

RESEARCH NOTE

# What traits do citizens value in leaders during war? Experimental and panel-based evidence from Ukraine in 2022

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## Abstract

When do citizens want a dominant political leader? A prominent Conflict-Sensitivity Hypothesis suggests such preferences arise during intergroup conflict, yet it remains untested in a real war. We report results from an experiment embedded in a two-wave panel survey with 1,081 Ukrainians (811 re-interviewed) at the start of Russia's 2022 invasion. We find that respondents generally value competence and warmth over dominance in leaders. Yet, war increases preferences for dominance and reduces preferences for warmth and competence. Emotional reactions to war also relate to leader trait preferences: Ukrainians who react with aggressive emotions display enhanced preferences for all leader traits, whereas fearful reactions leave trait preferences mostly unaffected. These findings advance our understanding of how war shapes leader preferences.

**Keywords:** character traits; emotions; political leadership; Russian invasion of Ukraine; voter preferences; war

## 1. Introduction

Major crises like terrorist attacks, wars, and pandemics often put leaders and leadership in the spotlight. Leaders can respond differently to crises—for example, competently steering a society through a pandemic, maintaining social support and cohesion in the aftermath of a natural disaster, or leading with force and determination in a war. Different kinds of crises likely require different responses from leaders and come with different expectations of citizens (Lonati and Van Vugt, 2023). Existing research illuminates the importance of security crises for citizens' electoral behavior, with threat increasing citizens' support for hawkish leaders, hostile foreign policy positions, and right-wing parties (e.g., Gadarian, 2010; Getmansky and Zeitsoff, 2014; Carter, 2024). Despite the widespread assertion that political leaders are key for successful crisis management (Boin *et al.*, 2016; De Waal-Andrews and Van Vugt, 2020), and insights provided by 'at-a-distance' analyses of leaders' personalities (Hermann, 2024), we know less about citizens' preferences for more basic character

traits—such as warmth, competence, and dominance—in leaders during acute crises. Knowledge about the relative importance of such traits during war is particularly limited. While people might prefer warm and competent leaders during peace, they might opt for dominant, and tough-minded leaders during war (Huddy and Feldman, 2011; Laustsen and Petersen, 2017). In other words, people might adjust how important they perceive different traits in leaders depending on whether they face peace or war. We address this question by reporting analyses of experimental and panel data on Ukrainians' leader trait preferences collected at the start of the 2022 Russian invasion of Ukraine.

## 2. Leader trait preferences in peace and war

What traits do citizens value in leaders? Research on leader perceptions and trait-based voting indicates that followers are affected by three major evaluative dimensions: competence, warmth, and dominance (Merolla and Zechmeister, 2009; Bittner, 2011; Laustsen and Petersen, 2017, 2020). Notably, these traits correspond to models from leadership science and organizational psychology which stress three primary needs among followers (De Waal-Andrews and Van Vugt, 2020): i) guidance offered by competent, visionary leaders, ii) integrity and fairness secured by warm leaders, and iii) protection from threats afforded by dominant leaders. These patterns also fit with general models of person perception and impression formation (Abele *et al.*, 2021).

Research shows that situations of intergroup conflict, such as interstate war, lead to increased preferences for dominant leaders (Merolla and Zechmeister, 2009; Laustsen and Petersen, 2017, 2020)—those leading through force, intimidation and fear (Cheng *et al.*, 2013). While the concept of 'leader dominance' originates from social and evolutionary psychology, it resonates with constructs like 'hawkish', 'authoritarian', and 'hard-liner' from international relations (Vasquez, 1985; Colaresi, 2004; Carter, 2024) and comparative politics research (Kakkar and Sivanathan, 2017; Getmansky and Zeitzoff, 2014; Mattes and Weeks, 2019; Kiratli, 2021). While prior work finds that threats and wars increase preferences for 'hawkish' leaders and policies, the underlying mechanisms remain unsettled. Experimental work in small-group settings suggests that dominant leaders are preferred because they are expected to facilitate cooperation within their groups, for example, through punishment of free-riders (Chen *et al.*, 2021), which is particularly valuable during intergroup conflict and war. Alternatively, dominant leaders may be considered better at promoting their group's interest vis-a-vis others, e.g., when force is needed to inflict costs on aggressive outgroups (Van Vugt and Smith, 2019).

