011). The parallelism between honor and significance has its roots in their conceptual definition. Firstly, both honor and significance revolve around the concept of self-worth and social status (Kruglanski et al., 2022b; Cross et al., 2014). Secondly, the major way to gain or restore both honor and significance, entails observing and respecting precise culturally dictated norms, values, and rules (Kruglanski et al., 2022b; Nisbett, 1996). Thirdly, the values, norms, and rules that are considered honor- or significance-bestowing are culturally sensitive (Kruglanski et al., 2022b; Leung and Cohen, 2011). Fourth, to gain significance—or honor, the fact that the right values and cultural norms have been observed heavily depends on others' external validation (Cross et al., 2014; Kruglanski et al., 2022b; Leung and Cohen, 2011). Fifth, both honor and significance can be gained or lost, and both serve as powerful motivators for action—whether to restore what has been lost or to attain additional honor or significance. Eventually, when threatened, these values can drive individuals to reclaim them, sometimes even through extreme or violent means (Kruglanski et al., 2023; Uskul et al., 2015). Indeed, those seeking to defend their honor or restore their significance often feel compelled to respond to rejection, insults, or personal attacks to avoid further loss. In this respect, in honor cultures, the willingness to use violence to get back the lost honor is highlighted (Nisbett, 1996). A process that strictly aligns with the prediction that when one's need for significance is heavily frustrated, aggression becomes a salient means to restore it (Kruglanski et al., 2023; Resta et al., 2023). This alignment shows how the pursuit of honor within the ones belonging to a certain culture manifests the inherently human quest for significance and mattering.

Empirical evidence strongly supports the connection between the need for significance and honor. For instance, Vandello and Cohen (2003) demonstrated that violations of social norms in honor cultures can provoke aggressive responses as a culturally sanctioned method of restoring lost honor. This dynamic is particularly evident in the cultural emphasis on female virtue as a reflection of male honor. In such contexts, acts of infidelity are not merely personal betrayals but are seen as

failures in a man's duty to safeguard the honor of his family and community. Consequently, men in these cultures may feel compelled to respond aggressively to perceived infidelity as a means of reclaiming their honor. A process that clearly reflects a situation in which one is betrayed by their romantic partner, this resulting in lost significance and the willingness to restore it through violent behaviors. Thus, violence is not perceived as deviant but as a culturally endorsed response to restore a respected status. Although not always condoned, such actions are often socially understood or excused as necessary to recover lost honor and social standing.

This heightened sensitivity to reputational threats is not limited to individual acts of dishonor. Cross and colleagues (2014) found that individuals in honor cultures are motivated to adopt proactive behaviors to protect their reputation. Beyond individual behavior, the societal structure of honor cultures reinforces this sensitivity. Harrington and Gelfand (2014) demonstrated that honor is positively associated with cultural tightness, characterized by strict social norms and severe punishment for deviance. Honor cultures, while not universally tight, often enforce rigid behavioral rules that prescribe how individuals should act to maintain or improve their social standing. These societal pressures reinforce the connection between reputation and the need to achieve or restore honor through culturally rewarded behaviors.

Honor is not merely a cultural mindset, but a deeply rooted psychological mechanism tied to an individual's need for significance. Experiences of honor loss, such as personal transgressions, accusations of discreditable behavior, or failure to protect one's reputation, are often equated with social death, resulting in stigmatization and exclusion (Krause et al., 2023). Conversely, honor gain involves adherence to status achievement, fulfillment of social obligations, and protection of one's reputation, which enhances respect and recognition within the community (Gelfand et al., 2015). This dual dynamic of honor loss and gain aligns closely with the psychological experience of significance loss and gain as proposed by SQT. The interplay between honor and significance becomes especially salient in contexts of intergroup conflict, where humiliation of a group can trigger collective significance loss and motivate violent responses. In this context, extreme ideologies appeal to these cultural values by constructing narratives of humiliation and disrespect, framing violence as a sacred duty to restore honor and significance (Kruglanski et al., 2009; Nisbett, 1996; Webber and Kruglanski, 2018).

Radicalization across various cultural and historical contexts illustrates the link between the quest for significance and honor. For instance, during World War II in Japan, nationalistic narratives glorified self-sacrifice, motivating military aviators to flew suicidal attacks (*Kamikaze*) to achieve lasting honor and fulfill societal expectations. Similarly, the Tamil Tigers in Sri Lanka exploited the perceived collective humiliation of the Tamil community to justify acts of violence as pathways to restoring their group's honor. In Middle Eastern contexts, martyrdom is often portrayed as a path to honor and recognition for defending religious values. Similarly, in Western military settings, experiences of discrimination or internal conflict have driven individuals to justify violent actions as a means of reclaiming honor (Kruglanski et al., 2019).

Religious ideologies amplify this dynamic through their grounding in metaphysical imperatives that devalue material existence in favor of eternal rewards. Although both secular and religious values can be sacred within extreme groups (Atran, 2021), political motivations are anchored in temporal objectives (e.g., nationalism, ethnic homogeneity), while religious frameworks frame violence as a transcendent duty with cosmic stakes. This process transforms acts of self-sacrifice into pathways to divine honor, as seen in the *Kamikaze* pilots' elevation to martyrs of a "divine wind" (*Kamikaze*)—a narrative that transcended tactical military goals totally disregarding earthly life (Axell and Kase, 2002). Such transcendence reframes death not as an end but as a gateway to a god status (Orbell and Morikawa, 2011), eroding the perceived cost of violence. Here, the concept of honor is elevated to an

eternal, divine level, which removes the usual limits or boundaries on violence.

