



D5.5

Emotions and mobilisation



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AUTHORS

Diana Kostikova, UNIVIE
Stephanie Bühner, UNIVIE
Simone Moser, UNIVIE
Jörg Matthes, UNIVIE

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EXECUTIVE SUMMARY

This report examines the role of emotions in political engagement and political information processing on social media. It presents two studies conducted within Task 5.5 using survey data from Austria, Bulgaria, Denmark, and Poland. Together, the studies examine whether changes in emotions contribute to changes in political engagement over time and whether different emotional profiles are associated with different patterns of engagement and information processing. In line with the objectives of Task 5.5, particular attention is given to identity-based emotions and to broader configurations of positive and negative emotional responses.

The first study uses three-wave panel data to examine the relationships between exposure to political in-group perpetration on social media, in-group guilt and pride, and approach- and avoidance-oriented online political action. Random-intercept cross-lagged panel models (RI-CLPMs) distinguish within-person change over time from stable differences between individuals. The results show a clear contrast between these two levels. At the between-person level, individuals who were generally more exposed to political in-group perpetration reported greater guilt across all four countries and greater pride in Austria and Denmark. Both guilt and pride were consistently associated with greater approach-oriented political action. At the within-person level, however, increases in exposure did not consistently lead to subsequent changes in guilt or pride, and increases in these emotions generally did not predict subsequent changes in political action. The findings therefore show that relationships observed between individuals do not necessarily reflect the same processes of change within individuals over time.

The second study uses Latent Profile Analysis (LPA) to identify population segments characterized by different patterns of emotional responses to EU politics. Across all four countries, three similar profiles emerged: a negative-dominant profile, a positive-dominant profile, and a low-emotion profile. Individuals in both the negative- and positive-dominant profiles reported greater political information seeking and cognitive elaboration than those in the low-emotion profile, while differences between the two emotionally engaged profiles were less consistent. This suggests that emotional involvement itself, rather than simply whether emotions are positive or negative, is associated with more active political information processing. Information seeking and cognitive elaboration were consistently associated with greater subjective political knowledge, and both emotionally engaged profiles were indirectly associated with greater subjective knowledge through these forms of information processing. Associations with objective political knowledge were weaker and less consistent across countries.

Taken together, the two studies provide a more differentiated understanding of the role of emotions in political engagement. The three-wave panel study shows the importance of separating stable between-person differences from changes occurring within individuals over time, while the LPA demonstrates the value of examining broader emotional profiles rather than individual emotions in isolation. Overall, the findings suggest that emotional involvement is closely connected to political engagement and information processing, but that these relationships are more clearly visible as differences between individuals and emotional profiles than as consistent short-term changes within individuals.

Building on these findings, the next steps will focus on disseminating the results through academic and policy-oriented outputs and further investigating the conditions under which emotional responses contribute to changes in political engagement over time.

1. INTRODUCTION

1.1 THE ENCODE PROJECT

The ENCODE project, titled "Unveiling Emotional Dimensions of Politics to Foster European Democracy," aims to explore and decode the role of emotions in political discourse and their impact on democratic processes. Recognizing that emotional appeals have significantly influenced political movements and voter behaviour, ENCODE seeks to understand the interplay between emotions, values, and identities. The project's primary goal is to create new positive narratives that can foster trust and engagement in European democratic processes, thereby counteracting the negative emotions that often dominate political discussions. Through innovative methodologies, including social media sentiment analysis, biometric research, and surveys, ENCODE aims to provide policymakers with tools and strategies to better incorporate the emotional needs of citizens into governance, ultimately enhancing democratic resilience and fostering a more inclusive political environment.

1.2 OBJECTIVES OF DELIVERABLE

- Examine the role of emotions in political engagement.
- Investigate the longitudinal and reciprocal relationships between emotional responses and political engagement.
- Examine the intrapersonal processes associated with increases and decreases in political engagement over time.
- Assess the role of identity-focused emotions, such as pride and guilt.
- Investigate emotional pathways between exposure to political information and political engagement.
- Identify distinct emotional profiles within the population and examine differences in their mobilisation and engagement patterns, specifically those related to digital environments and social media, which are playing an increasingly important role in the modern participatory repertoire.

1.3 STRUCTURE OF THE DOCUMENT

The document presents two studies: a three-wave panel study conducted within Task 5.5 and an additional study using Latent Profile Analysis (LPA). Both studies follow the same general structure:

1. **Introduction and background**, outlining the research questions, state of the art, and study objectives.
2. **Theoretical framework**, presenting the relevant theoretical approaches and the formulation of hypotheses and research questions.
3. **Methodology**, describing the research design, data collection, measures, and sampling procedures.
4. **Findings and discussion**, presenting the main results and discussing their implications.

Following the two studies, a joint conclusion integrates their main findings and discusses their broader implications.

1.4 RELATION TO OTHER TASKS

Insights from the desk research conducted within WP2 informed the planning and conceptualization of the panel study under Task 5.5. In particular, the scoping review on the intersection of emotions, media, and politics strengthened the conceptual grounding of the task and supported the development of a more focused and methodologically robust design. Additionally, groundwork laid in Tasks 2.1 and 2.2 related to the theory of affective pluralisation informed the selection of emotions for the second study within Deliverable 5.5 (Latent Profile Analysis). Finally, a two-wave pilot study was conducted in Austria to test the survey measures subsequently used in the final three-wave panel study across the four core countries. Based on the pilot study, the measures (specifically, those related to measuring emotions, political social media use, and political behavior) were reviewed and adjusted where necessary before the main data collection.

Results from Task 5.5 directly contribute to Task 8.4 by providing longitudinal evidence on the role of emotions in political communication and their implications for democratic attitudes and processes, forming an important empirical basis for academic dissemination and public engagement activities. Findings from Task 5.5 will be disseminated through peer-reviewed journal articles, conference presentations, and policy-oriented outputs addressing emotional dynamics in digital political information environments.

Moreover, insights from Task 5.5 can inform WP7 by guiding the design and evaluation of vignette-based policy scenarios. In particular, evidence on how emotions can foster or inhibit political engagement, how emotional responses develop alongside participation over time, and how different emotional profiles are linked to patterns of political engagement and information processing can inform the development of scenarios aimed at encouraging meaningful and constructive forms of democratic participation. In this way, Task 5.5 contributes to the broader ENCODE objective of translating knowledge on emotions into actionable tools for democratic communication, depolarization strategies, and policy-relevant future narratives.

2. FEELING AND ACTING ON POLITICAL IN-GROUP WRONGDOING: PRIDE, GUILT, AND ONLINE POLITICAL ENGAGEMENT OVER TIME

2.1 BACKGROUND

Political in-groups are not always represented in ways that their members can readily endorse. Political party representatives may make controversial statements, engage in questionable behavior, or violate norms, while other members of a political movement may act in ways that reflect negatively on the group as a whole. On social media, such instances of political in-group perpetration can become particularly visible and expose individuals to information that challenges their positive perceptions of their political group. Exposure to

problematic political content can elicit different behavioral responses, ranging from continued engagement and intervention to withdrawal and avoidance (Matthes et al., 2025). Understanding the emotional processes that shape these responses is therefore important for explaining how people engage with political information online.

Two group-based emotions are particularly relevant in this context: in-group pride and in-group guilt. These emotions are central to Intergroup Emotions Theory (IET; Mackie et al., 2008), as they arise from individuals' identification with and evaluation of their social groups. At the same time, pride and guilt differ in valence and may have distinct implications for subsequent political behavior. Comparing the two therefore allows us to examine how positive and negative group-based emotions relate to engagement with, or avoidance of, political information. While group-based pride and guilt have received considerable scholarly attention, much of this literature has focused on national groups and wrongdoing in the context of foreign policy, leaving their role in relation to other political in-groups comparatively less understood. Moreover, existing research provides limited evidence about how these emotions shape individuals' engagement with political information. For example, Iyer et al. (2007) found no effect of guilt in response to political in-group wrongdoing on political action intentions, but examined conventional forms of participation such as voting, signing petitions, and attending rallies. Such behaviors typically require greater commitment than everyday information-related actions online, such as attending to, seeking out, or avoiding political content. Whether group-based emotions are related to these more immediate forms of political engagement therefore remains less clear.

Using a three-wave panel study conducted in Austria, Bulgaria, Denmark, and Poland, we examine how exposure to political in-group perpetration, in-group pride and guilt, and approach- and avoidance-oriented online political action are related over time. Importantly, we distinguish within-person processes from between-person differences, allowing us to investigate whether changes in individuals' exposure and emotions are followed by changes in their political behavior, while separately examining how people who are generally more exposed or emotional differ from others. The cross-national design further allows us to assess whether these relationships emerge consistently across different political contexts.

2.2 THEORETICAL FRAMEWORK: SEPARATING WITHIN- FROM BETWEEN-PERSON EFFECTS

2.2.1 THE EMOTIONAL CONSEQUENCES OF IN-GROUP WRONGDOING

Intergroup Emotions Theory (IET; Mackie et al., 2008) suggests that when individuals identify with a social group, they can experience emotions in response to events involving the group as a whole. This is particularly relevant when the in-group engages in morally wrongful behavior. Since group membership connects the self to the actions of the group, individuals can experience guilt for their in-group's wrongdoing even when they were not personally involved in it (Wohl et al., 2006). Thus, encountering more evidence of political in-group perpetration than usual should make the group's moral transgressions more salient and increase in-group guilt.

At the same time, in-group wrongdoing should undermine the positive value individuals derive from their group membership. According to Social Identity Theory (SIT; Tajfel & Turner, 1979), people derive part of their self-concept from their social group memberships and strive to maintain a positive social identity. Pride in one's group therefore rests on perceiving the group as worthy of positive identification (e.g., Scheepers & Ellemers, 2019; Ellemers et al., 2013), and morality is particularly important for such positive evaluations of the in-group (Leach et al., 2007). Evidence that one's political in-group has acted immorally challenges this positive basis for identification, making affiliation with the group a less compelling source of pride. Thus, when individuals encounter more evidence of in-group perpetration than usual, their in-group pride should decrease.

H1: When people are more exposed to political in-group perpetration than they usually are, they will subsequently experience (a) more in-group guilt and (b) less in-group pride than they usually do.

At the between-person level, however, there are theoretical reasons to expect a different association between exposure to political in-group perpetration and guilt. While encountering more evidence of in-group wrongdoing than usual should make the group's moral transgressions particularly salient within individuals, consistently high levels of exposure may be accompanied by habituation. Habituation refers to a decline in responsiveness to a stimulus following repeated exposure and has been proposed as a central mechanism underlying emotional desensitization (Rankin et al., 2009). Research on exposure to violence demonstrates that repeated encounters with aversive stimuli can progressively diminish their emotional impact, resulting in weaker negative affect and emotional distress (e.g., Fanti et al., 2009; Mrug et al., 2016). Hence, individuals who are chronically exposed to information about wrongdoing by their political in-group may become less emotionally responsive to such information than those for whom such exposure is less common. Repeated exposure may therefore gradually reduce the capacity of in-group wrongdoing to elicit guilt. Thus, although greater-than-usual exposure is expected to increase guilt within individuals, people who are chronically more exposed to in-group perpetration may experience less guilt than those who are less exposed.

A different pattern can be expected for in-group pride. While repeated exposure may make people less emotionally responsive to in-group wrongdoing, it might not remove the negative implications of such behavior for how they view their group. Morality is an important basis for positive evaluations of the in-group and feelings of group pride (Brambilla et al., 2012), while immoral behavior by in-group members can threaten the group's image. People who are more frequently exposed to evidence of their political in-group's wrongdoing may therefore have a less positive view of their group and, consequently, experience less in-group pride. We hypothesize:

H2: People who are more exposed to political in-group perpetration than others will experience (a) less in-group guilt and (b) less in-group pride than others.

2.2.2 ACTING ON GROUP-BASED EMOTIONS: APPROACHING AND AVOIDING POLITICAL INFORMATION

IET further proposes that group-based emotions shape how individuals respond behaviorally to group-relevant events (Mackie et al., 2008). In-group guilt is an aversive emotion arising from the recognition that one's group is responsible for wrongdoing (Zimmermann et al., 2011). Yet the discomfort associated with guilt does not necessarily motivate individuals to distance themselves from the wrongdoing. Instead, guilt can foster an approach-oriented response, motivating individuals to acknowledge and address harm caused by their in-group through efforts such as apology and reparation (Lickel et al., 2011). In the context of in-group perpetration, group-based guilt has been associated with greater willingness to approach the consequences of the group's wrongdoing and lower tendencies to avoid them (Zimmermann et al., 2011). Accordingly, when individuals experience more in-group guilt than is typical for them, this heightened guilt should motivate them to remain open to political information rather than withdraw from it. Seeking out and attending to political content provides greater opportunities to encounter and engage with information about their in-group's wrongdoing and its consequences, whereas disengaging from political information may limit such opportunities.

H3: When people experience more in-group guilt than they usually do, they will subsequently engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than they usually do.

A similar approach orientation can be expected at the between-person level. Individuals who generally experience greater in-group guilt may be more sensitive to their political in-group's wrongdoing and more concerned with acknowledging and addressing its consequences. This greater sensitivity should make continued engagement with political information particularly relevant, as it provides opportunities to remain informed about the group's conduct and its consequences. Compared with individuals who generally experience less in-group guilt, those who experience more guilt should therefore be more inclined to seek out and attend to political information and less inclined to disengage from it. We hypothesize:

H4: People who experience more in-group guilt than others will engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than others.

In-group pride may also shape how individuals engage with political information. Pride reflects a positive emotional evaluation of one's group, which individuals may be motivated to maintain and reinforce. When a group is a source of positive feelings, individuals may be particularly motivated to remain engaged with information related to that group and the broader political domain in which it is embedded. Research on identity-protective cognition suggests that individuals are motivated to process information in ways that preserve valued aspects of their identity (Kahan et al., 2007; Sherman & Cohen, 2002). Similar processes have

been observed at the group level, where individuals respond to information in ways that protect favorable perceptions of their in-group (Sherman et al., 2007). Thus, when individuals experience greater pride in their political in-group than usual, the positive value of their political identity may become particularly salient, motivating continued engagement with the political information environment in which that identity is expressed and reinforced. Seeking out and attending to political information provides opportunities to maintain and affirm this positive connection to the political in-group, whereas avoiding political information would entail disengagement from a domain that is currently a source of positive identity. We therefore expect higher-than-usual in-group pride to encourage approach-oriented and discourage avoidance-oriented political action:

H5: When people experience more in-group pride than they usually do, they will subsequently engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than they usually do.

At the between-person level, individuals who generally experience greater in-group pride should have a stronger positive investment in their political in-group as a source of identity. Group-based emotions are closely tied to the degree to which individuals identify with a group and can motivate group-relevant attitudes and behavior (Mackie et al., 2008). Individuals who consistently experience greater pride in their political in-group should therefore be particularly motivated to maintain their connection to this positively valued identity. Engaging with political information provides opportunities to sustain and reinforce this connection, making political information particularly relevant to those for whom the political in-group is a stronger source of pride. Compared with individuals who experience less in-group pride, they should therefore be more inclined to seek out and attend to political information, whereas disengagement would limit opportunities to maintain and reinforce this positive connection. Accordingly, we hypothesize:

H6: People who experience more in-group pride than others will engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than others.