Regardless of the underlying mechanism, the *Conflict-Sensitivity Hypothesis* holds that intergroup conflict makes dominant leaders more appealing for citizens. Yet, the support for this hypothesis comes from experimental studies assigning respondents to read fictitious intergroup conflict scenarios (Merolla and Zechmeister, 2009; Laustsen and Petersen, 2020). To our knowledge, none of the existing studies have tested the conflict-sensitivity hypothesis among respondents who were exposed to actual war at the time of data collection. Possibly, people respond similarly to hypothetical and real events; however, it remains unknown if that applies to leadership preferences during major crises, such as war. Experimental primes of intergroup conflict might not evoke the same psychological states and responses as real war experiences. Moreover, while experimental work suggests that intergroup conflict increases preferences for leader dominance, it remains unclear how people value leader dominance compared to traits like warmth and competence (Kakkar and Sivanathan, 2017; Hasty and Maner, 2025). Thus, more comprehensive evaluations of the effect of real war on preferences for leaders' character are missing.

Existing work also argues that people's emotional reactions are key for understanding how war affects behavior and preferences (Huddy and Feldman, 2011). Two rival emotional accounts exist regarding citizens' leader preferences. On the one hand, fearful emotions are theorized to capture a defensive orientation towards a conflict and, thus, cause increased preferences for dominant leaders to ensure protection (Laustsen and Petersen, 2017). Alternatively, aggressive emotions, such as anger and hatred, are theorized to cause enhanced preferences for dominant leadership to ensure success

in confrontation with enemies (Laustsen and Petersen, 2017; Ambroziak *et al.*, 2022). Existing work finds stronger support for the aggressive emotions account. However, several unanswered questions remain. First, it remains unexplored how emotional reactions relate to leader trait preferences among people experiencing real war. Second, most existing work linking emotional reactions, conflict, and leader trait preferences focuses on leader dominance, ignoring other traits. Third, due to their reliance on observational single-survey data, most conclusions from existing research are vulnerable to internal validity threats, like unobserved rival predictors causing co-variation in emotional reactions and leader trait preferences.

We address these knowledge gaps by reporting data from individuals in an on-going war: Ukrainians experiencing the Russian invasion of Ukraine in February 2022. Specifically, we examine citizens' relative preferences for leader competence, warmth, and dominance, using two waves of panel data, a randomized experiment, and respondents' self-reported emotional states. As such, our analyses test the *Conflict-Sensitivity Hypothesis*, and the role played by emotional reactions to war, through between- and within-respondent designs.

### 3. Methods and materials

#### 3.1. Respondents and timing

Following the Russian invasion, we conducted a two-wave survey among a probability sample of adult Ukrainians in collaboration with a local survey agency, Info Sapiens. Wave 1 was collected in March 9–12, 2022 (approximately two weeks into the war). It consists of 1,081 respondents representative of the Ukrainian population aged 18–55 years in cities with a minimum of 50,000 residents (56.5% female, mean age: 35.6 years). Wave 2 was collected in April 3–13, 2022. Of all first-wave respondents, 811 (58.7% female, mean age = 36.2) partly or fully completed the second wave (75% reinterview rate). Data collection stopped when Info Sapiens considered it unlikely to obtain more re-interviews, yielding a total of 753 completions across waves. Respondents completed the survey in their preferred language—Ukrainian or Russian. Given the rapidly unfolding events, and limited time to field the surveys, this research was not preregistered and no a priori power analyses were conducted.

#### 3.2. Research design and procedure

After reading the information sheet and consenting to voluntary participation, respondents completed the Wave 1 questionnaire containing various questions about demographics and psychological reactions (e.g., experienced emotions). Respondents were then randomly assigned to one of two conditions in our leader trait preference experiment (described below), followed by questions tapping leader trait preferences. In Wave 2, the questionnaire followed the same structure (except assignment to experimental conditions) and included the same leader trait questions. Both waves also contained additional items for other research projects.