In the mentioned cases, feelings of insignificance or humiliation often make individuals susceptible to extremist narratives that promise to restore their worth through acts framed as honorable because of the intense commitment or even complete self-sacrifice involved in their pursuit (Bélanger et al., 2014). These narratives rely heavily on specific types of language to convey their appeal. Rather than employing conceptual and analytical reasoning—commonly associated with *rational talk*—these narratives utilize *honor talk*, a form of expression centered on agreement, disagreement, and the defense of values tied to honor and respect (Gelfand et al., 2015). The distinctive words used in *honor talk* not only shape these narratives but also reflect the underlying psychological and motivational processes driving them.

Language mirrors motivational processes

Language serves not only as a medium of communication but also as a reflection of underlying cognitive and motivational processes. The words that individuals choose reveal their thoughts, cognitive processes, and motivational drivers (Pennebaker et al., 2003). Both state and non-state extreme actors have historically employed language that mirrors experiences of significance loss, acting as a catalyst for radicalization and violent actions. For instance, totalitarian leaders such as Benito Mussolini, Adolf Hitler, and Joseph Stalin glorified the revival of ancient traditions and promoted aggressive militarism (Hoffmann, 2003; Roche, 2019). Their rhetoric framed unwavering loyalty to the state as a matter of honor, thus appealing to the individuals' need for significance and belonging (Evans, 2005). This use of language aimed to unify individuals under a common identity and motivate them toward the regimes' extremist goals (Klemperer, 2000). Conversely, non-state actors like terrorist organizations and lone attackers have often justified their actions as responses to collective or individual humiliation, emphasizing the imperative to restore honor through violent means (Cottee and Hayward, 2011; Moghaddam, 2005). And we claim that such rhetoric taps into feelings of significance loss, offering a path to regain respect and self-worth by aligning with extremist ideologies.

By examining the language used in extremist rhetoric, psychological research can uncover the social and individual factors that drive extremist behavior, as well as the emotions extremists wish to convey and instill in others (Cohn et al., 2004; Pennebaker et al., 2003). Tools like the *Linguistic Inquiry and Word Count* (LIWC, Boyd et al., 2022; Pennebaker et al., 2007) facilitate the quantitative analysis of language by calculating the normalized frequency of specific linguistic markers—such as pronouns or words related to cognition, needs, space, and time—in a collection of documents (Tausczik and Pennebaker, 2010). This allows researchers to identify patterns that indicate underlying psychological states associated with extremism. For example, Smith and colleagues (2020) analyzed linguistic patterns in Twitter posts supporting ISIS and showed that shifts in language—including expressions of anger, harm, and threat—were linked to increased conformity with extremist vernacular. Additionally, studies examining the involuntary celibate communities revealed a heightened expression of anger as well (Jaki et al., 2019).

In other words, specific linguistic markers convey emotional states of anger (Alia-Klein et al., 2020) that, associated with high levels of hostility and perceived injustice, fuel radicalization and support for violent actions (Doosje et al., 2013). Building on this, Kruglanski and colleagues (2023) demonstrated that the use of words related to honor loss, which reflect feelings of significance loss, is positively correlated with aggressive behaviors. For instance, hotel guests who felt disrespected tended to write online reviews that included honor loss words, and these words were inversely related to the star ratings they assigned. Furthermore, analyses of messages published by incels on their forum Incel.is revealed that the use of honor loss words was associated with an increased frequency of death-related language.

The present research

Building upon *Significance Quest Theory* (SQT, Kruglanski et al., 2009, 2014, 2022b), we investigated the use of honor-related words within extremist rhetoric. By quantifying the prevalence of these words in extremist writings and speeches, we aimed to identify the extent to which honor-related themes are present and how they may serve to express—and even induce—the need for significance. A key linguistic tool in this analysis is the Honor Dictionary (Gelfand et al., 2015), a validated lexicon designed to identify words associated with honor loss and honor gain. This resource allows for a systematic examination of honor-related linguistic markers within texts. It includes 1056 honor-related terms validated through a systematic process of structured interviews conducted across seven nations, including Egypt, Iraq, Jordan, Lebanon, Pakistan, Turkey, and the United States. Gelfand and colleagues identified three main areas of linguistic expression concerning honor: honor gain, which involves words related to virtuous behavior and status achievements, and the acquisition of prestige markers; honor protection, characterized by words associated with reputation, public image, and strength, reflecting efforts to actively safeguard one's image and reputation from threats; and honor loss, comprising words linked to harm, aggression, and wrongdoing, typically arising from misconduct, transgression, or causing hurt. Since our aim was to quantify the linguistic references to the two main processes described by SQT, namely significance loss and gain, we used two of the three themes covered by the Honor Dictionary, namely honor loss and gain.

We examined two real-world case studies: the rhetoric employed by Italian political leaders in their speeches and that used by lone-actor terrorists in their writings. While past research (Kruglanski et al., 2009) showed how the significance quest is a motivational factor in suicide bombers, Grzymala-Moszczyńska and colleagues (2024) found that significance need emerges as an important drive to support radical political leaders. Thus, although these two contexts of analysis seem to be distinct, they share an underlying psychological process that might emerge on the linguistic level. Thus, by examining these distinct yet theoretically linked cases, we aim to demonstrate the broader applicability of SQT in understanding how extreme rhetoric reflects individuals' psychological needs for significance.

