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Coping with a Planet in Crisis: Psychological Distress and Climate-Policy-Related Conspiracy Beliefs in Youth

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Abstract

Background

Young people are at increased risk for both psychopathology and the long-term consequences of planetary crises while undergoing a critical period of cognitive and psychosocial development. Climate-policy-related conspiracy beliefs, which claim that governments and political elites manipulate climate policies or scientific evidence for political or economic gain, offer simplified explanations for a complex and threatening phenomenon and may undermine effective responses to planetary crises. Yet, little is known about the psychological factors underlying these beliefs in youth. This study examined whether psychological distress and eco-anxiety predict climate-policy-related conspiracy beliefs and whether meaning- and problem-focused coping moderates these associations.

Methods

A preregistered cross-sectional study was conducted in a German youth sample (N = 413; M_{age} = 20.26, SD_{age} = 2.77, age range: 15–25). Hierarchical multiple regression analyses examined associations between psychological distress (eco-anxiety, depression, anxiety, and stress) and climate-policy-related conspiracy beliefs, as well as the moderating role of meaning- and problem-focused coping. Exploratory analyses included hierarchical regression models controlling for general conspiracy mentality and belief in science.

Results

Higher anxiety, depression, stress, and eco-anxiety were positively associated with increased climate-policy-related conspiracy beliefs. After controlling for conspiracy mentality and belief in science, only the cognitive components of eco-anxiety remained significant predictors. Meaning- and problem-focused coping showed positive main effects but no moderating effects.

Conclusion

Contrary to the hypotheses, no moderation effect of coping was found. The findings suggest that climate-specific, rather than general, psychological distress is uniquely predictive of climate-policy-related conspiracy beliefs beyond a general conspiratorial worldview. Further research is necessary to improve the theoretical understanding of how eco-anxiety and coping relate to climate-policy-related conspiracy beliefs, as this may help identify promising targets for preventive and psychosocial interventions to support young people during this critical developmental period.

Clinical Trial Registration

Clinical trial number: not applicable.

Introduction

The health consequences of planetary crises, including loss of biodiversity, extreme thermal conditions, wildfire smoke exposure, severe meteorological events, ambient air pollution, and prolonged drought (1,2), are increasingly manifesting in human populations. As one of the planetary crises, climate change poses a threat not just to physical health (3) but also to mental health (4,5). Young people tend to show greater awareness of the consequences of planetary crises than older generations (6,7) while simultaneously facing heightened vulnerability to their impacts. Climate change-related distress is particularly pronounced among adolescents and young adults. Approximately 75% of individuals aged 16–25 reported climate-related worry (8). Previous research suggests that younger people experience higher levels of eco-anxiety compared to adults (8,9), a construct that encompasses both climate anxiety, referring specifically to distress arising from climate change (9), and broader anxiety in response to a range of environmental crises (10). This is of particular concern given that adolescence and young adulthood constitute a developmentally sensitive period characterized by elevated risk of the onset of mental disorders (11) and cognitive plasticity (12), i.e., a phase of increased neural change and learning. The crucial effect of climate-related distress during this developmentally sensitive period, alongside the increased likelihood of repeated climate-related stressors across the lifespan, suggests that the cumulative burden of mental disorder over the life course may increase considerably (13–15). However, previous research on the impact of planetary crises on mental health has often been limited to adults.

Despite the consensus among the global scientific community that planetary crises are already occurring and pose a critical threat to the future (16), climate change skepticism remains prevalent in public discourse (17). Climate change offers a fertile ground for conspiracy theories, as it represents a complex, large-scale, and long-term phenomenon whose consequences are often not directly perceptible in everyday life (18). Conspiracy beliefs are conceptualized as psychological reactions to experiences of uncertainty, threat, and diminished control (19,20). By offering simplified explanations for complicated societal issues (20), they may help individuals regain a sense of predictability, certainty, and meaning (19,21). The current paper focuses on the climate domain with the emergence of climate-policy-related conspiracy theories, claiming that governments and political elites intentionally manipulate climate policies or distort scientific evidence about climate change to pursue political or economic interests (22). Such narratives imply that powerful groups deliberately mislead the public for personal and ideological gain. As political trust is developing during adolescence and young adulthood (23,24), distrust toward political institutions may be particularly consequential during this developmental period. Conspiracy narratives portraying governments and political elites as deceptive may therefore resonate especially strongly among young people experiencing uncertainty and institutional mistrust (19,23).

Combining the Existential Threat Model with Intolerance of Uncertainty

The research question of this study is informed by an adapted theoretical model (see Figure 1) that integrates key concepts from the Existential Threat Model (25) and the Intolerance of Uncertainty (IU) Model (26). This study is a theory-driven secondary analysis of an existing dataset that was originally collected to investigate eco-anxiety and coping. Thus, not all constructs of the adapted framework (e.g., intolerance of uncertainty) were available for empirical assessment. Importantly, this framework serves as a heuristic for hypothesis derivation rather than as a process model tested in this study. A detailed description of the theoretical integration and model development is presented in Appendix B.1. Briefly, the Existential Threat Model proposes that threatening societal events elicit anxiety and uncertainty, thereby activating sense-making processes that may culminate in conspiracy beliefs. However, the model does not explain why individuals differ in their susceptibility to conspiracy beliefs under comparable situational conditions.