#### 3.3. Leader trait preference experiment

Before stating their leader trait preferences in Wave 1, respondents were randomly assigned to either a war or peace condition. The war condition instructed respondents to 'Imagine that you need to elect a new leader of your country right now. What kind of leader would you prefer to lead your country?' The peace condition instructed respondents to 'Imagine that peace and quiet returns to your country and that neighbors no longer threaten Ukraine. What kind of leader would you prefer to lead your country?' This contextual manipulation was only part of Wave 1, whereas all respondents in Wave 2 received the war condition instruction.

Given this experimental manipulation, an analysis of respondents assigned to the war condition allows assessing respondents' relative preferences for different traits (i.e., dominance, competence,

and warmth) in leaders during real and ongoing war. Most previous studies employed treatment conditions in which respondents were asked to imagine their country being at war or threatened by enemies—an unfamiliar, hypothetical situation for many respondents. Meanwhile, respondents assigned to the control group were typically asked to think about the current (i.e., peaceful) situation—a familiar non-hypothetical situation for most respondents. In contrast, because our experiment was conducted during war, and because the respondents had experienced prior peaceful times, the present study allows for a stronger test of the conflict sensitivity hypothesis, where the peace condition constitutes the hypothetical, and the war condition the non-hypothetical situation.

### 3.4. *Dependent variables: leader trait preferences*

Respondents reported how much they agreed with the statement ‘I would like a leader who is [trait]’, with the traits ‘competent’, ‘trustworthy’, ‘strong’, ‘generous’, ‘warm’, ‘tough-minded’, and ‘dominant’ shown in random order. Responses were collected on 7-point scales from *strongly disagree* (1) to *strongly agree* (7). Exploratory Principal Component Analysis (PCA) revealed that the seven trait items cluster into three dimensions for which we created composite scales by averaging across the relevant items: competence (consisting of competent, trustworthy, and strong;  $\alpha_{\text{Wave1}} = 0.81$ ,  $\alpha_{\text{Wave2}} = 0.74$ ), warmth (generous and warm;  $\alpha_{\text{Wave1}} = 0.81$ ,  $\alpha_{\text{Wave2}} = 0.77$ ), and dominance (tough-minded and dominant;  $\alpha_{\text{Wave1}} = 0.65$ ,  $\alpha_{\text{Wave2}} = 0.67$ ) (see Supplementary Online Materials, SOM.1).

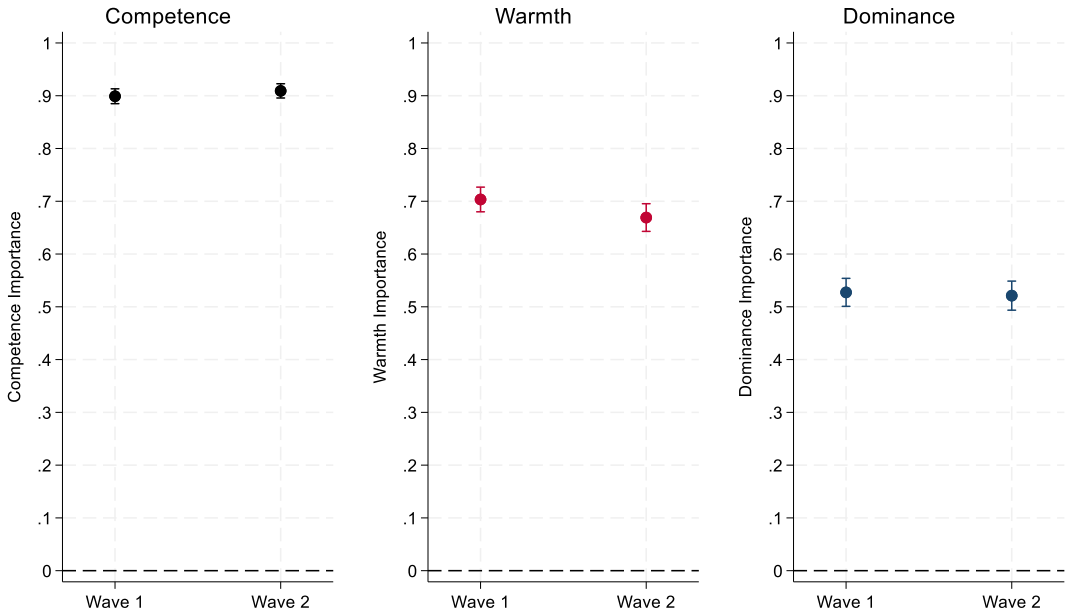
### 3.5. *Predictor variables: emotional reactions to the war*