[Figure A1](#) offers a schematic representation of our theoretical model.

2.3 METHODOLOGY

2.3.1 DESIGN AND DATA COLLECTION

A three-wave panel survey was conducted by a professional polling company in Austria, Bulgaria, Denmark, and Poland, with approximately two months between waves (W1: March 18 to April 13, 2026; W2: May 27 to July 7, 2026; W3: August 21 to September 17), following approval from the Institutional Review Board of the University of Vienna (see [Annex 1.3](#)).

2.3.2 PARTICIPANTS

Quota-based samples based on gender, age, and education were recruited in each country. Eligibility criteria included citizenship or residency in the respective country, an age between 18 and 69 years, recent social media use, and informed consent. Participants were excluded if they failed both attention checks, completed the survey in less than one-third of the median completion time (Greszki et al., 2014), or reported their gender as “other,” as the resulting group was too small for separate analysis. After these exclusions, the W1 sample consisted of N = 8,032 respondents (Austria: n = 2,008; Bulgaria: n = 2,027; Denmark: n = 1,993; Poland: n = 2,004). Of these, N = 4,528 participated in W2 (Austria: n = 1,172; Bulgaria: n = 1,033; Denmark: n = 1,154; Poland: n = 1,169), and N = 2,473 participated in W3 (Austria: n = 627; Bulgaria: n = 614; Denmark: n = 617; Poland: n = 615). In Austria, retention was 58.4% from W1 to W2, 53.5% from W2 to W3, and 31.2% from W1 to W3. The corresponding retention rates were 51.0%, 59.4%, and 30.3% in Bulgaria; 57.9%, 53.5%, and 31.0% in Denmark; and 58.3%, 52.6%, and 30.7% in Poland.

The final three-wave analysis sample had a mean age of 48.78 years (SD = 12.67), and 46.8% of participants were male. In Austria, participants had a mean age of 49.12 years (SD = 13.29), 50.4% were male, and 31.6% had tertiary education. In Bulgaria, the mean age was 46.72 years (SD = 11.11), 45.3% were male, and 55.7% had tertiary education. In Denmark, the mean age was 50.89 years (SD = 13.55), 47.0% were male, and 35.5% had tertiary education. In Poland, the mean age was 48.34 years (SD = 12.27), 44.6% were male, and 47.5% had tertiary education.

2.3.3 COUNTRY SELECTION

In accordance with the GA and DoA, the selection of countries was designed to reflect variation in public responses to two major political developments of recent years: the COVID-19 pandemic and the EU's stance on Russia-Ukraine relations. Two country-level indicators were used to capture this variation: the proportion of the population having received at least one COVID-19 vaccination as an indicator of confidence in government pandemic policies, and the proportion of citizens supporting the EU's position on Russia and Ukraine as an indicator of political alignment on this issue.

This resulted in the selection of four contrasting country cases: Bulgaria, characterized by low vaccination uptake and low support for the EU position; Poland, by low vaccination uptake and high support; Austria, by high vaccination uptake and low support; and Denmark, by high vaccination uptake and high support. Taken together, these cases represent distinct combinations of public trust and geopolitical alignment, allowing emotional and attitudinal processes to be examined across different societal and political contexts.

2.3.4 PROCEDURE

The questionnaire followed a similar structure across all three waves. Before beginning, participants received information about the study, planned recontact for subsequent waves, and their rights regarding participation. After providing informed consent, participants completed the questionnaire in a fixed sequence; in Wave 1, this was preceded by socio-demographic questions. The order of scales and individual items within each scale was randomized. The questionnaire concluded with a debriefing and a thank-you message.

2.3.5 MEASURES

All scales were initially developed in English and subsequently translated into Bulgarian, Danish, German and Polish using AI-assisted translation tools (DeepL and ChatGPT). Native-speaking ENCODE consortium partners from the respective countries then reviewed the translated versions for linguistic accuracy and conceptual consistency with the original English items. All measures included a temporal reference to the previous two months and were assessed on a seven-point response scale ranging from 1 (*Never*) to 7 (*Very often*).

Grounded in the literature on incivility, intolerance, and threatening behavior in online political discourse (Pradel et al., 2024; Rossini, 2022), exposure to political in-group perpetration was measured with four items assessing how often respondents encountered social media content suggesting that supporters of their political in-group treated others unfairly, insulted others, excluded others from political discussions, or verbally threatened others.

In-group guilt was measured with four items informed by previous research on collective and group-based guilt (Branscombe et al., 2004; Lickel et al., 2011). Respondents were asked how often political content encountered on social media made them feel guilt related to the political group they identified with most (e.g., “guilty about something my political group said or did,” “regretful about positions or behavior associated with my political group”).

In-group pride was measured with four items informed by research on group-based and collective pride (Chakrabarti, 1992; De Hooge & Van Osch, 2021; Sullivan & Day, 2019). Respondents were asked how often political content encountered on social media made them feel proud of the political group they identified with most (e.g., “proud to identify with this political group,” “a sense of pride in what ‘we’ stand for”).

Approach-oriented online political action was measured with four items, adapted from the approach motivation measure used by Kostikova et al. (2026; ENCODE Deliverable 5.1) to capture actual behavior. Respondents indicated how often, after encountering political content on social media, they engaged more closely with the content or sought further information (e.g., “I searched for more information about the issue,” “I stopped scrolling or paused for a moment to read the post or look at the images more closely”).

Avoidance-oriented online political action was measured with four items, likewise adapted from the avoidance motivation measure used by Kostikova et al. (2026; ENCODE Deliverable 5.1) to capture actual behavior. Respondents indicated how often, after encountering political content on social media, they disengaged from or actively avoided political content (e.g., “I deliberately scrolled past political content when it appeared in my feed,” “I tried to avoid seeing further political content related to the issue”).

2.3.6 STATISTICAL ANALYSIS

To examine the longitudinal relationships between social media exposure to political in-group perpetration, group-based emotions of guilt and pride, and approach- and avoidance-oriented online political behaviors, we estimated random-intercept cross-lagged panel models (RI-CLPMs) separately for each country. A central advantage of the RI-CLPM is that it separates within-person dynamics from stable between-person differences through the inclusion of random intercepts (Hamaker et al., 2015). This distinction is particularly important for the present study, as our hypotheses concern whether within-person deviations from individuals' typical levels of exposure to political in-group perpetration are associated with subsequent deviations in guilt and pride, and whether these emotional responses are, in turn, associated with subsequent approach- and avoidance-oriented online political behaviors. The RI-CLPM therefore provides an appropriate test of these hypothesized longitudinal processes while reducing the risk of conflating stable between-person associations with within-person dynamics (Hamaker et al., 2015; Lucas, 2023).

2.4 FINDINGS

2.4.1 RESULTS

[Table A1](#) summarizes the results of the hypothesis tests.

2.4.1.1 MODEL FIT

The measurement models showed good model fit across all four countries. Fit indices were satisfactory in Austria, CFI = .969, TLI = .966, RMSEA = .032, 90% CI [.029, .034], SRMR = .039; Bulgaria, CFI = .981, TLI = .979, RMSEA = .026, 90% CI [.023, .029], SRMR = .033; Denmark, CFI = .976, TLI = .974, RMSEA = .028, 90% CI [.025, .030], SRMR = .040; and Poland, CFI = .976, TLI = .973, RMSEA = .030, 90% CI [.027, .032], SRMR = .035. The cross-country configural model also showed good fit, CFI = .976, TLI = .973, RMSEA = .029, 90% CI [.028, .030], SRMR = .034, as did the model imposing longitudinal metric invariance, CFI = .974, TLI = .971, RMSEA = .030, 90% CI [.028, .031], SRMR = .036.

2.4.1.2 BETWEEN-PERSON EFFECTS

Detailed results are displayed in [Table A2](#).

At the between-person level, greater exposure to political in-group perpetration was associated with greater in-group guilt across all four countries (Austria: $r = .71$; Bulgaria: $r = .83$; Denmark: $r = .68$; Poland: $r = .84$; all $p < .001$), contrary to H2a. Exposure was also positively associated with in-group pride in Austria ($r = .29$, $p < .001$) and Denmark ($r = .37$, $p < .001$), while the associations were nonsignificant in Bulgaria and Poland, providing no support for H2b.

Greater in-group guilt was associated with more approach-oriented political action across all four countries (Austria: $r = .43$; Bulgaria: $r = .44$; Denmark: $r = .48$; Poland: $r = .51$; all $p < .001$), supporting H4a. Contrary to H4b, however, guilt was positively associated with avoidance-

oriented political action in Austria ($r = .21, p = .002$) and Poland ($r = .41, p < .001$), while the associations were nonsignificant in Bulgaria and Denmark.

Greater in-group pride was also associated with more approach-oriented political action across all four countries (Austria: $r = .56$; Bulgaria: $r = .72$; Denmark: $r = .58$; Poland: $r = .57$; all $p < .001$), supporting H6a. Pride was associated with less avoidance-oriented political action in Bulgaria ($r = -.42, p < .001$) and Denmark ($r = -.20, p = .003$), providing partial support for H6b, whereas the associations were nonsignificant in Austria and Poland.

Several additional between-person associations emerged. Exposure to political in-group perpetration was positively associated with approach-oriented political action in all four countries (Austria: $r = .49$; Bulgaria: $r = .33$; Denmark: $r = .70$; Poland: $r = .65$; all $p < .001$) and with avoidance-oriented political action in Austria ($r = .40, p < .001$), Bulgaria ($r = .40, p < .001$), and Poland ($r = .26, p = .015$), but not Denmark, where it was nonsignificant. In-group pride and guilt were positively associated across all four countries (Austria: $r = .46$; Bulgaria: $r = .34$; Denmark: $r = .42$; Poland: $r = .38$; all $p < .001$).

2.4.1.3 WITHIN-PERSON EFFECTS

Detailed results are displayed in [Table A3](#).

The within-person results revealed few significant cross-lagged associations, and the hypothesized effects did not emerge consistently across countries or wave intervals. Higher-than-usual exposure to political in-group perpetration did not predict subsequent increases in guilt or decreases in pride in any country, providing no support for H1a or H1b. Similarly, higher-than-usual guilt did not predict greater subsequent approach-oriented political action in any country, providing no support for H3a. Guilt predicted lower subsequent avoidance-oriented political action only from W2 to W3 in Poland ($\beta = -.21, p = .011$), providing partial support for H3b.

Higher-than-usual pride did not predict greater subsequent approach-oriented political action in any country, providing no support for H5a. Contrary to the hypothesized negative association in H5b, greater pride at W1 predicted greater avoidance-oriented political action at W2 in Bulgaria ($\beta = .16, p = .048$), and greater pride at W2 predicted greater avoidance-oriented political action at W3 in Denmark ($\beta = .22, p = .014$). No comparable effects emerged in Austria or Poland.

Several additional cross-lagged associations emerged. In Bulgaria, greater avoidance-oriented political action at W1 predicted lower exposure to political in-group perpetration at W2 ($\beta = -.20, p = .006$). In Denmark, greater approach-oriented political action at W1 predicted greater in-group pride at W2 ($\beta = .19, p = .028$), and greater avoidance-oriented political action at W2 predicted greater approach-oriented political action at W3 ($\beta = .28, p = .046$). In Poland, greater approach-oriented political action at W1 predicted greater in-group pride at W2 ($\beta = .34, p < .001$), while greater pride at W2 predicted greater exposure to political in-group perpetration at W3 ($\beta = .20, p = .024$).

2.4.2 DISCUSSION AND CONCLUSION

This study examined the longitudinal relationships between exposure to political in-group perpetration on social media, group-based guilt and pride, and approach- and avoidance-

oriented online political action. Using three-wave panel data from Austria, Bulgaria, Denmark, and Poland, we estimated random-intercept cross-lagged panel models (RI-CLPMs) to distinguish stable between-person differences from within-person dynamics. Across countries, the results reveal a clear contrast between these two levels of analysis. Exposure, emotions, and political action were systematically related at the between-person level, whereas there was little evidence that increases in exposure were followed by changes in emotions or that changes in emotions subsequently shaped political action within individuals.

At the between-person level, one of the clearest findings concerned the relationship between exposure to political in-group perpetration and guilt. Contrary to H2a, individuals who were generally more exposed to information about wrongdoing by their political in-group reported substantially higher, rather than lower, levels of guilt across all four countries. This consistent pattern provides little support for the proposed habituation account, according to which repeated exposure should correspond to diminished emotional responses to in-group wrongdoing. One possible explanation comes from research showing that attachment to an in-group is associated with greater involvement in processing group-relevant information and greater susceptibility to moral distress over the group's wrongdoing (Roccas et al., 2006). Individuals who are more strongly attached to their political in-group may therefore both encounter more information about its conduct and experience stronger guilt when confronted with its wrongdoing. Although this explanation cannot be tested with the present data, it suggests that repeated exposure need not imply emotional desensitization when the behavior concerns a valued in-group.

The findings for pride similarly provide little evidence that greater exposure undermines positive feelings toward the in-group. Contrary to H2b, habitual exposure was positively associated with pride in Austria and Denmark and unrelated to pride in Bulgaria and Poland. Exposure to in-group wrongdoing may therefore coexist with positive attachment to the group rather than necessarily eroding it. From an appraisal perspective, exposure alone may be insufficient to determine the emotional consequences of encountering in-group perpetration. Individuals may evaluate similar conduct differently depending on whether they perceive it as wrongful, justified, necessary, or otherwise consistent with their understanding of the group. Future research should therefore examine not only how frequently individuals encounter in-group perpetration, but also how they evaluate the specific conduct to which they are exposed.

Group-based emotions were also consistently related to approach-oriented political action at the between-person level. Individuals who generally experienced more guilt and those who generally experienced more pride reported greater approach-oriented action in all four countries. For guilt, this pattern is consistent with IET accounts in which negative group-based emotions can motivate engagement with group-relevant situations (Mackie et al., 2008). However, greater guilt did not correspond to less avoidance. Instead, guilt was positively associated with avoidance in Austria and Poland and unrelated to it in Bulgaria and Denmark. Approach and avoidance may therefore represent distinct forms of responding to political information rather than opposite ends of a single continuum. Individuals who experience greater guilt may seek out or attend to political information while also selectively disengaging from content they find difficult or aversive.

Pride showed a similarly robust positive association with approach-oriented action, while its relationship with avoidance was less consistent. Greater pride was associated with lower avoidance in Bulgaria and Denmark but was unrelated to avoidance in Austria and Poland.

Taken together, these findings suggest that both guilt and pride are associated with greater approach-oriented engagement, whereas their relationships with avoidance depend more strongly on the particular emotion and context. One possibility is that individuals who are generally more emotionally involved with their political in-group are also more engaged with political information. However, because the between-person associations do not establish the direction of these relationships or identify their underlying causes, this interpretation requires further investigation.

The within-person findings provide a substantially different picture. Becoming more exposed than usual to political in-group perpetration did not reliably increase subsequent guilt or decrease pride, providing no support for H1. Similarly, experiencing more guilt or pride than usual generally did not predict subsequent changes in approach- or avoidance-oriented action. The only hypothesized emotional-behavioral effect to emerge was that greater-than-usual guilt predicted lower subsequent avoidance from W2 to W3 in Poland. Moreover, some effects ran counter to expectations: greater pride predicted greater subsequent avoidance from W1 to W2 in Bulgaria and from W2 to W3 in Denmark. The absence of consistent replication across countries and wave intervals therefore provides little evidence for a general within-person process in which exposure changes group-based emotions that subsequently shape online political action.

