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The Role of Personal Values in Opinion Formation Regarding a High-Stakes Continually Evolving Topic: The Hamas–Israel Hostage Deal Negotiations

Ariel Knafo-Noam[1], Yaakov Greenwald[1], Geffen Tzvi[1], Dana Katsoty[1], Liat Levontin[2], Ella Daniel[3], Maya Benish-Weisman[4], and Pazit Ben-Nun Bloom[5, 6]

[1] Department of Psychology, The Hebrew University of Jerusalem
[2] Faculty of Data and Decision Sciences, Technion–Israel Institute of Technology
[3] Department of School Counseling and Special Education, Tel Aviv University
[4] The Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem
[5] Department of Political Science, The Hebrew University of Jerusalem
[6] Department of Political Science, Stony Brook University

How do people form opinions in high-stakes situations, prevalent in times of conflict and crisis? We propose that personal values play a crucial role in shaping opinions and provide empirical evidence and novel insights about the process involved. We expected values to predict opinions regarding negotiations with armed groups to free hostages. Five Israeli samples ($N = 7,248$; four preregistered, one longitudinal) participated during the Hamas–Israel war, as hostage deal negotiations dominated public discourse. Universalism values predicted deal support, while power and tradition values predicted opposition. Values predicted opinions independently of demographics and empathy, with universalism significant even beyond political ideology. Opinion certainty was higher when values fit the opinion (e.g., high universalism coupled with support) than when they did not. A longitudinal design supported values' role in several ways. First, values measured before the first deal predicted opinions a year later. Second, low value coherence predicted change in opinion over time. Third, values predicted shifts in opinion over time. Finally, the fit between values and opinion predicted opinion stability through increased certainty. Although limited to a single sociopolitical context and lacking Palestinian perspectives, findings offer strong evidence that personal values may shape moral judgment under uncertainty and help individuals navigate evolving, emotionally charged dilemmas. The study offers new contributions by assessing values in relation to high-stakes (not hypothetical) dilemmas, tracking opinion change over a moving target (an evolving hostage deal), and demonstrating how value–opinion fit predicts opinion certainty and consequentially long-term stability.

Public Significance Statement
This study offers a unique opportunity to examine how people form opinions regarding high-stakes, continually evolving dilemmas. We suggest that in such situations, people may rely on previously established constructs such as values; moreover, we demonstrate how when opinions align with values, they are held with more certainty and are less likely to change. The study highlights the importance of values, which might be crucial for decision making in times of uncertainty. Beyond expanding our understanding of the ways in which people may make use of their values in forming opinions, we also suggest that this work may be important for understanding public discourse in the face of unclear or unprecedented questions.

Keywords: values, opinions, judgment, attitudes, decisions

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Rick Hoyle served as action editor.
Ariel Knafo-Noam https://orcid.org/0000-0003-0613-1960
Yaakov Greenwald https://orcid.org/0009-0007-9403-6934
Geffen Tzvi https://orcid.org/0009-0000-1613-9005
Dana Katsoty https://orcid.org/0000-0001-5732-6798
Liat Levontin https://orcid.org/0000-0001-9692-4555
Ella Daniel https://orcid.org/0000-0003-4885-4454
Maya Benish-Weisman https://orcid.org/0000-0002-0717-6573
Pazit Ben-Nun Bloom https://orcid.org/0000-0003-4930-3355
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continued

Ariel Knafo-Noam

How do people form opinions in high-stakes dilemmas? In today's eventful age of uncertainty, extreme conflict, and crisis, societies face profound moral dilemmas, as new moral and political challenges emerge rapidly. When a situation involves two or more alternatives that reflect competing motivations, personal values may be used in decision making because they serve as guiding principles in evaluating alternatives. We address this issue with the case of Israelis' opinions about hostage deals (HD) in the Hamas–Israel 2023–2025 war.

Values are abstract ideas that pertain to desirable end states or behaviors, transcending specific situations. They are ordered by relative importance and guide the selection or evaluation of entities such as people and behaviors (Schwartz, 1992). Because values are stable over time and applicable across diverse situations and contexts (Daniel et al., 2012; Skimina et al., 2019; Twito-Weingarten & Knafo-Noam, 2022), they provide a preformed framework for evaluating unfamiliar issues (Sagiv et al., 2011; Vishwanath, 2025). Moreover, values predict behaviors that range from specific, concrete actions (Maio et al., 2009; Skimina et al., 2019) to major decisions with lifelong consequences (Arieli et al., 2020; Sosik et al., 2009). This suggests that values function as chronically accessible schemata, offering a cognitive foundation for opinion formation in the face of uncertainty (Sagiv & Roccas, 2021).

Contexts that lack clear constraints or guidelines about what is appropriate make personal core attributes, such as values, more relevant to choice and action (Bardi & Schwartz, 2003; Elster & Gelfand, 2021). In situations wherein norms and scripts are not yet established, the effect of individual differences in values becomes more pronounced (Sagiv & Roccas, 2021). Additionally, high-stakes situations make individuals more likely to reflect on their values (Tejeiro et al., 2023). This reflection—consciously thinking about and evaluating the significance of one's values—not only reinforces their salience but also increases their accessibility (Maio et al., 2001). In other words, when decisions carry significant weight, people are more likely to draw on their core values to guide their response (Sagiv & Roccas, 2021).

In the current research, we go beyond past studies to investigate how values function in opinion formation. We specifically focus on the formation of an opinion about a high-stakes, continually evolving topic, and we investigate the process of value-opinion formation as it unfolds. For the first time, we study the role of value coherence in this process. Moreover, we propose the first study—to the best of our knowledge—studying the impact of how value-opinion alignment predicts opinion certainty (past work typically relied on people's perceptions that their opinions were value based) and how in turn certainty relates to opinion stability. Thus, demonstrating that when opinions on a high-stakes, continually evolving topic are formed based on values they are held with more certainty and are eventually more stable, this study addresses the mechanisms through which individuals navigate complex, high-stakes dilemmas.

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Correspondence concerning this article should be addressed to Ariel Knafo-Noam, Department of Psychology, The Hebrew University of Jerusalem, Mount Scopus Campus, Jerusalem 9190501, Israel. Email: ariel.knafo@huji.ac.il

Yaakov Greenwald

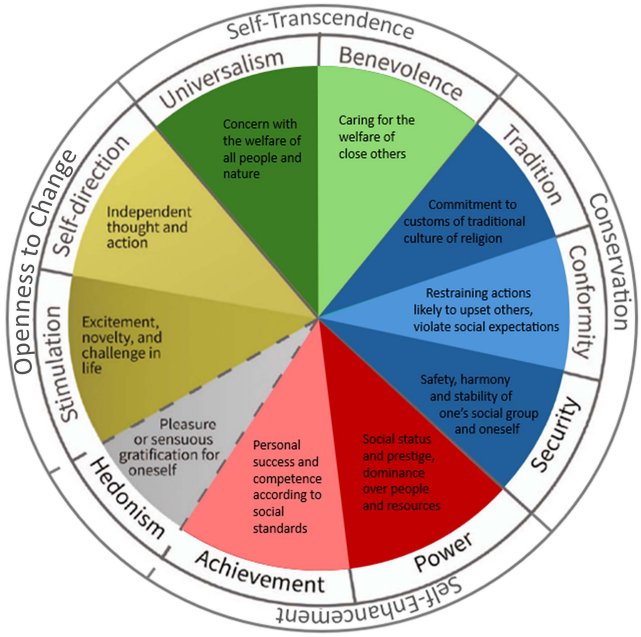
Values as Anchors of Political Attitudes

Values are central to one's identity, influencing attitudes, decisions, and behavior (Hitlin, 2003; Leijen & van Herk, 2025; Maio, 2016; Roccas & Sagiv, 2010; Sagiv et al., 2017). They have been shown to remain relatively stable across time (Schuster et al., 2019; Vecchione et al., 2016) and can be considered as a motivational aspect of personality (McAdams, 1995; Roccas et al., 2002; Twito-Weingarten & Knafo-Noam, 2022). Values represent personal and social motivations (Schwartz, 1992), reflecting the needs of both individuals and society. They vary among groups and individuals (Rokeach, 1974; Schwartz, 1992). Schwartz's theory of basic human values (Sagiv et al., 2017; Schwartz, 1992) identified 10 personal values, organized by their motivational goals (Davidov et al., 2008; Maio et al., 2009; defined in Figure 1). The values' motivational structure also organizes their associations with other variables (Sagiv et al., 2017). Typically, values adjacent in the value circle (e.g., universalism and self-direction) relate similarly to behaviors, attitudes, or demographic variables, while values at opposed sides of the circle (e.g., universalism and power) relate in an opposite manner to third variables (Boer & Fischer, 2013; Lee et al., 2022; Miles & Yeh, 2022). Holding a value as important means that a person is motivated to reach the goal emphasized by that value (Sagiv & Roccas, 2021).

In addition to guiding behavior, values have the function of evaluating objects, other people, and the self (Feather, 1995; Sagiv & Roccas, 2021) and thus shape our perceptions of what is good, bad, right, or wrong (Ginosar Yaari et al., 2025; Hitlin & Piliavin, 2004; Sverdlik & Rechter, 2020). The evaluative function of values is reflected in their association with decision making and attitudes on political and social topics (Maio & Olson, 1999; Schwartz et al., 2010; Vishwanath, 2025). Values relate to and predict voting behavior (Caprara et al., 2017; Schwartz et al., 2010) and a very broad set of attitudes, from opinion about abortion (Lynn, 2006) to preferring military as compared with peaceful resolutions of conflict (Mayton et al., 1999). We therefore expected (Hypotheses 1–3, detailed below) individuals' values to relate to their opinion concerning an HD between Israel and Hamas.