To estimate how emotional reactions to war relate to leader trait preferences, we asked respondents to report the frequency of experiencing various emotions over the past week (following Lautsen and Petersen, 2017). Fearful and defensive emotions were captured using respondents’ reported frequency of being afraid, frightened, and scared. Aggressive and offensive emotions were captured with reported frequency of being angry, hostile, and disgusted. Responses were collected on 7-point scales from *never* (1) to *all the time* (7). Averaging across items, we formed reliable scales for defensive and fearful emotions ( $\alpha_{\text{Wave1}} = 0.90$ ,  $\alpha_{\text{Wave2}} = 0.89$ ) and for offensive and aggressive emotions ( $\alpha_{\text{Wave1}} = 0.77$ ,  $\alpha_{\text{Wave2}} = 0.78$ ). Based on similar questions we also created scales for sadness and self-confidence, which were used as controls (see below).

## 4. Analytical strategy

Mapping citizens’ preferences for leader traits during actual war, we compared mean ratings of stated importance of competence, warmth, and dominance among respondents assigned to the war condition. To test the *Conflict-Sensitivity Hypothesis* we compared mean leader trait preferences between respondents assigned to the war and peace conditions in Wave 1. Additionally, we focus on respondents assigned to the peace condition in Wave 1 testing if they adjusted their leader trait preferences under war (Wave 2). Finally, we use the panel structure of our dataset to test how emotional reactions to the war relate to leader trait preferences. Since our panel data was composed of two waves, we used the first-difference estimator, which is numerically equivalent to the two-way fixed-effects estimator. This approach allows modeling how within-respondent changes in emotional reactions across waves relate to analogous changes in leader trait preferences. By design, this strategy controls for all (observed and unobserved) time-invariant factors (e.g., gender) and accounts for overall time trends in the variables of interest. However, time-variant factors might still confound estimated relationships; hence, we controlled for two groups of variables: (1) rival emotions of sadness and self-confidence; and (2) identification with Ukraine, Russia, and Europe.

Finally, to ease interpretation, key variables (trait preferences and emotions) were recoded to 0–1 scales with 1 reflecting highest possible value (SOM.2 displays descriptive statistics).



**Figure 1.** Mean preferences for leader traits among respondents assigned to the war condition (wave 1). Error bars represent 95% confidence intervals.

Note: Analyses based on respondents assigned to the war condition and participating in both survey waves,  $n = 374$  (full models in SOM.3)