Study 1 focused on comparing the rhetoric of Benito Mussolini, a historical extremist leader and fascist dictator, (1918–1945) to that of democratic Presidents of the Italian Republic (1949–2006). Fascist leaders often emphasize themes of national humiliation and the loss of honor to mobilize support, appealing to collective grievances and the need to restore national pride (Evans, 2005). Therefore, we hypothesized that, compared to democratic rhetoric, fascist rhetoric would contain: (a) more words expressing feelings of lost honor; (b) fewer words reflecting the gaining of honor. This hypothesis is grounded in the notion that fascist rhetoric leverages perceived honor loss to justify extreme actions and policies (Bosworth, 2006). In other words, given the established connection between honor and extreme ideologies, we expected fascist rhetoric to emphasize words of honor loss, likely to evoke collective humiliation and significance loss and therefore to mobilize support for radical actions. In contrast, we expected democratic rhetoric, rooted in inclusivity and dialogue, to focus on themes of honor gain, likely to promote ideals of collective status achievement.

Study 2 extended the analysis to contemporary lone-actor terrorists, examining texts from the *Extremist Manifesto Database* (EMD, Grigoryan et al., 2023). We compared writings by terrorists motivated by political ideologies (left-wing, right-wing, ethno-nationalist, and anti-government) with those motivated by religious ideologies. Although previous research has identified psychological and linguistic differences between specific strands of political extremism, our analysis focuses on the common motivational structure underlying these ideologies. As an example of the differences, right-wing extremists have been shown to express less anxiety and more negative emotion than their left-wing counterparts, who exhibited higher anxiety levels (Alizadeh

et al., 2019). Moreover, ideological subtypes may emphasize different moral foundations—right-wing rhetoric often prioritizes loyalty and honor, while left-wing discourse tends to highlight care and fairness. However, other research indicates that ideological extremes, regardless of direction, often converge on deeper psychological traits such as cognitive rigidity, authoritarianism, and black-and-white thinking (McClosky and Chong, 1985). These shared tendencies are frequently coupled with strong commitments to moral values, including honor and loyalty, and a willingness to justify extreme means in pursuit of a perceived higher cause (McClosky and Chong, 1985).

Hence, building on this line of research, we decided to aggregate writings from lone-actor terrorists representing different extremist political ideologies (e.g., left-wing, right-wing, anti-government, ethno-nationalist). Our theoretical rationale is that, despite ideological differences, these actors shared a unifying narrative: they positioned themselves as members of a political minority fighting to defend a cause they perceive as higher and morally imperative. This framing—of existential struggle and collective grievance—transcends specific ideological content and aligns with the core tenets of Significance Quest Theory (Kruglanski et al., 2022b), where people are expected to cope with experiences of significance loss by adopting and advocating for a cause they perceive as higher, regardless of its specific content.

On these bases, we hypothesized that lone-actor religious terrorists' rhetoric would contain: (a) more words expressing feelings of lost honor; (b) fewer words reflecting opportunities for gaining honor, compared to lone-actor political terrorists. This hypothesis is based on recent literature (Jaško et al., 2022) highlighting how, on the global level, religious extremists were more likely than political extremists to engage in violent acts.

Study 1

Study 1 examines the use of honor-related language in political speeches to explore how extremist ideologies exploit themes of honor loss and gain. By comparing Mussolini's speeches (1918–1945) with those of Italian democratic Presidents (1949–2006), this study seeks to identify linguistic markers of honor loss and gain and their role in appealing to psychological needs such as significance restoration.

Methods

Sample, design, and data retrieval

This observational study investigated the use of honor-related language across ecological data collected from political speeches spanning multiple ideological contexts. The final dataset comprises of 1185 transcripts of official public speeches delivered by Italian political leaders between 1918 and 2006. There were divided into two pre-existing groups based on ideology: the first group, representing fascist ideology, included 284 speeches delivered by Benito Mussolini, the fascist leader and totalitarian dictator, during his political tenure (1918–1945). The second group, representing democratic ideology, comprised 901 speeches by nine post-war Presidents of the Italian Republic (1949–2006). This approach allows for comparisons of linguistic patterns between ideological contexts while accounting for historical and cultural differences inherent to each period (see Table 1 for detailed distribution). Data retrieval involved both automated and manual methods. All scripts and the full codebase are accessible in a publicly available repository at https://osf.io/px654/?view_only=f94b4e15cb3e4c47ba3521b0263a42db. Speeches by Benito Mussolini were sourced from the website <https://bibliotecafascista.blogspot.com>. Speech transcripts were retrieved using browser automation implemented via Python's Selenium package (Nyamathulla et al., 2021). This approach enabled efficient extraction of texts from publicly available online archives. Instead, speeches by Italian Presidents were collected from the official Presidential archive at <https://presidenti.quirinale.it/Presidenze/2/ricerca/discorsi>. In this case texts were added manually.

Table 1

Number of Speech Transcripts by Italian Presidents. The table lists the speech transcripts available for each president, alongside the duration of their presidency, and the distribution of documented speeches among various leaders.

Ideology	Period	Name	Speech transcripts
Fascism	1919 - 1945	Benito Mussolini	284
Democracy	1949 ¹ - 1955	Luigi Einaudi	7
	1955 - 1962	Giovanni Gronchi	7
	1962 - 1964	Antonio Segni	2
	1964 - 1971	Giuseppe Saragat	7
	1971 - 1978	Giovanni Leone	26
	1978 - 1985	Sandro Pertini	28
	1985 - 1992	Francesco Cossiga	27
	1992 - 1999	Oscar Luigi Scalfaro	27
	1999 - 2006	Carlo Azeglio Ciampi	770

¹ Although Luigi Einaudi's presidency began in 1948, the first official speech transcript available on the official institutional website dates to 1949.

