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RECEIVED 12 July 2024  
ACCEPTED 10 February 2025  
PUBLISHED 14 March 2025

CITATION  
Avidor S and Shmotkin D (2025) Political  
orientation and mental health during a  
socio-political crisis in Israel: the intermediary  
role of the hostile-world scenario.  
*Front. Soc. Psychol.* 3:1431395.  
doi: 10.3389/frsps.2025.1431395

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# Political orientation and mental health during a socio-political crisis in Israel: the intermediary role of the hostile-world scenario

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**Introduction:** There are still unanswered questions regarding psychological underpinnings of political orientations, especially in time of political rifts. This study examined differences in mental health (wellness and distress) and attitudinal concomitants (behavioral intentions and concerns over core social issues) between leftists and rightists in Israel, during a socio-political crisis over the right-wing government's attempt, in 2023, to conduct a judicial overhaul. The theoretical model of the hostile-world scenario (HWS), referring to an image of major threats in life, was applied as a psychological construct that might link political orientation with mental health.

**Method:** A convenience sample was administered online questionnaires. Following a case-control matching, groups originally included self-declared 264 leftists, 258 centrists, and 264 rightists (mean age = 54, *SD* = 16).

**Results:** Discriminant analysis found leftists strongly separated from rightists on both intentions and concerns. Centrists also came up as a separate group, but with weaker discriminant functions, and thus were not included in subsequent analyses. Leftists and rightists did not differ in wellness (life satisfaction, positive affect, purpose in life, personal growth), yet leftists had higher distress (negative affect, anxiety, depressive symptoms). Notably, the HWS positive engagement mode (rather than the parallel HWS negative engagement) was a consistent mediator between political orientation and all the mental health indicators, suggesting that links between political orientation and mental health were largely explained by a self-reassuring approach toward harsh representations of the hostile world. Such an approach appeared stronger among rightists. Analyses were conducted with, as well as without, controlling for religiousness and education, as they emerged as major concomitants of political orientation.

**Discussion:** Current findings may shed light on coping styles that are differentially preferred by leftists and rightists, with consequences emerging not just in social spheres, but also in terms of mental health on the individual level.

## KEYWORDS

political orientation, socio-political crisis, mental health, distress, hostile-world scenario

## Introduction

Political orientations have been found to entail facets of identity, generators of behaviors, modes of thought, and emotional reactions (Jost and Amodio, 2012). As political polarization has largely increased worldwide (Reiljan, 2020), it is particularly important to understand political orientation in an atmosphere of ideological divisions and socio-political crises. In this study, we examined differences in mental health indicators between

people who identified as leftists, centrists, and rightists in Israel during the height of the political rift that gripped the country surrounding the far right-wing government's effort to conduct a controversial judicial overhaul in 2023. Prior to this examination, we explored whether the self-assignment into distinct political orientations could be validated by pertinent behavioral intentions and concerns over core social issues. Lastly, we relied on the theoretical model of the *hostile-world scenario* (HWS; Shmotkin, 2005) as a pertinent frame for outcomes of mental health and distress. Particularly, we applied the HWS as a psychological construct that might link political orientation with mental health. Notably, this study is rooted in the unique circumstances of Israeli politics, which is molded by deep societal divisions as well as the Israeli-Palestinian conflict. However, the current study appears to hold importance beyond the Israeli context, as political rifts and polarization bear consequences not just in social spheres, but also at the individual level of coping and mental health.

## Differentiating between left and right political orientations

Defining political orientations as left and right (or liberal and conservative, as they are alternatively referred to) has been a long-standing question. Traditionally, leftists spurn inequality and promote social change that could benefit others, while rightists accept inequality, support order and tradition, and oppose social change (Jost, 2009). Rightists are usually more patriotic, religious and traditional than leftists (Hirsh et al., 2013) and tend to have fewer years of education (Weakliem, 2002). However, political orientations are not just affinities with political attitudes and certain segments of society, but rather represent distinct, and often opposing, modes of thought and emotion (Napier and Jost, 2008).

Research has shown that ideological orientations are manifestations of corresponding motivations, personality traits, and even genetic and neurocognitive dispositions (Choma et al., 2012; Katabi et al., 2023; Zebarjadi et al., 2023). Rooting political ideology in distinct motivations, it has been proposed that conservatism is associated with intolerance for ambiguity, inhibition, and avoidance, while liberalism is linked with openness to experience, activation and approach (Janoff-Bulman, 2009; Sargent and Newman, 2021). Furthermore, the model of political ideology as motivated social cognition posits that a conservative political orientation fulfills psychological needs and coping among those with high death anxiety, fear of threat and loss, and personal need for closure and order (Jost, 2009). Studies also revealed that leftists, in supporting conciliatory policies, were more influenced than rightists by emotional states such as empathy, despair, or fear (Pliskin et al., 2014).

The multiple psychological concomitants, as mentioned above, raise the question whether the broad concept of mental health is sufficient for conceptualizing core differences between political orientations. Models of mental health depict a complex construct with various facets, including positive emotions and subjective wellbeing, among others (Vaillant, 2012). Positive mental health is not merely lack of mental illness (Iasiello et al., 2020), but

it does involve a relative freedom from anxiety and distress (Galderisi, 2024). In this dual vein of wellbeing and distress, scientists have delineated a clear pattern of differences: While leftists tend to be more depressed, rightists tend to be happier and report higher levels of meaning in life (Newman et al., 2019). The effect size of this wellbeing gap is usually small (Onraet et al., 2017), yet this association between political orientation and wellbeing appears robust, and persists even when controlling for demographic differences (Napier and Jost, 2008). Paradoxically, at the national level, countries characterized by more liberal, or left-leaning, governments and policies, showed higher levels of wellbeing (Okulicz-Kozaryn et al., 2014). In this line, while societal inequalities were associated with lower subjective wellbeing, the individual happiness of rightists appeared less negatively associated with inequality (Napier and Jost, 2008). Additionally, in countries with high levels of threat, rightists had higher wellbeing than leftists (Onraet et al., 2017). These gaps in wellbeing are possibly due to the fact that a right-wing ideological orientation provides a lens through which inequality can be rationalized, and a sense of stability and safety can be maintained. Also, rightists are more religious and tend to identify with higher-order moral beliefs, and thus may have a stronger sense of confidence that facilitates a more positive outlook and better wellbeing (Onraet et al., 2017; Schlenker et al., 2012).

The fundamental divergences between left and right political orientations seem acutely germane in situations of rising polarization and divisions that cannot be compromised (Brown and Enos, 2021; Reiljan, 2020). This rift probably contributes to the mutual intolerance of people of opposing political orientations (Crawford and Pilanski, 2014). Such growing alienation and discord might affect leftists and rightists differently, as each group responds differently to adversity and may adopt discordant interpretations for polarized political crises.

## The Israeli context

Israel is an apt context for examining psychological outcomes of political orientations under conditions of a socio-political chasm. Israel is characterized by a multi-party system, made up of a fragmented, often shifting, party structure (Rahat and Hazan, 2005). Furthermore, the Israeli-Palestinian conflict, which appears chronically unresolved (Hirsch-Hoefler et al., 2021), has heavily shaped Israeli politics, particularly since the occupation of the West Bank and Gaza following the 1967 6-Day War (Oshri et al., 2022). Therefore, being rightist or leftist in Israel mostly revolves around ideological stands regarding control of these territories and a possible compromise with the Palestinians (Yakter and Tessler, 2023). A pertinent development related to the Israeli-Palestinian conflict—parallel to a consistent dwindling of the political left—is the emergence of a strong political center in Israel, mirroring a similar shift toward the center in European countries (Knutson, 1998; Rodon, 2015). Another interesting question is how the main political ideological blocs in Israel differed in relating to the political crisis that took hold in Israel for most of 2023, up until the mega terrorist attack by Hamas on October 7 of that year, and the Israel-Hamas war that ensued.

The 37th, current government in Israel, led by Benjamin Netanyahu, is made up of extreme right and ultra-orthodox members. The turmoil deepened when, shortly after the swearing-in of the government in December 2022, a long line of judicial reforms were announced, intended to reduce the power of the Israeli supreme court and to weaken the system of checks and balances in the country. This soon led, in early 2023, to grand-scale protests against the government and the judicial plan. These included regular demonstrations involving hundreds of thousands of people all over the country, high-ranking military officers announcing that they would not report for duty if the government's proposal should go through, and even a day-long general strike led by the country's chief workers' union. Due to the animosity between those opposing the government (mostly leftists and centrists) and those supporting it (rightists), Israel was said to be facing its most socially and emotionally polarized period since the 1990s (Elran and Michael, 2023).

An ongoing crisis of this magnitude should carry significant psychological implications for people from all sides of the political map in Israel, although, as based on previous literature, these might differ between leftists and rightists. Notably, it was difficult to foresee these outcomes for centrists due to the dearth of studies on this political section. Indeed, recent studies have shown that people opposed to the judicial reforms reported significant levels of distress, including symptoms of anxiety, depression, and substance use following the attempted judicial overhaul (Tsur et al., 2024). Also, a longitudinal study revealed that while the sense of safety and national resilience had risen among those who supported the government, it decreased among those who opposed it (Kimhi et al., 2023).