One explanation for these weak within-person effects concerns what a greater-than-usual level of exposure represents. An increase in exposure indicates that an individual encountered more in-group perpetration content than they typically do, but not that these additional encounters were sufficiently salient or consequential to shift their emotional response. Consistent with the appraisal-based account of group emotions in IET (Mackie et al., 2008), emotional responses depend on how specific group-relevant events are evaluated rather than on exposure alone. The same individual may encounter instances of in-group perpetration that differ in perceived severity, legitimacy, or relevance, such that greater exposure at one point in time does not systematically translate into greater guilt or lower pride.

Overall, the findings qualify a straightforward longitudinal account in which exposure to political in-group wrongdoing generates guilt or reduces pride, which subsequently shapes political action. Instead, the most consistent relationships emerged between individuals: those who were habitually more exposed to in-group perpetration also tended to report stronger group-based emotions and greater political-information engagement. Short-term deviations from individuals' usual levels, by contrast, rarely predicted subsequent changes over the intervals examined. Distinguishing stable between-person differences from within-person dynamics is therefore important for understanding the relationship between exposure to in-group wrongdoing, group-based emotions, and political action.

2.4.2.1 IMPLICATIONS

The findings have implications for efforts to promote accountability and constructive political engagement in digital environments. Simply increasing exposure to information about wrongdoing by one's political in-group may not be sufficient to elicit guilt, reduce pride, or subsequently change how individuals engage with political information. This is particularly relevant for journalists, civil society organizations, and other actors seeking to draw attention to misconduct by political groups. The effects of such information may

depend less on exposure itself than on how the behavior is interpreted. Communication that documents in-group wrongdoing may therefore have limited effects when audiences view the conduct as justified, necessary, or consistent with their group's values. Efforts to encourage critical reflection may need to consider not only whether citizens encounter evidence of wrongdoing, but also the moral and identity-related appraisals through which they make sense of it.

At the same time, the consistent associations between group-based emotions and approach-oriented political action suggest that emotional involvement with one's political group is closely connected to engagement with political information. Importantly, guilt was not simply associated with disengagement: individuals who generally experienced more guilt also reported more approach-oriented action across all four countries. This suggests that confronting citizens with morally troubling aspects of their political in-group need not necessarily alienate them from political information. More broadly, initiatives aimed at fostering democratic accountability may benefit from creating conditions in which citizens can critically evaluate their own political group without treating such criticism as incompatible with continued political engagement.

3. EMOTIONAL PROFILES AND POLITICAL KNOWLEDGE

3.1 BACKGROUND

Emotions play a central role in shaping how individuals encounter, interpret, and respond to political information. Research on emotions in political communication has predominantly examined the effects of discrete emotions, such as anger and anxiety, in isolation (for an overview, see Kaskelėviciute et al., 2026). This approach has generated important insights into the consequences of particular emotional responses, but it does not fully account for the complexity of emotional experiences that accompany political communication in everyday life. When encountering political content, individuals may experience several emotions simultaneously rather than a single, clearly distinguishable emotional state. Experimental research has encountered difficulties in inducing and separating closely related emotions such as anger, anxiety, and disgust (e.g., Vandenbroek, 2011; Wisneski et al., 2020). Rather than merely presenting a methodological challenge, this overlap may reflect the way emotions are actually experienced in response to political content.

This complexity is particularly relevant for understanding political information processing. Existing research has demonstrated that emotions can shape whether and how individuals attend to and engage with political information. Affective Intelligence Theory (AIT; Marcus et al., 2000), for example, assigns a central role to anxiety and enthusiasm in regulating political attention, information seeking, and processing. These emotions, however, are unlikely to occur independently of other emotional reactions, which is why conclusions derived from examining individual emotions may not fully capture how emotional experiences relate to information processing in real-world settings, where multiple emotions can co-occur. Recent evidence further suggests that different negative emotions may not necessarily

produce distinct cognitive consequences (e.g., Kostikova et al., 2026; ENCODE Deliverable 5.1). Hence, these findings point to the importance of moving beyond individual emotions and considering broader constellations of emotional responses.

A person-centered perspective offers one way to address this limitation. Whereas variable-centered approaches focus on relationships between individual emotions and outcomes across a population, person-centered approaches examine how multiple emotions are configured within individuals. Latent Profile Analysis (LPA) is particularly well suited to this purpose as it allows for the identification of unobserved subgroups of individuals who exhibit similar patterns of emotional responses. Applied to political communication, this approach can reveal whether individuals can be distinguished by characteristic configurations of emotions they experience when encountering political content and whether these configurations are associated with different ways of engaging with and processing political information.

In the present study, we adopt such a person-centered approach to investigate emotional responses to political content on social media. Drawing on Russell's (1980) circumplex model of affect, we use LPA to identify distinct emotional profiles among social media users and examine how these profiles are associated with political information processing and political knowledge. Using cross-sectional survey data from Austria, Bulgaria, Denmark, and Poland, we investigate whether individuals characterized by different emotional profiles differ in their cognitive processing of political information, political information-seeking behavior, engagement with political content on social media, and subjective and objective political knowledge. While political knowledge is typically assessed with reference to national politics (e.g., Dreston & Neubaum, 2023), we focus specifically on politics at the European Union (EU) level. As all four countries included in the study are EU member states, this provides a common political context in which political knowledge can be assessed comparably across countries. Moreover, despite the increasing relevance of EU-level politics to citizens across member states, EU political knowledge has received comparatively little attention in research examining the relationship between emotions, political information processing, and knowledge. By shifting the focus from the effects of individual emotions to configurations of emotional experiences, this study provides a broader account of how emotions are associated with the ways individuals encounter, process, and ultimately learn from political information.

3.2 THEORETICAL FRAMEWORK

Russell's (1980) circumplex model of affect provides a useful framework for understanding this emotional complexity by organizing affective states along two fundamental dimensions: valence, ranging from unpleasant to pleasant, and arousal, ranging from low to high activation. Emotions can therefore be understood in terms of where they fall within this two-dimensional affective space. For example, emotions of the same valence may differ considerably in their level of arousal, suggesting that distinctions between positive and negative emotions alone cannot fully capture the structure of emotional experience.

Although the circumplex model provides a theoretical framework for organizing emotions, it does not predict how these emotions are combined within individuals. People may differ not only in how strongly they experience particular emotions, but also in the configuration of emotions that characterizes their responses to politics. Some individuals may predominantly experience highly arousing negative emotions, for example, whereas others

may report combinations of positive and negative emotions or generally low levels of emotional response. A person-centered perspective allows us to capture such heterogeneity by examining patterns across multiple emotions rather than considering each emotion separately. Because the circumplex model does not imply a particular set of person-level profiles, we approach their identification exploratorily:

RQ1: What distinct profiles of emotional responses to politics emerge among individuals?

Emotions play an important role in how people engage with political information. Affective Intelligence Theory (AIT; Marcus et al., 2000) provides one account of this relationship, proposing that emotional responses help regulate attention to and processing of the political environment. Anxiety, in particular, is expected to interrupt reliance on habitual political judgments and encourage greater attention to new information, including active information seeking. Enthusiasm, in contrast, can reinforce existing political commitments and motivate continued political engagement (Marcus & MacKuen, 1993; Marcus et al., 2000).

Existing research has generally examined these relationships by considering individual emotions separately. Yet if political experiences are characterized by different configurations of emotions, focusing on individual emotions may overlook how broader patterns of emotional experience relate to information processing. Individuals characterized by different emotional profiles may differ in the extent to which they engage with the political information they encounter and seek out further information. We therefore ask:

RQ2: How are different emotional profiles associated with (a) cognitive elaboration of political information and (b) political information seeking?

The ways in which individuals process political information may, in turn, be related to what they know about politics. Deeper elaboration can facilitate the integration and retention of political information, while information seeking increases opportunities to encounter and acquire additional information (e.g., Huang & Price, 2001; Kitchens et al., 2003). Political knowledge, however, has both subjective and objective dimensions. Subjective political knowledge reflects how knowledgeable individuals perceive themselves to be, whereas objective political knowledge concerns the political information they actually possess (Dreston & Neubaum, 2023; 2025). The two are related but conceptually distinct, as perceptions of one's own knowledge do not necessarily correspond to actual knowledge.

This distinction is particularly relevant when considering emotional profiles and information processing together. Different patterns of emotional experience may be associated with different levels of engagement with political information, which may in turn correspond to differences in both perceived and actual political knowledge. Rather than examining emotional experience, information processing, and knowledge as separate phenomena, we therefore consider how they are related within the broader process of political learning:

RQ3: How are emotional profiles and political information processing associated with (a) subjective and (b) objective political knowledge?

3.3 METHODOLOGY

3.3.1 DESIGN AND DATA COLLECTION

The present study draws on cross-sectional survey data collected by a professional polling company in Austria, Bulgaria, Denmark, and Poland between September 1 and 18, 2026. Data collection for tasks 5.4 and 5.5 was managed separately, but the measures for the present study were embedded in Wave 3 of the survey conducted for ENCODE Deliverable 5.4 (due to space constraints in the 5.5 data collection) and are analyzed here to address the objectives of D5.5. Data collection was conducted following approval from the Institutional Review Board of the University of Vienna (see [Annex 1.3](#)).

3.3.2 PARTICIPANTS

The final sample consisted of $N = 2,487$ respondents (Austria: $n = 624$; Bulgaria: $n = 621$; Denmark: $n = 621$; Poland: $n = 621$). Across countries, the mean age ranged from 47.53 years in Bulgaria to 49.95 years in Austria. The gender distribution was relatively balanced, with the proportion of female respondents ranging from 44.8% in Austria to 53.6% in Denmark. Educational attainment varied more substantially across countries. The proportion of respondents with tertiary education ranged from 26.7% in Austria to 60.5% in Bulgaria, while primary education ranged from 0.2% in Bulgaria to 10.1% in Denmark. Mean political orientation ranged from 2.83 ($SD = 1.11$) in Denmark to 3.14 ($SD = 0.81$) in Bulgaria.

3.3.3 COUNTRY SELECTION

For the country selection description, see [section 2.3.3](#).

3.3.4 PROCEDURE

The procedure was identical to that described in [Section 2.3.4](#), with the present study drawing exclusively on data collected in W3.

3.3.5 MEASURES

Participants reported how frequently, during the past two weeks, they had experienced 12 emotions in response to politics and political developments at the European Union (EU) level. The emotions were selected to represent different combinations of valence and arousal based on Russell's (1980) circumplex model of affect. In line with the perspectives of the theories of emotional politics developed in Tasks 2.1 and 2.2 that stress the importance of emodiversity, we measured a wide variety of emotions that citizens experience in relation to politics. Specifically, participants indicated how often politics and political developments at the EU level made them feel angry, afraid, alarmed, sad, tired, bored, calm, satisfied, relaxed, excited, delighted, and happy. Each emotion was measured with a single item on a 7-point scale ranging from 1 (Never) to 7 (Very often). The 12 emotion items were used as indicators in the LPA.

Political information seeking was measured with four items based on Kostikova et al. (2026; ENCODE Deliverable 5.1). Participants were asked how often, during the past two weeks, they had engaged in different information-seeking behaviors after encountering information about EU politics on social media. The items assessed whether participants clicked on links or sources provided in a post to learn more about the issue, searched for additional

information about the issue, clicked on another post or article about the same issue, and stopped scrolling or paused to read the post or examine the images more closely. Responses were recorded on a 7-point scale ranging from 1 (Never) to 7 (Very often).

Cognitive elaboration of political information was measured with three items drawing on measures of elaborative processing by Eveland (2001) and message involvement by Cox and Cox (2001). Participants reported how often, during the past two weeks, they had engaged in cognitive elaboration after encountering social media content related to politics and political developments at the EU level. The items assessed whether participants kept thinking about the political message after seeing it, thought more deeply about the issue in response to the political content, and related the political content to ideas or information they were already familiar with. Responses were recorded on a 7-point scale ranging from 1 (Never) to 7 (Very often).

Subjective political knowledge was measured with four items based on Lee et al. (2021) and Yamamoto et al. (2018). Participants indicated how much they agreed or disagreed with statements concerning their knowledge of EU politics. The items assessed whether participants knew a lot about EU politics, considered themselves experts on EU politics, knew more about EU politics than most people, and considered themselves quite knowledgeable about EU politics. Responses were recorded on a 7-point scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

Following the approach of Dreston and Neubaum (2023), objective political knowledge was measured with seven multiple-choice questions. The questions assessed participants' factual knowledge of EU politics and covered both general institutional knowledge and knowledge of recent political developments at the EU level. Participants were given 20 seconds to answer each question and could not return to previous questions. Correct responses were coded as 1 and incorrect responses as 0, resulting in an objective political knowledge score ranging from 0 to 7.

3.3.6 STATISTICAL ANALYSIS

Latent profile analysis (LPA) is a person-centered latent variable approach that identifies unobserved subgroups within a population based on similarities in individuals' responses across a set of continuous indicators. Rather than modeling relationships among variables, as in variable-centered approaches such as structural equation modeling, LPA captures heterogeneity between individuals by estimating a categorical latent variable representing distinct response profiles. For each individual, LPA estimates the probability of belonging to each of these profiles. This approach is particularly useful for identifying meaningful patterns in complex psychological experiences that may be overlooked when individual variables are studied separately (Williams & Kibowski, 2016).

The 12 emotion measures were used as indicators to conduct an LPA separately within each country and identify distinct emotional profiles. Models with two, three, and four profiles were estimated and compared using the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), sample-size-adjusted Bayesian Information Criterion (SABIC), entropy, and bootstrap likelihood ratio test (BLRT). The selection of the final solutions also considered classification quality, profile size, substantive interpretability, and replication of comparable profiles across countries rather than relying on any single fit criterion. Based on this evaluation, a three-profile solution was retained in all four countries. Individuals were assigned to the profile for which they had the highest posterior probability of membership,

and these profile classifications were subsequently used to examine differences in political information processing and knowledge.

To examine RQ2 and RQ3, country-specific path models were subsequently estimated using the assigned emotional profiles as predictors, with the low-emotion profile as the reference category. The models examined associations between emotional profile membership, information seeking, cognitive elaboration, subjective political knowledge, and objective political knowledge. Information seeking and cognitive elaboration were modeled as predictors of subjective and objective knowledge, while subjective knowledge was additionally modeled as a predictor of objective knowledge. Indirect and total associations between emotional profiles, information processing, and political knowledge were also estimated. The models adjusted for gender, age, education, and political orientation.

3.4 FINDINGS

3.4.1 RESULTS

The two-, three-, and four-profile solutions were compared separately within each country (see [Table A4](#)). BIC and SABIC generally decreased as additional profiles were added, but the four-profile solution did not consistently provide a substantively preferable solution. Most notably, in Bulgaria, the four-profile solution produced a very small class comprising only 1.4% of the sample. Considering model fit alongside classification quality, profile size, substantive interpretability, and cross-country comparability, the three-profile solution was retained in all four countries. For the selected solutions, AIC ranged from 23,149.1 in Denmark to 25,144.7 in Bulgaria, BIC from 23,663.1 to 25,658.7, and SABIC from 23,294.8 to 25,290.5 (see [Table A5](#)). Entropy ranged from .750 in Bulgaria to .885 in Austria, and the smallest profile represented between 13.8% and 24.8% of the respective country samples.