Workflow

The data retrieval process consisted of two main steps. First, text documents were retrieved online and organized into comma-separated values (CSV) files for further analysis. These documents included transcripts of political speeches for Study 1 and individual writings for Study 2. Second, the Honor Dictionary, developed by Michele Gelfand and colleagues, was downloaded from the project website (www.michelegelfand.com/honor-dictionary). This freely available dictionary served as a tool for analyzing honor-related language and comprises 271 words associated with Honor Loss (e.g., "abuse," "adulter," "affront") and 198 words related to the status achievement subdimension of Honor Gain (e.g., "able," "advance," "authority," "bestow").

In Study 1, we used an Italian translation of the Honor Dictionary. This translation process involved independent raters who achieved a high level of agreement (Cohen's $\kappa = 0.86$), ensuring linguistic and conceptual accuracy. A Python script was used to apply the dictionary to the collected documents through a word-count routine. This routine computed the frequencies of honor loss and gain words for each text unit (speech transcripts in Study 1 and individual writings in Study 2). Following Pennebaker's *Linguistic Inquiry and Word Count* (LIWC) methodology (Boyd et al., 2022; Pennebaker et al., 2007), the word frequencies were normalized by the total word count of each text unit, allowing comparisons across documents of varying lengths. Although LIWC software offers rapid processing, we opted to use Python for several reasons. First, Python aligns with open science principles, enabling other researchers to replicate and extend the analyses. Second, our custom routine written in Python provided additional analytical outputs unavailable in the proprietary LIWC software, such as raw word counts and lists of detected dictionary words for each document. These outputs were critical for examining not only the prevalence of honor-related linguistic markers but also the specific markers most frequently used. The Python code used for the analysis is publicly accessible at https://osf.io/px654/?view_only=f94b4e15cb3e4c47ba3521b0263a42db. This open-access approach enhances transparency and reproducibility, addressing potential limitations of proprietary software and supporting future investigations.

Analytical strategy

To test our hypotheses, we conducted a repeated measures ANOVA with a 2 (honor loss words vs. honor gain words) \times 2 (fascist vs. democratic ideology) factorial design. In this analysis, the type of honor words—honor loss vs. honor gain—served as the within-subjects factor, while the ideological orientation of the speeches (fascist or democratic) was the between-subjects factor. The dependent variable was the proportion of honor-related words relative to the total number of words in each transcript, expressed as a percentage in accordance with LIWC methodology (Pennebaker et al., 2007). Given the factorial design, we also examined potential interaction effects between honor word type

and ideological orientation. To address our specific research questions, we performed a priori contrasts to compare the usage of honor loss and honor gain words within each ideological group. Given the sample size, our primary focus was on effect sizes, specifically partial eta squared, to interpret the magnitude of observed effects, while p-values were reported for statistical significance. This analytical approach enabled us to examine differences in the usage of honor-related language across ideologies and honor word types. For our statistical analyses, we utilized the R packages *afex* (Singmann, 2023) and *emmeans* (Lenth, 2023) by calling them through the *jmv* package (Selker et al., 2022). Additionally, we employed *ggplot2* (Wickham, 2011) for data visualization.

Results

The analysis revealed that honor gain words were significantly more frequent than honor loss words across both fascist and democratic speeches, $F(1, 1183) = 606.19, p < .001, \eta^2p = .32$, indicating a large main effect. Additionally, democratic political speeches included significantly more honor-related words than Mussolini's speeches, $F(1, 1183) = 38.11, p < .001, \eta^2p = .03$, demonstrating a small to medium main effect (see Table 2 for descriptive statistics). Most importantly, a significant interaction effect was found between the type of honor words (gain or loss) and the speech source, $F(1, 1183) = 207.52, p < .001, \eta^2p = .14$. Specifically, Mussolini's speeches contained a higher frequency of honor loss words compared to democratic speeches, $t(1183) = 7.36, p < .001, d = 0.50$, indicating a medium effect size. Conversely, Mussolini's speeches featured fewer honor gain words than democratic speeches, $t(1183) = -12.17, p < .001, d = -0.83$, reflecting a large effect size. Furthermore, the disparity between honor gain and honor loss words was more pronounced in democratic speeches, $t(900) = 37.09, p < .001, d = 1.24$ (i.e., a large effect size, Cohen, 1992), compared to Mussolini's speeches, $t(283) = 6.02, p < .001, d = 0.36$ (i.e., a small-to-medium effect size).¹

Fig. 1

Discussion

The analysis of honor-related language in political speeches revealed significant differences between the rhetoric of Benito Mussolini and that of democratic Italian presidents, providing valuable insights into the linguistic strategies employed by authoritarian versus democratic leaders. Our findings support the hypothesis that extremist rhetoric, exemplified by Mussolini's speeches, relies more heavily on themes of honor loss to evoke feelings of significance loss and mobilize support for radical actions (Gelfand et al., 2013; Kruglanski et al., 2014). Firstly, the overall higher frequency of honor gain words compared to honor loss words across all speeches indicates a general tendency among political leaders to frame messages in terms of enhancing or achieving honor. This aligns with the notion that political discourse often aims to inspire

Table 2

Sample 1 - Descriptive statistics for honor gain and honor loss across two periods.

Variable	Period	N	M	SD
Honor Gain	1918 - 1945	284	2.20	0.98
	1949 - 2006	901	3.19	1.26
Honor Loss	1918 - 1945	284	1.71	0.77
	1949 - 2006	901	1.31	0.80

¹ In addition to our primary focus on Honor Loss and Honor Gain—given their clear association with Significance Loss and Significance Gain as defined by the SQT—we also analyzed the Honor Protection dimension. This analysis did not reveal significant differences.