For values to have a role in comparing alternatives, they should be reflected upon when considering different options that align differently with different values (e.g., cooperation with universalism and competition with power values;

Figure 1
The Structure of Human Values by Schwartz (1992)



Note. The theory of basic human values, in its classic form, proposes that the many values people have are organized into 10 distinct values and are structured dynamically based on the motivational goals they represent. This structure has been replicated across hundreds of samples from diverse cultural groups across the world, using various measurement methods and developmental stages (Bardi et al., 2009; Hinz et al., 2005; Maslamani et al., 2025; Schwartz & Boehnke, 2004). The values are organized along two fundamental axes reflecting key tensions: (a) self-enhancement versus self-transcendence (prioritizing personal interests versus the well-being of the broader social group) and (b) openness to change versus conservation—embracing autonomy, novelty, and exploration versus maintaining the status quo and avoiding risks. As a result, values that reflect conflicting motivation appear on opposite ends of the structure. For example, universalism, promoting the well-being and rights of all people (including those outside one's ingroup), opposes power, which prioritizes self-interest, sometimes at others' expense. By contrast, adjacent values share motivational similarities. Universalism aligns with benevolence in its concern for others' welfare and with self-direction in emphasizing the importance of individuality. Typically, adjacent values correlate similarly with third variables (e.g., demographic factors, attitudes, or behaviors), while values with opposing motivations tend to show opposite correlations (Boer & Fischer, 2013; Lee et al., 2022; Miles & Yeh, 2022). See the online article for the color version of this figure.

Geffen Tzvi

Lönnqvist et al., 2013). When people give high importance to values (e.g., universalism and power) that emphasize conflicting motivations (respectively, social vs. personal), they can be said to have low value coherence, the degree to which a person's value system fits the compatibilities and conflicts among value motivations (Daniel et al., 2023; Knafo-Noam et al., 2024; Maslamani et al., 2025). Simultaneously giving high importance to values with conflicting motivations can hinder decision making (Bardi & Schwartz, 2003; Ein-Gar et al., 2021). We, therefore, expected individuals with no clear HD opinion to have lower value coherence compared with those with an opinion, whether in favor or against (Hypothesis 4a). Furthermore, we expected (Hypothesis 4b) a stronger association between values and HD opinion among those with high value coherence. That is, values would be a stronger predictor of opinion (i.e., in favor vs. against) among people with more coherent value structures.

The role of values in opinion means that opinions can be consistent, or inconsistent, with a certain value, depending on the degree to which the opinion fulfills the abstract motivation underpinning the value (e.g., a militaristic attitude is consistent with power values as it promotes dominance and inconsistent with universalism as it disregards universal welfare; Mayton et al., 1999). We propose that when opinions align with personal values, individuals are likely to feel more certain about their stance. As values provide justification for choices, people whose opinions are consistent with their values should express greater confidence in those opinions. Conversely, individuals whose values and opinions are misaligned may experience uncertainty, as they lack a clear internal justification for their stance. Previous work has shown that when people perceive, or are manipulated to think, that their attitudes are based on their values, they are more likely to experience opinion certainty (Blankenship et al., 2022; Luttrell & Togans, 2021; Skitka & Bauman, 2008). We go beyond perceived value-opinion fit by studying the actual fit between an opinion and the values that are associated with it. We expect an interaction between values and opinion (Hypothesis 5) such that among individuals who hold an opinion, opinion certainty will be higher when their values and opinions align.

Opinion certainty has been shown to be important because the association between opinions and related behaviors is stronger when certainty is high (Conner, Wilding, & Norman, 2022; Glasman & Albarracín, 2006; Skitka & Bauman, 2008). Moreover, certainty has been shown to relate to opinion stability (Conner, van Harreveld, & Norman, 2022; Luttrell & Togans, 2021). This pattern is compatible with the finding that perceived value-relevance of opinions is associated with stability of opinion and perceived ability to resist counter-attitudinal persuasion (Blankenship et al., 2022; Conner, Wilding, & Norman, 2022; Luttrell & Togans, 2021). The current investigation provides a unique opportunity to study a process in which the actual compatibility between values and opinion relates not only to opinion certainty but also to the stability of opinion across time.

Context: HD Negotiations in a War Zone

We investigated the role of values in the process leading to opinion in one specific high-stakes, continually evolving dilemma. This dilemma concerns Israelis' opinions about the HDs in the ongoing Hamas–Israel 2023–2025 war. About 250 men, women, and children were abducted in the Hamas October 7, 2023, terror attack that started a war that still rages on (Carl, 2023; Federman & Adwan, 2023), with many thousands of casualties and hundreds of thousands of people displaced in Palestine, Lebanon, and Israel (Agence France Presse, 2023; Tétrault-Farber, 2023). In November 2023, an HD between Israel and Hamas was mediated (Figure 2), including a mutual ceasefire, the release of Israeli and foreign hostages (mainly women and children) in exchange for 240 Palestinian prisoners, and the entry of fuel and humanitarian aid into Gaza. After the deal collapsed, HD negotiations stalled, leading to many further hostage casualties and continuation of the war. The second HD was reached in January 2025 (Berg, 2025; Reuters, 2025).

Research suggests that opinions on counterterrorism and hostage negotiation vary widely, with scarce public consensus (Downes-Le Guin & Hoffman, 1993). HDs would mean negotiating with terrorists, releasing convicted murderers, and, in the case of the current war, halting military efforts to dismantle Hamas (Sela, 2024). Indeed, the HD sparked heated public debate in Israeli society (Kravetz, 2024), accompanied by mass protests and strikes calling for hostage return, and public opinion has fluctuated.

Even with two thirds of Israelis supporting an HD in December 2023, there was no consensus (Stepansky, 2023).

Dana Katsoty

In a survey addressing Israel's priorities as a nation, most Jewish participants (56%) preferred an HD, while 37% supported a military operation in Rafah (Hermann et al., 2024).

The HD provides a unique opportunity to examine the role of values in public opinion regarding a dynamic political issue, involving life-and-death decisions (Bareket et al., 2025; Yehene et al., 2024). In a series of studies at different stages of the war, we investigate the role of values in Israelis' support for or opposition to the HD. Understanding how values predict attitudes toward such a dilemma can open a window toward the formation of political opinions in vivo.

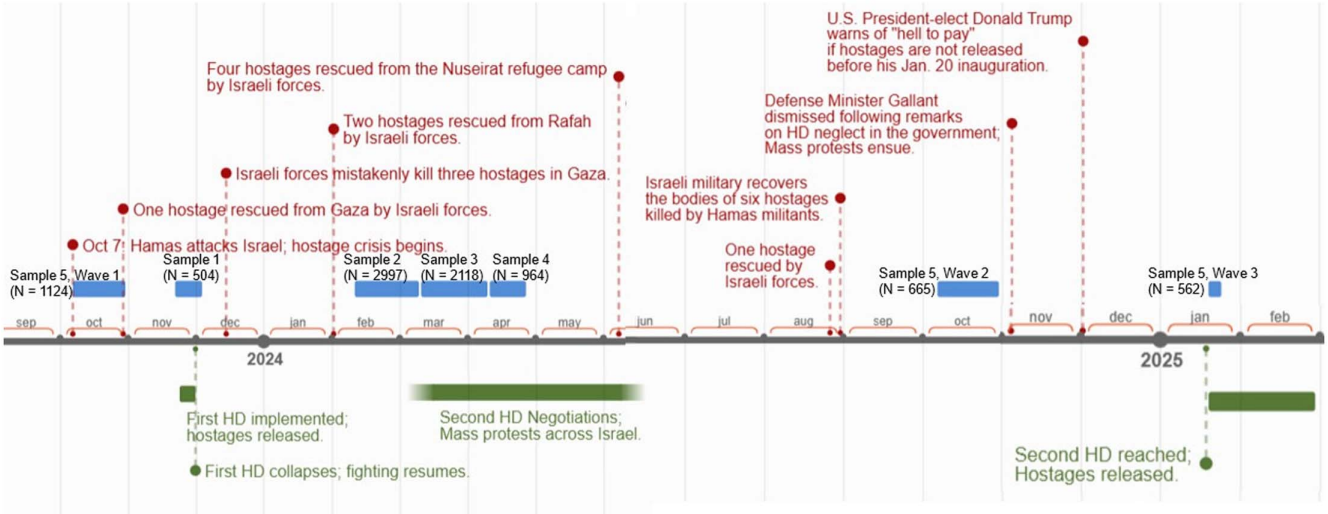
Values and HD Opinion

The HD highlights a multidimensional value-related conflict as it involves difficult trade-offs, such as engaging with hostile actors, concessions with long-term security implications, or halting military actions. Past research has shown that values relate to opinions in such cases. Israelis' values of universalism (which emphasize peace and welfare of all humans) correlated positively, and security and tradition negatively, with supporting the ceasefire ending the 2006 Israel–Hezbollah war (Nir & Knafo, 2009). Among proponents, universalism correlated with stating that the solution for regional stability is diplomatic, not military based. By contrast, ceasefire opponents tended to rely on the notion that military force, and not diplomacy, is the solution for regional stability if they were high in power values.

In the HD public debate, support for the HD from an Israeli perspective often focuses on helping, citing an immediate humanitarian need to alleviate the suffering of hostages and their families. Additionally, an HD could reduce the need for military action, prolonged search and rescue efforts, as well as the suffering of Palestinian civilians. Opposing the HD focuses on security risks: The truce may compromise military advantages, allowing adversaries to regroup and eroding long-term deterrence (Sela, 2024). Thus, different choice options in the HD moral dilemma reflect different values.

Figure 2

Timeline of Hostage Crisis and Hostage Deal Events and Data Collection in Samples 1–5



Note. Select hostage crisis events appear in red, whereas events of the HD negotiations appear in green. Data collection dates for the different samples appear in blue. Sample 1 was recruited toward and during the first, successful HD (November 22 to December 4, 2023); Samples 2–4 were recruited during the intense but failed negotiations toward a second HD in the months following the first HD (February 11 to April 27, 2024). Sample 5 was recruited early in the war (October 2023) when values and demographics data were collected and given the HD opinion questions 1 year into the war (October 2024) and again when the second HD was reached (January 2025). HD = hostage deals. Sample sizes (except for Sample 5, Wave 1, wherein there were no HD data) reflect the number of participants who passed the attention check and good values data criteria (see the Method section). See the online article for the color version of this figure.

Liat Levontin

Because universalism values promote caring for others and peaceful resolutions, we expected them (Hypothesis 1a) to relate to supporting the HD, which included the release of hostages and a hiatus of fighting. By contrast, power values, which focus on achieving dominance, previously shown to relate to preference for military solutions to conflict (Mayton et al., 1999; Nir & Knafo, 2009), were expected (Hypothesis 1b) to relate to opposing the HD, which would include the continuation of war as a means to defeat Hamas. We also expected (Hypothesis 2) individuals high on security values to be less likely to support the HD.