Thus, regarding RQ1, the latent profile analysis identified three distinct profiles of emotional responses to politics across the four countries: a low-emotion profile, a negative-dominant profile, and a positive-dominant profile. The low-emotion profile was characterized by comparatively low levels of emotional responses, whereas the other two profiles were distinguished by the relative predominance of negative or positive emotions. The same three-profile structure emerged across Austria, Bulgaria, Denmark, and Poland, although the prevalence of the profiles varied across countries (see [Table A6](#)). The negative-dominant profile was the largest in Austria (48.4%) and Denmark (41.2%), whereas the positive-dominant profile was the largest in Bulgaria (46.4%) and Poland (57.2%). The low-emotion profile was the least prevalent in all four countries, ranging from 13.8% in Bulgaria to 24.8% in Denmark.

RQ2 examined whether these emotional profiles were associated with cognitive elaboration and political information seeking. The results of the path models for Austria, Bulgaria, Denmark, and Poland are presented in [Tables A7–A10](#), respectively. A highly consistent pattern emerged across countries. Compared with the low-emotion profile, both the negative-dominant and positive-dominant profiles reported significantly greater information seeking in all four countries (all $ps < .001$). Standardized associations for the negative-dominant profile ranged from $\beta = .34$ in Denmark to $\beta = .55$ in Bulgaria, while those for the positive-dominant profile ranged from $\beta = .48$ in Poland to $\beta = .53$ in Bulgaria. Both profiles were also consistently associated with greater cognitive elaboration relative to the

low-emotion profile (all p s < .001). These associations ranged from β = .46 to .50 for the negative-dominant profile and from β = .49 to .59 for the positive-dominant profile.

Direct comparisons between the two emotionally engaged profiles revealed fewer differences. In Austria, the positive-dominant profile reported more information seeking than the negative-dominant profile ($B = 0.43$, $p = .002$), but the profiles did not significantly differ in cognitive elaboration ($p = .159$). In Denmark, the positive-dominant profile showed both greater information seeking ($B = 0.56$, $p < .001$) and greater cognitive elaboration ($B = 0.46$, $p = .001$). No significant differences between the negative- and positive-dominant profiles emerged for either form of information processing in Bulgaria or Poland. Thus, the clearest cross-national distinction was between respondents characterized by relatively little emotional response and those characterized by either predominantly negative or predominantly positive emotional responses, rather than between the two emotionally engaged profiles themselves.

RQ3 concerned the associations between emotional profiles, political information processing, and subjective and objective political knowledge. Information seeking and cognitive elaboration were both positively associated with subjective political knowledge in every country (all p s < .001). The standardized associations between information seeking and subjective knowledge ranged from β = .17 in Austria to β = .31 in Denmark, while those between cognitive elaboration and subjective knowledge ranged from β = .22 in Denmark to β = .36 in Poland. Consistent with these associations, both emotionally engaged profiles showed significant positive indirect associations with subjective knowledge through information seeking and cognitive elaboration in all four countries (see [Table A11](#)). The total indirect associations were substantial and highly consistent, ranging from β = .21 to .27 for the negative-dominant profile and from β = .24 to .29 for the positive-dominant profile (all p s < .001). Accordingly, both profiles also showed significant positive total associations with subjective knowledge relative to the low-emotion profile in every country (β s = .21–.33 for the negative-dominant profile and β s = .37–.39 for the positive-dominant profile, all p s < .001).

Direct profile differences in subjective knowledge were less consistent. Relative to the low-emotion profile, the positive-dominant profile showed a significant positive direct association with subjective knowledge in Austria (β = .15, $p = .004$) and Bulgaria (β = .12, $p = .029$), while the corresponding association was at the conventional significance threshold in Poland (β = .08, $p = .050$) and did not reach significance in Denmark ($p = .053$). The negative-dominant profile showed a small positive direct association in Austria (β = .09, $p = .043$), but not in Bulgaria, Denmark, or Poland. When the two emotionally engaged profiles were compared directly, total subjective knowledge was higher for the positive-dominant profile in Austria ($B = 0.28$, $p = .008$) and Denmark ($B = 0.49$, $p < .001$), whereas the difference was not significant in Bulgaria or Poland.

The pattern was weaker and less consistent for objective political knowledge. Subjective knowledge was positively associated with objective knowledge in Austria (β = .25, $p < .001$), Bulgaria (β = .14, $p = .001$), and Denmark (β = .32, $p < .001$), but not in Poland. Neither information seeking nor cognitive elaboration showed consistent positive direct associations with objective knowledge. Their direct effects were nonsignificant in most countries; the only significant direct association was a small negative association between information seeking and objective knowledge in Bulgaria (β = -.11, $p = .032$).

Nevertheless, several indirect associations with objective knowledge emerged. In Austria and Denmark, both emotional profiles were positively associated with objective knowledge

through pathways involving subjective knowledge. The total indirect associations of both profiles with objective knowledge were significant in Austria (negative-dominant: $\beta = .06, p = .002$; positive-dominant: $\beta = .08, p < .001$) and Denmark (negative-dominant: $\beta = .05, p = .031$; positive-dominant: $\beta = .10, p < .001$). In Poland, total indirect associations were also significant for both the negative-dominant ($\beta = .06, p = .002$) and positive-dominant ($\beta = .07, p < .001$) profiles, although the specific sequential pathways through subjective knowledge did not reach significance. In Bulgaria, by contrast, the overall indirect associations with objective knowledge were not significant, despite significant positive pathways through subjective knowledge and small negative indirect associations through information seeking.

Total profile differences in objective knowledge were correspondingly less robust. Relative to the low-emotion profile, the negative-dominant profile showed a positive total association with objective knowledge in Austria ($\beta = .15, p = .010$). Positive total associations were also indicated for the negative-dominant profile in Denmark ($\beta = .09, p = .024$), as well as for the positive-dominant profile in Denmark ($\beta = .10, p = .033$) and Poland ($\beta = .11, p = .033$), although the bootstrap confidence intervals for these three associations included zero. No significant total associations emerged for the remaining profile comparisons. Direct associations between profile membership and objective knowledge were nonsignificant in all four countries. Overall, the results indicate a considerably more consistent relationship between emotional engagement, information processing, and subjective political knowledge than between these variables and objectively measured political knowledge.

3.4.2 DISCUSSION AND CONCLUSION

The present study examined how emotional responses to politics cluster within individuals and how these emotional profiles are associated with political information processing and knowledge. Across Austria, Bulgaria, Denmark, and Poland, three substantively similar profiles emerged: a negative-dominant profile characterized by comparatively strong negative emotions, a positive-dominant profile characterized by relatively elevated positive emotions, and a low-emotion profile characterized by generally weak emotional responses. Although their prevalence varied across countries, the profiles were broadly consistent. Both emotionally engaged profiles were associated with greater information seeking and cognitive elaboration than the low-emotion profile, while associations with subjective political knowledge were considerably more consistent than those with objective knowledge.

A central finding concerns the distinction between emotional engagement and low emotional involvement. In every country, both the negative-dominant and positive-dominant profiles reported greater information seeking and cognitive elaboration than the low-emotion profile. Differences between the two emotionally engaged profiles were less consistent, emerging only in Austria and Denmark. Thus, the most consistent distinction was not between predominantly positive and predominantly negative emotions, but between individuals who experienced relatively little emotion and those who responded to politics more emotionally. In particular, predominantly negative emotional experiences were not associated with lower information processing.

This pattern extended to subjective political knowledge. Information seeking and cognitive elaboration were positively associated with subjective knowledge in every country, and both emotionally engaged profiles showed positive indirect associations with subjective knowledge through these forms of information processing. Emotional engagement may

therefore be associated with feeling more knowledgeable about politics partly because emotionally engaged individuals also engage more actively with political information.

The relationship with objective political knowledge was less consistent. Subjective knowledge was positively associated with objective knowledge in Austria, Bulgaria, and Denmark, but not in Poland, while direct associations of information seeking and cognitive elaboration with objective knowledge were generally nonsignificant. Some indirect associations between emotional profiles and objective knowledge nevertheless emerged. Overall, greater information seeking and elaboration appear to be more consistently related to feeling politically informed than to possessing greater factual political knowledge. Seeking and thinking about political information may not necessarily translate into factual knowledge if the information encountered is inaccurate, not retained, or unrelated to the knowledge being measured.

Taken together, the findings suggest that political information processing cannot be reduced to a distinction between positive and negative emotional responses. Across four countries, both positive- and negative-dominant profiles were consistently associated with greater information seeking and cognitive elaboration relative to the low-emotion profile, while differences between the two emotionally engaged profiles were comparatively limited. The findings therefore underscore the value of examining configurations of emotional responses and point to emotional involvement itself as an important dimension for understanding how citizens engage with political information.

4. CONCLUSIONS

This deliverable examined how emotions are connected to political engagement and political information processing in digital environments. Across two studies conducted in Austria, Bulgaria, Denmark, and Poland, the findings point to a common conclusion: emotions are closely intertwined with how citizens engage with politics, but these relationships are more complex than a simple process in which a particular emotion directly leads to greater or lower political participation.

The three-wave panel study illustrates this complexity particularly clearly. Individuals who were generally more exposed to problematic behavior by their political in-group also tended to experience stronger group-based emotions and to engage more actively with political information. Both guilt and pride were consistently associated with greater approach-oriented political action across the four countries. However, changes within individuals over time showed a different pattern. Becoming more exposed than usual did not consistently lead to subsequent changes in guilt or pride, and temporary increases in these emotions generally did not predict later changes in political action. These findings demonstrate the importance of distinguishing between stable differences between people and processes of change occurring within the same person. Relationships observed at one point in time should not automatically be interpreted as evidence that changing an individual's emotional experience will produce a corresponding change in political engagement.

The second study provides a complementary perspective by showing that political emotions tend to occur in broader configurations. Across all four countries, individuals could be grouped into similar negative-dominant, positive-dominant, and low-emotion profiles. Importantly, both predominantly positive and predominantly negative emotional profiles were associated with more information seeking and deeper cognitive elaboration than the

low-emotion profile. The distinction between being emotionally engaged and relatively emotionally disengaged therefore appears at least as important as the distinction between positive and negative emotions. At the same time, greater information processing was much more consistently related to feeling knowledgeable about politics than to objectively measured political knowledge.

These findings have implications for how political communication and democratic engagement are approached in practice. Efforts to foster democratic participation should not assume that negative emotions are necessarily barriers to engagement or that positive emotions will automatically produce desirable forms of participation. Negative emotional responses can coexist with active information seeking and reflection, while positive attachment to a political group can likewise encourage engagement. The findings therefore caution against communication strategies that focus primarily on increasing positive emotions or reducing negative ones. A more useful objective may be to create information environments in which emotional reactions, regardless of their valence, can be accompanied by opportunities to seek additional information, reflect on political issues, and encounter reliable evidence.

The results also have implications for media literacy and civic education. Emotional engagement may encourage people to process more political information, but feeling informed does not necessarily mean being more factually knowledgeable. Interventions should therefore go beyond stimulating attention and engagement and support citizens in evaluating the quality of political information, checking evidence, and distinguishing confidence in one's knowledge from factual understanding. This may be particularly important in social media environments, where emotionally engaging political content can encourage attention without necessarily improving the accuracy of what citizens learn.

More broadly, the findings suggest that emotions should be treated as an integral part of democratic communication rather than simply as forces that either mobilize or demobilize citizens. Policies and communication initiatives aimed at strengthening democratic participation should recognize differences in how citizens experience and respond to politics and avoid assuming that the same emotional message will have the same consequences for everyone. For ENCODE, this provides a basis for developing policy scenarios and communication approaches that consider emotional diversity while encouraging informed and constructive forms of political engagement. This is particularly relevant for WP7, where the findings can inform the development and evaluation of policy scenarios aimed at fostering meaningful and constructive democratic participation.

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ANNEXES

ANNEX 1.1 TABLES

TABLE A1

Summary of Hypotheses Tests.

Model	Hypothesis	Test
Random Intercept Cross-lagged Panel Model: Within-person	H1: When people are more exposed to political in-group perpetration than they usually are, they will subsequently experience (a) more in-group guilt and (b) less in-group pride than they usually do.	(a) Not supported (b) Not supported
	H3: When people experience more in-group guilt than they usually do, they will subsequently engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than they usually do.	(a) Not supported (b) Limited/partial support
	H5: When people experience more in-group pride than they usually do, they will subsequently engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than they usually do.	(a) Not supported (b) Not supported; some opposite effects
Random Intercept Cross-lagged Panel Model: Between person	H2: People who are more exposed to political in-group perpetration than others will experience (a) less in-group guilt and (b) less in-group pride than others.	(a) Not supported; opposite pattern (b) Not supported; some evidence opposite to prediction
	H4: People who experience more in-group guilt than others will engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than others.	(a) Supported (b) Not supported; some opposite effects
	H6: People who experience more in-group pride than others will engage in (a) more approach-oriented and (b) less avoidance-oriented online political action than others.	(a) Supported (b) Partially supported

TABLE A2

Between-Person Random-Intercept Relations in the RI-CLPM.