## 5. Results

### 5.1. Wartime leader trait preferences

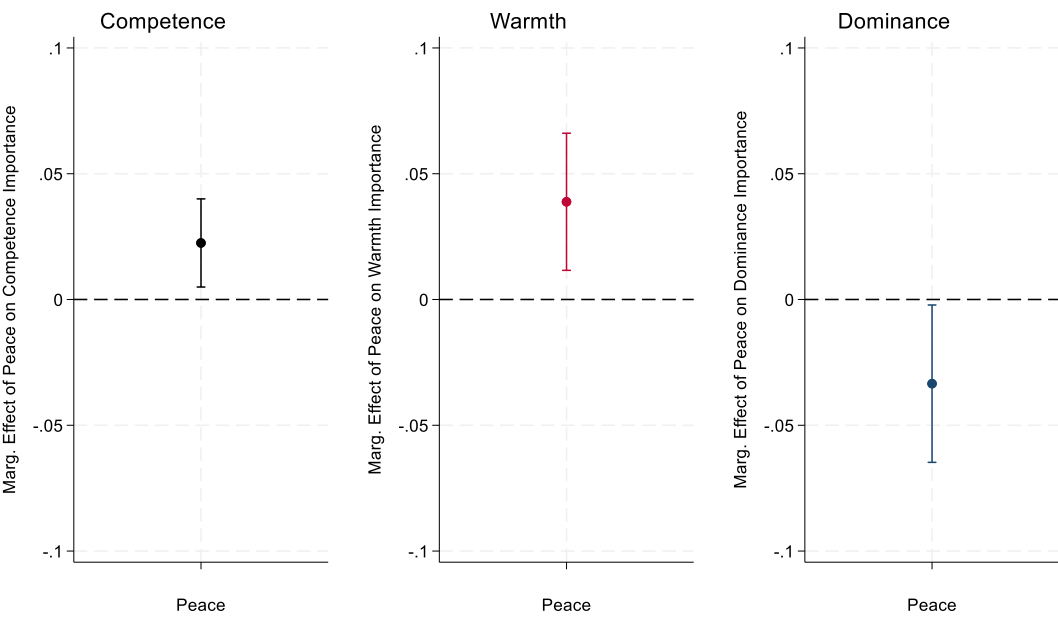
Figure 1 shows mean leader trait preferences across waves for respondents assigned to the war condition in Wave 1 and who remained in the panel across both waves. On average, respondents in the war condition in Wave 1 rated competence as most important ( $M_{\text{War, Wave1}} = 0.89$ ), followed by warmth ( $M_{\text{War, Wave1}} = 0.70$ ), and then dominance ( $M_{\text{War, Wave1}} = 0.53$ ). This order replicated in Wave 2 among the re-interviewed respondents: Competence ( $M_{\text{War, Wave2}} = 0.91$ ) was seen as more important than warmth ( $M_{\text{War, Wave2}} = 0.67$ ), which again was seen as more important than dominance ( $M_{\text{War, Wave2}} = 0.52$ ) ( $ps < 0.001$ ) (see SOM.3). Despite the war, competence and warmth consistently emerged as more important than dominance. Examining the consistency in preferences across waves, we found moderate-to-strong cross-wave correlations ( $r_{\text{competence}} = 0.43$ ,  $p < 0.001$ ;  $r_{\text{warmth}} = 0.55$ ,  $p < 0.001$ ;  $r_{\text{dominance}} = 0.64$ ,  $p < 0.001$ ).

### 5.2. Conflict-sensitivity hypothesis

Consistent with the *Conflict-Sensitivity Hypothesis*, respondents assigned to the peace condition in Wave 1 reported significantly lower preferences for leader dominance compared to respondents assigned to the war condition ( $b_{\text{dominance}} = -0.033$ ,  $p = 0.036$ ). Preferences for competence and warmth were also higher among respondents in the peace condition ( $b_{\text{competence}} = 0.022$ ,  $p = 0.012$ ;  $b_{\text{warmth}} = 0.039$ ,  $p = 0.005$ ).<sup>1</sup> Figure 2 shows the marginal effect of being assigned to the peace condition (vs war) on preferences for each trait dimension.

Further probing the *Conflict-Sensitivity Hypothesis*, we conducted a within-respondent test among respondents assigned to the peace condition in wave 1. Specifically, we tested if these respondents changed their trait preferences when thinking about the ongoing war in Wave 2. This was the case,

<sup>1</sup>Results remain significant if we apply the Holm correction procedure for multiple hypothesis testing (Holm, 1979).



**Figure 2.** Marginal effect of peace condition (vs war) on leader trait preferences. Error bars represent 95% confidence intervals.  
Note: Analyses based on all respondents from Wave 1,  $n = 1,055$  (full models in SOM.4)