INSERT: FIGURE 1

Figure 1

Adapted Theoretical Framework of Climate-Policy-Related Conspiracy Beliefs Formation

Note. The figure presents the preregistered, adapted theoretical framework developed for the study. It integrates the Existential Threat Model (25) with the Intolerance of Uncertainty Model (26). Situational uncertainty and unpredictability associated with planetary crises are conceptualized as a distal trigger, psychological distress as an individual vulnerability factor, and meaning- and problem-focused coping as a moderator of the association between distress and climate-policy-related conspiracy beliefs. The antagonistic outgroup component proposed by the Existential Threat Model is treated as inherent to the outcome construct of climate-policy-related conspiracy beliefs rather than as a separate process. Please refer to Appendix B.2 for a more detailed description.

To address this gap, the present study incorporates the IU Model, which conceptualizes intolerance of uncertainty as a transdiagnostic vulnerability factor associated with maladaptive emotional, cognitive, and behavioral responses to uncertainty. Integrating both perspectives provides a conceptual lens that highlights not only the situational threat but also individual differences in response to uncertainty and unpredictability. Unpredictability has been identified as a distinct environmental stressor associated with poorer mental health outcomes, including anxiety and depression (27). Within this framework, situational uncertainty and unpredictability associated with planetary crises are conceptualized as a distal context. Psychological distress is considered a potential individual vulnerability factor that may be associated with greater susceptibility to climate-policy-related conspiracy beliefs.

Building on van Prooijen (25), meaning- and problem-focused coping is conceptualized as the process through which individuals interpret and manage uncertainty by deriving meaning from adverse

experiences and actively addressing the stressor (28), often through pro-environmental behavior in the context of climate change (29,30). Unlike the original model, where sense-making is assumed to mediate the relationship between threat and conspiracy beliefs, coping is conceptualized here as a moderator. This reflects the assumption that individuals differ in their use of adaptive coping strategies when confronted with uncertainty and unpredictability and that these differences may influence susceptibility to conspiracy beliefs.

Empirical research identified higher levels of anxiety, perceived threat, and poorer health status as significant predictors of conspiracy beliefs (31). Similarly, existential motivations, such as fear, threat perception, and loss of control, have been shown to play a central role in the endorsement of conspiracy theories (32). Conspiracy beliefs also tend to increase in response to large-scale, threatening societal events (33). For instance, during the COVID-19 pandemic, anxiety and perceived threat significantly predicted increases in conspiracy beliefs over time (34). More broadly, individuals who experience higher levels of anxiety, uncertainty aversion, and existential threat report stronger conspiracy beliefs (21). This suggests that in the context of planetary crises, individuals may turn to conspiracy beliefs to regulate distress and make sense of uncertainty and unpredictability, a process that may reflect the limited extent to which adaptive meaning- or problem-focused coping is engaged. This coping strategy is associated with more adaptive responses to climate-related stress, trust in societal actors, and lower negative affect (29). A longitudinal study found that only anxiety, and not depression, perceived stress, or stressful life events, can predict conspiracy beliefs (35). However, the study focused on adults, limiting conclusions about adolescents, who are more prone to endorsing conspiracy beliefs than older individuals (12,36,37). Beyond the developmentally vulnerable characteristics of adolescence, trust in political institutions is still developing during this period (23,24), potentially making politically related conspiracy narratives particularly compelling.

The Current Study

Despite increasing attention to the psychological and clinical antecedents of conspiracy beliefs, there is a striking lack of research examining climate-policy-related conspiracy beliefs in young populations. Previous studies are limited to general conspiracy mentality or to adult samples, leaving it largely unclear how such beliefs emerge and are maintained in adolescents and young adults. Particularly, little is known about how climate-specific forms of distress, such as eco-anxiety, relate to the endorsement of climate-policy-related conspiracy theories during this vulnerable developmental period. Furthermore, the potential buffering role of meaning- and problem-focused coping in the relationship between psychological distress and conspiracy beliefs has not yet been examined. Thus, the present study aims to (a) examine the relationship between psychological distress, including eco-anxiety, and climate-policy-related conspiracy beliefs in adolescents and young adults, and (b) investigate whether meaning- and problem-focused coping moderates this relationship.

Drawing on the adapted theoretical framework and previous research, the following preregistered hypotheses (https://osf.io/7qc8z/overview) were formulated to test selected associations derived from this framework: Targeting anxiety first, it is expected that anxiety is positively related to climate-policy-related conspiracy beliefs (H1.1). Also, meaning- and problem-focused coping is expected to moderate the relationship between anxiety and climate-policy-related conspiracy beliefs (H1.2). Zooming in on eco-anxiety, the dimensions of affective symptoms, rumination, behavioral symptoms, and anxiety about personal impact are each hypothesized to be positively related to climate-policy-related conspiracy beliefs (H2.1), and meaning- and problem-focused coping is expected to moderate the relationship between eco-anxiety and climate-policy-related conspiracy beliefs (H2.2). On a secondary note, depression is expected to be positively related to climate-policy-related conspiracy beliefs (H3.1), and meaning- and problem-focused coping is expected to moderate the relationship between depression and climate-policy-related conspiracy beliefs (H3.2). Finally, stress is expected to be positively related to climate-policy-related conspiracy beliefs (H4.1), and meaning- and problem-focused coping is expected to moderate the relationship between stress and climate-policy-related conspiracy beliefs (H4.2).