Country	Relation	Covariance	SE	r	p
Austria	In-Group Perpetration Exposure ↔ In-Group Pride	0.39	0.10	0.29	< .001
	In-Group Perpetration Exposure ↔ In-Group Guilt	0.65	0.07	0.71	< .001
	In-Group Perpetration Exposure ↔ Approach-Oriented Political Action	0.59	0.10	0.49	< .001
	In-Group Perpetration Exposure ↔ Avoidance-Oriented Political Action	0.36	0.08	0.40	< .001
	In-Group Pride ↔ In-Group Guilt	0.55	0.07	0.46	< .001
	In-Group Pride ↔ Approach-Oriented Political Action	0.87	0.13	0.56	< .001
	In-Group Pride ↔ Avoidance-Oriented Political Action	-0.13	0.09	-0.11	.148
	In-Group Guilt ↔ Approach-Oriented Political Action	0.45	0.08	0.43	< .001
	In-Group Guilt ↔ Avoidance-Oriented Political Action	0.17	0.05	0.21	.002
	Approach-Oriented Political Action ↔ Avoidance-Oriented Political Action	-0.12	0.09	-0.11	.212
Bulgaria	In-Group Perpetration Exposure ↔ In-Group Pride	0.18	0.11	0.14	.096
	In-Group Perpetration Exposure ↔ In-Group Guilt	0.71	0.10	0.83	< .001
	In-Group Perpetration Exposure ↔ Approach-Oriented Political Action	0.46	0.13	0.33	< .001
	In-Group Perpetration Exposure ↔ Avoidance-Oriented Political Action	0.34	0.10	0.40	< .001
	In-Group Pride ↔ In-Group Guilt	0.38	0.11	0.34	< .001
	In-Group Pride ↔ Approach-Oriented Political Action	1.29	0.13	0.72	< .001
	In-Group Pride ↔ Avoidance-Oriented Political Action	-0.47	0.09	-0.42	< .001
	In-Group Guilt ↔ Approach-Oriented Political Action	0.50	0.11	0.44	< .001
	In-Group Guilt ↔ Avoidance-Oriented Political Action	0.04	0.08	0.05	.645
	Approach-Oriented Political Action ↔ Avoidance-Oriented Political Action	-0.50	0.11	-0.43	< .001

Country	Relation	Covariance	SE	r	p
Denmark	In-Group Perpetration Exposure ↔ In-Group Pride	0.32	0.09	0.37	< .001
	In-Group Perpetration Exposure ↔ In-Group Guilt	0.30	0.08	0.68	< .001
	In-Group Perpetration Exposure ↔ Approach-Oriented Political Action	0.51	0.08	0.70	< .001
	In-Group Perpetration Exposure ↔ Avoidance-Oriented Political Action	0.11	0.06	0.24	.062
	In-Group Pride ↔ In-Group Guilt	0.46	0.07	0.42	< .001
	In-Group Pride ↔ Approach-Oriented Political Action	1.05	0.10	0.58	< .001
	In-Group Pride ↔ Avoidance-Oriented Political Action	-0.23	0.08	-0.20	.003
	In-Group Guilt ↔ Approach-Oriented Political Action	0.43	0.07	0.48	< .001
	In-Group Guilt ↔ Avoidance-Oriented Political Action	0.05	0.05	0.09	.251
	Approach-Oriented Political Action ↔ Avoidance-Oriented Political Action	-0.16	0.06	-0.17	.006
Poland	In-Group Perpetration Exposure ↔ In-Group Pride	0.15	0.11	0.10	.184
	In-Group Perpetration Exposure ↔ In-Group Guilt	0.81	0.08	0.84	< .001
	In-Group Perpetration Exposure ↔ Approach-Oriented Political Action	0.93	0.11	0.65	< .001
	In-Group Perpetration Exposure ↔ Avoidance-Oriented Political Action	0.22	0.09	0.26	.015
	In-Group Pride ↔ In-Group Guilt	0.49	0.09	0.38	< .001
	In-Group Pride ↔ Approach-Oriented Political Action	1.06	0.12	0.57	< .001
	In-Group Pride ↔ Avoidance-Oriented Political Action	-0.07	0.10	-0.06	.494
	In-Group Guilt ↔ Approach-Oriented Political Action	0.61	0.09	0.51	< .001
	In-Group Guilt ↔ Avoidance-Oriented Political Action	0.29	0.07	0.41	< .001
	Approach-Oriented Political Action ↔ Avoidance-Oriented Political Action	0.07	0.10	0.07	.432

Note. Covariance and SE are unstandardized estimates; r is the standardized random-intercept association.

TABLE A3

Within-Person Cross-Lagged Associations in the RI-CLPM.

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
Austria	W1 → W2	In-Group Pride → In-Group Perpetration Exposure	0.07	0.10	0.07	[-0.12, 0.27]	.465
	W1 → W2	In-Group Guilt → In-Group Perpetration Exposure	-0.14	0.14	-0.10	[-0.30, 0.09]	.302
	W1 → W2	Approach-Oriented Political Action → In-Group Perpetration Exposure	-0.11	0.10	-0.12	[-0.31, 0.08]	.237
	W1 → W2	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	-0.06	0.11	-0.05	[-0.22, 0.12]	.555
	W1 → W2	In-Group Perpetration Exposure → In-Group Pride	0.02	0.08	0.02	[-0.14, 0.17]	.822
	W1 → W2	In-Group Guilt → In-Group Pride	-0.09	0.13	-0.06	[-0.25, 0.12]	.492
	W1 → W2	Approach-Oriented Political Action → In-Group Pride	0.10	0.10	0.10	[-0.09, 0.29]	.305
	W1 → W2	Avoidance-Oriented Political Action → In-Group Pride	0.03	0.11	0.02	[-0.15, 0.20]	.782
	W1 → W2	In-Group Perpetration Exposure → In-Group Guilt	0.00	0.06	0.00	[-0.17, 0.18]	.967
	W1 → W2	In-Group Pride → In-Group Guilt	0.00	0.07	0.00	[-0.19, 0.19]	.978
	W1 → W2	Approach-Oriented Political Action → In-Group Guilt	0.06	0.07	0.08	[-0.12, 0.27]	.439
	W1 → W2	Avoidance-Oriented Political Action → In-Group Guilt	0.00	0.08	0.00	[-0.17, 0.18]	.965
	W1 → W2	In-Group Perpetration Exposure → Approach-Oriented Political Action	-0.07	0.08	-0.07	[-0.22, 0.08]	.376
	W1 → W2	In-Group Pride → Approach-Oriented Political Action	0.02	0.10	0.02	[-0.17, 0.21]	.832
	W1 → W2	In-Group Guilt → Approach-Oriented Political Action	0.10	0.13	0.07	[-0.12, 0.26]	.458
	W1 → W2	Avoidance-Oriented Political Action → Approach-Oriented Political Action	-0.02	0.11	-0.01	[-0.19, 0.16]	.871
	W1 → W2	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	0.02	0.06	0.02	[-0.12, 0.17]	.728
	W1 → W2	In-Group Pride → Avoidance-Oriented Political Action	-0.10	0.09	-0.11	[-0.30, 0.08]	.260
	W1 → W2	In-Group Guilt → Avoidance-Oriented Political Action	-0.01	0.10	-0.00	[-0.18, 0.17]	.960
	W1 → W2	Approach-Oriented Political Action → Avoidance-Oriented Political Action	-0.09	0.08	-0.11	[-0.31, 0.08]	.261

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
	W2 → W3	In-Group Pride → In-Group Perpetration Exposure	0.07	0.09	0.07	[-0.11, 0.26]	.432
	W2 → W3	In-Group Guilt → In-Group Perpetration Exposure	-0.05	0.13	-0.04	[-0.24, 0.16]	.715
	W2 → W3	Approach-Oriented Political Action → In-Group Perpetration Exposure	-0.02	0.10	-0.02	[-0.22, 0.18]	.814
	W2 → W3	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	0.04	0.10	0.04	[-0.14, 0.22]	.685
	W2 → W3	In-Group Perpetration Exposure → In-Group Pride	0.05	0.09	0.05	[-0.13, 0.22]	.591
	W2 → W3	In-Group Guilt → In-Group Pride	-0.13	0.14	-0.10	[-0.31, 0.11]	.346
	W2 → W3	Approach-Oriented Political Action → In-Group Pride	-0.04	0.11	-0.04	[-0.26, 0.18]	.723
	W2 → W3	Avoidance-Oriented Political Action → In-Group Pride	0.05	0.12	0.05	[-0.16, 0.25]	.641
	W2 → W3	In-Group Perpetration Exposure → In-Group Guilt	-0.09	0.07	-0.12	[-0.29, 0.06]	.200
	W2 → W3	In-Group Pride → In-Group Guilt	0.03	0.07	0.05	[-0.14, 0.24]	.628
	W2 → W3	Approach-Oriented Political Action → In-Group Guilt	0.09	0.08	0.12	[-0.09, 0.33]	.270
	W2 → W3	Avoidance-Oriented Political Action → In-Group Guilt	0.08	0.09	0.09	[-0.10, 0.28]	.350
	W2 → W3	In-Group Perpetration Exposure → Approach-Oriented Political Action	-0.04	0.08	-0.05	[-0.21, 0.11]	.568
	W2 → W3	In-Group Pride → Approach-Oriented Political Action	0.10	0.09	0.11	[-0.08, 0.29]	.258
	W2 → W3	In-Group Guilt → Approach-Oriented Political Action	0.04	0.11	0.03	[-0.15, 0.20]	.748
	W2 → W3	Avoidance-Oriented Political Action → Approach-Oriented Political Action	-0.15	0.09	-0.14	[-0.31, 0.02]	.095
	W2 → W3	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	0.02	0.07	0.02	[-0.15, 0.19]	.813
	W2 → W3	In-Group Pride → Avoidance-Oriented Political Action	0.06	0.07	0.07	[-0.09, 0.24]	.387
	W2 → W3	In-Group Guilt → Avoidance-Oriented Political Action	-0.03	0.10	-0.03	[-0.20, 0.15]	.773
	W2 → W3	Approach-Oriented Political Action → Avoidance-Oriented Political Action	0.01	0.08	0.01	[-0.18, 0.20]	.914
Bulgaria	W1 → W2	In-Group Pride → In-Group Perpetration Exposure	0.08	0.09	0.07	[-0.09, 0.23]	.369
	W1 → W2	In-Group Guilt → In-Group Perpetration Exposure	-0.10	0.12	-0.07	[-0.25, 0.10]	.406

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
	W1 → W2	Approach-Oriented Political Action → In-Group Perpetration Exposure	0.03	0.10	0.02	[-0.14, 0.19]	.781
	W1 → W2	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	-0.25	0.09	0.20	[-0.35, -0.06]	.006
	W1 → W2	In-Group Perpetration Exposure → In-Group Pride	-0.09	0.06	-0.12	[-0.28, 0.04]	.145
	W1 → W2	In-Group Guilt → In-Group Pride	-0.05	0.10	-0.05	[-0.24, 0.13]	.587
	W1 → W2	Approach-Oriented Political Action → In-Group Pride	0.04	0.08	0.05	[-0.12, 0.22]	.581
	W1 → W2	Avoidance-Oriented Political Action → In-Group Pride	-0.07	0.08	-0.08	[-0.25, 0.09]	.357
	W1 → W2	In-Group Perpetration Exposure → In-Group Guilt	-0.04	0.06	-0.05	[-0.21, 0.11]	.518
	W1 → W2	In-Group Pride → In-Group Guilt	0.02	0.07	0.03	[-0.13, 0.18]	.730
	W1 → W2	Approach-Oriented Political Action → In-Group Guilt	0.02	0.08	0.02	[-0.14, 0.19]	.772
	W1 → W2	Avoidance-Oriented Political Action → In-Group Guilt	-0.06	0.08	-0.06	[-0.20, 0.09]	.460
	W1 → W2	In-Group Perpetration Exposure → Approach-Oriented Political Action	-0.04	0.06	-0.05	[-0.18, 0.09]	.489
	W1 → W2	In-Group Pride → Approach-Oriented Political Action	0.02	0.08	0.03	[-0.14, 0.19]	.763
	W1 → W2	In-Group Guilt → Approach-Oriented Political Action	-0.06	0.10	-0.06	[-0.23, 0.11]	.503
	W1 → W2	Avoidance-Oriented Political Action → Approach-Oriented Political Action	-0.05	0.09	-0.05	[-0.22, 0.12]	.586
	W1 → W2	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	-0.04	0.06	-0.05	[-0.20, 0.09]	.487
	W1 → W2	In-Group Pride → Avoidance-Oriented Political Action	0.14	0.07	0.16	[0.00, 0.32]	.048
	W1 → W2	In-Group Guilt → Avoidance-Oriented Political Action	0.10	0.09	0.09	[-0.08, 0.26]	.285
	W1 → W2	Approach-Oriented Political Action → Avoidance-Oriented Political Action	-0.09	0.08	-0.10	[-0.28, 0.08]	.256
	W2 → W3	In-Group Pride → In-Group Perpetration Exposure	0.01	0.09	0.00	[-0.14, 0.15]	.952
	W2 → W3	In-Group Guilt → In-Group Perpetration Exposure	0.12	0.10	0.11	[-0.08, 0.29]	.254
	W2 → W3	Approach-Oriented Political Action → In-Group Perpetration Exposure	0.04	0.09	0.03	[-0.12, 0.18]	.667

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
	W2 → W3	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	-0.10	0.10	-0.08	[-0.23, 0.07]	.287
	W2 → W3	In-Group Perpetration Exposure → In-Group Pride	0.08	0.08	0.09	[-0.09, 0.28]	.324
	W2 → W3	In-Group Guilt → In-Group Pride	0.17	0.10	0.17	[-0.03, 0.37]	.090
	W2 → W3	Approach-Oriented Political Action → In-Group Pride	-0.11	0.09	-0.11	[-0.29, 0.07]	.229
	W2 → W3	Avoidance-Oriented Political Action → In-Group Pride	0.14	0.10	0.13	[-0.05, 0.30]	.151
	W2 → W3	In-Group Perpetration Exposure → In-Group Guilt	-0.02	0.07	-0.02	[-0.19, 0.14]	.772
	W2 → W3	In-Group Pride → In-Group Guilt	0.03	0.08	0.03	[-0.13, 0.18]	.723
	W2 → W3	Approach-Oriented Political Action → In-Group Guilt	-0.01	0.07	-0.02	[-0.17, 0.14]	.842
	W2 → W3	Avoidance-Oriented Political Action → In-Group Guilt	0.10	0.08	0.10	[-0.06, 0.25]	.230
	W2 → W3	In-Group Perpetration Exposure → Approach-Oriented Political Action	0.14	0.08	0.17	[-0.02, 0.37]	.085
	W2 → W3	In-Group Pride → Approach-Oriented Political Action	0.01	0.10	0.01	[-0.18, 0.20]	.932
	W2 → W3	In-Group Guilt → Approach-Oriented Political Action	0.13	0.10	0.13	[-0.07, 0.33]	.194
	W2 → W3	Avoidance-Oriented Political Action → Approach-Oriented Political Action	0.06	0.11	0.06	[-0.14, 0.26]	.552
	W2 → W3	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	-0.07	0.07	-0.08	[-0.25, 0.08]	.310
	W2 → W3	In-Group Pride → Avoidance-Oriented Political Action	0.13	0.09	0.12	[-0.04, 0.27]	.140
	W2 → W3	In-Group Guilt → Avoidance-Oriented Political Action	-0.03	0.09	-0.03	[-0.19, 0.13]	.747
	W2 → W3	Approach-Oriented Political Action → Avoidance-Oriented Political Action	-0.08	0.09	-0.07	[-0.24, 0.09]	.362
	W1 → W2	In-Group Pride → In-Group Perpetration Exposure	-0.01	0.12	-0.00	[-0.19, 0.18]	.965
	W1 → W2	In-Group Guilt → In-Group Perpetration Exposure	0.26	0.17	0.14	[-0.05, 0.33]	.143
	W1 → W2	Approach-Oriented Political Action → In-Group Perpetration Exposure	0.01	0.14	0.01	[-0.20, 0.22]	.920
	W1 → W2	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	-0.21	0.15	-0.14	[-0.32, 0.05]	.148
	W1 → W2	In-Group Perpetration Exposure → In-Group Pride	0.07	0.06	0.08	[-0.04, 0.20]	.215