The dramatic socio-political crisis described above seemed to ebb in the shadow of the surprise mega attack by Hamas on October 7, 2023, and the war that followed. Yet, it is safe to say that the political divisions in the Israeli scene have not disappeared, but were rather held down temporarily in the interest of focusing on the war and its rising toll. Presently, more than a year into the war, the rift between left and right over the judicial reform has reemerged, including the dispute about the very legitimacy of the current government to lead cardinal changes in the judicial and political structure, particularly in perilous times (Peleg et al., 2024). Thus, the political chasm has continued, as evident in a discourse of division and animosity. This was also reflected in the political orientations of Israelis, which seemed to remain firm after the attacks and the war. Thus, in a representative sample that was interviewed before the war, and again 2 months after the war began, most respondents endorsed the same political orientations as they did previously: 46% identified as rightists; 26% as centrists, and 16% as leftists. Furthermore, the level of hostility between right-wing and left-wing voters did not change following the war (Institute for Liberty and Responsibility, 2023). Hence, despite the stormy change of a bitter war, the current research questions still maintain their relevance to the peculiar conditions in Israel. Additionally, as emerging from the conceptual considerations presented next, the relations of political orientations with mental health still warrant further investigation for the sake of a broader, universal perspective.

## The hostile-world scenario as a mode of coping in the face of adverse conditions

Political orientations are often rooted in fears and worries regarding the future (Jost and Amodio, 2012). This is particularly true under conditions of political strife, where each political bloc considers its position as essential to a struggle for the identity and integrity of their country (Iyengar et al., 2012). Therefore, when aiming to understand differences between leftists, centrists, and rightists in terms of coping modes during a socio-political crisis, it can be beneficial to consider psychological mechanisms that may regulate one's coping with such a situation. As applied in this study, the HWS can serve as a pertinent conception in these considerations. Incorporated in a larger model on pursuing happiness in a hostile world (Shmotkin, 2005; Shmotkin and Shrira, 2012), the HWS is defined as the mental image of self-perceived threats to one's physical or mental integrity. Thus, the HWS is actually an aggregate of one's self-beliefs about major threats in life (e.g., disaster, war, illness, accidents, loss or breakup of close relationships, economic deprivation, aging, death). By maintaining awareness of these actual or potential threats, the individual's HWS may scan, or monitor, the environment for sources of adversity. This scanning function operates through social-cognitive processes, such as priming and framing (Molden, 2014; Strack and Schwarz, 2016; Sullivan, 2023), by which HWS-based beliefs enhance the salience and accessibility of representations linked with adversities at large (Riskind and Calvete, 2020). Thus, having higher perceptions of negative HWS predicted later declines in physical and mental health (Shmotkin et al., 2016), indicating the existence of implicit knowledge that one holds regarding possible adversities to come. In this role, the HWS induces vigilance and prudence necessary for existence and self-protection in a world that is constantly challenged by impending dangers (Shmotkin, 2005). This is in line with a classical body of literature that underscores the adaptational value of negative feelings and attitudes which may be regarded as social signals and modes of coping (Billings et al., 2000; Folkman and Moskowitz, 2000; Smith and Lazarus, 1990). Thus, while the HWS reflects one's vulnerability by increasing awareness of adverse eventualities, its activation may be crucial in motivating the individual to cope, and ultimately restore wellbeing. Accordingly, the HWS embeds two complementary modes of coping. The first, termed as *negative engagement* with HWS representations, involves negative reactions (e.g., anxiety, disturbing preoccupation, pessimism) which lower one's competence. The second, termed as *positive engagement* with HWS representations, involves proactive reactions (e.g., caution, prevention, optimism) which enhance one's competence (Bergman et al., 2021; Shrira et al., 2011). Both negative and positive engagement have been shown to have unique, non-redundant relations with mental health (Shmotkin and Bluvstein, 2024).

The HWS is implicated in key mental health outcomes in various adverse contexts. Thus, as shown in a nationwide sample of older adults, the HWS could predict future outcomes (Shmotkin et al., 2016) as well as detect past declines (Lifshitz et al., 2020) in physical and mental health. Likewise, it has been shown to mediate between a Holocaust background and mental health in community (Shrira, 2015) and gay men (Shenkman et al., 2018) samples. The

HWS also delineated themes of threats that were contingent upon sexual orientation (Shenkman and Shmotkin, 2013). It has also been shown to play a moderating role in connections of worries regarding the coronavirus pandemic with loneliness and anxiety (Bergman et al., 2021).

The notion of HWS can be likened to other models that call attention to the role of worldviews (Koltko-Rivera, 2004) in better understanding adjustment and coping in the face of adversity. One example is Janoff-Bulman's (1992) model about shattered assumptions following stressful life events, and the strategies that possibly restore, in response, a positive assumptive world. A parallel model is that of positive illusions (Taylor, 2011), proposing that illusory optimistic cognitions of the world, oneself, and the future, are a resource for beneficial coping. While these renowned models derive from fundamentally positive outlooks on the world, the HWS model focuses on an array of major threats in life, and thus induces an immediate, subjective realm of coping and adaptation. Furthermore, the negative and positive engagement modes, which were empirically embedded in the item pool that assessed the HWS, readily expose apparently contradictory, and yet complementary, mechanisms for handling the potentially hostile world. In this way, the two engagement modes correspond to the basic motivational vectors of approach and avoidance (Janoff-Bulman, 2009) as well to self-regulatory processes that underlie the endorsement of political orientations (Pliskin et al., 2014). As demonstrated by Jost (2009), the presence of threat is a key situational factor for the divergence between left and right orientations. This makes the HWS highly pertinent to this investigation as this conception explicates the individual's modes of engagement with centrally perceived threats in life. Therefore, we suggest the HWS as a psychological mechanism that may act as an intermediary in the links between political orientation and mental health.

Research showed that the HWS could have the role of either a moderating variable (Bergman et al., 2021) or a mediating variable (Shrira, 2015) in relationships between a presumably antecedent physical or mental condition (either objective or subjective) and certain mental health indicators. We therefore maintained an explorative approach as to the exact nature of the indirect effects that the HWS exerts in the link between political orientation and mental health. Applying the two statistical roles (Hayes, 2009), moderation in the present study may mean, for example, that political orientation would be associated with greater psychological distress among leftists, rather than rightists, only when their levels of HWS are higher (e.g., being negatively engaged in mental representations of threatening eventualities). As in this case, distinct levels of the moderator (HWS) may change the magnitude of the differential relationship of the two political orientation groups with mental health. On a different path, mediation may mean, for example, that the HWS entails a psychological mechanism (e.g., being positively engaged in alleviating representations of harsh threats) that explains how rightist, rather than leftist, political orientation is associated with greater psychological vigor. In this case, the mediator (HWS) may take part in the presumably causal pathway leading from the differing political orientation groups to mental health. Unlike the methodological assumption that was initially held

by Baron and Kenny (1986), there are circumstances where a mediating variable may also maintain a moderating role with the same independent variable (Valeri and VanderWeele, 2013). Furthermore, research showed that effects of political orientation on mental health indicators could be explained through both moderating and mediating factors (Stavrova and Luhmann, 2016; Yancey, 2023).

## Overview and hypotheses

The political rift and vast protest movement in Israel during 2023, following the judicial overhaul plans of the then new right-wing government, created psychological turmoil across Israeli society. It appears that even the attack by Hamas and the war that followed since October 7, 2023, have not changed political ideologies, or narrowed the mutual animosity between left and right. Thus, while the present study was conducted during the height of the socio-political crisis in 2023, prior to the war, it appears that the Israeli political chasm persists. Furthermore, while the Israeli context is unique in its characteristics, it is still an apt test case for examining mental health outcomes among different political camps during an acute political strife, particularly when many countries are coping with deepening political divisions. Hence, the local event, in the focus of this study, warrants a global perspective on widespread struggles of the rising radical right against declining liberal democracies (Öniş, 2017). In this context, the present study sought to gauge differences in mental health (by wellness and distress indicators) and other concomitants (behavioral intentions and concerns over core social issues) among the three major political orientations in Israel (left, center, and right) during a time of raging socio-political crisis. While the political center plays a considerable role in Israel, the literature indicates that the main ideological and psychological schism is between the political left and right. Notably, the study involved a psychological model that might account for such differences, namely the HWS. We formulated the following hypotheses:

- (1) Comparing adherents of the three major political orientations, leftist and rightist individuals would express the greatest differences on politically relevant matters.
- (2) Leftist individuals, involved in a grievous social rift, would reveal higher mental health vulnerability than rightist individuals.
- (3) HWS would have an intermediary role in the relationship of political orientation (left or right) with mental health, as either a moderator or a mediator.

## Method

### Participants and procedure

Data collection began in February 2023 (a few weeks after the beginning of the judicial overhaul by the then new Israeli government, and the formation of the ensuing protest movement in Israel) and ended in July 2023 (while the judicial overhaul



and the protest were still ongoing). Following approval of the institutional review boards at the authors' respective institutions (numbered 2023-162 L/b's and 6346-1), participants were recruited by convenience sampling through diverse acquaintances and social media platforms. Questionnaires were administered anonymously online via Qualtrics. Following their informed consent signatures online, participants filled out the questionnaires, the completion of which took 30–45 min. A total of 2,612 Jewish adults completed this online survey. Also completing this survey were 156 Israeli Arabs, but due to the distinct ideological and political stances of the Israeli-Arab community in the current political crisis, their data were retained for a separate analysis, to be reported later.