Methods

Transparency and Involvement of Affected Individuals

The study was preregistered in two parts. First, the overarching research project, “Climate on your Mind: A Questionnaire Study,” was preregistered on June 6, 2024, and is available at https://aspredicted.org/e3jt9.pdf. Second, the preregistration for this study was submitted on June 19, 2026, via the OSF (https://osf.io/md6zs/overview). It includes a detailed description of the study’s rationale, procedure, measurement instruments, sample size plan, and analysis plan. The codebook, dataset, and script are publicly available via OSF. Computational reproducibility was independently verified by a researcher not involved in the study. Consistent with JARS/MARS reporting standards (on.apa.org/em_jars), the sample size determination procedure, all data exclusions, and all measures in the study are reported in full. Furthermore, three high school students from a school in Jena, Germany, were involved in the project’s planning and implementation phase. Additional adolescents will be recruited to disseminate the research project’s findings.

Measures

Eco-Anxiety, Hogg Eco-Anxiety-Scale (HEAS; (10,38)

Eco-anxiety was measured with the German version of the Hogg Eco-Anxiety-Scale (10,39). The self-report questionnaire comprises 13 items rated on a 4-point scale and covers the subscales *affective symptoms* (e.g., “Not being able to stop or control worrying.”), *rumination* (e.g., “Unable to stop thinking about the losses to the environment.”), *behavioral symptoms* (e.g., “Difficulty enjoying social situations with family and friends.”), and *anxiety about personal impact* (e.g., “Feeling anxious about your personal

responsibility to help address environmental problems."). Participants indicated the extent to which they had experienced symptoms of eco-anxiety during the past two weeks using a scale ranging from 0 (*not at all*) to 3 (*nearly every day*). Mean scores must be calculated for each subscale, with higher scores indicating a greater burden of symptoms of eco-anxiety. In this sample, internal consistency was α = .84 and ω = .86 for affective symptoms, α = .83 and ω = .84 for rumination, α = .78 and ω = .79 for behavioral symptoms, and α = .91 and ω = .91 for anxiety about personal impact.

Depression, Anxiety, and Stress (Depression Anxiety Stress Scale (DASS-21 (40))

Depression, anxiety, and stress were measured with the Depression Anxiety Stress Scale – short version (40). The self-report questionnaire consists of 21 items, with 7 items allocated to each of the three subscales measuring symptoms of depression (e.g., "I felt that I had nothing to look forward to"), anxiety (e.g., "I felt I was close to panic"), and stress (e.g., "I tended to overreact to situations") during the previous week. Participants rated items on a 3-point scale from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time*). Higher scores indicate a greater level of emotional distress. The subscale scores were calculated by summing the responses to the relevant items. In this sample, internal consistency was α = .94 and ω = .95.

Meaning- and Problem-Focused Coping (Brief COPE (41)

Meaning- and problem-focused coping was measured using a subscale of the Ecological Crises Coping questionnaire (https://aspredicted.org/e3jt9.pdf), which the overarching research project adapted from the Brief COPE (41), a well-established self-report measure that captures a broad range of coping strategies within only 28 items. Drawing on prior research by Ojala (29,42), additional items targeting meaning-focused coping (e.g., searching for meaning, trust in societal actors) and emotion-focused coping strategies (e.g., avoidance, downplaying the issue) were incorporated, resulting in a total of 42 items. Participants were asked to indicate how they typically respond when confronted with the consequences of climate change and other environmental problems. Responses were rated on a 4-point scale ranging from 1 ("*does not apply at all*") to 4 ("*applies completely*"). A preliminary exploratory factor analysis found a four-factor structure consisting of meaning- and problem-focused coping, cognitive resistance, behavioral avoidance, and emotion-focused social support. For the present study, only the meaning- and problem-focused coping factor was examined, as this factor aligns with its theoretically derived role as a moderator. This factor comprises six items, with higher mean scores reflecting greater engagement in meaning- and problem-focused coping strategies (e.g., "I try to see this as an opportunity for my personal growth as well"). The remaining items of the factor are documented in the preregistration. In this sample, internal consistency for this factor was α = .80 and ω = .86.

Climate-Policy-Related Conspiracy Beliefs ((43), adapted)

The development of the climate-policy-related beliefs measure was adapted from items by Georgiou et al. (43) to assess conspiracy beliefs related to climate policy decisions, originally designed to measure COVID-19-specific conspiracy beliefs. Responses were provided on an 11-point rating scale ranging from 0 ("*0% – definitely not*") to 100 ("*100% – definitely*"). The five items (e.g., "Politicians conceal their true motives when it comes to climate policy") were combined into a sum score, with higher values indicating stronger endorsement of climate-policy-related conspiracy beliefs. In this sample, internal consistency was α = .85 and ω = .90.

Conspiracy Mentality (Conspiracy Mentality Scale (44)

Conspiracy Mentality was measured with the Conspiracy Mentality Scale by Bruder et al. (44). The response format was an 11-point rating scale with five items (e.g., "I think that many very important things happen in the world, which the public is never informed about.") ranging from 0 (*0% – "certainly not"*) to 100 (*100% – "certainly"*). Sum scores were computed, with higher values indicating greater conspiracy mentality. In this sample, internal consistency was α = .83 and ω = .89.