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
	W1 → W2	In-Group Guilt → In-Group Pride	-0.03	0.14	-0.02	[-0.19, 0.15]	.823
	W1 → W2	Approach-Oriented Political Action → In-Group Pride	0.22	0.10	0.19	[0.02, 0.37]	.028
	W1 → W2	Avoidance-Oriented Political Action → In-Group Pride	-0.05	0.12	-0.04	[-0.22, 0.13]	.642
	W1 → W2	In-Group Perpetration Exposure → In-Group Guilt	0.08	0.05	0.11	[-0.04, 0.27]	.158
	W1 → W2	In-Group Pride → In-Group Guilt	-0.06	0.07	-0.08	[-0.27, 0.11]	.433
	W1 → W2	Approach-Oriented Political Action → In-Group Guilt	0.10	0.09	0.12	[-0.09, 0.33]	.273
	W1 → W2	Avoidance-Oriented Political Action → In-Group Guilt	-0.05	0.10	-0.05	[-0.25, 0.15]	.638
	W1 → W2	In-Group Perpetration Exposure → Approach-Oriented Political Action	-0.02	0.06	-0.03	[-0.18, 0.12]	.697
	W1 → W2	In-Group Pride → Approach-Oriented Political Action	-0.08	0.08	-0.09	[-0.28, 0.09]	.321
	W1 → W2	In-Group Guilt → Approach-Oriented Political Action	0.06	0.14	0.04	[-0.15, 0.24]	.679
	W1 → W2	Avoidance-Oriented Political Action → Approach-Oriented Political Action	-0.21	0.12	-0.19	[-0.40, 0.02]	.074
	W1 → W2	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	-0.04	0.05	-0.06	[-0.19, 0.08]	.429
	W1 → W2	In-Group Pride → Avoidance-Oriented Political Action	-0.06	0.09	-0.07	[-0.27, 0.13]	.495
	W1 → W2	In-Group Guilt → Avoidance-Oriented Political Action	0.14	0.12	0.11	[-0.07, 0.29]	.234
	W1 → W2	Approach-Oriented Political Action → Avoidance-Oriented Political Action	0.09	0.10	0.10	[-0.10, 0.31]	.321
	W2 → W3	In-Group Pride → In-Group Perpetration Exposure	0.00	0.07	0.00	[-0.13, 0.14]	.968
	W2 → W3	In-Group Guilt → In-Group Perpetration Exposure	0.24	0.13	0.17	[-0.01, 0.34]	.059
	W2 → W3	Approach-Oriented Political Action → In-Group Perpetration Exposure	0.06	0.11	0.05	[-0.13, 0.23]	.561
	W2 → W3	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	0.03	0.07	0.02	[-0.10, 0.14]	.732
	W2 → W3	In-Group Perpetration Exposure → In-Group Pride	0.02	0.10	0.03	[-0.21, 0.27]	.808
	W2 → W3	In-Group Guilt → In-Group Pride	0.02	0.17	0.01	[-0.24, 0.27]	.909
	W2 → W3	Approach-Oriented Political Action → In-Group Pride	-0.13	0.15	-0.12	[-0.38, 0.15]	.382

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
Poland	W2 → W3	Avoidance-Oriented Political Action → In-Group Pride	0.15	0.15	0.13	[-0.13, 0.38]	.336
	W2 → W3	In-Group Perpetration Exposure → In-Group Guilt	0.06	0.05	0.09	[-0.07, 0.25]	.292
	W2 → W3	In-Group Pride → In-Group Guilt	-0.06	0.06	-0.08	[-0.23, 0.08]	.316
	W2 → W3	Approach-Oriented Political Action → In-Group Guilt	0.09	0.10	0.10	[-0.13, 0.32]	.398
	W2 → W3	Avoidance-Oriented Political Action → In-Group Guilt	0.11	0.07	0.12	[-0.02, 0.26]	.107
	W2 → W3	In-Group Perpetration Exposure → Approach-Oriented Political Action	0.13	0.09	0.21	[-0.07, 0.50]	.140
	W2 → W3	In-Group Pride → Approach-Oriented Political Action	0.12	0.11	0.16	[-0.13, 0.45]	.270
	W2 → W3	In-Group Guilt → Approach-Oriented Political Action	0.27	0.16	0.26	[-0.05, 0.57]	.100
	W2 → W3	Avoidance-Oriented Political Action → Approach-Oriented Political Action	0.24	0.12	0.28	[0.00, 0.55]	.046
	W2 → W3	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	0.02	0.06	0.03	[-0.15, 0.20]	.761
	W2 → W3	In-Group Pride → Avoidance-Oriented Political Action	0.18	0.08	0.22	[0.04, 0.39]	.014
	W2 → W3	In-Group Guilt → Avoidance-Oriented Political Action	0.02	0.10	0.02	[-0.16, 0.20]	.813
	W2 → W3	Approach-Oriented Political Action → Avoidance-Oriented Political Action	0.06	0.10	0.06	[-0.14, 0.26]	.543
	W1 → W2	In-Group Pride → In-Group Perpetration Exposure	0.08	0.13	0.07	[-0.13, 0.27]	.522
	W1 → W2	In-Group Guilt → In-Group Perpetration Exposure	-0.22	0.15	-0.14	[-0.32, 0.05]	.140
	W1 → W2	Approach-Oriented Political Action → In-Group Perpetration Exposure	-0.10	0.11	-0.10	[-0.29, 0.10]	.332
	W1 → W2	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	0.16	0.10	0.13	[-0.04, 0.31]	.127
	W1 → W2	In-Group Perpetration Exposure → In-Group Pride	0.07	0.06	0.08	[-0.07, 0.23]	.301
	W1 → W2	In-Group Guilt → In-Group Pride	-0.05	0.11	-0.04	[-0.21, 0.14]	.687
	W1 → W2	Approach-Oriented Political Action → In-Group Pride	0.30	0.07	0.34	[0.18, 0.50]	< .001
	W1 → W2	Avoidance-Oriented Political Action → In-Group Pride	-0.10	0.07	-0.10	[-0.24, 0.04]	.158
	W1 → W2	In-Group Perpetration Exposure → In-Group Guilt	-0.01	0.06	-0.01	[-0.16, 0.14]	.909

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
	W1 → W2	In-Group Pride → In-Group Guilt	-0.06	0.11	-0.06	[-0.26, 0.14]	.567
	W1 → W2	Approach-Oriented Political Action → In-Group Guilt	0.10	0.08	0.11	[-0.06, 0.29]	.199
	W1 → W2	Avoidance-Oriented Political Action → In-Group Guilt	-0.11	0.07	-0.11	[-0.26, 0.04]	.142
	W1 → W2	In-Group Perpetration Exposure → Approach-Oriented Political Action	-0.05	0.08	-0.06	[-0.23, 0.11]	.507
	W1 → W2	In-Group Pride → Approach-Oriented Political Action	0.09	0.11	0.08	[-0.11, 0.28]	.414
	W1 → W2	In-Group Guilt → Approach-Oriented Political Action	0.07	0.14	0.05	[-0.14, 0.24]	.618
	W1 → W2	Avoidance-Oriented Political Action → Approach-Oriented Political Action	-0.09	0.08	-0.09	[-0.24, 0.06]	.229
	W1 → W2	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	-0.01	0.07	-0.01	[-0.18, 0.16]	.887
	W1 → W2	In-Group Pride → Avoidance-Oriented Political Action	0.10	0.12	0.10	[-0.12, 0.31]	.371
	W1 → W2	In-Group Guilt → Avoidance-Oriented Political Action	-0.12	0.14	-0.09	[-0.30, 0.11]	.384
	W1 → W2	Approach-Oriented Political Action → Avoidance-Oriented Political Action	-0.11	0.08	-0.12	[-0.30, 0.06]	.183
	W2 → W3	In-Group Pride → In-Group Perpetration Exposure	0.26	0.12	0.20	[0.03, 0.38]	.024
	W2 → W3	In-Group Guilt → In-Group Perpetration Exposure	-0.05	0.10	-0.04	[-0.20, 0.13]	.650
	W2 → W3	Approach-Oriented Political Action → In-Group Perpetration Exposure	-0.07	0.11	-0.06	[-0.24, 0.13]	.550
	W2 → W3	Avoidance-Oriented Political Action → In-Group Perpetration Exposure	0.07	0.10	0.05	[-0.10, 0.21]	.502
	W2 → W3	In-Group Perpetration Exposure → In-Group Pride	0.08	0.09	0.10	[-0.11, 0.31]	.355
	W2 → W3	In-Group Guilt → In-Group Pride	0.11	0.11	0.11	[-0.11, 0.34]	.332
	W2 → W3	Approach-Oriented Political Action → In-Group Pride	0.03	0.12	0.04	[-0.22, 0.29]	.777
	W2 → W3	Avoidance-Oriented Political Action → In-Group Pride	0.02	0.11	0.02	[-0.20, 0.24]	.856
	W2 → W3	In-Group Perpetration Exposure → In-Group Guilt	0.01	0.07	0.01	[-0.17, 0.19]	.915
	W2 → W3	In-Group Pride → In-Group Guilt	0.02	0.10	0.03	[-0.18, 0.24]	.802
	W2 → W3	Approach-Oriented Political Action → In-Group Guilt	0.06	0.09	0.07	[-0.13, 0.27]	.517

Country	Transition	Cross-lagged association	<i>B</i>	<i>SE</i>	β	95% CI for β	<i>p</i>
	W2 → W3	Avoidance-Oriented Political Action → In-Group Guilt	-0.06	0.07	-0.07	[-0.24, 0.09]	.383
	W2 → W3	In-Group Perpetration Exposure → Approach-Oriented Political Action	-0.04	0.09	-0.05	[-0.24, 0.14]	.621
	W2 → W3	In-Group Pride → Approach-Oriented Political Action	0.20	0.13	0.18	[-0.06, 0.42]	.141
	W2 → W3	In-Group Guilt → Approach-Oriented Political Action	0.20	0.12	0.19	[-0.02, 0.40]	.082
	W2 → W3	Avoidance-Oriented Political Action → Approach-Oriented Political Action	-0.05	0.11	-0.05	[-0.26, 0.16]	.631
	W2 → W3	In-Group Perpetration Exposure → Avoidance-Oriented Political Action	0.02	0.06	0.03	[-0.12, 0.18]	.724
	W2 → W3	In-Group Pride → Avoidance-Oriented Political Action	-0.02	0.10	-0.02	[-0.21, 0.17]	.846
	W2 → W3	In-Group Guilt → Avoidance-Oriented Political Action	-0.21	0.09	-0.21	[-0.37, -0.05]	.011
	W2 → W3	Approach-Oriented Political Action → Avoidance-Oriented Political Action	0.00	0.09	0.00	[-0.18, 0.18]	.982

Note. B and SE are unstandardized estimates; β and its 95% confidence interval are standardized estimates.

TABLE A4

Focused Comparison of Two-, Three-, and Four-Profile Model-3 Solutions.

Country	Profile s	BIC	SABIC	Entropy	Smallest class	Minimum posterior	BLRT p
Austria	2	25324.7	24997.7	0.905	14.1%	0.900	.010
Austria	3	25184.1	24815.8	0.885	14.9%	0.926	.010
Austria	4	25116.1	24706.5	0.878	15.7%	0.915	.010
Bulgaria	2	25673.8	25346.8	0.854	11.3%	0.791	.010
Bulgaria	3	25658.7	25290.5	0.750	13.8%	0.819	.010
Bulgaria	4	25622.5	25213.0	0.802	1.4%	0.814	.010
Denmark	2	23795.4	23468.4	0.838	24.5%	0.894	.010
Denmark	3	23663.1	23294.8	0.829	24.8%	0.903	.010
Denmark	4	23565.7	23156.1	0.845	18.0%	0.854	.010
Poland	2	24957.8	24630.8	0.840	14.3%	0.821	.010
Poland	3	24933.5	24565.2	0.778	17.4%	0.846	.010
Poland	4	24839.3	24429.7	0.829	16.3%	0.854	.010

Note. The final profile solution was selected using fit, classification quality, profile size, substantive interpretability, and cross-country replication rather than a single fit index.

TABLE A5

Fit and Classification Statistics for the Selected Three-Profile Solution.

Country	Model	Profiles	AIC	BIC	SABIC	Entropy	Smallest class	Minimum posterior
Austria	3	3	24669.5	25184.1	24815.8	0.885	14.9%	0.926
Bulgaria	3	3	25144.7	25658.7	25290.5	0.750	13.8%	0.819
Denmark	3	3	23149.1	23663.1	23294.8	0.829	24.8%	0.903
Poland	3	3	24419.5	24933.5	24565.2	0.778	17.4%	0.846

Note. The selected solution uses the 12 raw emotion indicators, tidyLPA/mclust Model 3, and three profiles in each country.

TABLE A6

Profile Prevalence and Posterior Classification Quality by Country.

Country	Profile	n (%)	Mean assigned posterior	Median assigned posterior	Minimum assigned posterior	Posterior $\geq .80$
Austria	Low-emotion	93 (14.9%)	0.930	0.997	0.536	86.0%
Austria	Negative-dominant	302 (48.4%)	0.968	0.998	0.503	95.4%
Austria	Positive-dominant	229 (36.7%)	0.939	0.999	0.507	87.8%
Bulgaria	Low-emotion	86 (13.8%)	0.862	0.941	0.402	68.6%
Bulgaria	Negative-dominant	247 (39.8%)	0.915	0.977	0.507	81.4%
Bulgaria	Positive-dominant	288 (46.4%)	0.875	0.940	0.463	75.3%
Denmark	Low-emotion	154 (24.8%)	0.943	0.999	0.527	90.3%
Denmark	Negative-dominant	256 (41.2%)	0.919	0.985	0.477	82.8%
Denmark	Positive-dominant	211 (34.0%)	0.914	0.997	0.502	82.9%
Poland	Low-emotion	108 (17.4%)	0.890	0.988	0.370	79.6%
Poland	Negative-dominant	158 (25.4%)	0.881	0.970	0.419	70.9%
Poland	Positive-dominant	355 (57.2%)	0.918	0.978	0.430	85.4%

Note. Profile labels were harmonized across countries based on the model-estimated emotion means. The $\geq .80$ column gives the percentage within each assigned profile whose modal posterior probability was at least .80.

TABLE A7

Primary Manifest Path-Model Associations in Austria.

Association	B	Boot. SE	p	Boot. 95% CI	beta	beta 95% CI
Negative-dominant vs Low-emotion -> Information seeking	1.29	0.16	< .001	[0.94, 1.60]	0.40	[0.31, 0.49]
Positive-dominant vs Low-emotion -> Information seeking	1.73	0.17	< .001	[1.34, 2.10]	0.52	[0.42, 0.61]
Negative-dominant vs Low-emotion -> Cognitive elaboration	1.44	0.16	< .001	[1.08, 1.75]	0.46	[0.36, 0.55]
Positive-dominant vs Low-emotion -> Cognitive elaboration	1.62	0.15	< .001	[1.33, 1.96]	0.50	[0.41, 0.58]
Information seeking -> Subjective knowledge	0.15	0.04	< .001	[0.06, 0.23]	0.17	[0.08, 0.26]
Cognitive elaboration -> Subjective knowledge	0.28	0.05	< .001	[0.20, 0.39]	0.31	[0.21, 0.41]
Negative-dominant vs Low-emotion -> Subjective knowledge (direct)	0.27	0.13	.043	[0.00, 0.53]	0.09	[0.00, 0.19]
Positive-dominant vs Low-emotion -> Subjective knowledge (direct)	0.43	0.15	.004	[0.16, 0.75]	0.15	[0.04, 0.25]
Subjective knowledge -> Objective knowledge	0.27	0.05	< .001	[0.18, 0.36]	0.25	[0.17, 0.33]
Information seeking -> Objective knowledge (direct)	0.02	0.05	.757	[-0.07, 0.12]	0.02	[-0.09, 0.12]
Cognitive elaboration -> Objective knowledge (direct)	-0.05	0.05	.279	[-0.16, 0.03]	-0.05	[-0.14, 0.04]
Negative-dominant vs Low-emotion -> Objective knowledge (direct)	0.27	0.17	.117	[-0.16, 0.59]	0.09	[-0.02, 0.19]
Positive-dominant vs Low-emotion -> Objective knowledge (direct)	0.03	0.17	.858	[-0.33, 0.33]	0.01	[-0.10, 0.11]

Note. B, bootstrap SE, p, and the unstandardized 95% CI are based on the 100-resample nonparametric bootstrap. beta and its 95% CI are standardized estimates. Low-emotion is the dummy-coding reference profile. All models adjust for gender, age, education, and political orientation.