The participants were asked to identify their political orientation as *left*, *center*, or *right*. The distribution was heavily skewed, with 1,152 leftists, 1,074 centrists, and 386 rightists (the latter were evidently underrepresented; see comments in Discussion). Hence, in order to facilitate comparability of the groups, we conducted a matching process, case-controlled for age and gender, generating political orientation groups matched with the sample of rightists. With a tolerance factor of 0 for gender and 5 for age, case-control matching respectively yielded groups of 264 leftists, 258 centrists, and 264 rightists. The matched groups of rightists and leftists served as the study groups in the current analyses. Table 1 presents sociodemographic and other descriptive characteristics of these groups (for information on the characteristics of the matched centrist group, see Supplementary Table S1).

In the original, *non-matched* groups, there were significant age and gender differences. Thus, among leftists the mean age was 64.91 ( $SD = 12.06$ ), among centrists 65.01 ( $SD = 10.98$ ), and among rightists 44.76 ( $SD = 18.74$ ),  $F_{(2, 2510)} = 306.96$ ,  $p < 0.001$ . Also, among leftists and centrists the vast majority were female (82.2 and 79.8%, respectively), compared with 55.2% among rightists,  $\chi^2(2) = 122.40$ ,  $p < 0.001$ . Following the matching process, there were no significant differences between the study groups on age and gender. As Table 1 reports, the mean ages in the study groups approximated 54 ( $SD$ s were around 16). The matching also attenuated the female majority in the groups into ~63%. After the matching, there were no differences between the study groups also in an array of characteristics: place of birth, self-rated economic status, marital status, self-rated health, and having voted in recent election. Notably, two variables remained significantly different among the study groups: education and religiousness. As detailed in Table 1, education level was highest among leftists ( $M = 5.71$ ,  $SD = 0.69$ ) and lowest among rightists ( $M = 5.37$ ,  $SD = 0.90$ ). Also, on the religiousness spectrum, a vast majority of 95.8% among the leftists defined themselves as secular, whereas only 35.2% among the rightists did so. As largely reported by previous studies, such group differences have been found to be inherent in the distinct political orientations, as liberals (left leaning) tend to be more educated (Weakliem, 2002) and conservatives (right leaning) tend to be more religious (Nezlek and Cypryńska, 2022). Therefore, education and religiousness were retained in some of the current analyses as independent variables or as covariates.

TABLE 1 Sociodemographic and descriptive characteristics of the political orientation groups.

Variable	Leftists ( $N = 264$ )	Rightists ( $N = 264$ )	Difference tests
Age			$t_{(526)} = 0.96$ , $p = 0.168$
<i>M</i>	54.48	53.14	
<i>SD</i>	15.16	16.75	
Minimum	20	18	
Maximum	88	88	
Range <i>n</i> (%)			
18–45	87 (32.6%)	93 (35.5%)	
46–65	108 (41.0%)	103 (39.0%)	
66–93	69 (26.8%)	68 (25.8%)	
Gender <i>n</i> (%)			$\chi^2(1) = 0.00$ , $p = 1.00$
1. Female	165 (62.5%)	165 (62.5%)	
2. Male	99 (37.5%)	99 (37.5%)	
Place of birth <i>n</i> (%)			$\chi^2(1) = 3.01$ , $p = 0.083$
1. Israel	233 (88.3%)	219 (83.0%)	
2. Other country	31 (11.7%)	45 (17.0%)	
Education <i>n</i> (%)			
1. None	0 (0.0%)	1 (0.4%)	
2. Elementary	1 (0.4%)	1 (0.4%)	
3. Partial high-school	3 (1.1%)	5 (1.9%)	
4. High-school	20 (7.6%)	45 (17.1%)	
5. Student	23 (8.7%)	51 (19.4%)	
6. Academic	217 (82.2%)	160 (60.8%)	
<i>M</i>	5.71	5.37	$t_{(525)} = 4.86$ , $p < 0.001$
<i>SD</i>	0.69	0.90	
Self-rated economic status <i>n</i> (%)			
1. Not good at all	6 (2.3%)	5 (1.9%)	
2. Not so good	29 (11.0%)	25 (9.5%)	
3. Pretty good	83 (31.4%)	78 (29.5%)	
4. Good	105 (39.8%)	101 (38.3%)	
5. Very good	41(15.5%)	55 (20.8%)	
<i>M</i>	3.55	3.66	$t_{(526)} = 1.35$ , $p = 0.088$
<i>SD</i>	0.96	0.97	
Religiousness <i>n</i> (%)			$\chi^2(3) = 216.03$ , $p < 0.001$
1. Secular	253 (95.8%)	93 (35.2%)	
2. Traditionalist	9 (3.4%)	75 (28.4%)	
3. Religious	2 (0.8%)	86 (32.6%)	

(Continued)

TABLE 1 (Continued)

Variable	Leftists (N = 264)	Rightists (N = 264)	Difference tests
4. Orthodox	0 (0.0%)	10 (3.8%)	
Marital status n (%)			$\chi^2(1) = 0.01$ , $p = 0.921$
1. Not in a relationship <sup>a</sup>	69 (26.1%)	68 (25.8%)	
2. In a relationship <sup>b</sup>	195 (73.9%)	196 (74.2%)	
Self-rated health n (%)			
1. Not good at all	2 (0.8%)	3 (1.1%)	
2. Not so good	30 (11.4%)	27 (10.3%)	
3. Pretty good	71 (26.9%)	70 (26.6%)	
4. Good	105 (39.8%)	98 (37.3%)	
5. Very good	56 (21.2%)	65 (24.7%)	
M	3.69	3.74	$t_{(525)} = 0.57$ , $p = 0.284$
SD	0.96	0.98	
Voted in recent election n (%)			$\chi^2(1) = 0.29$ , $p = 0.588$
1. No	6 (2.3%)	8 (3.0%)	
2. Yes	258 (97.7%)	256 (97.0%)	

Leftists were matched to the rightist group on age and gender.

<sup>a</sup> Single, divorced, separated, or widowed. <sup>b</sup> Married, engaged, living together, or in a romantic relationship.

## Measures

### Life satisfaction

Life satisfaction was measured with the Satisfaction With Life Scale (SWLS; Diener et al., 1985). It contains five items that are general judgments of one's quality of life (e.g., "The conditions of my life are excellent"). Respondents rated items on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The respondents' scores were the mean of their ratings, with higher scores indicating greater life satisfaction. Alpha coefficients ranged between 0.87 and 0.89 in the three political orientation groups.

### Positive and negative affect

Positive affect (PA) and negative affect (NA) were measured with the Positive and Negative Affect Scale (Watson et al., 1988). PA and NA are measured separately, each by 10 items that tap recent emotional experiences, such as "pleased" and "proud" (PA) or "depressed" and "bored" (NA). Using a scale of 1 (*never*) to 4 (*often*), respondents were asked to note how often these feelings occurred in the past month. The respondents' mean ratings for the respective items of PA and NA made up the scores for each measure. Alpha coefficients ranged between 0.81 and 0.85 for PA, and between 0.88 and 0.90 for NA in the three political orientation groups.

### Psychological wellbeing

Two scales from the psychological wellbeing inventory (Ryff and Keyes, 1995) were used to measure two central dimensions of meaning in life: purpose in life and personal growth. Each measure was made up of 8 items, rated on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*). Items respectively represent a sense of aim and purpose (e.g., "I have a feeling of direction and purpose in life") and notions of development and growth (e.g., "life is a continuous process of learning, change, and growth"). Some items were negatively worded, and were reverse coded before the respective means of the items' ratings made up the measures' scores. Alpha coefficients ranged between 0.81 and 0.82 for purpose in life, and 0.74–0.77 for personal growth in the three political orientation groups.

### Anxiety

Anxiety was assessed with the Generalized Anxiety Disorder scale (GAD-7; Spitzer et al., 2006). It includes 7 items rated on a scale of 0 (*not at all*) to 3 (*almost every day*), assessing the frequency of anxiety symptoms over the past 2 weeks (e.g., "Worrying about different things"). The respondents' ratings were averaged, with higher scores indicating greater anxiety. Alpha coefficients were 0.90 in all three political orientation groups.

### Depressive symptoms

Depressive symptoms were measured with the Center for Epidemiological Studies—Depression scale (CES-D; Radloff, 1977). Composed of 20 items rated on a scale of 0 (*rarely or none of the time*) to 3 (*most or all of the time*), it assesses the frequency of symptoms associated with depression over the past week (e.g., "I felt depressed" and "I could not get going"). The items represented four factors: negative affect, lack of positive affect, somatic symptoms, and interpersonal distress. Four items were phrased positively (e.g., "I was happy") and were reverse coded. The respondents' ratings were averaged, with higher scores indicating greater depressive symptoms. Alpha coefficients ranged between 0.89 and 0.90 in the three political orientation groups.