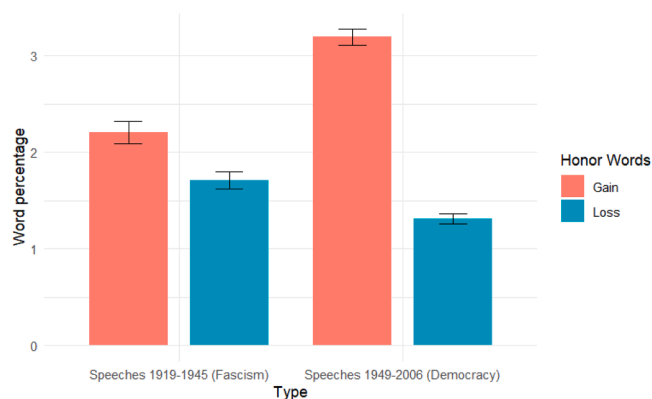


Fig. 1. Study 1. Comparative Analysis of Honor-Related Language in Fascist and Democratic Political speeches.

and motivate audiences through aspirational language that emphasizes progress, unity, and shared values (Charteris-Black, 2011). Such positive framing can reinforce group identity and collective pride, which are crucial for garnering public support in both democratic and authoritarian contexts.

A critical distinction emerged in the interaction effect between the type of honor-related words and the political ideology of the speakers. Mussolini's speeches contained a significantly higher frequency of honor loss words, and a lower frequency of honor gain words compared to those of democratic presidents. This pattern is consistent with theories of fascist and authoritarian rhetoric, which often exploit narratives of national humiliation, decline, and external threats to justify the consolidation of power and the implementation of radical policies (Eatwell, 2006; Finchelstein, 2017). Indeed, fascist rhetoric often emphasizes collective humiliation and loss of significance to mobilize support and justify radical policies (Bosworth, 2006; Evans, 2005). Mussolini's emphasis on honor loss likely served to evoke feelings of collective grievance and significance loss among the population, tapping into emotions of anger and resentment. At the same time, he leveraged honor gain language to promise the restoration of greatness, emphasizing notions of achievement and elevated status in response to perceived honor loss. This dual strategy blends narratives of grievance with aspirational appeals, mobilizing support through the promise of renewed significance and empowerment. By highlighting perceived injustices and threats to the nation's honor, fascist rhetoric can create a sense of urgency and legitimize extreme measures as necessary for restoring the nation's rightful status (Griffin, 1993; Reicher et al., 2008). This strategy aligns with the psychological mechanisms outlined in SQT, where individuals experiencing significance loss are more susceptible to extremist narratives that promise restoration and empowerment (Kruglanski et al., 2018).

In contrast, democratic leaders exhibited a pronounced focus on honor gain, using language that emphasizes collective achievements and future aspirations. This approach reflects a commitment to positive, forward-looking rhetoric that fosters national unity and motivation through affirming shared ideals rather than exploiting fears of honor loss (Fairclough, 2000; van Dijk, 2006). The larger disparity between honor gain and honor loss words in democratic speeches suggests a strategic use of language to reinforce democratic values and encourage constructive civic engagement. Indeed, democratic values typically focus on themes of inclusivity, moral integrity, and collective achievement (Beauvais, 2018), reflecting a focus on honor gain rather than loss. These results underscore the importance of language as a tool for influencing psychological states and political attitudes. The differential use of honor-related language by authoritarian and democratic leaders demonstrates how rhetoric can be tailored to activate specific motivational processes, such as the need for personal significance, to achieve political objectives (Pennebaker et al., 2003; Bhatia, 2015).

Study 2

Methods

Sample, design and data retrieval

Study 2 analyzed the use of honor-related language in the writings of lone-actor terrorists, mirroring the analytical framework established in Study 1. The sample comprised 88 unique observations, each representing the writings of a distinct lone-actor terrorist. These data were extracted from the *Extremist Manifesto Database* (EMD, Grigoryan et al., 2023), a comprehensive repository containing writings from 103 lone terrorists. The EMD includes texts authored either before or shortly after an attack, with each document directly addressing the motivations or circumstances surrounding the terrorist act. The design of Study 2 relied on naturally occurring groups based on ideological differences among lone-actor terrorists, mirroring the approach taken in Study 1. Grigoryan and colleagues (2023) classified these lone terrorists based on the motivations behind their attacks. They identified 65 individuals associated with extreme political ideologies—comprising 42 right-wing, 10 anti-government, seven ethnonationalist, and six left-wing—23 associated with extreme religious ideologies, and 15 motivated by personal reasons, such as social exclusion. Since our study focuses on comparing extreme political and religious ideologies, we excluded the latter 15 individuals from our analyses. Consequently, the remaining 88 observations were divided into two groups based on the ideology motivating the lone terrorists' attacks. Group one, representing political ideology, included writings from 65 lone terrorists affiliated with left-wing, right-wing, ethno-nationalist, and anti-government ideologies. Group two, representing religious ideology, comprised 23 writings from religiously motivated lone terrorists. The analytical framework implemented in Study 2 was consistent with that of Study 1, enabling direct comparisons between political and religious lone-actor terrorists in terms of their use of honor-related language.