Belief in Science (Belief in Science Scale (45)

Belief in science was measured using the Belief in Science Scale (45). The self-report questionnaire comprises 10 items (e.g., "We can only rationally believe in what is scientifically provable."). Responses were collected on an 11-point rating scale ranging from 0 (*0% – "certainly not"*) to 100 (*100% – "certainly"*). Sum scores were calculated, with higher values indicating greater belief in science. Internal consistency in this sample was α = .91 and ω = .93.

Sample and Procedure

Participants were recruited via multiple channels (e.g., social media, school and university newsletters). To broaden the demographic reach, the study was advertised through youth associations, youth councils, political youth clubs, youth organizations, and volunteer services across Germany. Participants could enter a lottery for two €20 gift cards. Only those who fully completed the questionnaire were retained for data analysis. All materials were administered in German, and the sample comprised German-speaking adolescents and young adults. In line with the preregistration and the *a priori* power analysis, the sample size for the present study was set at N = 395. Additional information on the study procedure and sample size planning can be found in the preregistration.

The survey was conducted online. The dataset consists of cross-sectional data and was collected between June 13, 2024, and February 9, 2025, in Germany. The survey link was accessed by 2,598 individuals, of whom 725 began the survey, and 434 completed all survey items (59.86% completion rate). All participants provided written informed consent before participation. Based on this study's preregistered exclusion criteria, these exclusion criteria were applied: (a) response times of less than

two seconds per item, (b) indications of careless or non-serious responding (e.g., nonsensical responses), and (c) repeat responses (46,47). In total, 21 participants were excluded. All excluded participants met criterion (a), with $n = 1$ also meeting criterion (b) and $n = 3$ also meeting criterion (c), resulting in a final sample of $N = 413$.

Data Analysis

The statistical analyses were conducted in R (Version 4.6.1; (48)). Details on the R packages used can be found in the preregistration on the OSF. All questionnaire items were mandatory, resulting in a dataset without missing values. Statistical significance was evaluated using a criterion of $p < .05$. For the exploratory correlation analyses, *p*-values were adjusted using the Bonferroni correction (49). Please refer to the preregistration for the details on the prerequisites for the statistical models.

The hypothesized moderation effects targeting anxiety and eco-anxiety were examined using hierarchical multiple regression analyses. Separate models were examined for anxiety and each eco-anxiety subscale (i.e., affective symptoms, rumination, behavioral symptoms, and anxiety about personal impact). In the first step, the respective predictor variable was entered to assess its main effect on climate-policy-related conspiracy beliefs. In the second step, meaning- and problem-focused coping, and the interaction term between the predictor and coping were added. All continuous variables were mean-centered prior to analysis to reduce multicollinearity. The moderation effects were evaluated by examining the significance of the interaction term and the change in explained variance (ΔR^2) between steps.

Given the limited theoretical and empirical evidence linking depression and stress to climate-policy-related conspiracy beliefs, these variables were examined as secondary predictors. However, the analyses followed the same hierarchical regression approach as that used for the primary predictors. For details on the prerequisites of the statistical models examined in this study, please refer to the preregistration.

Finally, exploratory analyses were conducted using a correlation matrix between the scales conspiracy mentality (44) and belief in science (45) and the variables in the main analyses, i.e., depression, anxiety, stress, eco-anxiety, meaning- and problem-focused coping, and climate-policy-related conspiracy beliefs. Furthermore, the study exploratively examined whether psychological distress variables exhibit non-linear (quadratic) associations with climate-policy-related conspiracy beliefs. In case of significant quadratic effects, the Bayesian information criterion (BIC) was calculated to evaluate model fit, with lower values indicating better fit. In addition, conspiracy mentality and belief in science were included as additional covariates of each regression model to control for dispositional tendencies that may confound the relationship between distress and conspiracy beliefs.

Results

Sample Descriptives

Participants were between 15 and 25 years old (M_{age} = 20.26, SD_{age} = 2.77). The majority identified as female (74.82%), followed by male (21.31%), diverse (2.66%), other (0.24%), and 0.97% preferred not to say. Regarding employment status, more than half of the sample were university students (54%), while 18.64% were school students and 15.01% were engaged in voluntary service. Please refer to Table A.1 for additional information on participants' sociodemographic characteristics.

Statistical Prerequisites

The assumptions for the statistical models were examined. Please refer to the appendix for detailed results (see Appendix B.2).

Primary Predictors

Figure 2 presents the standardized regression coefficients and 95% confidence intervals for the primary predictors of climate-policy-related conspiracy beliefs. They were positively associated with climate-policy-related conspiracy beliefs.

INSERT: FIGURE 2

Figure 2

Standardized Effects of Primary Predictors on Climate-Policy-Related Conspiracy Beliefs

Note. Points are standardized regression coefficients (β), and error bars represent 95% confidence intervals. Coefficients were estimated from Block 1 regression models. The dashed vertical line indicates β = 0.

Anxiety

The results are presented in Table 1. Anxiety was positively related to climate-policy-related conspiracy beliefs in model 1, β = 0.15, $t(411) = 3.17$, $p = .002$. In model 2, anxiety remained a significant positive predictor, β = 0.15, $t(409) = 3.17$, $p = .002$. In addition, meaning- and problem-focused coping was positively related to climate-policy-related conspiracy beliefs, β = 0.17, $t(409) = 3.49$, $p < .001$. The interaction between anxiety and coping was not significant, β = 0.02, $t(409) = 0.32$, $p = .75$. However, the addition of meaning- and problem-focused coping and the interaction term resulted in a significant improvement in model fit, $\Delta F(2, 409) = 6.10$, $p = .002$.