### Hostile-world scenario

HWS was measured using a shortened version of the Hostile-World Scenario Questionnaire developed and validated on the basis of Shmotkin's (2005) model. It included items assessing self-beliefs about hostile-world representations, such as mass disasters, accidents, illness, war, loss of loved ones, economic deprivation, aging, and death. It comprised two dimensions: *negative engagement* (HWS-NE), implying the weakening of the individual's sense of competence in face of HWS representations (e.g., "I always expect the possibility that the worst things will happen"), and *positive engagement* (HWS-PE), implying the strengthening of the individual's sense of competence in face of HWS representations (e.g., "Successful coping with dangerous situations strengthens me"). In both HWS-NE and HWS-PE, items may reflect affective, cognitive, or behavioral reactions to HWS themes. The HWS-NE and HWS-PE measures were scored in this study by sets of 11 and 12 items, respectively. Respondents were

TABLE 2 Current scales of hostile-world scenario (HWS).

Negative engagement (HWS-NE)
1. In a time of war, I am in tremendous anxiety.
*2. I often think about my death.
3. I am very troubled by the possibility of being injured in a traffic accident.
*4. I constantly live in the fear that there will be more and more wars.
5. Even minor physical problems arouse doubts in me about my overall medical condition.
6. I am bothered by the thought that I will be dependent on others at old age.
7. Worries about the well-being of the ones close to me often trouble me.
*8. I think a lot about what would happen to me in a situation of possible disaster.
9. Every encounter with the death of human beings arouses great fear in me.
10. I always expect the possibility that the worst things will happen.
*11. It terrifies me to think how human beings' cruelty might hurt me too.
Positive engagement (HWS-PE)
1. I keep my usual mood even when disasters happen to other people.
2. It is precisely when I deliberately get myself into situations that are bad for me, that I gain the ability to overcome them.
*3. I do not occupy myself with thoughts about dangers that might happen to me.
4. Successful coping with dangerous situations strengthens me.
*5. I believe that the kindness and generosity in human beings will eventually prevail over evil and cruelty.
6. I feel that I have a great deal of control over what is expected to happen to me.
7. I regularly maintain my physical fitness.
8. I have no problem to accept my death when it comes.
9. I treat with humor even possible dangers and threats.
*10. Even when I have negative feelings, I manage to think of good things.
*11. No difficulty in life despairs me.
12. I keep a suitable diet.

HWS-NE and HWS-PE items were randomly mixed during administration. Asterisk items were respectively included in the HWS-NE-derived and HWS-PE-derived ad-hoc scales. See text for details on the Hostile-World Scenario Questionnaire as well as for references about its uses in previous research.

asked to rate how well each item applied to them, on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scores were the mean ratings for the respective item sets. Alpha coefficients ranged between 0.83 and 0.84 for HWS-NE and 0.65–0.74 for HWS-PE in the three political orientation groups. The current item sets are presented in [Table 2](#). For further examples of using these HWS measures, see [Shmotkin and Bluvstein \(2024\)](#), [Shrira \(2015\)](#), and [Shrira et al. \(2011\)](#).

### Political liberalism

Participants indicated how liberal their political stance was on a scale of 1 (*conservative*), 2 (*moderate*) and 3 (*liberal*).

### Behavioral intentions

Intention to be politically involved was measured by asking participants to rate the likelihood that they would participate in each of six core political activities on a scale of 1 (*have no intention to participate at all*) to 5 (*certainly intend to participate*). Some items expressed support for the current right-wing government or adjacent causes (e.g., “strengthening the settlements in Judea and Samaria,” referring to the Jewish names of the West Bank area) while others aligned with the political left (e.g., “promoting Israeli-Palestinian peace”).

### Concerns over social issues

Concerns over core issues that pertained to Israeli society (e.g., “Changes in the status of the Israeli judicial system”) were measured with a list of 10 items. Participants were asked to rate how concerned they were with each issue on a scale of 1 (*not concerned at all*) to 5 (*very concerned*).

Sociodemographic and descriptive information was obtained by queries whose categories are specified in [Table 1](#). All measures were administered in Hebrew, and those originally designed in English had been systematically translated and validated in previously published studies.

### Analytical approach

Analyses were conducted using IBM SPSS Statistics, version 29. In order to validate the participants' self-declared political position and to confirm differences among the three political orientation groups on politically relevant matters, discriminant analyses of the matched groups were respectively conducted for two clusters of politically relevant variables (intentions and concerns). We then computed Pearson's correlations between the main variables in each group. Next, we compared the focal study groups (leftists and rightists), using two-way multivariate analyses of variance (MANOVAs) with disparate mental health indicators as dependent variables in respective clusters of wellness, distress, and HWS engagement modes. Religiousness (dichotomously collapsed into 1 = secular, 2 = non-secular) and education (collapsed into three categories of 1 = high school education or less, 2 = student, 3 = academic education) served as independent variables alongside political orientation.

Lastly, in order to better account for contrasts between the leftist and rightist groups, the PROCESS macro for SPSS ([Hayes, 2012](#)) tested the moderating role (Model 1) of the HWS engagement modes in the associations between political group and mental health indicators. In parallel, PROCESS also tested the mediating role (Model 4) of the HWS engagement modes in the same associations. Designed and developed for such purposes ([Demming et al., 2017](#); [Hayes, 2009](#)), PROCESS Macro facilitated multiple moderation and mediation analyses and provided options for probing moderation and the use of bootstrapping in testing mediation ([Hayes, 2017](#)). Analyses were conducted twice: once while adjusting for education and religiousness, and once more without adjusting for them. This method was adopted in order to disentangle the effects of these covariates on potential moderators

and mediators in the regression models. Such a dual-track method of analysis was previously suggested in order to deal with confounding factors that maintain correlations with both the independent and dependent variables, and yet are not assumed, in the examined model, to be part of the causal pathway between those variables (Jager et al., 2008; Rhodes et al., 1999). In addition, this method may also monitor the risk of overadjusting particular factors that present apparently inextricable features of the independent variable (Morrow et al., 2022).

## Results

### Discriminating the study groups by politically relevant variables

While the participants' self-assignment into leftists, centrists and rightists was rooted in the Israeli public discourse, the results corroborated this classification by other, closely related responses. Thus, participants who described themselves as "liberal" (rather than "moderate" or "conservative") included 90.8% of leftists, 68.9% of centrists, and 26.3% of rightists. Also, those who reported they either "intended" or "certainly intended" to protest against the current right-wing government included 93.5% of leftists, 70.1% of centrists, and 6.9% of rightists. A further discriminant analysis, whose full report is beyond the scope of the current paper, revealed that the three political orientation groups were significantly differentiated by their behavioral intentions regarding participation in six political activities as well as by an array of concerns regarding core social issues. The group of centrists, although still differentiated from that of the leftists or the rightists, yielded considerably weaker discriminant functions. Thus, scores on the discriminant functions relating to behavioral intentions accurately classified participants into their actual groups in 78.4% of the leftists, 81.8% of the rightists, but only 53.5% of the centrists. Also, scores on the discriminant functions relating to concerns over core social issues accurately classified participants into their actual groups in 70.5% of the leftists, 81.4% of the rightists, but only 43.0% of the centrists. These results supported the first hypothesis, showing that self-declared leftist and rightist individuals consistently expressed the greatest differences on two clusters of politically relevant matters. Therefore, and for the sake of parsimony and clarity, the subsequently reported analyses directly address the major contrast between leftists and rightists (a detailed examination of the centrist faction in our survey will be reported separately).

### Comparing the study groups on mental health and hostile-world scenario

Zero-order Pearson's correlations between the main study variables were separately computed for the two study groups (leftists and rightists), as can be seen in Table 3. Along with the aforementioned group differences in education and religiousness, there were also different correlation patterns with these variables. For rightists, as compared with leftists, education, and particularly

TABLE 3 Zero-order correlations among leftists (above the diagonal) and rightists (below the diagonal).

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Life satisfaction	-	0.48***	0.57***	0.38***	-0.15*	-0.17**	-0.31***	-0.20**	0.30***	0.15*	0.14*
2. Positive affect	0.40***	-	0.51***	0.45***	-0.30***	-0.30***	-0.52***	-0.17*	0.46***	0.01	0
3. Purpose in life	0.51***	0.57***	-	0.61***	-0.13	-0.19**	-0.35***	-0.29***	0.40***	0.24***	0.15*
4. Personal growth	0.29***	0.50***	0.59***	-	-0.07	-0.05	-0.21**	-0.07	0.32***	0.25***	0.09
5. Negative affect	-0.36***	-0.26***	-0.32***	-0.19**	-	0.75***	0.71***	0.46***	-0.42***	0.07	-0.07
6. Anxiety	-0.39***	-0.26***	-0.35***	-0.15*	0.77***	-	0.78***	0.51***	-0.37***	-0.05	-0.09
7. Depressive symptoms	-0.54***	-0.39***	-0.47***	-0.27***	0.75***	0.79***	-	0.47***	-0.42***	0.09	-0.08
8. HWS-NE	-0.28***	-0.13	-0.20**	-0.13	0.48***	0.46***	0.53***	-	-0.42***	-0.05	-0.11
9. HWS-PE	0.31***	0.49***	0.42***	0.39***	-0.37***	-0.26***	-0.37***	-0.29***	-	0.05	0.11
10. Education	0.08	0.11	0.29***	0.14*	-0.02	-0.10	-0.13*	-0.17**	0.08	-	-0.05
11. Religiousness	0.05	0.13	0.24***	0.27***	-0.17*	-0.21**	-0.25***	-0.18**	0.05	0.06	-

HWS, hostile-world scenario; NE, negative engagement; PE, positive engagement.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .



**TABLE 4** Two-way multivariate analyses of variance predicting wellness, distress, and hostile-world scenario by political orientation group and level of religiosity.

Predicted variable		Leftists		Rightists		Multivariate Wilks' lambda	$F_{(1,405)}(\eta^2)$ Political orientation	$F_{(1,405)}(\eta^2)$ Religiousness	$F_{(1,405)}(\eta^2)$ Political orientation X Religiousness
		M	SD	M	SD				
Wellness						Political orientation: 0.92 ( $p < 0.001$ ); Religiousness: 0.95 ( $p = 0.005$ ); Political orientation X Religiousness: 0.99 ( $p = 0.596$ )			
Life satisfaction	Secular	4.96	1.09	4.99	1.31		2.00 (0.01)	8.70** (0.02)	2.38 (0.01)
	Non-secular	5.95	0.62	5.3	1.11				
	Total	4.99	1.09	5.18	1.19				
Positive affect	Secular	3.36	0.57	3.39	0.73		0.68 (0.00)	0.62 (0.00)	0.30 (0.00)
	Non-secular	3.39	0.45	3.55	0.59				
	Total	3.36	0.56	3.49	0.65				
Purpose in life	Secular	4.54	0.74	4.49	0.77		1.73 (0.00)	10.50** (0.03)	1.03 (0.00)
	Non-secular	5.14	0.4	4.81	0.69				
	Total	4.56	0.74	4.69	0.73				
Personal growth	Secular	4.82	0.65	4.71	0.69		2.26 (0.01)	6.91** (0.02)	0.40 (0.00)
	Non-secular	5.23	0.59	4.96	0.63				
	Total	4.84	0.65	4.87	0.67				
Distress									
Negative affect	Secular	2.94	0.82	2.18	0.84		21.75*** (0.05)	1.68 (0.00)	0.05 (0.00)
	Non-secular	2.7	1.06	2.01	0.71				
	Total	2.93	0.83	2.07	0.76				
Anxiety	Secular	2.5	1.05	1.9	1.02	7.33** (0.02)	5.08* (0.01)	0.30 (0.00)	
	Non-secular	1.98	0.77	1.59	0.66				
	Total	2.48	1.04	1.7	0.83				
Depressive symptoms	Secular	2.02	0.52	1.67	0.46	10.17** (0.03)	4.46* (0.01)	0.23 (0.00)	
	Non-secular	1.78	0.55	1.52	0.41				
	Total	2.01	0.52	1.58	0.43				
Hostile-world scenario						Political orientation: 1.0 ( $p = 0.903$ ); Religiousness: 0.99 ( $p = 0.038$ ); Political orientation X Religiousness: 1.0 ( $p = 0.337$ )	$F_{(1,476)}(\eta^2)$ political orientation	$F_{(1,476)}(\eta^2)$ religiousness	$F_{(1,476)}(\eta^2)$ political orientation X religiousness
HWS-NE	Secular	3.04	0.74	2.99	0.81		0.17 (0.00)	4.07* (0.01)	0.63 (0.00)
	Non-secular	2.66	0.64	2.82	0.73				
	Total	3.03	0.74	2.88	0.76				
HWS-PE	Secular	3.23	0.54	3.42	0.53		0.00 (0.00)	4.81* (0.01)	2.09 (0.00)
	Non-secular	3.64	0.42	3.5	0.59				
	Total	3.28	0.54	3.47	0.57				

HWS, hostile-world scenario; NE, negative engagement; PE, positive engagement. Level of religiosity was dichotomized into secular (1) and non-secular (2).

\*  $p < 0.05$ . \*\*  $p < 0.01$  \*\*\*  $p < 0.001$ .

religiosity, correlated more consistently and strongly with wellness and distress indicators.

Using two separate two-way MANOVAs, the study groups were consecutively compared on the mental health clusters of wellness and distress, as well as on HWS engagement modes. Because religiosity was a stronger concomitant of political orientation than education, it was included as a second independent variable alongside political orientation (a parallel analysis with education

was conducted as well). As shown in Table 4, the MANOVA with the mental health indicators resulted in significant main effects but an insignificant interaction effect, indicating that the political orientation and religiosity had individual effects on dependent variables, but their combined effect did not. Notably, leftists did not differ from rightists on wellness indicators, which included both subjective, or hedonic, wellbeing (life satisfaction and positive affect) and meaning-in-life, or eudaimonic wellbeing (purpose

in life and personal growth). Yet, leftists were found higher than rightists on distress indicators (negative affect, anxiety, and depressive symptoms). Thus, Wilks' lambda for the multivariate effect of political orientation on mental health was 0.92,  $p < 0.001$ , and the univariate  $F$ s (1, 405) ranged between 0.68 (*ns*) and 21.75 ( $p < 0.001$ ), with  $\eta^2$  ranging 0.00–0.05. Levels of religiousness did differ from one another on most of the wellness and distress indicators, with a Wilks' lambda of 0.95,  $p = 0.005$ , for religiousness. Of note, the interaction between political orientation and religiousness was not significant, with a Wilks' lambda of 0.99,  $p = 0.596$ , and none of the univariate  $F$ s (1, 405) reaching significance. As also shown in Table 4 regarding the two-way MANOVA with the two HWS engagement modes, there were no significant differences between leftists and rightists. Thus, Wilks' lambda approximated 1.0,  $p = 0.903$ . Yet, levels of religiousness differed on the two facets of the HWS, with a Wilks' lambda of 0.95,  $p = 0.038$ . Specifically, compared to non-secular participants, secular participants were higher on HWS-NE,  $F_{(1,405)} = 4.07$ ,  $p < 0.05$ , and lower on HWS-PE,  $F_{(1,405)} = 4.81$ ,  $p < 0.05$ . Here too, the interaction between political orientation and religiousness was not significant, with Wilks' lambda approximating 1.0,  $p = 0.337$ , and none of the univariate  $F$ s (1, 405) reaching significance.

Another pair of similar two-way MANOVAs were conducted with education instead of religiousness. Levels of education differed significantly on three of the mental health outcome variables, including life satisfaction, purpose in life, and personal growth, with a Wilks' lambda of 0.83,  $p < 0.001$ . However, in this analysis too, the interaction between political orientation and education was not significant, with a Wilks' lambda of 0.96,  $p = 0.280$ .

As the current results pinpointed political orientation differences on distress indicators in a cross-sectional survey of one-time measurement, we conducted certain auxiliary analyses in order to check how these results related to relevant concomitants in the participants' past and present. Thus, more leftists (28.5%) than rightists (19.8%) reported to have suffered, in their past, from a significant condition of depression or anxiety:  $\chi^2(1) = 5.49$ ,  $p = 0.019$ ,  $\phi = 0.102$ . Yet, on all three current distress indicators, political orientation group (leftists vs. rightists) did *not interact* with past depression or anxiety: Wilks' lambda = 0.997, *ns* [ $F$ s (1, 399) ranging from 0.03 to 0.70]. Also, when combining both leftists and rightists, the distress indicators were correlated with responses that most evidently pertained to the *present* political condition. Thus, negative affect correlated 0.52 with intending to participate in activities of protest against the current right-wing government and 0.38 with feeling concerns about the rift and polarization in Israeli society; respectively, anxiety correlated 0.42 and 0.33 with these variables, while depressive symptoms correlated 0.45 and 0.28 (for all,  $p < 0.001$ ).

## The role of the hostile-world scenario in associations of political orientation with mental health

A more refined exploration, aiming to find out specific HWS themes that possibly differentiated leftists from rightists,

pinpointed four differential items within HWS-NE that referred to threats of disastrous nature (in all of them leftists were higher than rightists), as well as four differential items within HWS-PE that referred to obstinate optimism in the face of harsh threats (in all of them rightists were higher than leftists). As the differential items referred to two salient themes that might account for group differences, they were respectively combined into ad-hoc HWS-NE-derived and HWS-PE-derived scales that accompanied the overall HWS-NE and HWS-PE scales (see Table 2). Alpha coefficients of the HWS-NE-derived scale were, respectively, 0.71 and 0.73 for leftists and rightists, and those of the HWS-PE-derived scale were, respectively, 0.58 and 0.56.