Our third hypothesis concerned an inherent aspect of the HD dilemma. The HD involved releasing convicted terrorists and, at least temporarily, could mean weakening the military pressure put by Israel on Hamas. This potential conflict between the rights and needs of individuals and those of the collective could be conceived as involving a dilemma between self-direction values, emphasizing the individual, and conformity values, emphasizing the needs of society. Thus, we expected (Hypothesis 3) self-direction to relate positively to HD support, whereas conformity was expected to relate negatively to HD support.

Beyond Value Priorities

While values are involved in shaping opinions, other factors can be suggested as alternative explanations to HD opinion. We explore three main alternative explanations—demographic characteristics, political ideology, and empathy.

Demographic Characteristics

Demographic variables are related to the same values we hypothesize as related to HD opinion (e.g., gender to power and universalism, religiosity to conformity; Robinson, 2013; Saroglou et al., 2004; Schwartz & Rubel, 2005; Tudge et al., 2013). Because individuals tend to socialize with others who share social groups such as gender and age with them (McPherson et al., 2001), demographic characteristics may have a causal role in people's opinion by communicating group norms of people similar to the self, such as individuals of the same religious group or socioeconomic background. We therefore explored whether the association of values with the HD was found over and above the potential effect of demographic variables (age, gender, religiosity, and educational attainment).

Political Ideology and Partisanship

Another kind of social cue may be provided by one's political milieu. Leaders and people with similar political opinions may communicate the norms about a new opinion topic. The Israeli government during the war was led by the central-right Likud party and a coalition of right-wing and religious parties (Picheta et al., 2022). Throughout the war, many coalition representatives voiced opposition to the HD. Moreover, in Israel and other countries, right-wing voters prioritize security, conformity, and power more than left-wing voters while valuing self-direction and universalism less (Barnea & Schwartz, 1998; Caprara et al., 2006; Piurko et al., 2011). This is the same value pattern expected to relate to opposing the HD. Indeed, polls show that opposing the HD aligns with support for Netanyahu's government (Hermann et al., 2024). Therefore, we hypothesized (Hypothesis 6) that coalition support and right-wing political opinion would relate negatively to HD acceptance. As values relate to political opinions, it was important to explore the possibility that values' association with HD opinion persisted beyond the potential influence of political opinions.

Empathy

Reactions to emotionally loaded situations (such as the plight of the hostages) may reflect basic processes of empathy, the capacity to recognize and share the emotions of others (Davis, 1983; Eisenberg & Eggum, 2009; Shamay-Tsoory, 2011). When people are high in the trait of emotional empathy (sharing of and caring for others' emotions), their tendency for feelings of other-focused concern is likely to increase the likelihood of HD support, to reduce suffering of the hostages and their families (and possibly other victims of the war in Israel and Palestine). We thus expected (Hypothesis 7) emotional empathy to correlate positively with HD support. However, in cases such as the moral dilemma posed by the HD, empathy may not be a clear enough guide for opinion (e.g., one's empathy to potential future victims of freed terrorists could lead to HD opposition). By contrast, as values are abstract conceptions of the desirable, they can be used in thoughtful deliberation among alternatives (Hitlin & Piliavin, 2004; Maio, 2010). Indeed,

Ella Daniel

values relate to decisions over and above the effect of personality traits (Sagiv et al., 2011). We therefore studied the role of values over and above trait empathy. As empathy has been linked to values, specifically universalism (Myyry & Helkama, 2001; Sagiv & Mentzer, 2023; Silfver et al., 2008), we tested whether accounting for empathy affected the association between universalism and HD opinion.

The Present Study

We investigated the role of values in HD opinion formation at several time points during the war, when HDs were negotiated or implemented, in five samples. Supplemental Table S1 presents a list of study hypotheses and whether they were preregistered in the different samples.

We studied whether values were predictive of HD opinion and whether these associations held over and above demographic variables, political ideology, and empathy. The role of value coherence in the value-opinion associations was also investigated, as was the role of values in opinion certainty. Finally, we explored the factors related to opinion change between October 2024 and January 2025. Our aim was to elucidate the role of values as predictors of the opinions people formed about the HD as well as their certainty in opinion. This will help understand not only how opinions are formed but also under what conditions they are maintained.

Method

Procedure

Due to the nature of the research—a field study conducted during a quickly developing war—parts of the survey (including the HD opinion question) were added or removed at different points during the conflict (Greenwald et al., in press). Samples 1–4 (see below) were recruited as part of a larger sample reached online in diverse ways. Sample 5 was recruited through a commercial panel company. Data collection dates are outlined in Figure 2. Methods and most research questions for Samples 2–5 were preregistered as described in Supplemental Table S1.

Individuals who took part in the study during the dates when the HD question was administered but dropped out prior to the HD question were considered participants for other purposes of the larger study (Greenwald et al., in press) but were excluded from the current investigation. Across all samples and among those who passed the attention check criteria, only four participants who completed the survey did not answer the HD opinion question. Missing data were not imputed, and pairwise deletion was used for all analyses.

Participants

Samples 1–4

Participants were Israeli adults, largely Jewish (97.4%), who participated voluntarily and were recruited online in different stages during the Hamas–Israel war that started on October 7, 2023. We included participants who took the survey in one of four periods within the war, when an HD was being negotiated or implemented, with the condition that they received and answered the question about the HD. Sample 1 was recruited toward and during the first HD (November 22 to December 4, 2023); Samples 2–4 were recruited during the intense but failed negotiations toward a second HD in the months following the first (February 11 to April 27, 2024). The total number of participants in the larger sample from which Samples 1–4 were taken was $N = 13{,}842$. Of these, HD opinion data were available for 7,046 participants.

Samples 1 and 4 can be seen as convenience samples. They were recruited through diverse social media platforms (Facebook, WhatsApp groups, and more), through word of mouth, and through a paid online campaign of the university. Samples 2 and 3 were community samples, reached through a news website (https://Mako.co.il), which posted our survey out of interest in the study. Sample 2 covered the first month of intensive negotiations after a supposed breakthrough in the negotiations was announced. Sample 3 covered the following month. Sample 4 started when this second month was over, enabling further participants to participate in the period marking a half-year to the war. Sample sizes for Samples 1–4 were determined by recruitment success, and as a function of the time constraints of the study.

Samples 1 and 4 differed markedly from Samples 2–3 in their demographic composition. Samples 1 and 4 included only 11.6% men, as compared with a more balanced proportion of 55.5% men across Samples 2–3. Similarly, Samples 1 and 4 tended to have participants who were less religious and more highly educated (see Supplemental Table S2 for frequencies, means, standard deviations of the demographic

Maya Benish-Weisman

variables and comparisons across the samples). Samples 2–3 were more demographically comparable to the adult Jewish population in Israel. For example, the proportion of ultra-Orthodox people (9.28%), participants with an academic degree (54.41%), and individuals aged 65+ (12.08%) was similar to that of the Jewish population (10.90%, 37.50%, and 20.50%, respectively; Israel Central Bureau of Statistics, 2023). Geographically, all samples were comparable to the Israeli Jewish population by district and county. More specifically, Ashkelon County, where the October 7 attacks occurred and which has the highest number of hostages by a wide margin, was represented in the samples in frequencies similar to the population, as shown in Supplemental Table S2.

Sample 5

Sample 5 is composed of participants ($N = 1{,}124$) recruited when the war started in October 2023 (Wave 1). In Wave 1 there was no HD on the table, but participants provided demographic information and rated their values. Sample 5 was recruited by asking the commercial panel company to aim for a representative sample considering gender, age, and levels of religiosity (secular, traditional, religious, and ultra-Orthodox). The resulting sample (49.93% males) was demographically comparable to the adult Jewish population in Israel (Supplemental Table S2).

Participants were reached again (e.g., in April 2024) for other purposes (unrelated to the HD project). Participants who did not pass both attention checks (see below) in Wave 1 were not recontacted in subsequent waves. In October 2024 (Wave 2, 1-year follow-up), 1,035 participants (those who passed attention checks in Wave 1) were recontacted, and $N = 686$ participated, rated their values again, and answered the HD opinion scale as well. We contacted the same sample (i.e., Wave 1 participants passing attention checks) again in January 2025. For Wave 3, half of the sample ($n = 517$, randomly assigned) were contacted on the first day of the deal (before the planned hostage release), and then data collection stopped toward the evening when the first hostages were being freed. The second half ($n = 518$) was contacted the morning after the first hostage release. Participants who did not participate in the first or second day were contacted again on the third day. In total, 579 participants provided HD data during the second HD. Sample size for Wave 1 was determined by budget and for the subsequent waves by attrition.

Materials

Attention Checks

Participants received two attention check questions, one before the HD question and one at a later point. A total of 387 (5%) were dropped because they did not answer the first attention check or for failing either of the attention check questions. The resultant number of participants with good data on both values and HD opinion is 7,248 across the five samples.

HD Opinion

Participants were presented with the introductory text "The expected details of the deal for the release of hostages in Gaza, which is expected to be implemented soon, were published in the media. Please read the transaction details and respond." In Sample 5, the introductory text was modified slightly to reflect that the deal was materializing (e.g., the word "expected" was removed). This introductory text was followed by an estimated list of conditions of the deal, taken from popular news websites (see exemplary stimuli in Supplemental Table S3).

Participants were then asked: "Are you for or against the deal?" with three response options: (a) against, (b) I do not have a clear opinion, and (c) in favor. Responses were coded as a three-level ordinal scale, where -1 = against, 0 = undecided, and 1 = in favor. After noting their opinion about the deal (in favor, against, or undecided), participants were further asked to justify their answer in a short text, which will serve for exploring their perceived motivations in future investigations. There were two orders of answers for the ordinal scale of acceptance of the HD: (a) the against option first and (b) the in-favor option first (the undecided option was presented in the middle in both options). For Hypothesis 4a, we recoded the variable into a dichotomous variable, where 0 = has an opinion and 1 = undecided. The order of presentation of the opinion options did not affect the proportion of proponents or opponents in any of the samples.