Table 1

Hierarchical Regression Results for Anxiety, Coping, and their Interaction Predicting Climate-Policy-Related Conspiracy Beliefs

Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.02	
Constant	318.84	[309.52, 328.15]		4.74	67.28***		
Anxiety	3.17	[1.20, 5.14]	0.15	0.99	3.17**		
Step 2						.05	.03**
Constant	318.82	[309.61, 328.02]		4.68	68.10***		
Anxiety	3.15	[1.20, 5.10]	0.15	0.99	3.17**		
Meaning- and Problem-Focused Coping	28.80	[12.57, 45.04]	0.17	8.26	3.49***		
Anxiety × Meaning- and Problem-Focused Coping	0.56	[-2.84, 3.95]	0.02	1.73	0.32		

Note. *N* = 413. CI = 95% confidence interval of B. In model 1, anxiety was entered to examine its relationship to climate-policy-related conspiracy beliefs. In model 2, meaning- and problem-focused coping, and the anxiety × meaning- and problem-focused coping interaction term were added to test the moderating effect of coping.

*p < .05. **p < .01. ***p < .001.

Eco-Anxiety

As shown in Table 2, *affective symptoms* were positively associated with climate-policy-related conspiracy beliefs in model 1, β = 0.27, $t(411) = 5.81$, $p < .001$. In model 2, the subscale remained a significant positive predictor, β = 0.25, $t(409) = 5.05$, $p < .001$. Furthermore, meaning- and problem-focused coping was positively related to climate-policy-related conspiracy beliefs, β = 0.12, $t(409) = 2.34$, $p = .02$. The interaction between affective symptoms and coping was not significant, β = 0.03, $t(409) = 0.59$, $p = .56$. The model fit did not significantly improve with additional meaning- and problem-focused coping and the interaction term, $\Delta F(2, 409) = 2.75$, $p = .07$.

In model 1, *rumination* was positively related to climate-policy-related conspiracy beliefs, β = 0.25, $t(411) = 5.31$, $p < .001$. This association remained significant in model 2, β = 0.23, $t(409) = 4.45$, $p < .001$. Furthermore, meaning- and problem-focused coping was positively related to climate-policy-related conspiracy beliefs, β = 0.10, $t(409) = 2.00$, $p = .04$ (see Table 2). The interaction between rumination and coping was not significant, β = -0.02, $t(409) = -0.49$, $p = .63$. Adding meaning- and

problem-focused coping and the interaction term did not significantly improve model fit, ΔF(2, 409) = 2.35, p = .09. Given indications of heteroscedasticity (see Appendix B.1), heteroscedasticity-robust standard errors were estimated as a robustness check. The results pattern remained unchanged. However, the main effect of meaning- and problem-focused coping was no longer statistically significant when robust standard errors were applied (p = .06).

As presented in Table 2, *behavioral symptoms* were positively related to climate-policy-related conspiracy beliefs in model 1, β = 0.13, t(411) = 2.75, p < .01. This association remained significant in model 2, β = 0.11, t(409) = 2.31, p = .02. Meaning- and problem-focused coping was positively related to climate-policy-related conspiracy beliefs, β = 0.15, t(409) = 3.17, p < .01. The interaction between behavioral symptoms and coping was not significant, β = 0.01, t(409) = 0.14, p = .89. Adding meaning- and problem-focused coping and the interaction term significantly improved model fit, ΔF(2, 409) = 5.02, p < .01.

In model 1, *anxiety about personal impact* was positively related to climate-policy-related conspiracy beliefs, β = 0.24, t(411) = 5.02, p < .001. This association remained significant in model 2, β = 0.21, t(409) = 4.01, p < .001 (see Table 2). Neither meaning- and problem-focused coping, β = 0.10, t(409) = 1.89, p = .06, nor its interaction with anxiety about personal impact, β = 0.02, t(409) = 0.33, p = .74, significantly predicted climate-policy-related conspiracy beliefs. The addition of these predictors did not significantly improve model fit, ΔF(2, 409) = 1.78, p = 0.17.

Table 2

Hierarchical Regression Results for Eco-Anxiety subscales, Coping, and their Interactions Predicting Climate-Policy-Related Conspiracy Beliefs

Affective Symptoms							
Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.08	
Constant	318.84	[309.77, 327.90]		4.61	69.15***		
Affective Symptoms	42.50	[28.11, 56.88]	0.28	7.32	5.81***		
Step 2						.09	.01
Constant	318.23	[308.97, 327.48]		4.71	67.60***		
Affective Symptoms	38.05	[23.24, 52.86]	0.25	7.53	5.05***		
Meaning- and Problem-Focused Coping	19.79	[3.15, 36.44]	0.12	8.47	2.34*		
Affective Symptoms × Meaning- and Problem-Focused Coping	7.14	[-16.79, 31.08]	0.03	12.18	0.59		
Rumination							
Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.06	
Constant	318.84	[309.72, 327.96]	0.25	4.64	68.72***		
Rumination	38.89	[24.49, 53.28]		7.32	5.31***		
Step 2						.07	.01
Constant	319.47	[310.02, 328.92]		4.81	66.48***		
Rumination	35.28	[19.67, 50.88]	0.23	7.94	4.45***		
Meaning- and Problem-Focused Coping	17.26	[0.25, 34.28]	0.10	8.66	2.00*[a]		
Rumination × Meaning- and Problem-Focused Coping	-6.07	[-30.68, 18.53]	-0.02	12.52	-0.49		
Behavioral Symptoms							
Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.02	