Multiple regression analyses revealed that other than one solid moderation effect in predicting anxiety (and also a specific effect in predicting life satisfaction), the HWS and the HWS-derived scales did not moderate the association between political orientation and mental health indicators, whether of wellness or distress. The moderation effects on anxiety were probed by PROCESS, revealing that, when controlling for religiousness and education, the moderation effect of HWS-NE ( $B = -0.23$ ,  $SE = 0.11$ ,  $p = 0.03$ ;  $R^2$  change = 0.01,  $F = 4.80$ ,  $p = 0.03$ ) led to a weaker, negative association between political orientation (leftists = 0, rightists = 1) and anxiety at lower levels of HWS-NE ( $B = -0.37$ ,  $SE = 0.13$ ,  $p = 0.004$ ) and to a stronger, negative association at higher levels of HWS-NE ( $B = -0.72$ ,  $SE = 0.12$ ,  $p < 0.001$ ). This moderation effect was also found when religiousness and education were not controlled for ( $B = -0.21$ ,  $SE = 0.10$ ,  $p = 0.047$ ;  $R^2$  change = 0.01,  $F = 3.94$ ,  $p = 0.047$ ). This suggested that leftists, when in high HWS-NE, reacted with a steeper increase of anxiety compared with rightists. The mirror image of this effect was revealed in the moderation effect found in this association for HWS-PE ( $B = 0.34$ ,  $SE = 0.15$ ,  $p = 0.02$ ;  $R^2$  change = 0.01,  $F = 5.11$ ,  $p = 0.02$ ). The negative association between political orientation and anxiety was stronger at lower levels of HWS-PE ( $B = -0.69$ ,  $SE = 0.14$ ,  $p < 0.001$ ) as compared with a weaker negative association at higher levels of HWS-PE ( $B = -0.30$ ,  $SE = 0.14$ ,  $p = 0.03$ ). This moderation effect was also found when religiousness and education were not controlled for ( $B = 0.34$ ,  $SE = 0.15$ ,  $p = 0.03$ ;  $R^2$  change = 0.01,  $F = 4.92$ ,  $p = 0.03$ ). Furthermore, such a moderation effect was also found for the HWS-PE-derived scale, whether while controlling for religiousness and education, or not ( $B$ 's = 0.26, 0.27;  $SE$ 's = 0.11;  $p$ 's = 0.02, 0.01;  $R^2$  change = 0.01;  $F$ 's = 5.34, 6.08;  $p$ 's = 0.02, 0.01, respectively). This suggested that leftists, when in low HWS-PE, reacted with a steeper increase of anxiety compared with rightists. When examining the moderation effect for the HWS-NE-derived scale in predicting anxiety, it was not significant, whether or not religiousness and education were controlled for. Yet, a specific moderation effect of the HWS-NE-derived scale was found in predicting life satisfaction when religiousness and education were not controlled for ( $B = -0.27$ ,  $SE = 0.12$ ,  $p = 0.02$ ;  $R^2$  change = 0.01,  $F = 5.32$ ,  $p = 0.02$ ), showing a stronger, positive association between political orientation and life satisfaction at lower levels of HWS-NE-derived ( $B = 0.38$ ,  $SE = 0.19$ ,  $p = 0.04$ ) and a weaker association at higher levels of HWS-NE-derived ( $B = -0.22$ ,  $SE = 0.15$ ,  $p = 0.15$ ). This suggested that leftists, when low on the HWS-NE-derived scale, reacted with lower life satisfaction compared with rightists. Notably, the latter moderation effect for

**TABLE 5 Summary of mediation analyses for political orientation group, predicting wellness and distress, with hostile-world scenario (negative engagement) as mediator, with and without controlling for religiousness and education.**

Dependent variables	Life satisfaction	Positive affect	Purpose in life	Personal growth	Negative affect	Anxiety	Depressive symptoms
Political group (total effect)	-0.04 (0.14)	0.05 (0.08)	0.01 (0.09)	-0.12 (0.08)	-0.70 (0.11)	-0.57 (0.12)	-0.28 (0.06)
Without control variables	0.12 (0.11)	0.13 (0.06)	0.15 (0.07)	0.03 (0.06)	-0.85 (0.08)	-0.75 (0.09)	-0.41 (0.05)
95% CI	-0.32, 0.23	-0.11, 0.21	-0.16, 0.19	-0.27, 0.04	<b>-0.91, -0.49</b>	<b>-0.80, -0.34</b>	<b>-0.40, -0.17</b>
Without control variables	-0.10, 0.34	<b>0.01, 0.24</b>	<b>0.00, 0.29</b>	-0.09, 0.16	<b>-1.01, -0.70</b>	<b>-0.93, -0.57</b>	<b>-0.50, -0.32</b>
HWS-NE (indirect effect)	0.00 (0.03)	0.01 (0.01)	0.01 (0.02)	0.00 (0.01)	-0.03 (0.05)	-0.01 (0.06)	-0.01 (0.03)
Without control variables	0.06 (0.03)	0.02 (0.01)	0.05 (0.02)	0.01 (0.01)	-0.09 (0.04)	-0.09 (0.05)	-0.05 (0.02)
95% CI	-0.05, 0.06	-0.02, 0.03	-0.03, 0.05	-0.01, 0.02	-0.12, 0.07	-0.13, 0.09	-0.06, 0.05
Without control variables	<b>0.00, 0.12</b>	<b>0.00, 0.08</b>	<b>0.01, 0.09</b>	-0.00, 0.04	<b>-0.17, -0.02</b>	<b>-0.19, -0.50</b>	<b>-0.10, -0.01</b>
HWS-NE-derived (indirect effect)	0.05 (0.03)	0.02 (0.01)	0.04 (0.02)	0.01 (0.01)	-0.09 (0.05)	-0.10 (0.05)	-0.01 (0.03)
Without control variables	0.10 (0.03)	0.03 (0.02)	0.06 (0.02)	0.02 (0.01)	-0.13 (0.04)	-0.15 (0.04)	-0.08 (0.02)
95% CI	-0.00, 0.13	-0.00, 0.05	-0.00, 0.09	-0.00, 0.04	-0.18, 0.00	-0.20, 0.01	-0.11, 0.00
Without control variables	<b>0.04, 0.17</b>	<b>0.00, 0.07</b>	<b>0.02, 0.12</b>	-0.00, 0.05	<b>-0.21, -0.06</b>	<b>-0.24, -0.07</b>	<b>-0.12, -0.04</b>

Reported are effect estimates and standard errors (in parentheses). The 95% CI rows (with and without control variables) report bootstrapped confidence intervals based on 5,000 bootstraps. Confidence intervals indicating significant effects appear in bold. Political group was coded 0 = leftists, 1 = rightists. HWS, hostile-world scenario; NE, negative engagement; CI, confidence intervals.

**TABLE 6 Summary of mediation analyses for political orientation group, predicting wellness and distress, with hostile-world scenario (positive engagement) as mediator, with and without controlling for religiousness and education.**

Dependent variables	Life satisfaction	Positive affect	Purpose in life	Personal growth	Negative affect	Anxiety	Depressive symptoms
Political group (total effect)	-0.04 (0.14)	0.05 (0.08)	0.01 (0.09)	-0.12 (0.08)	-0.70 (0.11)	-0.57 (0.12)	-0.28 (0.06)
Without control variables	0.12 (0.11)	0.13 (0.06)	0.15 (0.07)	0.03 (0.06)	-0.85 (0.08)	-0.75 (0.09)	-0.41 (0.05)
95% CI	-0.32, 0.24	-0.11, 0.21	-0.16, 0.18	-0.27, 0.04	<b>-0.91, -0.49</b>	<b>-0.80, -0.34</b>	<b>-0.40, -0.17</b>
Without control variables	-0.09, 0.33	<b>0.01, 0.24</b>	<b>0.00, 0.28</b>	-0.09, 0.16	<b>-1.00, -0.69</b>	<b>-0.93, -0.57</b>	<b>-0.50, -0.32</b>
HWS-PE (indirect effect)	0.09 (0.04)	0.08 (0.04)	0.08 (0.04)	0.06 (0.03)	-0.09 (0.04)	-0.08 (0.04)	-0.05 (0.02)
Without control variables	0.11 (0.04)	0.10 (0.03)	0.10 (0.03)	0.08 (0.03)	-0.10 (0.03)	-0.10 (0.03)	-0.06 (0.02)
95% CI	<b>0.01, 0.17</b>	<b>0.01, 0.15</b>	<b>0.01, 0.16</b>	<b>0.01, 0.12</b>	<b>-0.17, -0.01</b>	<b>-0.15, -0.01</b>	<b>-0.10, -0.01</b>
Without control variables	<b>0.04, 0.19</b>	<b>0.04, 0.16</b>	<b>0.04, 0.17</b>	<b>0.03, 0.14</b>	<b>-0.17, -0.05</b>	<b>-0.16, -0.04</b>	<b>-0.10, -0.03</b>
HWS-PE-derived (indirect effect)	0.19 (0.06)	0.13 (0.03)	0.14 (0.04)	0.10 (0.03)	-0.17 (0.04)	-0.15 (0.05)	-0.11 (0.03)
Without control variables	0.31 (0.06)	0.19 (0.03)	0.22 (0.04)	0.16 (0.03)	-0.26 (0.04)	-0.25 (0.04)	-0.17 (0.03)
95% CI	<b>0.09, 0.31</b>	<b>0.06, 0.20</b>	<b>0.07, 0.22</b>	<b>0.05, 0.16</b>	<b>-0.27, -0.09</b>	<b>-0.25, -0.07</b>	<b>-0.17, -0.05</b>
Without control variables	<b>0.20, 0.42</b>	<b>0.13, 0.25</b>	<b>0.15, 0.30</b>	<b>0.10, 0.22</b>	<b>-0.35, -0.18</b>	<b>-0.33, -0.17</b>	<b>-0.22, -0.12</b>

Reported are effect estimates and standard errors (in parentheses). The 95% CI rows (with and without control variables) report bootstrapped confidence intervals based on 5,000 bootstraps. Confidence intervals indicating significant effects appear in bold. Political group was coded 0 = leftists, 1 = rightists. HWS, hostile-world scenario; PE, positive engagement; CI, confidence intervals.

life satisfaction was found only for the HWS-NE-derived scale with background variables not accounted for, thus limiting any potential trend it might point to.