Analytical strategy

To examine our hypotheses, we employed a repeated measures ANOVA with a 2 (honor loss words vs. honor gain words) \times 2 (political vs. religious terrorist writings) factorial structure. In this analysis, the type of honor words—honor loss vs. honor gain—served as the within-subjects factor, while the ideological orientation of the terrorist writings (political vs. religious) functioned as the between-subjects factor. Consistent with Study 1, the dependent variable was the proportion of honor-related words relative to the total number of words in each document. To investigate specific differences between conditions, we conducted a priori contrasts. Given the modest sample size ($n = 88$), our interpretation focused primarily on p-values and effect sizes to provide a comprehensive understanding of the results. Additionally, we performed a sensitivity power analysis using G*Power 3.1.9.7 (Faul et al., 2009) to determine the smallest effect size detectable with our sample. The analysis revealed that our study had 80 % power to detect an effect size of $f = 0.23$ (medium) or larger.

Results

Descriptive statistics are presented in Table 3. The repeated measures ANOVA revealed a significant main effect of honor word type, $F(1, 86) =$

Table 3

Sample 2 - Descriptive statistics for gain and loss word percentage across political and religious terrorists.

Variable	Group	N	M	SD
Honor Gain	Political	65	2.24	1.40
	Religious	23	1.21	1.33
Honor Loss	Political	65	2.87	2.01
	Religious	23	4.39	1.72

39.24, $p < .001$, $\eta^2p = .31$, indicating that honor loss words were more frequent than honor gain words across all writings. While there was not a significant main effect carried by mere ideological orientation,² $F(1, 86) = 0.8$, $p = .368$, $\eta^2p = .01$, a significant interaction effect between honor word type and ideological orientation was observed, $F(1, 86) = 17.49$, $p < .001$, $\eta^2p = .17$. As illustrated in Fig. 2, religious terrorists' writings exhibited a higher frequency of honor loss words compared to those of political terrorists, $t(86) = 3.23$, $p = .002$, $d = 0.78$, indicating a large effect size. Additionally, the difference in honor gain words between religious and political terrorists was also statistically significant, $t(86) = 3.05$, $p = .003$, $d = 0.74$, representing a large effect size as well. Furthermore, the disparity between honor gain and honor loss words was more pronounced in the writings of religious terrorists than in those of political terrorists. Specifically, religious terrorists exhibited a larger difference between honor gain and honor loss words, $t(22) = 7.11$, $p < .001$, $d = 1.48$, compared to political terrorists, $t(64) = 1.95$, $p = .056$, $d = 0.24$. This indicates that while both groups predominantly used honor loss words, the emphasis on honor loss was significantly greater in the writings of religious terrorists.³

Discussion

The analysis of lone-actor terrorist manifestos provides significant insights into the use of honor-related language across different ideological motivations. Our findings revealed a pronounced tendency for both religious and political terrorists to employ honor loss words more frequently than honor gain words, as indicated by the large main effect of honor word type. This prevalence of honor loss language suggests that lone-actor terrorists, regardless of their ideological orientation, often frame their motivations and justifications in terms of perceived slights, injustices, or threats to their honor or reputation. Such perceptions are consistent with theories emphasizing the role of grievance and humiliation in radicalization processes (Doosje et al., 2016; Webber and Kruglanski, 2018).

The medium main effect of ideological orientation demonstrated that religious terrorists, on average, used more honor-related words overall compared to their political counterparts. This finding implies that honor concepts play a more central role in the rhetoric and motivational framework of religiously motivated terrorists. Religious extremists often

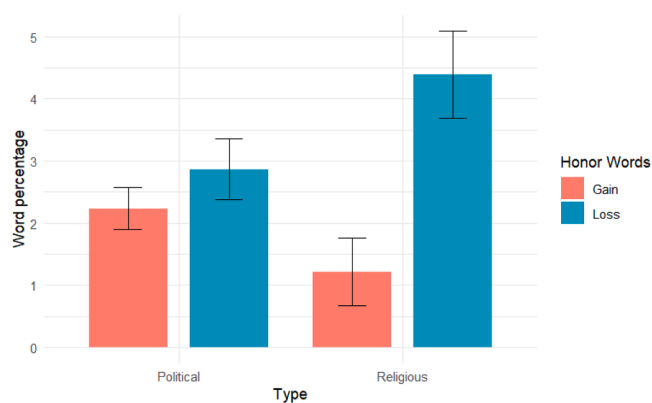


Fig. 2. Study 2. Comparative Analysis of Honor-Related Language in Political and Religious Extremist Writings.

² We also analyzed between-groups differences within political extremists, but no significant evidence emerged.

³ As in Study 1, we also analyzed the Honor Protection dimension, both as an overall construct and through its subdimensions (e.g., Strength and Prevention). This analysis similarly did not reveal any significant differences.

perceive their actions as defending sacred values and rectifying transgressions and wrongdoing, which are deeply intertwined with notions of honor and identity (Atran, 2010; Sheikh et al., 2013). The centrality of honor in religious narratives may amplify feelings of significance loss when these sacred values are perceived to be under threat (Ginges and Atran, 2009).

Crucially, the significant interaction effect between honor word type and ideological orientation indicated that religious terrorists exhibited a markedly higher frequency of honor loss words and a lower frequency of honor gain words in their writings compared to political terrorists. This difference suggests that religious extremists are particularly prone to perceiving and articulating threats to their honor or sacred values, serving as powerful motivators for their actions (Kruglanski et al., 2009). The emphasis on honor loss may reflect a deeper sense of existential threat or perceived victimization, which could be leveraged to justify extreme measures to restore their sense of significance and defend their in-group (Bélanger et al., 2014; Gelfand et al., 2015). Interestingly, while both groups used honor loss words more frequently than honor gain words, this disparity was significantly more pronounced in the writings of religious terrorists, this reflecting the lower frequency of honor gain words in religious terrorists' writings, compared to political terrorists' ones. This pronounced focus on honor loss among religious extremists may indicate that they experience greater significance loss, which is a critical driver of violent extremism according to Significance Quest Theory (Kruglanski et al., 2014). The narratives of religious terrorists often frame violence as a necessary response to profound offenses against their ideology or community, reinforcing the urge to act (Moghaddam, 2005; Victoroff, 2005). This finding underscores the role of perceived grievances and humiliation in fueling radicalization, particularly among religious extremists who may view their actions as restorative rather than aspirational (Gilligan, 1996; Webber and Kruglanski, 2018).