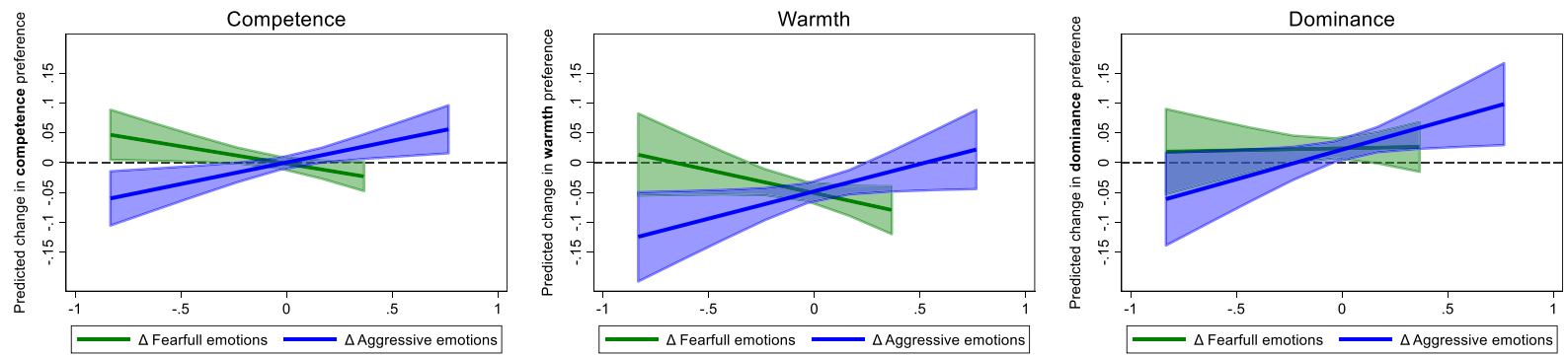
with preferences for leader dominance being significantly stronger in wave 2 ( $b = 0.048, p < 0.001$ ). Moreover, these respondents also lowered their preferences for warmth ( $b = -0.058, p < 0.001$ ), while preferences for competence remained unchanged ( $b = -0.009, p = 0.151$ ) (see SOM.4).

5.3. Emotional reactions to the war and leader trait preferences

Testing the relation between emotional reactions to the war and leader trait preferences, we analyzed respondents who answered both survey waves. We regressed leader traits (dominance, warmth, and competence) on fearful and aggressive emotional reactions, while controlling for sadness, self-confidence, and identification with Ukraine, Russia, and Europe. Preferences for leader dominance were significantly and positively predicted by aggressive emotions ( $b = 0.099, p = 0.028$ ), but not by fearful emotions ( $b = 0.007, p = 0.882$ ). Preferences for leader warmth ( $b = 0.091, p = 0.037$ ) and competence ( $b = 0.072, p = 0.006$ ) were also positively predicted by aggression, but negatively predicted by fearful emotions ( $b_{\text{Warmth}} = -0.077, p = 0.081; b_{\text{Competence}} = -0.058, p = 0.030$ ) (see SOM.5). Figure 3 illustrates these results.

6. Discussion

Political leadership is often seen as key for successfully navigating a society through major crises like wars. Here we provide insights about the relative importance of basic character traits in leaders as reported by Ukrainian citizens during the 2022 Russian invasion. Overall, the Conflict-Sensitivity Hypothesis was supported. While on average competence and warmth emerged as more important leader traits, the between- and within-respondent analyses revealed that exposure to war significantly increased preferences for dominant leaders. At the same time, war decreased preferences for



**Figure 3.** Relationships between aggressive (blue) and fearful (green) emotions and preferences for leader competence (left), warmth (middle), and dominance (right). Shaded areas represent 95% confidence intervals.

Note: Analyses based on respondents participating in both survey waves,  $n = 726$  (full models in SOM.5).



warmth and (to a weaker extent) competence. Finally, we found that aggressive—but not fearful—emotional reactions to war drive preferences for leader dominance, and surprisingly also warmth and competence.