We next performed mediation analyses to assess whether the associations between political orientation and mental health could be accounted for by HWS-NE and HWS-PE. Bootstrapping analyses with 5,000 samples using bias-corrected 95% confidence intervals were performed for each indicator separately. Again,

these analyses were performed twice—once while controlling for religiousness and education, and another time without controlling for these variables (see Analytical Approach, above). Confidence intervals that did not contain a zero could be considered an indication of a significant indirect effect, and thus a mediation effect (Preacher and Hayes, 2008). When controlling for the two covariates, there were no significant indirect effects of HWS-NE, as well as of the HWS-NE-derived scale, indicating that

they did not function as mediators (see Table 5). However, the results consistently revealed a significant indirect effect of political orientation on *all* the seven mental health indicators, wellness and distress alike, through both HWS-PE and the HWS-PE-derived scale, indicating that these scales were significant mediators (see Table 6). Estimates of the indirect effects of HWS-PE ranged between  $B = 0.06$ ,  $SE = 0.03$ , 95% CI [0.01, 0.12] and  $B = 0.09$ ,  $SE = 0.04$ , 95% CI [0.01, 0.17] for the wellness indicators, and between  $B = -0.05$ ,  $SE = 0.02$ , 95% CI [-0.10, -0.01] and  $B = -0.09$ ,  $SE = 0.04$ , 95% CI [-0.17, -0.01] for the distress indicators. The estimates for the HWS-PE-derived scale were higher, and ranged between  $B = 0.10$ ,  $SE = 0.03$ , 95% CI [0.05, 0.16], and  $B = 0.19$ ,  $SE = 0.06$ , 95% CI [0.09, 0.31] for the wellness indicators, and between  $B = -0.11$ ,  $SE = 0.03$ , 95% CI [-0.17, -0.05] and  $B = -0.17$ ,  $SE = 0.04$ , 95% CI [-0.27, -0.09] for the distress indicators (see Table 6). Notably, for the wellness indicators, there was no initially significant relationship with political orientation. However, there were consistent indirect effects through HWS-PE in this association. This is in line with approaches that rely on bootstrapping methods to detect indirect effects, claiming that a lack of a total effect between predicting and predicted variables does not preclude the existence of an indirect effect between these variables (Hayes, 2009; Rucker et al., 2011). Furthermore, as the indirect effects accounted for all the associations between political orientation and the wellness indicators, they indicated a full mediation model. For the distress indicators, the total effects (associations between political orientation and distress indicators) were initially significant, and they still remained so after adjusting for the indirect effects through HWS-PE. Thus, these indirect effects indicated a partial mediation model.

When examining the models *without* religiousness and education as covariates, all the indirect effects of HWS-PE and HWS-PE-derived remained significant and became somewhat stronger (as can be seen in Table 6). As for HWS-NE and HWS-NE-derived, no significant indirect effects were found when controlling for the covariates, but without this control there were significant indirect effects for all the dependent variables except for personal growth (as can be seen in Table 5). Thus, the results indicated that HWS-PE and HWS-PE-derived exerted indirect effects in the relationship between political orientation and mental health net of covariation by religiousness and education, whereas HWS-NE and HWS-NE-derived exerted indirect effects in that relationship only while the covariation by religiousness and education was present.

## Discussion

During 2023, Israel underwent a turbulent socio-political crisis when a sweeping protest, predominantly led by leftist and centrist civil movements, struggled to prevent a radical plan of judicial overhaul conducted by a new right-wing government. Viewing this event as a window for exploring rising polarization and its concomitants, the present study addressed Israeli citizens, who identified themselves as leftists, centrists, or rightists. After substantiating their self-assignment by their socio-political stands, the study remained focused on the two divergent groups of leftists and

rightists. The analyses examined mental health concomitants of this political division, and further sought to account for psychological differences by a model of coping with a perceived hostile world.

The participants' self-assignment into one of three political orientations was widely validated by their differential stands on politically relevant matters. Thus, supporting the first hypothesis, discriminant analysis found that leftists were strongly separated from rightists by discriminant functions that weighted differences in relevant behavioral intentions (most salient was the intention to participate in activities of protest against the right-wing government) as well as in concerns over core social issues (most salient was the concern over religious coercion). These findings corroborate previous studies, in Israel and elsewhere, which grouped leftists and rightists according to the participants' self-identification (e.g., Newman et al., 2019; Pliskin et al., 2014). Additionally, the analysis discerned centrists as a separate group, although the discriminant functions were much weaker on this matter. Thus, the results indicated that the intense political contrast was between left and right, with the center playing an auxiliary role. To clarify, the "left-right" terminology, as appearing in the literature, is synonymous with the "liberal-conservative" labels (Jost, 2009), and our current participants seemingly followed this semantics (90.8% of the leftists identified as "liberal" while 26.3% of the rightists did so).

Addressing disparities in mental health concomitants, the results provided partial support to the second hypothesis. Thus, the study groups did not differ on wellness indicators despite feasible expectations that leftists would be lower than rightists in wellbeing, whether of the hedonic type (Schlenker et al., 2012) or the eudaimonic type (Newman et al., 2019). Yet, the results uniformly confirmed higher mental health vulnerability among leftists, who reported, compared to rightists, greater distress in negative affect, anxiety, and depressive symptoms. Although no longitudinal data were available, the results seemed to reflect mainly present-bound distress, as these differences did not interact with the participants' report on past depression and anxiety, and also as distress levels covaried with reactions to obviously present political circumstances. The higher distress among leftists, or liberals, corroborates previous reports (Bernardi, 2020; Kirkegaard, 2020). As reviewed in the introduction, this mental health vulnerability of leftists may have an array of explanations. Generally, unlike rightists, leftists resort to psychological mechanisms that do not necessarily suppress deleterious experiences, such as introspection, rumination, tolerance of ambiguity and complexity, openness to experience, reluctance to justify social inequality, and taking a relative distance from reassuring religious faith (Jost et al., 2017; Napier and Jost, 2008). Importantly, the causal paths in the emerging associations may hold opposite directions: While a leftist political orientation may induce higher distress, a predisposition to distress may facilitate a leftist orientation. In fact, there are empirical indications for both directions (Marcus et al., 2005; Pliskin et al., 2014).

For better understanding the contrast between left and right, especially in an atmosphere of a national crisis, the conception of the HWS, a psychological lens for coping with potential threat (Shmotkin, 2005), was endorsed. Notably, the HWS negative and



positive engagement modes did not differ among the political orientation groups (while the differential effects of religiousness were partialled out). As the HWS incorporates multiple threats and manifestations of coping with them, further exploration revealed a specific theme within HWS-NE that contained threats of disastrous nature (in which leftists were higher than rightists) along with a specific theme within HWS-PE that reflected what we refer to as obstinate optimism in the face of adversity (in which rightists were higher than leftists). These themes, transformed into complementary HWS-NE-derived and HWS-PE-derived scales, clarified the differential stands of leftists and rightists in front of a potentially hostile world: While leftists tended to ruminate about possibly disastrous eventualities (such as “I think a lot about what would happen to me in a situation of possible disaster”), rightists tended to ward off potential threats and transform them into optimistic assertions (such as “No difficulty in life despairs me”). The rightists’ lower distress and higher optimism were possibly aimed, in line with previous conceptions, to meet their basic needs to reduce threat and uncertainty (Jost, 2009) and to prevent negative outcomes (Janoff-Bulman, 2009). The lower endorsement of a disastrous world outlook among rightists possibly reflected their paradoxical handling of threat. Thus, ample evidence showed that right-wing orientation (as well as its close disposition of populism) was related to stronger perceptions of a dangerous world (Jost et al., 2017) and negative emotions (Ward et al., 2024). Yet, the present model of HWS assessed, beyond mere perceptions of a hostile world, also a tangibly negative engagement with the related threats (e.g., fearful reactions, reflection, preoccupation). Such a negative engagement probably did not fit typically rightist inclinations to reduce anxiety and restore a sense of security (Jost, 2017). Also, the mindset in the local scene reasonably affected the current findings: Rightists in Israel jubilated over their return to full governmental power and were largely confident in going through with the controversial reforms (Elran and Michael, 2023). In this line, evidence suggests that holding power may offset right-wing inclinations to negative emotions (Ward et al., 2024).