Constant	318.84	[309.49, 328.18]		4.75	67.08***		
Behavioral Symptoms	21.59	[6.12, 37.06]	0.13	7.87	2.74***		
Step 2						.04	.02**
Constant	318.75	[309.43, 328.08]		4.75	67.18***		
Behavioral Symptoms	18.19	[2.70, 33.68]	0.11	7.88	2.31*		
Meaning- and Problem-Focused Coping	26.50	[10.04, 42.95]	0.15	8.37	3.17**		
Behavioral Symptoms × Meaning- and Problem-Focused Coping	1.82	[-23.83, 27.47]	0.01	13.05	0.14		
	Anxiety about Personal Impact						
Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.06	
Constant	318.84	[309.69, 327.99]		4.66	68.48***		
Anxiety about Personal Impact	29.01	[17.65, 40.36]	0.24	5.78	5.02***		
Step 2						.07	.01
Constant	318.32	[308.67, 327.97]		4.91	64.84***		
Anxiety about Personal Impact	24.81	[12.65, 36.96]	0.21	6.18	4.01***		
Meaning- and Problem-Focused Coping	16.89	[-0.72, 34.49]	0.10	8.96	1.89		
Anxiety about Personal Impact × Meaning- and Problem-Focused Coping	3.14	[-15.66, 21.93]	0.02	9.56	0.33		

Note. *N* = 413. CI = 95% confidence interval of B. In model 1, eco-anxiety subscales were entered to examine their relationship to climate-policy-related conspiracy beliefs. In model 2, meaning- and problem-focused coping, and eco-anxiety subscales × meaning- and problem-focused coping interaction term were added to test the moderating effect of coping.

[a]The main effect of meaning- and problem-focused coping was no longer statistically significant when robust standard errors were applied (*p* = .055; see Appendix B.2).

*p < .05. **p < .01. ***p < .001.

Secondary Predictors

Figure 3 presents the standardized regression coefficients and 95% confidence intervals for the secondary predictors of climate-policy-related conspiracy beliefs. Depression and stress were positively associated with climate-policy-related conspiracy beliefs.

INSERT: FIGURE 3

Figure 3

Standardized Effects of Secondary Predictors on Climate-Policy-Related Conspiracy Beliefs

Note. Points are standardized regression coefficients (β), and error bars represent 95% confidence intervals. Coefficients were estimated from Block 1 regression models. The dashed vertical line indicates β = 0.

As shown in Tables 3 and 4, depression and stress were positively associated with climate-policy-related conspiracy beliefs in model 1 (*ps* < .01). These associations remained significant after the inclusion of meaning- and problem-focused coping and the interaction term in model 2 (*ps* < .01). Across both models, meaning- and problem-focused coping was positively related to climate-policy-related conspiracy beliefs (*ps* < .001). In contrast, the interaction terms were not significant (*ps* > .05). The addition of coping and the interaction term significantly improved model fit for both depression, $\Delta F(2, 409) = 6.68$, $p < .01$, and stress, $\Delta F(2, 409) = 7.03$, $p < .001$.

Table 3

Hierarchical Regression Results for Depression, Coping, and their Interaction Predicting Climate-Policy-Related Conspiracy Beliefs

Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.02	
Constant	318.84	[309.48, 328.19]		4.76	67.01***		
Depression	2.40	[0.58, 4.22]	0.13	0.93	2.59**		
Step 2						.05	.03**
Constant	318.92	[309.68, 328.14]		4.69	67.94***		
Depression	2.46	[0.67, 4.26]	0.13	0.91	2.70**		
Meaning- and Problem-Focused Coping	29.60	[13.34, 45.87]	0.17	8.27	3.58***		
Depression × Meaning- and Problem-Focused Coping	1.29	[-1.91, 4.50]	0.04	1.63	0.79		

Note. *N* = 413. CI = 95% confidence interval of B. In model 1, depression was entered to examine its relationship to climate-policy-related conspiracy beliefs. In model 2, meaning- and problem-focused coping, and the depression × meaning- and problem-focused coping interaction term were added to test the moderating effect of coping.

*p < .05. **p < .01. ***p < .001.

Table 4

Hierarchical Regression Results for Stress, Coping, and their Interaction Predicting Climate-Policy-Related Conspiracy Beliefs

Variable	B	95% CI	β	SE	t	R^2	ΔR^2
Step 1						.02	
Constant	318.84	[309.51, 328.16]		4.74	67.22***		
Stress	2.88	[1.02, 4.74]	0.15	0.95	3.04**		
Step 2						.05	.03**
Constant	318.87	[309.68, 328.06]		4.68	68.20***		
Stress	2.97	[1.13, 4.80]	0.15	0.94	3.17**		
Meaning- and Problem-Focused Coping	29.90	[13.67, 46.14]	0.17	8.26	3.62***		
Stress × Meaning- and Problem-Focused Coping	1.87	[-1.17, 4.91]	0.06	1.55	1.21		

Note. *N* = 413. CI = 95% confidence interval of B. In model 1, stress was entered to examine its relationship to climate-policy-related conspiracy beliefs. In model 2, meaning- and problem-focused coping, and the stress × meaning- and problem-focused coping interaction term were added to test the moderating effect of coping.

*p < .05. **p < .01. ***p < .001.