Pazit Ben-Nun Bloom

Values

Values were assessed using a 25-item version of the Portrait Values Questionnaire (PVQ; Hadjar et al., 2012; Segal et al., 2025), which is an extension of the 21-item PVQ (Schwartz & Rubel, 2005). The PVQ presents brief verbal portraits of individuals (Schwartz, 1992, 2012). Participants rate their similarity to these portraits of individuals having personal goals or wishes reflecting underlying values. For example, "He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life" reflects universalism values, while tradition is indicated by "Tradition is important to her. She tries to follow the customs handed down by her religion or her family." Here, we used a neutral gender form (e.g., "she/he" and "his/her"). Responses were centered around each participant's mean score as recommended by Schwartz (Schwartz & Rubel-Lifschitz, 2009) to account for individual differences in scale use. In Sample 5, values data were collected both in Waves 1 and 2, but not in Wave 3, which happened 3 months later. Participants with missing data on 25% or more of the value items (1.5% of those passing attention checks) were dropped from all analyses using values data.

Political Opinion

Data about political opinion were available for Sample 5, based on data collected by the panel company before the war. (a) Prewar right-left political orientation (ideology): Participants placed themselves on a scale of 1 (*extremely right*) to 5 (*extremely left*), with an additional "no opinion" option. (b) Coalition support (binary partisanship): Participants indicated whether they voted in the November 2022 parliamentary election and, if so, for which party. Based on votes for parties that passed the electoral threshold (in this or previous elections), they were categorized as coalition supporters (voting for right-wing or religious parties included in Netanyahu's government) or opposition supporters (including a mix of ideological positions). *National Unity*, led by Benny Gantz, was classified as opposition, despite members temporarily joining the government during the war, as the party ran on a strongly anti-Netanyahu election campaign. (c) Religious Zionist voters: In Wave 3, coalition supporters were further divided into those backing the Religious Zionist Party—which united Smotrich's National Union and Ben Gvir's Jewish Power—and those supporting other coalition parties.

Empathy

Empathy was assessed in Samples 2–5 by a short version of the Interpersonal Reactivity Index (Davis, 2017). Subscales of trait emotional empathy, cognitive empathy, and empathic distress were measured with three items each, with each subscale score computed by averaging all subscale items, following reverse scoring relevant items. To reduce the length of the questionnaire, only half of the participants in Samples 2–4 were randomized to receive the empathy measure.

Value Coherence Measure

Value coherence was indexed by the compatibility of an individual's value system with Schwartz's prototypical value structure (Maslamani et al., 2025). We constructed a benchmark correlation matrix based on multiple large data sets. One source included values data from 38 countries participating in the European Social Survey ($N = 411{,}904$), using the PVQ-21 values measure (e.g., Markovitch et al., in press). The other two, received from Shalom H. Schwartz (personal communication, January 10, 2022), included Schwartz Value Survey (Schwartz, 1992) data from 15 countries ($N = 7{,}115$) and PVQ–Revised (PVQ-RR) data (Schwartz & Cieciuch, 2022) from 17 near-representative national samples ($N = 17{,}888$). Following Schwartz's recommendation (Schwartz et al., 2012), we used centered values. Correlations among values were Fisher transformed, averaged across the three samples (with equal weight to each sample), and then retransformed. The three correlation matrices corresponded highly, with Spearman correlations across the matrices ranging from $\rho = .87$ (PVQ-RR vs. European Social Survey) to $\rho = .95$ (European Social Survey vs. Schwartz Value Survey), confirming the stability of the prototypical structure across instruments and samples. The average correlations by distance around the circle were then computed, and the benchmark correlation matrix was set based on the average correlations for values of different levels of congruency in the value circle. Thus, all values from the same higher order wedge of the circle (e.g., benevolence–universalism) received the

benchmark correlation of $r = .26$, values that were adjacent but in different wedges (e.g., benevolence–tradition) were assigned the correlation of $r = .07$, and so on with the maximally opposed values (e.g., benevolence and achievement) assigned a correlation of $r = -.37$. See further detail in the Appendix.

Value coherence was then computed using the formula $\Sigma_{ij} (Z_i \times Z_j \times R_{ij})$, where Z_i is the within-sample standardized score of an individual on value i, Z_j is the corresponding standardized score on value j, and R_{ij} is the benchmark correlation between values i and j derived from the prototypical matrix. The formula multiplies each pair of an individual's standardized value scores ($Z_i \times Z_j$) to get a positive score if both values are above/below the mean and a negative score if one is above and the other one is below the mean. The product is then multiplied by the expected correlation between those values in the prototypical structure (R_{ij})—which leads to a positive product if the correlation is of the same sign as $Z_i \times Z_j$ (fitting the values theory) and a negative product if the correlation is of a different sign (low fit). Scores are summed across all value pairs (unless $i = j$), aggregating 45 possible combinations. Higher scores indicate greater alignment between an individual's value system and the prototypical theoretically and empirically derived circular structure (Maslamani et al., 2025).

Opinion Certainty

This measure was added in the midst of data collection for Sample 3 and also given to Sample 4 participants and in Wave 2 of Sample 5. After making their choice regarding the HD, participants answered seven certainty questions (e.g., "How certain are you that your attitude toward the HD is the correct attitude to have?"), with a response scale ranging from 1 (*not at all certain*) to 9 (*very certain*), adapted from Petrocelli et al. (2007). A principal component analysis found that all items loaded .79 or higher on a single component accounting for 70.2% of the variance. Scores on these items were averaged to form the opinion certainty score.

Detailed Attitude Scale

In Sample 5, Wave 3, an attitude scale was added to further probe individuals' opinion about the HD. Participants were given 17 attitude questions (e.g., "This deal will strengthen the State of Israel socially"), with a 1–9 agreement scale. A principal component analysis found that 15 items loaded (with absolute loadings exceeding .55) on a first component accounting for 51% of the variance. Scores on these 15 items were averaged (after reverse scoring negatively phrased items) to form the attitude scale score. The remaining two additional items reflected beliefs about the timing of the deal (e.g., "The deal offered this month is better than the one offered last summer") and were not included in the scale. Higher scores indicate more positive attitudes toward the HD, and HD opinion correlated strongly with the attitude scale ($r_s = .74$, $p < .001$).

Transparency and Openness

Data and code, as well as original materials used, are not currently available because they are part of a larger study whose data will eventually be put online. As this study is anchored in a specific political moment and assesses public opinion, exact replications will not be possible. Nevertheless, conceptual replications are encouraged. This study's design and analysis were largely preregistered, and a full list of hypotheses and their respective preregistrations can be found in Supplemental Table S1.

Results

Public Support of the HD

Asked about the first HD, most Sample 1 participants supported the HD (74%), 6.8% opposed it, and 19.3% were undecided. Participants in the demographically comparable Sample 4 showed slightly higher agreement (78%) and disagreement rates (7.7%), $\chi^2(2)$, 6.49, $p = .039$. Figure 3 demonstrates public opinion change over the course of the war. It explores weekly HD opinion over 2 months during failed negotiations toward the second HD (weekly subsamples of Samples 2–3). Opinions became increasingly in favor of the HD from the first week (33.8% agreement) to the ninth, last week of data collection (59.2%), while the rate of HD opposition dropped from 45.7% to 18.7%, $\chi^2(16)$, 280.66, $p < .001$ (Figure 3).

In Sample 5, most participants supported the HD in both October 2024 (56.8%) and January 2025 (57.3%), but a sizable minority (respectively, 20.3% and 17.6%) opposed the HD.

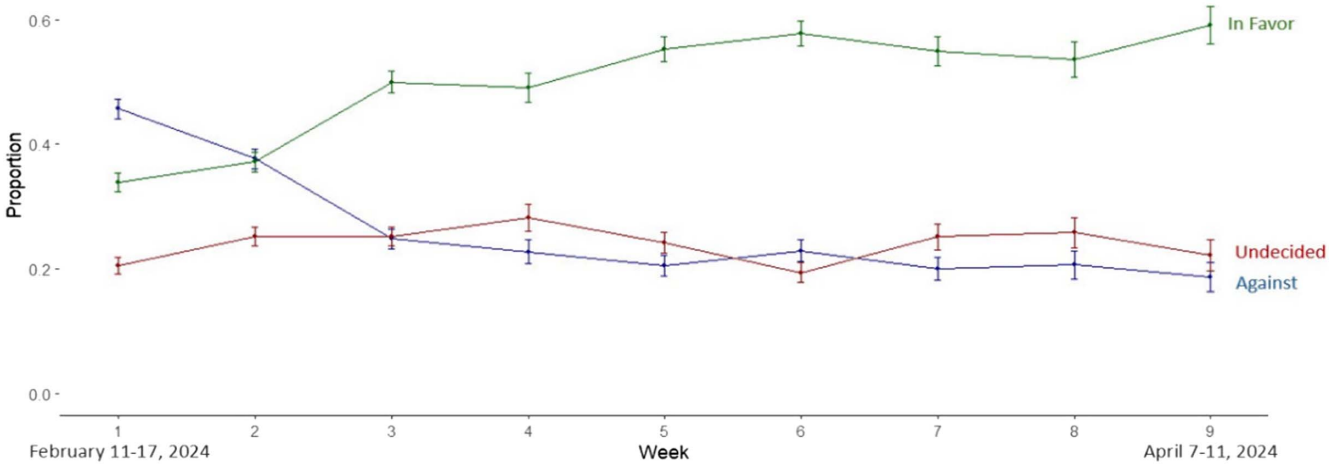
Values-Opinion Associations

Universalism positively related to HD support in all five samples (Hypothesis 1). The opposing prediction for power values was supported by a negative, though weak, association in four samples (Figure 4). The prediction of a negative association between security and supporting the HD (Hypothesis 2) was not supported; indeed, in Samples 2–3, security values related weakly but significantly to HD support (Supplemental Table S4). Hypothesis 3, contrasting values emphasizing individuals (self-direction) versus the collective (conformity), received no support. Finally, an association emerged in all the samples concerning the second HD (Samples 2–5), with tradition values related substantially to HD opposition.