TABLE A8

Primary Manifest Path-Model Associations in Bulgaria.

Association	B	Boot. SE	p	Boot. 95% CI	beta	beta 95% CI
Negative-dominant vs Low-emotion -> Information seeking	1.97	0.18	< .001	[1.62, 2.28]	0.55	[0.46, 0.64]
Positive-dominant vs Low-emotion -> Information seeking	1.87	0.17	< .001	[1.45, 2.14]	0.53	[0.44, 0.63]
Negative-dominant vs Low-emotion -> Cognitive elaboration	1.71	0.16	< .001	[1.39, 2.07]	0.50	[0.41, 0.59]
Positive-dominant vs Low-emotion -> Cognitive elaboration	1.77	0.17	< .001	[1.36, 2.11]	0.53	[0.43, 0.63]
Information seeking -> Subjective knowledge	0.19	0.04	< .001	[0.10, 0.25]	0.23	[0.13, 0.32]
Cognitive elaboration -> Subjective knowledge	0.22	0.05	< .001	[0.13, 0.34]	0.25	[0.14, 0.36]
Negative-dominant vs Low-emotion -> Subjective knowledge (direct)	0.24	0.16	.151	[-0.13, 0.51]	0.08	[-0.03, 0.18]
Positive-dominant vs Low-emotion -> Subjective knowledge (direct)	0.36	0.16	.029	[0.02, 0.68]	0.12	[0.01, 0.23]
Subjective knowledge -> Objective knowledge	0.11	0.03	.001	[0.02, 0.20]	0.14	[0.06, 0.22]
Information seeking -> Objective knowledge (direct)	-0.08	0.04	.032	[-0.14, -0.00]	-0.11	[-0.21, -0.01]
Cognitive elaboration -> Objective knowledge (direct)	0.05	0.04	.155	[-0.00, 0.14]	0.07	[-0.03, 0.16]
Negative-dominant vs Low-emotion -> Objective knowledge (direct)	-0.10	0.15	.518	[-0.40, 0.14]	0.04	[-0.16, 0.08]
Positive-dominant vs Low-emotion -> Objective knowledge (direct)	-0.07	0.14	.615	[-0.41, 0.18]	-0.03	[-0.15, 0.09]

Note. B, bootstrap SE, p, and the unstandardized 95% CI are based on the 100-resample nonparametric bootstrap. beta and its 95% CI are standardized estimates. Low-emotion is the dummy-coding reference profile. All models adjust for gender, age, education, and political orientation.

TABLE A9

Primary Manifest Path-Model Associations in Denmark.

Association	B	Boot. SE	p	Boot. 95% CI	beta	beta 95% CI
Negative-dominant vs Low-emotion -> Information seeking	1.06	0.14	< .001	[0.81, 1.30]	0.34	[0.26, 0.43]
Positive-dominant vs Low-emotion -> Information seeking	1.61	0.12	< .001	[1.39, 1.87]	0.51	[0.44, 0.57]
Negative-dominant vs Low-emotion -> Cognitive elaboration	1.58	0.12	< .001	[1.29, 1.78]	0.48	[0.41, 0.55]
Positive-dominant vs Low-emotion -> Cognitive elaboration	2.05	0.13	< .001	[1.74, 2.29]	0.59	[0.53, 0.65]
Information seeking -> Subjective knowledge	0.27	0.04	< .001	[0.19, 0.34]	0.31	[0.22, 0.40]
Cognitive elaboration -> Subjective knowledge	0.18	0.04	< .001	[0.10, 0.27]	0.22	[0.13, 0.32]
Negative-dominant vs Low-emotion -> Subjective knowledge (direct)	-0.01	0.10	.934	[-0.28, 0.15]	-0.00	[-0.08, 0.07]
Positive-dominant vs Low-emotion -> Subjective knowledge (direct)	0.25	0.13	.053	[-0.04, 0.49]	0.09	[-0.00, 0.18]
Subjective knowledge -> Objective knowledge	0.34	0.05	< .001	[0.25, 0.44]	0.32	[0.25, 0.40]
Information seeking -> Objective knowledge (direct)	-0.05	0.04	.179	[-0.15, 0.02]	-0.06	[-0.15, 0.03]
Cognitive elaboration -> Objective knowledge (direct)	0.01	0.04	.830	[-0.08, 0.09]	0.01	[-0.09, 0.11]
Negative-dominant vs Low-emotion -> Objective knowledge (direct)	0.10	0.13	.448	[-0.21, 0.34]	0.04	[-0.06, 0.13]
Positive-dominant vs Low-emotion -> Objective knowledge (direct)	0.01	0.16	.972	[-0.32, 0.32]	0.00	[-0.11, 0.11]

Note. B, bootstrap SE, p, and the unstandardized 95% CI are based on the 100-resample nonparametric bootstrap. beta and its 95% CI are standardized estimates. Low-emotion is the dummy-coding reference profile. All models adjust for gender, age, education, and political orientation.

TABLE A10

Primary Manifest Path-Model Associations in Poland.

Association	B	Boot. SE	p	Boot. 95% CI	beta	beta 95% CI
Negative-dominant vs Low-emotion -> Information seeking	1.79	0.20	< .001	[1.43, 2.22]	0.45	[0.36, 0.55]
Positive-dominant vs Low-emotion -> Information seeking	1.67	0.14	< .001	[1.28, 1.92]	0.48	[0.41, 0.55]
Negative-dominant vs Low-emotion -> Cognitive elaboration	1.74	0.20	< .001	[1.23, 2.16]	0.46	[0.36, 0.56]
Positive-dominant vs Low-emotion -> Cognitive elaboration	1.62	0.15	< .001	[1.28, 1.92]	0.49	[0.40, 0.57]
Information seeking -> Subjective knowledge	0.21	0.05	< .001	[0.11, 0.32]	0.24	[0.13, 0.35]
Cognitive elaboration -> Subjective knowledge	0.33	0.05	< .001	[0.23, 0.43]	0.36	[0.26, 0.46]
Negative-dominant vs Low-emotion -> Subjective knowledge (direct)	-0.07	0.16	.667	[-0.34, 0.29]	-0.02	[-0.11, 0.07]
Positive-dominant vs Low-emotion -> Subjective knowledge (direct)	0.25	0.13	.050	[0.03, 0.54]	0.08	[-0.00, 0.17]
Subjective knowledge -> Objective knowledge	0.07	0.04	.108	[-0.01, 0.15]	0.07	[-0.02, 0.16]
Information seeking -> Objective knowledge (direct)	0.06	0.04	.120	[-0.03, 0.14]	0.07	[-0.02, 0.17]
Cognitive elaboration -> Objective knowledge (direct)	0.02	0.05	.705	[-0.09, 0.11]	0.02	[-0.09, 0.14]
Negative-dominant vs Low-emotion -> Objective knowledge (direct)	-0.02	0.13	.864	[-0.34, 0.26]	-0.01	[-0.09, 0.07]
Positive-dominant vs Low-emotion -> Objective knowledge (direct)	0.10	0.16	.527	[-0.28, 0.37]	0.04	[-0.07, 0.15]

Note. B, bootstrap SE, p, and the unstandardized 95% CI are based on the 100-resample nonparametric bootstrap. beta and its 95% CI are standardized estimates. Low-emotion is the dummy-coding reference profile. All models adjust for gender, age, education, and political orientation.

TABLE A11

All Defined Indirect and Total Associations From the Primary Path Model.

Country	Association	B	Boot. SE	p	Boot. 95% CI	Std. effect
Austria	Negative-dominant vs Positive-dominant → Information seeking	-0.43	0.14	.002	[-0.80, -0.15]	-0.11
Austria	Negative-dominant vs Positive-dominant → Cognitive elaboration	-0.18	0.13	.159	[-0.41, 0.03]	-0.04
Austria	Negative-dominant vs Positive-dominant → Subjective knowledge (direct)	-0.16	0.10	.110	[-0.39, 0.06]	-0.05
Austria	Negative-dominant vs Positive-dominant → Objective knowledge (direct)	0.24	0.12	.044	[-0.01, 0.45]	0.08
Austria	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.20	0.06	.001	[0.07, 0.30]	0.07
Austria	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.40	0.08	< .001	[0.25, 0.59]	0.14
Austria	Negative-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.60	0.08	< .001	[0.43, 0.76]	0.21
Austria	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.26	0.08	< .001	[0.10, 0.42]	0.09
Austria	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.46	0.10	< .001	[0.31, 0.70]	0.15
Austria	Positive-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.72	0.10	< .001	[0.54, 0.90]	0.24
Austria	Negative-dominant vs Low-emotion → Subjective knowledge (total)	0.87	0.13	< .001	[0.66, 1.13]	0.31
Austria	Positive-dominant vs Low-emotion → Subjective knowledge (total)	1.16	0.14	< .001	[0.84, 1.44]	0.39
Austria	Negative-dominant vs Positive-dominant → Subjective knowledge (total)	-0.28	0.11	.008	[-0.50, -0.05]	-0.08
Austria	Information seeking → Subjective knowledge → Objective knowledge	0.04	0.02	.006	[0.01, 0.07]	0.04
Austria	Cognitive elaboration → Subjective knowledge → Objective knowledge	0.08	0.02	< .001	[0.05, 0.11]	0.08
Austria	Information seeking → Objective knowledge (total)	0.06	0.05	.275	[-0.04, 0.17]	0.06
Austria	Cognitive elaboration → Objective knowledge (total)	0.03	0.05	.593	[-0.08, 0.12]	0.03
Austria	Negative-dominant vs Low-emotion → Information seeking → Objective knowledge	0.02	0.07	.759	[-0.10, 0.15]	0.01
Austria	Negative-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	-0.07	0.07	.284	[-0.23, 0.04]	-0.02
Austria	Positive-dominant vs Low-emotion → Information seeking → Objective knowledge	0.03	0.09	.760	[-0.13, 0.19]	0.01
Austria	Positive-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	-0.08	0.08	.290	[-0.26, 0.05]	-0.03
Austria	Negative-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.07	0.04	.077	[0.00, 0.17]	0.02
Austria	Positive-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.12	0.05	.019	[0.04, 0.22]	0.04

Country	Association	B	Boot. SE	p	Boot. 95% CI	Std. effect
Austria	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.05	0.02	.012	[0.02, 0.11]	0.02
Austria	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.07	0.03	.008	[0.02, 0.14]	0.02
Austria	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.11	0.03	< .001	[0.07, 0.17]	0.04
Austria	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.12	0.03	< .001	[0.08, 0.19]	0.04
Austria	Negative-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.24	0.06	< .001	[0.14, 0.37]	0.08
Austria	Positive-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.32	0.07	< .001	[0.17, 0.50]	0.10
Austria	Negative-dominant vs Low-emotion → Objective knowledge (total indirect)	0.19	0.06	.002	[0.10, 0.32]	0.06
Austria	Positive-dominant vs Low-emotion → Objective knowledge (total indirect)	0.26	0.07	< .001	[0.15, 0.45]	0.08
Austria	Negative-dominant vs Low-emotion → Objective knowledge (total)	0.45	0.18	.010	[0.06, 0.83]	0.15
Austria	Positive-dominant vs Low-emotion → Objective knowledge (total)	0.29	0.17	.081	[-0.04, 0.67]	0.09
Austria	Negative-dominant vs Positive-dominant → Objective knowledge (total)	0.16	0.11	.156	[-0.07, 0.38]	0.06
Bulgaria	Negative-dominant vs Positive-dominant → Information seeking	0.10	0.15	.506	[-0.19, 0.42]	0.02
Bulgaria	Negative-dominant vs Positive-dominant → Cognitive elaboration	-0.06	0.13	.638	[-0.29, 0.28]	-0.03
Bulgaria	Negative-dominant vs Positive-dominant → Subjective knowledge (direct)	-0.12	0.12	.302	[-0.35, 0.16]	-0.04
Bulgaria	Negative-dominant vs Positive-dominant → Objective knowledge (direct)	-0.02	0.10	.805	[-0.22, 0.15]	-0.01
Bulgaria	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.38	0.09	< .001	[0.20, 0.54]	0.12
Bulgaria	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.38	0.10	< .001	[0.21, 0.59]	0.12
Bulgaria	Negative-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.75	0.09	< .001	[0.56, 0.97]	0.25
Bulgaria	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.36	0.09	< .001	[0.18, 0.52]	0.12
Bulgaria	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.39	0.09	< .001	[0.21, 0.62]	0.13
Bulgaria	Positive-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.75	0.09	< .001	[0.56, 0.91]	0.25
Bulgaria	Negative-dominant vs Low-emotion → Subjective knowledge (total)	0.99	0.17	< .001	[0.62, 1.28]	0.33
Bulgaria	Positive-dominant vs Low-emotion → Subjective knowledge (total)	1.11	0.18	< .001	[0.70, 1.41]	0.37
Bulgaria	Negative-dominant vs Positive-dominant → Subjective knowledge (total)	-0.12	0.13	.358	[-0.39, 0.15]	-0.05
Bulgaria	Information seeking → Subjective knowledge → Objective knowledge	0.02	0.01	.010	[0.00, 0.04]	0.03