Exploratory Analyses

Correlation Analyses

Table A.2 presents the correlation matrix. Climate-policy-related conspiracy beliefs were positively associated with all focal predictors, including the eco-anxiety subscales, depression, anxiety, stress, and meaning- and problem-focused coping (*rs* = .13–.28). Climate-policy-related conspiracy beliefs were moderately associated with conspiracy mentality (*r* = .49). Belief in science showed only weak positive associations with climate-policy-related conspiracy beliefs and conspiracy mentality (*rs* = .10–.12), which did not remain significant after Bonferroni correction. Conspiracy mentality was positively related to rumination, depression, anxiety, and stress (*rs* = .14–.23), whereas its association with anxiety about personal impact and meaning- and problem-focused coping was not significant.

Additional Covariates and Quadratic Effects

In all models, conspiracy mentality and belief in science were included as covariates and emerged as significant positive predictors of climate-policy-related conspiracy beliefs (all *ps* < .001; see Tables A.3–

A.9). Controlling for these covariates, affective symptoms, rumination, and anxiety about personal impact remained significant positive predictors of climate-policy-related conspiracy beliefs (all *ps* < .001). Behavioral symptoms, depression, anxiety, and stress were not significantly associated with the outcome (all *ps* > .05).

To examine potential curvilinear effects, quadratic terms were added in block 2. Significant quadratic effects emerged only for affective symptoms, $\Delta F(1, 408) = 6.62$, $p = .01$, and rumination, $\Delta F(1, 408) = 3.95$, $p = .04$. BIC for affective symptoms was 4827.65 (linear model) and 4827.02 (quadratic model), and for rumination 4844.21 (linear model) and 4844.26 (quadratic model). Visual inspection suggested that these effects were primarily driven by sparse observations at the upper end of the predictor distributions (see Figures A.1 and A.2).

Discussion

This study examined whether psychological distress predicts climate-policy-related conspiracy beliefs in adolescents and young adults and whether meaning- and problem-focused coping moderates this relationship. Anxiety, all four eco-anxiety subscales, depression, and stress were positively associated with climate-policy-related conspiracy beliefs. When controlling for conspiracy mentality and belief in science, the eco-anxiety subscales affective symptoms, rumination, and anxiety about personal impact remained significant predictors. Contrary to the hypotheses, the study found no evidence of a moderating role for meaning- and problem-focused coping in any of these relationships. Unexpectedly, meaning- and problem-focused coping was itself positively associated with climate-policy-related conspiracy beliefs.

The Role of Anxiety and Eco-Anxiety in Climate-Policy-Related Conspiracy Beliefs

Anxiety was positively associated with climate-policy-related conspiracy beliefs. This result is consistent with prior research showing that anxiety and perceived threat are central antecedents of conspiracy belief endorsement (31,34,35). This extends existing evidence, largely based on adult samples and general conspiracy beliefs, to a climate-specific context in adolescents and young adults. Derived from the adapted theoretical framework, anxiety may increase the perceived threat posed by planetary crises, thereby increasing the appeal of conspiracy narratives that offer simplified, blame-attributing explanations in times of uncertainty (19).

In line with the second hypothesis, eco-anxiety was positively associated with climate-policy-related conspiracy beliefs. It was a more robust predictor than general anxiety, as three subscales remained significant after covariate control (affective symptoms, rumination, and anxiety about personal impact). These subscales share a common cognitive engagement component: they capture active worry, perseverative thinking, and self-referential moral concern, respectively (10). This pattern is consistent

with the systematic review by Byrne et al. (12), who found that cognitive factors are central in conspiracy belief formation during adolescence. Behavioral symptoms, on the other hand, reflect functional impairments such as sleep disturbance and difficulties in social and occupational functioning. This distinction may explain the divergent findings: cognitive engagement with the climate threat may be more tied to the epistemic sense-making processes (25) that, according to the adapted theoretical model, underlie conspiracy belief formation. It can be theorized that behavioral symptoms may not involve the same active search for meaning and explanation that renders individuals susceptible to conspiracy narratives.

Contrary to the other preregistered hypotheses, meaning- and problem-focused coping was not found to moderate the relationship between anxiety or eco-anxiety and climate-policy-related conspiracy beliefs. Thus, the assumed buffering function of coping may not hold in the context of climate-policy-related conspiracy beliefs. However, meaning- and problem-focused coping emerged as a positive predictor of climate-policy-related conspiracy beliefs across multiple models of the primary predictors. Van Prooijen (25) conceptualizes sense-making as a mediating process through which existential threat translates into conspiracy beliefs. The present findings may be consistent with the directional assumptions of van Prooijen's model (25), even though its mediating role was not formally tested here. It can be hypothesized that individuals who actively engage in meaning-making may therefore be drawn to conspiracy narratives (19) partly because of, rather than despite, their coping efforts. The results by Ojala (29) further suggest that active engagement with climate-related issues may involve reflection on societal actors and structures.

This scrutiny of institutional behavior may overlap with the suspicion toward powerful actors inherent in climate-policy-related conspiracy beliefs. The positive main effect may also reflect the operationalization of meaning- and problem-focused coping. Rather than measuring only a protective coping strategy, the scale also captures active engagement with climate-related challenges, e.g., "I make a plan about what I can do." Thus, the findings may indicate that meaning- and problem-focused coping reflects greater cognitive engagement with climate-related issues rather than serving as a protective factor against climate-policy-related conspiracy beliefs, which may be linked to interpreting government climate change (in-)action as conspiratorial.