To understand the joint prediction of values, we conducted an ordinal regression with universalism, power, and tradition predicting HD opinion (Supplemental Table S5). Universalism

Figure 3

Prevalence (and 95% Confidence Intervals) of Hostage Deal Opinions Across 9 Weeks



Note. Prevalence (and 95% confidence intervals) of participants (Samples 2–3 split by data collection week, February to April 2024) who were against, undecided, or in favor of the proposed second hostage deal. Data collection took a full 2 months during negotiations toward the second deal. The agreement rate across this whole period was 47.6%, with 28.7% against the hostage deal and 23.7% undecided. See the online article for the color version of this figure.

remained significant across models. Power was no longer significant (except in Sample 3), likely reflecting its negative association with universalism. Tradition remained significant in Samples 2–5, except in Sample 4 ($p = .055$).

Figure 5 illustrates the association of universalism, power, and tradition with HD opinion across the five samples. Interestingly, undecided individuals were about midway between HD opponents and HD proponents, a pattern that was largely found across all five samples (Supplemental Table S6).

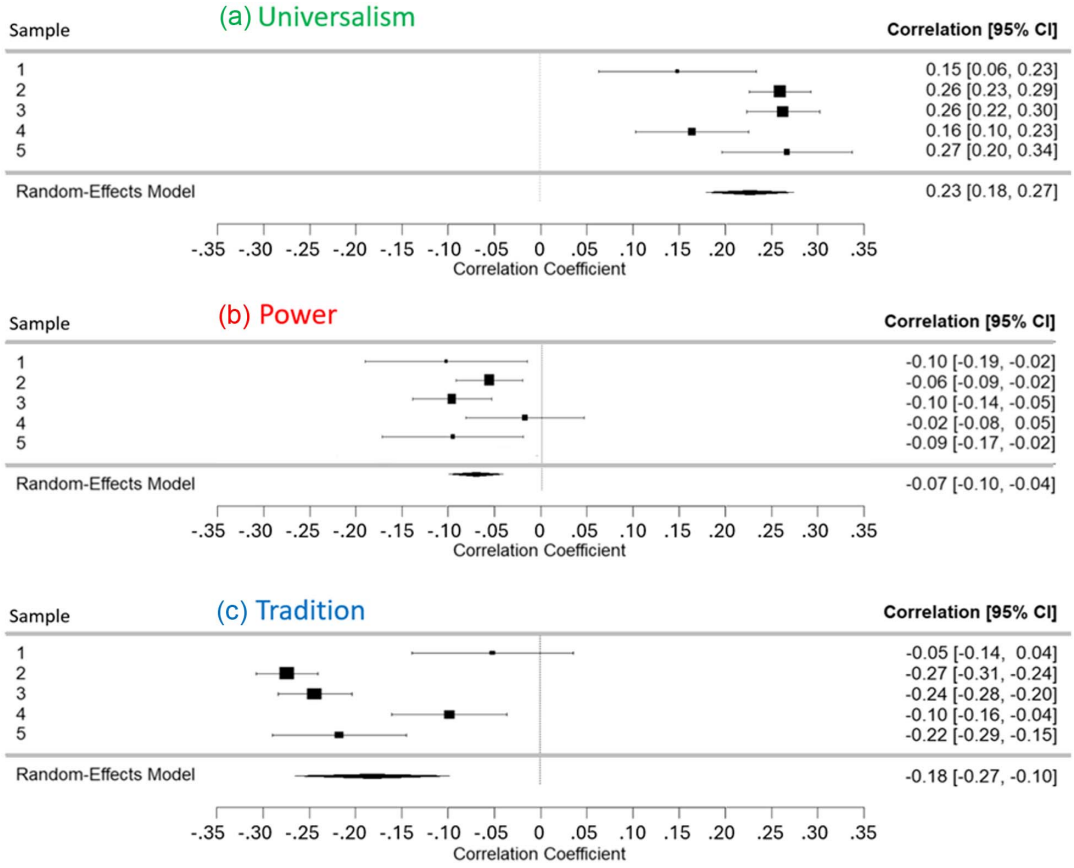
To support the notion that values influence HD opinion rather than exclusively the reverse, we examined the longitudinal prediction of values from early in the war (Sample 5, Wave 1) to later HD opinions. Data concerning values at Wave 1 were collected before HD negotiations became prominent in public discourse and thus prior to the formation of participants' HD opinions about a specific deal (though alternative explanations, e.g., third variable, cannot be entirely ruled out). Despite the potential effect of war and armed conflict on values (Daniel et al., 2013; Verkasalo et al., 2006), values showed stability, with 1-year correlations ranging from $r = .59$ to $r = .76$ (all ps $< .00001$). Wave 1 values predicted HD opinions in Waves 2 and 3. Over a year (October 2023 to October 2024) and beyond (January 2025), the same patterns emerged: Universalism related positively to HD support (for October 2024, $r = .29$, $p < .001$, and January 2025, $r = .23$, $p < .001$), and tradition related negatively to HD support (for October 2024, $r = -.23$, $p < .001$, and January 2025, $r = -.21$, $p < .001$). Finally, in Sample 5 (Wave 3), we also used the more detailed HD attitude scale, which again showed positive associations with Wave 1 universalism ($r = .31$, $p < .001$) and negative associations with power ($r = -.12$, $p = .004$) and tradition ($r = -.30$, $p < .001$).

Robustness of the Associations

To check the robustness of our findings, we meta-analyzed the association of values with HD opinion across samples. Three random-effects meta-analyses examined the overall effect size of Spearman's correlation between value importance and HD agreement for the values of universalism, power, and tradition. The aggregated association between universalism and HD support was positive ($r_s = 0.23$, 95% CI [0.18, 0.27]), whereas power values were weakly but significantly negatively associated with HD support ($r_s = -0.07$, 95% CI [−0.10, −0.04]). Tradition values demonstrated a moderate negative association with HD support ($r_s = -0.18$, 95% CI [−0.27, −0.10]). Q-test results indicated no significant heterogeneity for power values, $Q(4) = 5.59$, $p = .23$, $I^2 = 29\%$. By contrast, universalism, $Q(4) = 13.41$, $p = .009$, and tradition, $Q(4) = 40.50$, $p < .001$, with high I^2 values of 75.24% and 92.03%, respectively, showed substantial true variance between studies. In follow-up analyses including sample type as moderator, the association between universalism and HD support was stronger in the more demographically representative Samples 2, 3, and 5 ($B = 0.262$, 95% CI [0.208, 0.316]) than in convenience Samples 1 and 4, $B = 0.159$, 95% CI [0.109, 0.209]; $QM(1) = 13.28$, $p < .001$. A similar pattern was found for tradition: The negative association with HD support was more pronounced in more demographically representative samples ($B = -0.256$, 95% CI [−0.234, −0.114]) than in the convenience samples, $B = -0.082$, 95% CI [−0.135, −0.029];

Figure 4

Forest Plots of Meta-Analyses of Correlations Between Values and Hostage Deal Opinion



Note. All meta-analyses included the five samples, with a total of 7,248 participants. Square size represents the weight (i.e., relative contribution) of each study sample to the overall estimate for each respective value. (A) Universalism, (B) power, (C) tradition. See the online article for the color version of this figure.

QM (1) = 31.99, $p < .001$. In sum, the meta-analyses supported the robustness of our main findings about universalism, power, and tradition. While theoretically meaningful, the association between power and HD opinion was very weak and typically nonsignificant beyond the effect of universalism. Therefore, the following analyses focus on universalism and tradition values.

As another robustness check, we examined the association between HD opinion and values over time, particularly across the 9 weeks of Samples 2–3. Despite shifts in agreement levels (Figure 3), the associations in these weekly subsamples remained consistent. Except for one insignificant tradition effect in Week 9 (Supplemental Table S7), universalism consistently correlated positively and tradition negatively with HD support.

Finally, HD support was higher among women, nonreligious individuals, older individuals, and highly educated participants (Supplemental Table S8). Nevertheless, except for tradition in Sample 4 (Supplemental Table S5), the effects of the two values remained significant over and above those of demographic variables.

Value Coherence

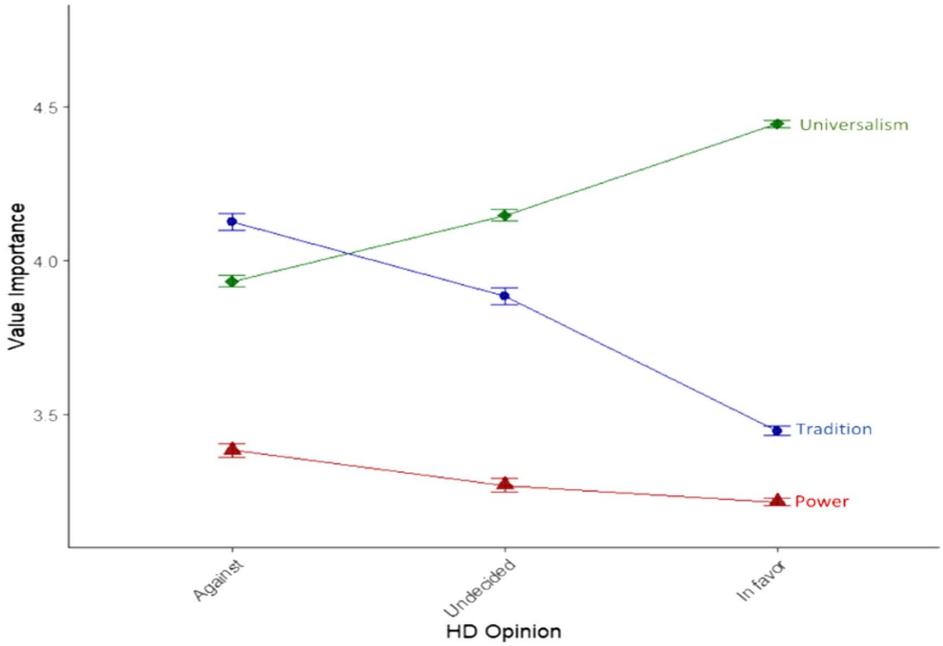
Our expectation (Hypothesis 4a) that value coherence would be lower in people with no HD opinion was supported in Samples 1 and 4, but not in others (Supplemental Table S9). The prediction (Hypothesis 4b) that value coherence would interact with value importance was supported only partially (Supplemental Table S10), with no consistent evidence that value coherence strengthens the values-opinion association.