Country	Association	B	Boot. SE	p	Boot. 95% CI	Std. effect
Bulgaria	Cognitive elaboration → Subjective knowledge → Objective knowledge	0.03	0.01	.009	[0.01, 0.05]	0.03
Bulgaria	Information seeking → Objective knowledge (total)	-0.05	0.04	.126	[-0.12, 0.01]	-0.08
Bulgaria	Cognitive elaboration → Objective knowledge (total)	0.08	0.03	.030	[0.03, 0.15]	0.10
Bulgaria	Negative-dominant vs Low-emotion → Information seeking → Objective knowledge	-0.15	0.07	.043	[-0.29, -0.00]	-0.06
Bulgaria	Negative-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	0.09	0.06	.172	[-0.01, 0.23]	0.03
Bulgaria	Positive-dominant vs Low-emotion → Information seeking → Objective knowledge	-0.14	0.07	.041	[-0.27, -0.00]	-0.06
Bulgaria	Positive-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	0.09	0.06	.165	[-0.01, 0.24]	0.04
Bulgaria	Negative-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.03	0.02	.168	[-0.02, 0.06]	0.01
Bulgaria	Positive-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.04	0.02	.060	[0.00, 0.09]	0.02
Bulgaria	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.04	0.02	.010	[0.01, 0.08]	0.02
Bulgaria	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.04	0.02	.013	[0.01, 0.08]	0.02
Bulgaria	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.04	0.02	.012	[0.01, 0.08]	0.02
Bulgaria	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.04	0.02	.010	[0.01, 0.09]	0.02
Bulgaria	Negative-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.11	0.04	.002	[0.02, 0.20]	0.05
Bulgaria	Positive-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.13	0.04	.003	[0.03, 0.22]	0.05
Bulgaria	Negative-dominant vs Low-emotion → Objective knowledge (total indirect)	0.05	0.06	.409	[-0.07, 0.20]	0.02
Bulgaria	Positive-dominant vs Low-emotion → Objective knowledge (total indirect)	0.07	0.06	.222	[-0.06, 0.21]	0.03
Bulgaria	Negative-dominant vs Low-emotion → Objective knowledge (total)	-0.05	0.15	.752	[-0.32, 0.23]	-0.02
Bulgaria	Positive-dominant vs Low-emotion → Objective knowledge (total)	0.00	0.15	.996	[-0.34, 0.28]	0.00
Bulgaria	Negative-dominant vs Positive-dominant → Objective knowledge (total)	-0.05	0.10	.626	[-0.24, 0.14]	-0.02
Denmark	Negative-dominant vs Positive-dominant → Information seeking	-0.56	0.13	< .001	[-0.84, -0.29]	-0.16
Denmark	Negative-dominant vs Positive-dominant → Cognitive elaboration	-0.46	0.15	.001	[-0.78, -0.17]	-0.12
Denmark	Negative-dominant vs Positive-dominant → Subjective knowledge (direct)	-0.26	0.10	.007	[-0.45, -0.03]	-0.10
Denmark	Negative-dominant vs Positive-dominant → Objective knowledge (direct)	0.09	0.13	.486	[-0.21, 0.36]	0.03
Denmark	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.28	0.05	< .001	[0.19, 0.39]	0.11

Country	Association	B	Boot. SE	p	Boot. 95% CI	Std. effect
Denmark	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.28	0.07	< .001	[0.15, 0.44]	0.11
Denmark	Negative-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.56	0.08	< .001	[0.36, 0.73]	0.21
Denmark	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.43	0.07	< .001	[0.30, 0.59]	0.16
Denmark	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.37	0.09	< .001	[0.20, 0.56]	0.13
Denmark	Positive-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.80	0.09	< .001	[0.61, 0.95]	0.29
Denmark	Negative-dominant vs Low-emotion → Subjective knowledge (total)	0.56	0.11	< .001	[0.34, 0.76]	0.21
Denmark	Positive-dominant vs Low-emotion → Subjective knowledge (total)	1.05	0.13	< .001	[0.73, 1.28]	0.38
Denmark	Negative-dominant vs Positive-dominant → Subjective knowledge (total)	-0.49	0.11	< .001	[-0.71, -0.29]	-0.17
Denmark	Information seeking → Subjective knowledge → Objective knowledge	0.09	0.02	< .001	[0.06, 0.14]	0.10
Denmark	Cognitive elaboration → Subjective knowledge → Objective knowledge	0.06	0.02	< .001	[0.04, 0.10]	0.07
Denmark	Information seeking → Objective knowledge (total)	0.04	0.04	.400	[-0.07, 0.10]	0.04
Denmark	Cognitive elaboration → Objective knowledge (total)	0.07	0.04	.098	[-0.01, 0.16]	0.08
Denmark	Negative-dominant vs Low-emotion → Information seeking → Objective knowledge	-0.06	0.05	.208	[-0.17, 0.01]	-0.02
Denmark	Negative-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	0.01	0.07	.832	[-0.12, 0.15]	0.01
Denmark	Positive-dominant vs Low-emotion → Information seeking → Objective knowledge	-0.09	0.07	.196	[-0.25, 0.02]	-0.03
Denmark	Positive-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	0.02	0.09	.832	[-0.17, 0.19]	0.01
Denmark	Negative-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.00	0.04	.938	[-0.09, 0.05]	-0.00
Denmark	Positive-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.09	0.05	.065	[-0.01, 0.17]	0.03
Denmark	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.10	0.02	< .001	[0.06, 0.16]	0.03
Denmark	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.15	0.03	< .001	[0.10, 0.24]	0.05
Denmark	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.10	0.03	< .001	[0.05, 0.17]	0.03
Denmark	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.12	0.03	< .001	[0.07, 0.21]	0.04
Denmark	Negative-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.19	0.04	< .001	[0.12, 0.31]	0.07
Denmark	Positive-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.36	0.06	< .001	[0.25, 0.49]	0.12
Denmark	Negative-dominant vs Low-emotion → Objective knowledge (total indirect)	0.15	0.07	.031	[0.01, 0.29]	0.05

Country	Association	B	Boot. SE	p	Boot. 95% CI	Std. effect
Denmark	Positive-dominant vs Low-emotion → Objective knowledge (total indirect)	0.29	0.08	< .001	[0.12, 0.46]	0.10
Denmark	Negative-dominant vs Low-emotion → Objective knowledge (total)	0.24	0.11	.024	[-0.03, 0.46]	0.09
Denmark	Positive-dominant vs Low-emotion → Objective knowledge (total)	0.29	0.14	.033	[-0.01, 0.52]	0.10
Denmark	Negative-dominant vs Positive-dominant → Objective knowledge (total)	-0.05	0.13	.706	[-0.34, 0.23]	-0.01
Poland	Negative-dominant vs Positive-dominant → Information seeking	0.12	0.18	.521	[-0.28, 0.46]	-0.03
Poland	Negative-dominant vs Positive-dominant → Cognitive elaboration	0.12	0.16	.451	[-0.31, 0.44]	-0.03
Poland	Negative-dominant vs Positive-dominant → Subjective knowledge (direct)	-0.32	0.12	.009	[-0.56, -0.10]	-0.10
Poland	Negative-dominant vs Positive-dominant → Objective knowledge (direct)	-0.12	0.13	.350	[-0.37, 0.15]	-0.04
Poland	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.37	0.10	< .001	[0.19, 0.59]	0.11
Poland	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.57	0.11	< .001	[0.34, 0.76]	0.17
Poland	Negative-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.95	0.12	< .001	[0.73, 1.27]	0.27
Poland	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge	0.35	0.09	< .001	[0.18, 0.51]	0.11
Poland	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge	0.53	0.09	< .001	[0.36, 0.74]	0.17
Poland	Positive-dominant vs Low-emotion → Subjective knowledge (total indirect)	0.88	0.09	< .001	[0.70, 1.10]	0.29
Poland	Negative-dominant vs Low-emotion → Subjective knowledge (total)	0.88	0.20	< .001	[0.44, 1.28]	0.25
Poland	Positive-dominant vs Low-emotion → Subjective knowledge (total)	1.13	0.14	< .001	[0.84, 1.40]	0.37
Poland	Negative-dominant vs Positive-dominant → Subjective knowledge (total)	-0.25	0.15	.099	[-0.61, -0.01]	-0.12
Poland	Information seeking → Subjective knowledge → Objective knowledge	0.01	0.01	.133	[-0.00, 0.03]	0.02
Poland	Cognitive elaboration → Subjective knowledge → Objective knowledge	0.02	0.01	.119	[-0.00, 0.05]	0.03
Poland	Information seeking → Objective knowledge (total)	0.07	0.04	.055	[-0.01, 0.16]	0.09
Poland	Cognitive elaboration → Objective knowledge (total)	0.04	0.04	.366	[-0.05, 0.13]	0.05
Poland	Negative-dominant vs Low-emotion → Information seeking → Objective knowledge	0.11	0.07	.130	[-0.06, 0.23]	0.03
Poland	Negative-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	0.03	0.09	.707	[-0.17, 0.21]	0.01
Poland	Positive-dominant vs Low-emotion → Information seeking → Objective knowledge	0.10	0.07	.128	[-0.04, 0.25]	0.04
Poland	Positive-dominant vs Low-emotion → Cognitive elaboration → Objective knowledge	0.03	0.08	.701	[-0.15, 0.18]	0.01

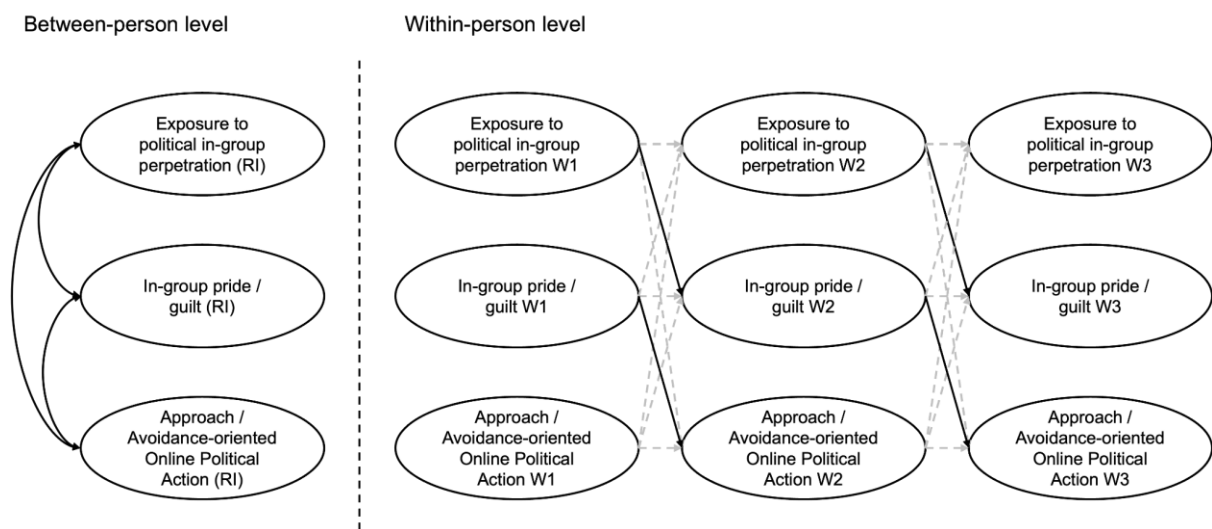
Country	Association	B	Boot. SE	p	Boot. 95% CI	Std. effect
Poland	Negative-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	-0.00	0.01	.742	[-0.03, 0.03]	-0.00
Poland	Positive-dominant vs Low-emotion → Subjective knowledge → Objective knowledge	0.02	0.02	.304	[-0.00, 0.06]	0.01
Poland	Negative-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.02	0.02	.139	[-0.01, 0.06]	0.01
Poland	Positive-dominant vs Low-emotion → Information seeking → Subjective knowledge → Objective knowledge	0.02	0.01	.126	[-0.00, 0.05]	0.01
Poland	Negative-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.04	0.02	.114	[-0.01, 0.09]	0.01
Poland	Positive-dominant vs Low-emotion → Cognitive elaboration → Subjective knowledge → Objective knowledge	0.03	0.02	.123	[-0.01, 0.09]	0.01
Poland	Negative-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.06	0.04	.139	[-0.01, 0.15]	0.02
Poland	Positive-dominant vs Low-emotion → Objective knowledge via subjective knowledge (total)	0.07	0.05	.126	[-0.01, 0.17]	0.03
Poland	Negative-dominant vs Low-emotion → Objective knowledge (total indirect)	0.20	0.06	.002	[0.07, 0.32]	0.06
Poland	Positive-dominant vs Low-emotion → Objective knowledge (total indirect)	0.20	0.06	< .001	[0.09, 0.33]	0.07
Poland	Negative-dominant vs Low-emotion → Objective knowledge (total)	0.17	0.12	.145	[-0.08, 0.43]	0.05
Poland	Positive-dominant vs Low-emotion → Objective knowledge (total)	0.30	0.14	.033	[-0.03, 0.55]	0.11
Poland	Negative-dominant vs Positive-dominant → Objective knowledge (total)	-0.13	0.13	.315	[-0.37, 0.12]	-0.05

Note. Bootstrap confidence intervals are percentile 95% CIs based on 100 resamples. The table includes direct profile contrasts, shorter indirect associations, sequential associations, and total associations.

ANNEX 1.2 FIGURES

FIGURE A1

Simplified graphical representation of the random-intercept cross-lagged panel model examining the relationships among exposure to political in-group perpetration on social media, in-group emotions (guilt and pride), and approach- and avoidance-oriented online political action.



Note. Ovals represent latent variables. RI = random intercept; W1 = Wave 1; W2 = Wave 2; W3 = Wave 3.

ANNEX 1.3 ETHICAL APPROVAL CONFIRMATION

Confirmation-1580-Stephanie Bühner
Department of Communication



Research Ethics Screening Confirmation

The Institutional Review Board of the Faculty of Social Sciences (IRB) at the University of Vienna confirms that the Research Ethics Screening, filled out by Stephanie Bühner for the research project "Panel Studies on Social Media, Emotions, Political Attitudes, and Behavior", has classified the project in the category of minimal ethical risk. This self-assessment is based on the information provided by the applicant as enclosed in the appendix. The IRB checked the coherence of the information on potential ethical problems or challenges with the overall project description provided by the applicant and concludes that the project can be realized on the researcher's own responsibility.

This confirmation does not constitute formal ethics approval by the University of Vienna Ethics Committee, which is not required for this kind of research according to the Statutes of the University of Vienna and the Austrian 2002 Universities Act. If any doubts or ethical challenges occur during the further planning and/or implementation of the research project, or if circumstances change that could raise ethical concerns, please contact the IRB.

- ☒ I confirm that I filled out the Research Ethics Screening to the best of my knowledge and that I am aware that this confirmation is only valid together with the information provided as enclosed in the appendix.
- ☒ I confirm that I will take all measures necessary to identify and address ethical issues in all stages of my research project.
- ☒ I am aware that I have to re-run the Research Ethics Screening if there are changes regarding the research design or the use of data that could raise ethical issues.


Researcher



On behalf of the Institutional Review Board of the Faculty of Social Sciences

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ANNEX 1.4 DATA MANAGEMENT

No personal data (e.g., names or addresses) were collected. All contact information necessary for communication with participants was managed exclusively by the sample provider. Respondents were identified only through anonymous identification codes. At the end of the survey, respondents were provided with an open form through which they could contact the research team. The service provider received a contact list containing the relevant IRB contact information and the contact details of the GDPR data protection officer, along with instructions to forward participants' messages in accordance with the ethical guidelines of the Department of Communication. All data were treated with strict confidentiality and are stored securely on university servers for a period of ten years. Access to the data was restricted to authorized researchers involved in the study, all of whom were bound by confidentiality agreements. All data management procedures were approved by the Institutional Review Board of the Faculty of Social Sciences at the University of Vienna.

ACRONYM	FULL NAME
AIC	Akaike Information Criterion
AIT	Affective Intelligence Theory
BIC	Bayesian Information Criterion
BLRT	Bootstrap Likelihood Ratio Test
DoA	Description of Action
EU	European Union
GA	Grant Agreement
GDPR	General Data Protection Regulation
H	Hypothesis
IET	Intergroup Emotions Theory
IRB	Institutional Review Board
LPA	Latent Profile Analysis
RI	Random Intercept
RI-CLPM	Random-Intercept Cross-Lagged Panel Model
RQ	Research Question
SABIC	Sample-Size-Adjusted Bayesian Information Criterion
SIT	Social Identity Theory
W	Wave
WP	Work Package