General discussion

The present research investigated the strategic use of honor-related language across different ideological contexts, examining how autocratic and democratic leaders, as well as political and religious terrorists, employ concepts of honor in their speeches and writings. Utilizing the Honor Dictionary (Gelfand et al., 2015) within the framework of Significance Quest Theory (SQT, Kruglanski et al., 2022b), we analyzed the prevalence of honor loss and honor gain words to understand how these linguistic patterns reflect underlying psychological states and motivational processes associated with extremism.

Summary of findings

In Study 1, we analyzed political speeches by Benito Mussolini and democratic Italian presidents. Our findings revealed significant differences in the frequency and framing of honor-related language. Democratic leaders used more honor-related words overall, with a marked emphasis on honor gain. This suggests a rhetorical strategy aimed at pursuing goals such as freedom, equality, and justice—concerns inherently tied to collective honor and societal progress (Hart et al., 2013). The predominance of honor gain words in democratic speeches likely serves to inspire hope, foster unity, and promote a sense of national achievement among the public. In contrast, Mussolini's speeches exhibited a greater focus on honor loss, with fewer references to honor gain. This pattern aligns with theories of authoritarian rhetoric, which often center on themes of crisis, decline, and external threats (Griffin, 1993; Gelfand and Lorente, 2021). By emphasizing honor loss, Mussolini evoked fear and justified authoritarian measures, promoting a collective sense of vulnerability and the need for defense against perceived enemies. This approach is consistent with analyses of fascist regimes that glorify struggle and sacrifice as essential to defending national honor (Paxton, 2005). Mussolini capitalized on sentiments of national

humiliation following World War I—despite being on the winning side, Italy felt shortchanged in territorial gains, leading to narratives of a "mutilated victory" (Wilcox, 2008). By exploiting these feelings of betrayal, he positioned himself as the leader capable of restoring Italy's rightful place in Europe, thereby fostering widespread acceptance of his extreme ideology.

Study 2 extended the investigation into terrorist rhetoric, focusing on the writings of religious and political lone-actor terrorists. The analysis revealed that honor loss words were more frequent across all texts, highlighting the centrality of grievance and perceived dishonor in extremist narratives. This finding is consistent with research indicating that honor concerns are pivotal in framing violent actions as necessary responses to perceived injustices (Saucier et al., 2009). Notably, religious terrorists used more honor-related words overall, with a significant emphasis on honor loss. Religious extremists often frame their actions as defensive measures to protect or restore sacred honor, creating narratives of existential threat where violence is portrayed as a divinely sanctioned response to violations of sacred values (Atran, 2010; Juergensmeyer, 2017). In contrast, political terrorists, while also focused on honor loss, exhibited a less pronounced difference between honor gain and honor loss words, and a higher frequency of honor gain words, reflecting a broader context of political struggle where honor can be both defended and gained through revolutionary action (Horgan, 2005).

Theoretical implications

These findings underscore the versatility of honor as a rhetorical tool, capable of serving diverse political objectives depending on how it is framed and deployed. Democratic leaders predominantly utilize honor gain rhetoric to uplift and unify, reinforcing shared values and fostering positive social identity (Simon and Klendermans, 2001). By contrast, autocratic leaders often manipulate honor loss rhetoric to control and galvanize support through narratives of threat and defense, exploiting feelings of significance loss to justify extreme measures (Gelfand and Lorente, 2021; Kruglanski et al., 2014). The differential use of honor-related language between state and non-state actors provides critical insights into the psychological and rhetorical strategies underlying extremist communication.

Beyond the specific within-study findings, our conceptual juxtaposition of Study 1 and Study 2 offers a novel theoretical insight into the rhetorical dynamics of radicalization. Political speeches—regardless of ideological orientation—were consistently characterized by a higher frequency of honor gain language, suggesting that in mainstream political discourse, even when radical, rhetorical strategies are primarily aspirational and future-oriented. Conversely, the writings of lone-actor terrorists were dominated by honor loss language, independent of whether the ideology was political or religious. This divergence points to a critical shift: while political rhetoric may appeal to status achievement and collective pride, violent extremist rhetoric appears to be fundamentally rooted in grievance, humiliation, and the urgent need to restore lost significance.

Further, we interpret this divergence as evidence that violent extremism, unlike radical rhetoric in political contexts, may be more strongly driven by a sense of significance loss. Specifically, the prominence of honor loss language in the terrorist writings (but not in political speeches) suggests that the activation of the need for significance via the significance-loss mechanism might be a crucial psychological factor in the transition from radical ideation to violent action. Thus, beyond demonstrating the broader applicability of Significance Quest Theory (SQT), this comparison offers a theoretical contribution: it highlights that significance loss, rather than gain, may be the more salient linguistic and psychological marker when radical beliefs escalate into concrete violence.

The heavy use of honor loss expressions in extremist rhetoric corresponds to the psychological state of significance loss central to SQT.