Opinion Certainty

Overall, HD proponents and opposers were more certain than undecided individuals (Supplemental Table S11). Because we were interested in the fit between a participant's opinion and their values, we focused only on participants who

Figure 5

Importance (and 95% Confidence Intervals) of Universalism, Power, and Tradition (Aggregated Across Samples 1–5) According to HD Opinion



Note. HD = hostage deals. See the online article for the color version of this figure.

expressed an HD opinion in favor or against the HD (across Samples 3–5, N = 2,484 with valid data). Separately for universalism and tradition, we ran regression analyses predicting the level of opinion certainty from HD opinion, value importance, and their interaction (Hypothesis 5).

The full regression model for universalism showed a nonsignificant main effect of value, $B = -0.102$, $SE = 0.078$, $t = -1.304$, $p = .192$, and HD opinion, $B = -0.088$, $SE = 0.073$, $t = -1.209$, $p = .227$, but a significant interaction, $B = 0.399$, $SE = 0.089$, $t(2479) = 4.470$, $p < .001$. For tradition, the value main effect was significant, $B = 0.122$, $SE = 0.055$, $t = 2.212$, $p = .027$, while HD opinion was nonsignificant, $B = -0.065$, $SE = 0.071$, $t = -0.910$, $p = .363$. The interaction was significant, $B = -0.311$, $SE = 0.063$, $t(2479) = -4.946$, $p < .001$.

In simple slopes analyses, universalism related positively to certainty among HD proponents, $B = 0.30$, $t(2479) = 6.94$, $p < .001$, but not among HD opposers. By contrast, tradition related to opinion certainty positively among those opposing the HD, $B = 0.12$, $t(2479) = 2.21$, $p = .027$, and negatively among HD proponents, $B = -0.19$, $t(2479) = -6.30$, $p < .001$ (Figure 6).

Political Opinion

In Sample 5, prewar political right-left orientation data correlated (Hypothesis 6) with HD opinion in Wave 2 ($r_s = .41$, $p < .001$). Moreover, voters for opposition parties overwhelmingly supported the HD (81.0% in favor, 6.0% opposed), while coalition voters were more divided, with just over a third (36.1%) supporting it and 34.2% opposing, $\chi^2(2) = 128.25$, $p < .001$. In a regression analysis predicting HD opinion, universalism remained significant beyond political opinion and voting, but tradition did not (Supplemental Table S5). Splitting the sample by past voting, universalism values related to HD support among both opposition ($r_s = .17$, $p = .004$) and coalition voters ($r_s = .14$, $p < .017$). Tradition values did not correlate significantly with HD opinion among either opposition voters ($r_s = -.07$, nonsignificant) or coalition voters ($r_s = -.01$, nonsignificant).

Empathy

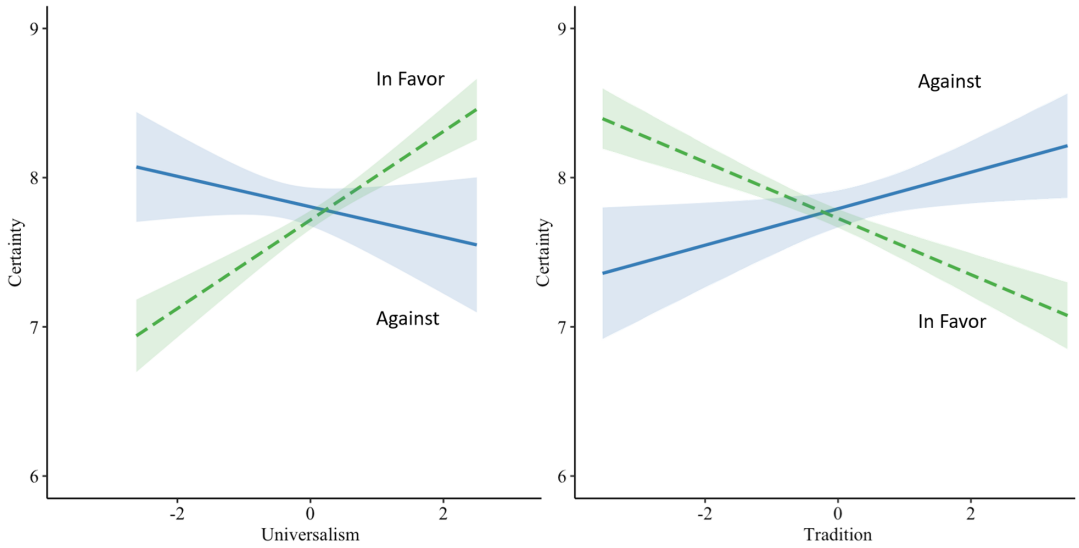
Emotional empathy related weakly but consistently (Hypothesis 7) to HD support (Supplemental Table S12). Cognitive empathy and empathic distress, additional facets of empathy (Uzefovsky & Knafo-Noam, 2016), did not relate consistently to HD opinion. Across Samples 2–5, universalism predicted HD opinion beyond the effect of emotional empathy (Supplemental Table S5).

Opinion Change

There was substantial opinion stability between October 2024 (Wave 2, Sample 5) and January 2025 (Wave 3), $r_s(N = 504) = .51$, $p < .001$. However, 35.3% of the participants did change their HD opinion (Figure 7). We addressed two kinds

Figure 6

Associations (Simple Slopes) of Opinion Certainty With Universalism and Tradition Values for Individuals Against or in Favor of the Hostage Deal (Samples 3–5)



Note. Analysis conducted across 2,484 participants from Samples 3–5, who expressed an opinion in favor or against the HD. In analyses of the different samples separately, the interactions for universalism in Sample 5 and tradition in Sample 4 were insignificant, as were some of the simple slopes in different samples (Supplemental Table S14). See the online article for the color version of this figure.

of change. First, some individuals may have been more likely to change, regardless of direction—for example, those moving from Wave 2 indecision to an opinion in Wave 3 had the lowest initial certainty at Wave 2 (Supplemental Table S11). Second, directional change can be assessed by identifying who became more likely to support or reject the HD. For instance, increased support was linked to perceiving the HD as improved (Supplemental Table S11). The analyses on opinion change are exploratory and not preregistered.

Given the role of values in HD opinion, we examined whether individuals with a coherent value system were less likely to change their minds. Indeed, those who remained unchanged had the highest value coherence ($M = 2.09$, $SD = 3.21$; 95% CI [1.75, 2.43]). Those shifting between decision and indecision had lower coherence ($M = 1.79$, $SD = 2.73$; 95% CI [1.34, 2.24]), while those flipping between agreement and disagreement had the lowest coherence ($M = 0.66$, $SD = 1.40$; 95% CI [0.25, 1.08]), $F(2, 531) = 4.80$, $p = .009$.

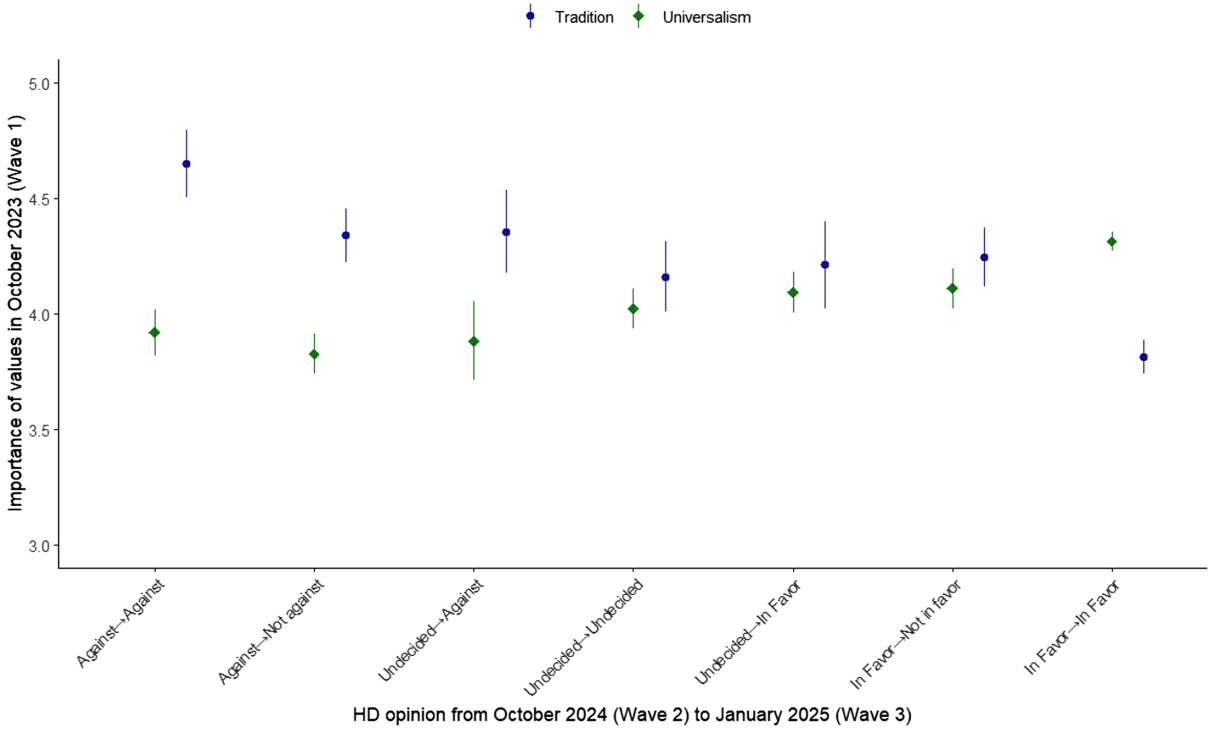
Directional opinion change may reflect partisan cue taking (Brader et al., 2013; Cohen, 2003; Druckman et al., 2013). The second HD, initially facing objections by the ruling coalition, later gained its support, while the Religious Zionist party remained opposed. To assess party-aligned shifts, we examined past voting in 156 voters who changed stance. Support increased for 54.8% of opposition voters and 54.4% of coalition voters. However, shifts varied within the coalition: while in voters of most coalition parties who changed their minds 62.8% increased support, only 28.6% of Religious Zionist voters did so, with most decreasing their support, $\chi^2(1) = 8.64$, $p = .003$.