Additional analysis examined the robustness of the results against alternative modelling strategies and rival theories. First, we reached similar conclusions based on analyses with single-item trait variables although some estimates were non-significant (SOM.6). Likewise, we replicated the key results substituting composite trait scales with factor scores extracted from PCAs (see SOM.7). Second, relative preferences for leader competence, warmth, and dominance were unchanged including all available respondents, rather than re-interviewees only (see SOM.8). Third, follow-up tests revealed that attrition bias (25% of respondents dropped out between waves) does *not* influence the results pertaining to emotional reactions and leader dominance and warmth, but *possibly* influences those pertaining to competence. Consequently, the competence-related results need more cautious interpretation (see SOM.9). Fourth, we tested if the experimental effects of war on leader trait preferences were possibly driven by respondents' projections of idealized impressions of President Zelenskyy in ways matching the assigned experimental condition (i.e., processes akin to 'rally around the flag' effects). Testing this rival explanation, we used evaluations of Zelenskyy's warmth, competence and dominance (from Wave 1). Results do *not* support the rival explanation as trait evaluations of Zelenskyy remained unaffected by experimental conditions (see SOM.10). Finally, because the intensity of Russia's attack on Ukraine varied across Ukrainian oblasts (i.e., regions), we explored if preferences for leader traits varied as a function of oblast-level attack incidences provided by the event data project VIINA (Zhukov, 2023), and self-reported individual-level victimization by the Russian attacks measured in our surveys. Mostly, estimated relationships were non-significant, but changes in self-reported victimization negatively predicted preferences for leader competence, and oblast-level attack intensity negatively predicted preferences for leader dominance using one but not the other survey wave (see SOM.11-12). Importantly, we only see these patterns as suggestive due to the conflicting findings across self-reports and event data and the uncertainty in the estimates of regional differences with only 25 regions. Future research could use more fine-grained data to scrutinize if/how conflict-intensity possibly affects leader trait preferences.

Our results have multiple theoretical and practical implications. First, leader competence and warmth are valued higher than dominance even amid a major war. Thus, although war—as illustrated by the support for the *Conflict-Sensitivity Hypothesis*—enhances citizens' preferences for leader dominance and lowers preferences for competence and warmth, dominance remains relatively less important. This finding resonates with insights on citizens' general (non-wartime) leader trait preferences (Bittner, 2011; Laustsen and Petersen, 2020) and recent experimental results on the preferences for prestige- and dominance-based leadership (Hasty and Maner, 2025). Possibly, competence and warmth remain more important because Ukraine constitutes the attacked side. Alternatively, the duration of a war may cause further changes to the relative importance of competence, warmth and dominance. Given that our data was collected less than two months after the Russian invasion in 2022, it is unclear if the reported results generalize to conflicts of longer durations. A prolonged conflict might involve habituation (with preferences returning to their baseline levels) or not. Second, with respect to emotional reactions, aggressive—not fearful—reactions predicted preferences for dominant leaders, suggesting that citizens become attracted to dominant leaders for aggressive rather than protective reasons. Third, aggressive emotions also enhanced preferences for leader warmth and competence. This might appear incompatible with the underlying theoretical notion about aggressive citizens turning towards dominant leaders for escalating conflicts. One potential explanation might again be Ukraine's status as victim rather than aggressor in the ongoing war. Perhaps aggressive Ukrainians realize that for Ukrainian defense to succeed, strong alliances with outside allies are needed and that leader warmth and competence are key traits for building such alliances.

The internal validity of our panel and experimental designs may come at some expense of external validity. We collected data in one country, at a given time, fighting a *defensive* war. Hence, our results



may not generalize across political systems, regions, or to those involved in offensive wars. Existing research suggests that offensive and defensive conflicts evoke different psychological reactions in those affected by the conflict (Doğan *et al.*, 2018). Finally, caution is warranted when speculating how our results may relate to voting behavior given that real candidates—besides traits—also vary with respect to partisanship, political positions, reputations, etc.

In conclusion, our findings from the ongoing war in Ukraine provide support for the notion that conflict heightens citizens' preferences for dominance in a leader, but also that—on average—citizens value competence and warmth over dominance.

**Supplementary material.** The supplementary material for this article can be found at <https://doi.org/10.1017/psrm.2025.10047>.

**Data availability statement.** The data used in the manuscript and the code for the performed analyses are available here: <https://doi.org/10.7910/DVN/QL9ZY>

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**Conflict of interest.** Authors declare no conflict of interest.

**Ethical approval.** This study was approved by the Ethics Review Board of the Tilburg School of Social and Behavioral Sciences (RP438). Informed consent was obtained from all participants. Participants were rewarded with a standard fee by the local survey agency Info Sapiens.

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