Honor, far from being merely a cultural mindset as described by Novin and Oyserman (2016), represents the cultural manifestation of the universal need for significance. As such, the endorsement of honor-related rhetoric, conveyed linguistically through *honor talk*, is proportionate to the degree of extremism embraced by the source. The linguistic shift from honor gain to honor loss rhetoric reflects the psychological and cultural mechanisms through which extremism appeals to individuals, particularly those experiencing significance loss. By situating these findings within a socio-psychological framework, this research clarifies the appeal of extreme ideologies, linking cultural and motivational psychology. The intersection of honor as a cultural value and the quest for significance as a motivational driver provides a deeper understanding of how extremist ideologies resonate with their audiences and mobilize action.

Practical implications

Understanding how different groups use honor-related language can inform the development of more effective counter-narratives that challenge the legitimacy of extremist rhetoric. By recognizing the emphasis on honor loss in extremist discourses, interventions can be designed to address perceived grievances and offer alternative pathways for significance restoration that promote peace, unity, and social cohesion (Braddock and Horgan, 2015). Counter-terrorism strategies that consider the cultural and psychological drivers of extremist behavior, including the role of honor, may be more successful in de-radicalizing individuals and preventing the spread of extremist ideologies.

Limitations and future directions

While our research offers valuable insights, certain limitations must be acknowledged. The historical nature of the Mussolini dataset and the focus on the Italian political context in Study 1 may limit the generalizability of the findings to contemporary global politics.

First, we acknowledge that selecting Mussolini's speeches for availability online - despite collecting a comprehensive sample - may limit the representativeness of our sample. Moreover, comparing such speeches, spanning both periods of peace and war, with the democratic rhetoric of post-1945 Italy. These periods are marked by significant historical and ideological differences, which may influence the linguistic patterns observed in our analysis. While we strive to control for temporal factors with a standardized linguistic tool, the inherent differences between these contexts remain a potential confounder. Future research should replicate these analyses in different cultural and temporal contexts, examining how honor-related rhetoric evolves over time and across various political systems. Additionally, the sample size in Study 2, although substantial for lone-actor terrorism research, is relatively small and may not capture the full diversity of extremist ideologies.

At the same time, we acknowledge that our analytical approach, based on a mere dictionary word frequency count, shows some inherent limitations for results generalization. In fact, treating the words as single chunks, regardless of their grammar or order, does not offer room for linguistic ambiguity, idiomatic expressions and contextual variations (see Abubakar et al., 2022, for a comprehensive review of a review of text processing for computerized content analysis). Additionally, the honor gain sub dictionary includes more common words (e.g., able, advance), while the honor loss sub dictionary contains rarer terms (e.g., adulterer, affront). This may contribute to the higher frequency of gain words, independent of rhetorical tendencies. While our comparisons across ideological contexts remain valid, future research could benchmark word frequencies against a neutral corpus to account for this potential bias.

The findings of the present research open several avenues for future investigation, particularly in exploring the role of honor-related language across different historical periods, political contexts, and forms of extremism. Following multi-language translations of the Honor

Dictionary, future studies can expand upon our work in the following ways.

Firstly, extending the analysis of political speeches from the 20th century, we aim to examine the rhetoric of diverse European leaders who played significant roles during periods of war and totalitarianism. Secondly, focusing on current affairs, future research can investigate the honor rhetoric of contemporary political leaders and governments worldwide. This analysis may reveal whether leaders in less democratic or more fragile states rely more heavily on honor loss language to legitimize their authority or policies. Thirdly, extending our investigation into terrorism, future studies can compare the writings and communications of organized political and religious terrorist groups, such as the Red Brigades and Al-Qaeda. Analyzing the honor-related language in manifestos, propaganda materials, and other communications from these groups would provide deeper insights into how collective extremist movements utilize honor rhetoric to recruit members, justify violent actions, and sustain ideological commitment. Such insights have the potential to inform policymakers, practitioners, and scholars in developing more effective interventions, counter-narratives, and educational programs aimed at mitigating radicalization and promoting constructive political engagement.

Conclusion

Our research demonstrates that the use of honor-related language, particularly the balance between honor gain and honor loss rhetoric, can serve as a lens for understanding political ideologies and extremist motivations. The contrasting patterns observed in mainstream political discourse versus lone-actor terrorist writings highlight the complex role that concepts of honor play in shaping political narratives and motivating extremist actions. These findings not only contribute to our theoretical understanding of political communication and extremist psychology but also offer practical insights for developing more effective strategies to counter extremist narratives and promote democratic values.

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Ethics & informed consent statement

This research involved the collection and analysis of publicly available textual data, specifically political speeches and lone-actor terrorist writings. As such, it did not involve direct interaction with human participants or the collection of personal or sensitive information. Therefore, no formal ethics approval or informed consent was required for this study.

All data were sourced from publicly accessible archives and databases, and were analyzed in accordance with applicable ethical guidelines for research involving public records. The authors affirm that the study complies with the ethical standards outlined by the journal and the broader research community.

CRediT authorship contribution statement

Gabriele Di Cicco: Conceptualization, Methodology, Formal analysis, Writing – original draft. **Federico Contu:** Conceptualization, Methodology, Formal analysis, Writing – original draft, Writing – review & editing. **Laura Prislei:** Data curation, Writing – review & editing. **Michele J. Gelfand:** Validation, Writing – review & editing. **Arie W. Kruglanski:** Validation, Writing – review & editing. **Erica Molinaro:** Supervision, Conceptualization, Writing – original draft, Writing – review & editing.

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

The anonymized OSF data repository is indicated in the manuscript

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