Importantly, we asked if October 2023 values predicted opinion stability and change. We assigned participants ($N = 504$) to seven categories based on their opinions in October 2024 and January 2025 (Figure 7). Three categories included those with unchanged opinion: consistently opposing the HD (10.3%), consistently undecided (9.3%), and consistently supportive (45%). The other four categories included those who were undecided in October 2024 but had an opinion against (3.6%) or in favor (7.9%) in January 2025 and those who changed their mind after they were against the HD (10.3%) or supported it (13.5%). Values varied significantly in importance among the different opinion change groups: universalism, $F(6, 497) = 6.54$, $p < .001$, and tradition, $F(6, 497) = 6.04$, $p < .001$. Consistent HD opponents (Figure 7, left) were highest in tradition, whereas consistent proponents (Figure 7, right) were highest in universalism and lowest in tradition. These two groups with stable opinions were the most different in their early (October 2023) values, suggesting a role for values in opinion stability.

Moreover, values also related to opinion change. Participants who moved away from their initial HD opposition had lower tradition values (early at the war) than stable opponents (Figure 7, left), as indicated by confidence intervals. Initially undecided participants who changed their mind against the deal tended to have lower universalism values than initially undecided individuals who changed their mind in favor of the

Figure 7

Values (Means and 95% Confidence Intervals) in the Beginning of the War (October 2023) Relating to Later HD Opinion Change and Stability From October 2024 to January 2025



Note. See Supplemental Table S16 for category group size, means, and standard deviations. HD = hostage deals. See the online article for the color version of this figure.

deal (center). Finally, participants who were supportive of the HD in October 2024 but decreased in HD support toward January 2025 gave lower importance to universalism and higher importance to tradition, early in the war, compared with participants with stable support of the HD (Figure 7, right). In sum, early wartime values were linked to HD opinion stability and change from 12 to 15 months later.

As a comprehensive test of the role of values in forming and maintaining opinions, we tested a model in which the compatibility between values and opinions predicted opinion certainty, which in turn predicted opinion stability in Sample 5. Specifically, we ran a mediated moderation analysis in which the significant interaction between tradition values and opinion (Supplemental Table S14) predicted certainty, which in turn predicted opinion stability. In this analysis, value scores came from October 2023 (Wave 1), opinion and certainty came from October 2024 (Wave 2), and stability was assessed as continuity between October 2024 and January 2025 (Wave 2 to 3). For individuals with an opinion in October 2024, a stability score was defined as 0 = changed their mind (either flipped between agreement and disagreement, or switched to indecision) and 1 = same opinion as before. The indirect effect was estimated as the product of tradition values by opinion interaction on opinion certainty (path a) and the effect of certainty on opinion stability (path b), with path b estimated while controlling for the value by opinion interaction. Tradition and opinion certainty were standardized. We tested this model using structural equation modeling in R with the weighted least squares mean and variance adjusted estimator, which is designed to handle categorical outcomes. The value-opinion interaction predicted lower certainty ($\beta a = -0.175$, $SE = 0.074$, $z = -2.372$, $p = .018$, standardized effect $\beta a = -0.171$), and certainty was positively related to opinion stability ($\beta b = 0.249$, $SE = 0.061$, $z = 4.062$, $p < .001$, standardized effect $\beta b = 0.230$). The resulting indirect effect was also significant ($\beta a \times b = -0.044$, $SE = 0.021$, $z = -2.042$, $p = .041$, standardized effect $\beta a \times b = -0.040$), suggesting that when individuals' opinions do not align with their values, they are less certain of their opinions and are in turn more likely to change their minds. This supports a value-opinion compatibility → opinion certainty → opinion stability model.

Discussion

We demonstrate that values predict people's choices between alternatives when forming an opinion about a high-stakes, continually evolving dilemma and that the

role of values is robust, as they predict opinion over and above other variables. Moreover, we show that values may have an ongoing role and help individuals evolve in their opinions over time, as circumstances change and information is gathered. We demonstrate that values may operate not only by predicting what opinions people have but also whether they are certain in their opinion, with opinions that are motivationally compatible with values less likely to change with time. To the best of our knowledge, this is the first study to examine the role of personal values in opinions on a continually evolving, high-stakes real-world issue for which individuals may have no preformed opinion. Unlike prior research that often relies on hypothetical scenarios, this study captures opinion formation in real time, in response to an evolving situation—specifically, negotiations for HDs that were repeatedly revised as events unfolded. Furthermore, it is the first to demonstrate, longitudinally, not only that values predict opinions but also how value-opinion fit relates to the degree of opinion certainty and its subsequent stability over time.

The HD moral dilemma presented two options differing on multiple dimensions, each with meaningful downsides, as manifested in the large and stable proportion of undecided participants, even during the first deal for which there was strong support. A conflict between competing considerations was shown in previous research to lead to high opt-out rates (Ein-Gar et al., 2021). In such a difficult choice, values may serve as guides, as shown in the finding that undecided individuals who turned opponents were lower in universalism values than undecided individuals who came to support the HD (Figure 7). As personal values are stable, personality-based individual differences (Twito-Weingarten & Knafo-Noam, 2022; Vecchione et al., 2016), they consistently related to HD opinion, whether assessed with an ordinal agreement scale or with an attitude scale. Longitudinal analyses demonstrated the stability of these associations, as values measured at the beginning of the war continued to predict HD opinions over time. Finally, values were relevant to individuals' certainty about their HD opinion.

Universalism values consistently predicted support for the HD, and power values had a negative, though weak, association with support in most samples. This pattern suggests that the main motivational dimension guiding individuals' support is the relative importance given to the others' welfare, and the peaceful resolution of conflicts, as compared with relying on power to resolve conflicts. This aligns with previous work that has shown universalism and power to relate to attitudes about a ceasefire, war, nuclear threat, peace, and militarism (Boehnke & Schwartz, 1997; Mayton et al., 1999; Nir & Knafo, 2009).

We also proposed that opinions would be guided by the tension between the individual and the collective. Two relevant values, self-direction and conformity, did not relate systematically to HD opinion. It is possible that the complexity of war, including low trust in the government (Deitch et al., 2025; Hermann et al., 2025; Institute for Liberty and Responsibility, 2025), reduced the relevance of conformity to decision making due to the difficulty to define which social norm to follow (Nir & Knafo, 2009). Nevertheless, the distinction between values emphasizing the individual and the collective is reflected, respectively, in the distinction between universalism (which promotes caring for all people regardless of group belonging) and tradition (which emphasizes the ingroup). The unexpected but robust association between tradition values and HD opposition may reflect people's thinking about the ingroup's needs. Specifically, people with high tradition values see the collective as important and may assign more importance to the perceived needs of the ingroup at the expense of individuals, thereby focusing on perceived threats to the group and opposing the HD despite the benefits to individual hostages.

Finally, security values were expected to predict HD opposition because of risks associated with releasing convicted terrorists and leveling off the fight with Hamas. There was little evidence for this hypothesis. In fact, in Samples 2–3, security values related weakly and positively to HD support. The role of security may be complex if some think the HD will increase threat by releasing terrorists, while others believe the HD reduces threats to security, as it signals the government's commitment to the safety of every citizen. That is, some Israelis might be concerned that forgoing opportunities to release the hostages means that if they will ever be taken hostage, they would meet a similar fate. When we specifically measured national security values, they did relate to opposing the HD (Supplemental Table S13). This finding calls for further work on this topic assessing separately personal and national security values (Knafo & Schwartz, 2003), as does Schwartz's refined theory of values (Schwartz et al., 2012).

Our expectations and analytic approach depended on our inferences about which value-opinion associations constitute compatibility. However, as with security values, alignment between values and HD opinion can be construed in different ways (Maio et al., 2014), and so our findings should be interpreted with some caution. For example, conformity could mean emphasizing the needs of society or the collective (as we predicted), but it could also mean adhering to traditional Israeli solidarity, where as a small state people are expected to help each other and ensure no one is left behind. Thus, because value-opinion alignment could be construed in different ways, accordance with the predicted alignment does not always mean that participants' attitudes to the issue are aligned with their own values, and discordance with the predicted alignment does not always mean that participants' attitudes are incongruent with their own values. Therefore, competing possibilities may have mitigated some value-opinion associations or even rendered them null.

The complexity of predicting the specific association between values and opinions can also be exemplified with tradition values. Tradition values could mean, for many Israeli Jews, the need to emphasize the high importance given to releasing hostages in Jewish heritage (Rotman, 2012). At the same time, reflecting the historical context of Judaism, tradition may connect to the ethos of persecution of Jews over the centuries, leading people high in tradition values to be warier of solutions that may be perceived as risking the safety of the collective. This may be one reason for which, of all conservation values, tradition is the one relating to opposing the HD.

While values relate to opinions (Grigoryan & Schwartz, 2021; Maio et al., 2009; Nir & Knafo, 2009), other factors, such as religiosity, empathy, and political partisanship may influence HD opinion. Although gender, education, age, and religiosity related to HD opinions, universalism and tradition remained significant predictors of HD opinions, even when controlling for these variables (though values' effects were stronger in the more representative samples), suggesting that values may guide opinions beyond demographics.

Emotional empathy was weakly but consistently associated with HD support, although universalism predicted HD opinion independent of the effect of empathy. Notably, we measured empathy as a trait (Davis, 1983), but studying state empathy, for example, reacting to specific groups (e.g., hostages, displaced people in Israel or Palestine), may have shown stronger or more nuanced links with HD opinion.

Prewar political alignment and voting history were also linked to HD opinion. While values align with political ideology in Israel—universalism with humanistic liberalism and tradition with traditional conservatism—our findings reveal distinct patterns for these two values. Universalism consistently predicted HD support across political groups and remained a significant predictor when controlling for political orientation. By contrast, tradition did not predict HD opinion beyond political alignment, suggesting that tradition's effect may partly reflect political partisanship. Indeed, our longitudinal results suggest that partisan cue taking may also shape HD opinions, with opinion shifts reflecting coalition dynamics. Most coalition voters who changed their stance increased support, but Religious Zionist party voters, whose leaders called the HD "reckless," were more likely to decrease support. Though voting behavior is value laden, and research has shown that basic values predict subsequent voting behavior rather than the reverse (Vecchione et al., 2013), partisanship can shape values (Druckman et al., 2013; McCann, 1997). Therefore, future research should explore the transactional relationships between political alignment, values, and evolving policy opinions over time (Vishwanath, 2025).