Referring to potential intermediary roles of the HWS, the results depicted an intriguing pattern in support of the third hypothesis. Thus, except for a particular moderation effect on anxiety, and also a specific effect for predicting life satisfaction, none of the HWS scales moderated the relationship of political orientation (left or right) with mental health when religiousness and education were controlled for. The limited moderation effects that were found revealed that for leftists, having higher negative engagement, or lower positive engagement, related to elevated anxiety as compared with rightists. This suggested that in the current findings, the HWS scales played a narrow role in moderating the vulnerability of leftists to having higher distress. Another moderation effect, specific to the HWS-NE-derived scale, was found for the connection between political orientation and life satisfaction, and possibly suggested a different trend where differences between leftists and rightists in life satisfaction were more pronounced when HWS-NE-derived was lower. This very specific finding should be taken with caution, as it was obtained only when religiousness and education were not controlled for, thus possibly indicating a confounding involvement of these background variables. Furthermore, when religiousness and education were controlled for, the HWS-NE and

the HWS-NE-derived scales did not function as mediators, either. This latter finding completely changed without controlling for religiousness and education as HWS-NE and HWS-NE-derived had significant indirect effects on all mental health indicators except for personal growth. In this picture of results, a remarkable finding is that both the HWS-PE and the HWS-PE-derived scales emerged as consistent mediators between political orientation and *all* the mental health indicators, wellness and distress alike, *regardless of whether religiousness and education were accounted for as covariates*. These findings suggested that the links between political orientation and mental health were largely explained by employing the positive engagement mode toward HWS representations. Rightists had a tendency to lean more on HWS-PE, a coping mode which, as demonstrated in the derived HWS scales, enabled them to disengage from awareness of negative outcomes and maintain a sense of obstinate optimism. While being a rightist did not directly predict, in our current work, mental health for the wellness indicators, it did so indirectly, as rightists were more prone to HWS-PE, which did, in turn, lead to higher levels in all wellness indicators. Hence, the advantage of rightists over leftists in adopting this coping mode feasibly put them in lower mental-health vulnerability. This does not seem to be the case regarding the negative engagement mode. Thus, the fact that HWS-NE and HWS-NE-derived had significant indirect effects only in the absence of covariates suggested that their role might largely overlap with coping that is based on religious perspectives, or, otherwise, on resources stemming from higher educational attainment.

The present results were obtained after conducting our analyses both with and without accounting for the sociodemographic differences between the political orientation groups on education and religiousness. Apparently, these sociodemographic characteristics played a role in the mental health outcomes, as both education and religiousness maintained associations with wellness (mildly positive), but only religiousness also maintained associations with distress (moderately negative, among rightists only). Possibly, rightists initially enjoyed an enhancing effect of religiousness on wellness as well as an attenuating effect on distress, whereas leftists enjoyed an enhancing effect of education on wellness but no attenuating effect on distress. Hence, as education and religiousness appeared essential determinants in the ideological disparity between leftists and rightists (Dunn, 2011; Hirsh et al., 2013), the current results suggest that they also have differential protective effects for leftists and rightists, with rightists particularly enjoying the protective value of religiousness (Jost, 2009). Importantly, however, our two-way MANOVAs revealed no significant interactions of these variables with political orientation, while both political orientation and religiousness (or education, in turn) had significant main effects. By introducing religiousness and education as independent variables within a MANOVA design, we intended to retain these important sociodemographic variables in our model, enabling us to examine their possible interactions with political orientation, while overcoming common pitfalls in attempting to account for them as covariates within an analysis of covariance design (Evans and Anastasio, 1968; Miller and Chapman, 2001; Piercey, 2023). Thus, political orientation and religiousness significantly affected some of the dependent variables regardless of their level combination, suggesting that the effect of political orientation on mental health was consistent across

different levels of religiousness and educational attainment, and vice versa.

The present study should be considered in view of its limitations. First, participants were recruited through a convenience sample in an online survey. As mentioned earlier, the proportion of leftists and centrists abundantly outnumbered that of the rightists. Possibly, the Israeli left and center, traditionally not highly involved in political activism, became galvanized around a common adversity, namely a perceived attack on their essential democratic values, thus strengthening their sense of connectedness and identification with the groups that opposed the government (Muldoon et al., 2021). We may speculate then that the leftist-centrist collective mood of protest at that time was a motivator for participating in the survey among those sectors. Also, a large portion of venues and websites, where postings prompted for participation, were considered of leftist inclinations (e.g., academic or professional sites) which might discourage the participation of rightists and generate skewed distributions of age and gender. We attempted to fix this bias by matching three study groups, thus facilitating the comparability of the groups (Stuart, 2010). Obviously, the current investigation should be extended in future studies to more representative samples, including among discrete socio-political groups. Also, of special interest will be a study on the Israeli Arab minority, which closely watched the current political rift in the country, but largely refrained from actually taking part in it (Elran and Michael, 2023).

A second limitation refers to the current procedure of self-assignment into leftist, centrist and rightist groups. While this procedure was examined and validated in this study, it would be instructive to base the group division on questionnaires that assess a broader variability in leftist vs. rightist (and correspondingly, liberal vs. conservative) political orientations. Nevertheless, the self-assignment procedure still appeared beneficial as it bypassed the need to construct local assessment tools free of cultural and geopolitical biases. Third, while the formulation of the HWS-NE-derived and HWS-PE-derived scales helped to elucidate the most differentiating themes of leftists and rightists, these scales were used for hypothesis testing in the samples where they had been derived. To ease this limitation, these ad-hoc scales were kept as merely complementary to the more general HWS-NE and HWS-PE scales, which had been proven efficient in different social and psychological contexts. Thus, while appearing to hold a quality of “hunting for effects,” the complementary scales helped to expose unseen, instructive results. Lastly, this was a cross-sectional, rather than longitudinal, study, and therefore it was impossible to examine temporal consistency or to make causal inferences concerning the data. Thus, further longitudinal studies are needed for broad understanding of the processes by which political orientations affect mental health outcomes.

## Concluding remarks

The bitter political struggle in Israel during 2023, which followed governmental attempts to dismantle liberal foundations in the national judicial system, was an arena for examining

psychological differences between the rival political orientations. While the results were certainly contoured by the local context, this study bears several conclusions whose generalizability warrants further research. These conclusions, as follows, may involve both conceptual and applicative levels.

First, leftists and rightists were clearly recognizable according to their behavioral intentions and attitudinal concerns regarding current social issues. Centrists were less recognizable, but still constituted an intermediate political entity, which was closer to the left, than to the right, wing. Thus, an examination of psychological underpinnings appeared more instructive by directly contrasting leftists with rightists.

Second, there were no tangible differences between leftists and rightists in psychological wellness, which included constituents of both subjective wellbeing and meaning in life. However, leftists were clearly higher than rightists in distress, which included elements of negative affects and reactivity. These results suggest mental health vulnerability among leftists.

Third, while there were no tangible differences between leftists and rightists in negative engagement with HWS representations, leftists did react more strongly to the specific theme of possible disastrous eventualities. Furthermore, rightists particularly adopted more strongly a theme of obstinate optimism. These results depicted rightists as more proactive and confident in facing potential adversity. Notably, these differences were revealed shortly after a far right-wing government had entered into power.

Fourth, the aforementioned positive engagement with HWS, as well as the specific theme of obstinate optimism, were found as consistent mediators in the association of political orientation with all mental health indicators. That is, these mediators seem to explain how rightists manage HWS representations for better regulating their mental health.

Fifth, although the present analyses adjusted for education and religiousness, these background factors still indicated a potential impact on the differential mental health attributes. Religiousness, in particular, appears a potent protective factor for rightists. Remarkably, due to the grossly skewed distribution of religiousness among leftists (their vast majority being secular), the attempt to partial out religiousness from political orientation remains questionable and requires further validation.

While leftists were found in this study to be more psychologically vulnerable than rightists, the results require a wider perspective on weaknesses vs. strengths. Thus, although leftists were higher in distress, they were still equal to rightists in wellness, alluding to the adaptational benefit embedded in the relative independence of positive and negative experiences (Huppert and Whittington, 2003). Moreover, the leftists' disastrous outlook on the hostile world, despite its possibly depressive impact, may adaptively serve to sharpen realistic judgments and foresee dangers (Moore and Fresco, 2012) or ultimately benefit from a defensive pessimism strategy that induces reflection over negative contingencies before actual coping is called for (Spencer and Norem, 1996). Conversely, the obstinate optimism among rightists, while serving to reduce fears of the future, may turn into detrimentally excessive positive illusions (Makridakis and Moleskis, 2015) or resort to the pretense and pseudo-rationality of self-deception (Michel and Newen, 2010). These options

fit a broader claim that both liberal and conservative political orientations are respectively associated with psychological inclinations that may be either adaptive or maladaptive in different circumstances (Jost et al., 2017).

In sum, by focusing on the rising rift between political orientations in Israel, the present study found leftists with more mental health vulnerability than rightists in a situation where the right-wing held the governmental power and initiated radical, controversial reforms. While the findings pointed to a psychological weakness of the left, the uneven political situation, along with psychological considerations just mentioned, suggest that the psychological balance between the rival orientations is still intricate and delicate, and further research is needed to examine its generalizability. The application of the conceptual model on HWS in this examination puts the political struggle in a context of coping with threatening eventualities, and may contribute to a better understanding of political crises and their psychological underpinnings.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## Ethics statement

The studies involving humans were approved by Ruppin Academic Center; Tel Aviv University. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

## Author contributions

SA: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Resources,

Software, Validation, Visualization, Writing – original draft, Writing – review & editing. DS: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

## Funding

The author(s) declare that financial support was received for the research and/or publication of this article. The study was partly funded by an internal research grant from Ruppin Academic Center (Grant number 33086).

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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## Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/frsps.2025.1431395/full#supplementary-material>

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