An alternative explanation for our findings is that HD opinion influenced values rather than the reverse. While values can shift in response to major life events like war (Daniel et al., 2013), they are typically highly stable, making it unlikely that a novel, fluid issue would reshape them (Vecchione et al., 2016). Thus, it is less likely that support for a potentially fluid issue (Keath & Magdy, 2025; Scheindlin, 2025) would reshape enduring values. Although full longitudinal cross-lagged data would better address causality, our longitudinal analyses do support the role of values in HD opinion. Sample 5 data showed that values assessed early in the war—before the Israeli army entered Gaza and before a meaningful HD was publicly discussed—predicted HD opinion 12 months later and had similar associations with HD opinions 15 months later. Moreover, values related to opinion shifts, with higher universalism and lower tradition predicting continued HD support. These findings reinforce the idea that preexisting values may drive attitudes toward the deal rather than (only) the reverse.

Value coherence did not consistently influence the likelihood of having an opinion on the HD. Moreover, the values-opinion link was not stronger among those with high coherence. One possibility is that, as noted earlier, people may perceive the HD issue's relations to values in complex ways that make it difficult to be confident that there is one true value alignment. This complexity is a plausible reason why there was no consistent evidence that value coherence strengthens the values-opinion association. Another possibility is that value upheavals, such as those caused by major life events including war, can reignite identity formation processes (Branje, 2022) and change value priorities (Daniel et al., 2013). If such value shifts cause individuals to adopt values with competing motivations, at least temporarily, this incoherence could reflect strong opinions about the HD that were not aligned with a coherent value system. Alternatively, those with lower coherence may rely on a relatively limited set of values, making their opinions more directly tied to those values. This is the first investigation of the role of value coherence in attitude formation, to the best of our knowledge, and more research is needed to address these different alternatives. One important direction is the longitudinal finding that people who changed their HD opinion had lower value coherence. This echoes recent findings that children high in value incoherence are more likely to change their values with development (Daniel et al., 2025). Future research should explore the possibility that in times of upheaval, such as war, or developmental transitions, these dynamics may become even more pronounced, with coherent individuals showing greater consistency and those with lower coherence relying more heavily, but perhaps inconsistently, on a few core values.

Opinion certainty was predicted by the interactions between values and HD opinion. Specifically, HD proponents were more certain if they were high in universalism, whereas people opposing the deal were more certain if they were high in tradition. While past work has provided evidence that when individuals perceive (or are led to perceive) their opinions as based on values they are more certain in their opinion

(Blankenship et al., 2022; Conner, van Harreveld, & Norman, 2022; Luttrell & Togans, 2021), the current work took a different approach by referring to different combinations of values and HD opinion as reflecting different degrees of values-opinion fit. Less fitting opinions (e.g., high universalism and HD opposition) were characterized by low certainty. When people feel their actions align with their values, and that they can reflect their values in their behavior, they may feel better about themselves and be more confident in their decisions (Hanel et al., 2024). Our longitudinal analyses suggest that individuals with higher fit (e.g., high universalism and HD support) were less likely to change their opinion with time (Figure 7). Moreover, for the first time, we provide evidence that the role of value-opinion fit in opinion stability is mediated by the certainty that characterizes opinions fitting a person's values. This serves as a plausible causal model whereby values may both guide opinions and serve as a framework for evaluating the opinion and judging its certainty, affecting the likelihood of further opinion change.

A key strength of this study is its timely investigation of how values shape attitudes toward a dynamic political issue with broad social implications. With a diverse sample of over 7,000 participants across different stages of the war, the findings are robust, offering insights that extend beyond a single moment in the conflict. Despite the evolving nature of the HD—including negotiation terms, conflict events, new information regarding the hostages, and political pressures (Keath & Magdy, 2025; Scheindlin, 2025)—the associations between values and HD opinion remained largely stable across samples and over nine eventful weeks. The longitudinal design of Sample 5 further reinforces the role of values by tracking opinion stability and shifts over time in response to political developments.

Despite its strengths, this study has limitations. Constraints on generality are an issue. The study's focus on the Hamas–Israel war may limit generalizability to other contexts despite its theoretical significance. Additionally, as it was conducted in Israel, Palestinian perspectives were not examined. Factors such as prisoner release and humanitarian aid may shape Palestinians' HD opinions, and how values relate to their opinions similarly remains a question for future research, as do the specific values related to their opinions.

The evolving nature of the war introduced some methodological challenges, as survey questions were added or removed at different time points, which may have affected response consistency across samples. This can be observed in the weaker value-opinion associations in the less demographically diverse Samples 1 and 4. Still, the associations between values and opinion were generally replicated in these samples too. Additional methodological changes such as updating the HD description and adding the attitude scales had little effect on the results, increasing confidence in the findings.

The absence of a full cross-lagged panel design limits definitive causal conclusions. Although, as noted, it is unlikely that HD opinion affected values, and demographic variables did not account for the effect of values, it is impossible to completely rule out the role of third variables. Specifically, while the study establishes values as meaningful predictors of opinion, partisan alignment and shifts in political leadership may (at least partially) overshadow personal values in shaping opinions, a topic to be addressed in future longitudinal work.

Another limitation is that the opinion scale included only three response options (in favor, undecided, against) and therefore may have missed nuance in the degree of support or rejection of the HD. Nevertheless, our Wave 3 attitude scale (Sample 5), which assessed the degree of positive attitudes toward the HD, and which was strongly correlated with the opinion scale, was similarly related to Wave 1 values. Interestingly, our study findings provide some evidence for the multifaceted nature of attitude strength (Howe & Krosnick, 2017). Specifically, they highlight the distinction between opinion extremity (degree of supporting or rejecting the HD) and opinion certainty: While value importance predicts degree of support or rejection, its relationship with certainty is moderated by whether the value aligns with one's opinion. More work is needed to examine the role of values in additional aspects of attitude strength.

The high saliency, responsiveness to daily events, international visibility, and moral implications make the HD a topic whose understanding is relevant to other high-profile policy issues involving human lives, such as euthanasia, response to pandemics, large-scale natural disasters, collateral damage dilemmas in the war on terror, and nuclear nonproliferation agreements. The findings have practical implications for designing effective campaigns. For instance, they suggest that the motivations underlying HD opposition may be less about national security and more about the importance of the collective. This insight indicates that framing the HD in ways that resonate with tradition values, such as emphasizing solidarity, mutual responsibility, and national resilience, could potentially bridge divides and affect public opinion.

Although the study is context specific, its broader theoretical contribution lies in demonstrating the stability and role of values in predicting public opinion formation, particularly regarding evolving, complex issues. The findings suggest that when individuals encounter a dynamic, developing dilemma (such as the new HD), they may revert to their values to establish their opinion. Theoretically, our results align with and extend Schwartz's theory of basic human values (Sagiv et al., 2017), confirming the expected relationships between universalism, power, and political attitudes in times of conflict. Further, the study suggests that coherence in the value system, and not only the importance of specific values, has a role in opinion formation. Last, our results demonstrate that value-opinion associations do not reflect a one-time decision, but an ongoing process, as values

predict opinions, certainty, and opinion change over time. This study highlights that values do not just reflect ideological positions—they are intrinsically connected to opinion formation and stability. Thus, the study provides new avenues for research regarding the role of values in opinion formation.

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Appendix

Details of the Individual-Level Value Coherence Measure

Value coherence was calculated for each individual using the formula shown in Equation A1:

$$\text{Coherence} = \Sigma_{ij}(Z_i \times Z_j \times R_{ij}), \tag{A1}$$

where Z_i is the within-sample standardized score of an individual on value i, Z_j is the standardized score on value j, and R_{ij} is the benchmark correlation between i and j as defined below. The score aggregates across 45 unique value pairs (Maslamani et al., 2025). Higher scores indicate greater alignment between an individual's personal value intercorrelations and the prototypical circular structure.

Construction of the Benchmark Correlation Matrix for Value Coherence

To operationalize value coherence, we needed a prototypical correlation matrix that reflects the expected circular structure of values. The following steps summarize how this matrix was derived.

Data Sources

1. *European Social Survey:* We used data from 38 countries across nine rounds of the European Social Survey (2002–2018; N = 411,904), where values were measured with the Portrait Values Questionnaire–21.
2. *Schwartz Value Survey:* Correlation matrices were provided by Shalom H. Schwartz (personal communication, January 10, 2022) based on university student samples from 15 countries (N = 7,115).
3. *PVQ-RR Samples:* Schwartz also provided data from 17 near-representative national samples using the PVQ-RR (N = 17,888).

Centering and Averaging

Following Schwartz's recommendation (Schwartz & Rubel-Lifschitz, 2009), we centered value scores within individuals before computing correlations, thereby reducing the general positivity bias and yielding more differentiated structures. Correlations within each sample were Fisher transformed, averaged across the three data sets, and then retransformed to r values.

Empirical Benchmarks

Across the three data sets, each using a different measurement method, the pattern of correlations by motivational distance was strikingly consistent. The correlation matrices from the three studies corresponded very highly ($\rho > .87$), underscoring the stability and replicability of the prototypical structure across instruments, populations, and samples.

As Schwartz emphasized, the theory specifies the order of values around the circle rather than assuming strict equidistance.

(*Appendix continues*)

Nonetheless, these benchmarks offer a robust empirical approximation of the prototypical structure across diverse data sets. Below appear the mean correlations used, as well as the range of mean correlations derived from the three data sets.

- Same wedge (same higher order wedge, e.g., benevolence–universalism): $r = .26$ (.21 to .32)
- Adjacent but different wedge (e.g., benevolence–tradition): $r = .07$ (.03 to .09)
- Two steps apart (e.g., benevolence–conformity): $r = -.02$ (−.05 to .00)
- Three steps (e.g., benevolence–security): $r = -.15$ (−.12 to −.17)
- Four steps (e.g., benevolence–power): $r = -.32$ (−.31 to −.33)
- Five steps (maximally opposed, e.g., benevolence–achievement): $r = -.37$ (−.35 to −.39)

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