The effect of meaning- and problem-focused coping in the anxiety about personal impact model was not significant. Anxiety about personal impact may reflect concerns about the limited impact of one's own actions (10), which can reduce the perceived relevance of active coping strategies. Although this interpretation is broadly consistent with research on perceived control and conspiracy beliefs (44,50), the study does not directly test this mechanism.

The Role of Depression and Stress in Climate-Policy-Related Conspiracy

As predicted, depression and stress were positively associated with climate-policy-related conspiracy beliefs. However, neither effect remained significant after controlling for conspiracy mentality and belief in science. The non-significant results of depression and stress as predictors for beliefs in conspiracy theories are consistent with the findings by Fox et al. (35). The exploratory analyses also show that general distress variables were positively and significantly correlated with conspiracy mentality, but not with belief in science. It can be theorized that individuals who experience higher levels of depression and stress may show a more generalized distrustful worldview toward climate-specific conspiracy beliefs, which can be reflected in elevated conspiracy mentality. Once the dispositional tendency is accounted for, general distress no longer contributes unique predictive variance. This interpretation is further supported by the finding that climate-specific distress, as captured by eco-anxiety subscales, remained a significant predictor after covariate control. This suggests a more direct pathway from climate-specific distress to climate-policy-related conspiracy beliefs. As with the primary predictors, meaning- and problem-focused coping did not moderate these relationships. Instead, the same pattern of positive main effects emerged, consistent with the interpretation discussed above that coping may reflect greater engagement with climate-related issues rather than a buffering mechanism against climate-policy-related conspiracy beliefs. However, further experimental research is needed to shed light on this issue.

Exploratory Analyses

Conspiracy mentality and belief in science were both positive predictors of climate-policy-related conspiracy beliefs over the other predictors in the models. This suggests that the general dispositional tendency to endorse conspiracy theories may be an important correlate of climate-policy-related conspiracy beliefs. The positive predictive effect of belief in science warrants closer consideration. Individuals with stronger beliefs in science may be more likely to accept the scientific consensus on climate change (51) and be more worried about the issue (52). They may also be more likely to perceive governmental responses to climate change as insufficient or inconsistent with the scientific consensus. Consequently, perceived inconsistencies between scientific evidence and political action may foster institutional mistrust, which could increase the plausibility of conspiracy narratives attributing harmful intentions to political actors. Although statistically significant quadratic terms emerged for affective symptoms and rumination, model comparison using the BIC provided insufficient support for the more complex quadratic models. Together with the visual inspection, the results indicate that these effects should be interpreted with caution and replicated in larger samples before drawing any conclusions.

Limitations and Strengths

Although the sample comprised individuals aged 15–25 years, it was not fully representative of this age group. The sample was predominantly female and highly educated, recruited through universities and volunteer service organizations, where individuals often have at least a high school education.

Nevertheless, this study offers evidence on the psychological factors associated with climate-policy-related conspiracy beliefs in this vulnerable group. Furthermore, the climate-policy-related conspiracy belief measure was adapted from a COVID-19-specific instrument (43) and has not been validated for the climate context. The scale mainly focuses on political mistrust and climate policy and does not capture other dimensions of climate-related conspiracy narratives, such as beliefs about scientific fraud or media manipulation. This narrow focus may limit the construct validity of the measure and restrict the generalizability of the findings to other dimensions of climate-policy-related conspiracy beliefs. However, the measure showed good internal consistency in this sample, and this study may contribute to further construct development. A further limitation concerns the relationship between the theoretical framework and the empirical design. While the adapted framework was conceptualized to guide hypothesis development, the analyses only examined selected associations derived from it. The cross-sectional design of this study also precludes causal interpretation of the results. Yet, this study's open science practices enable transparency and reproducibility of the findings. Patient and public involvement also shaped the research process, with youth contributing to the development of the overarching research project, enhancing the relevance, acceptability, and credibility of this study (53).

Future Directions and Implications: Toward a Psychosocial Model of Climate-Policy-Related Conspiracy Beliefs

Although the present findings are consistent with parts of the adapted theoretical framework, they do not constitute a direct test of the framework itself. Instead, they provide a basis for its refinement. Drawing on the present findings and previous research, a psychosocial model of climate-policy-related conspiracy beliefs is proposed (Figure 4) as a framework for future hypothesis generation rather than a definitive causal model.

INSERT: FIGURE 4

Figure 4

Toward a Psychosocial Model of Climate-Related Conspiracy Beliefs

Note. The figure presents the proposed psychosocial model of climate-policy-related conspiracy beliefs derived from the present findings and previous theoretical and empirical research. Structural contextual factors (see SCE-DoH) are assumed to shape the experience of existential threat, individual antecedents, and the development of climate-policy-related conspiracy beliefs.

The model is embedded within the Socioeconomic, Cultural, and Environmental Determinants of Health (SCE-DoH) framework (54), acknowledging that structural conditions shape both exposure to climate-related threats and the psychological processes associated with conspiracy beliefs. Previous research has identified factors such as gender, education, socioeconomic status, and political context as correlates of conspiracy beliefs (31,36,55–57). Crisis-related demands are appraised and managed

against this structural background, resulting in differential emotional responses and adaptation processes. Importantly, structural factors can not only shape the experience of existential threat but also influence the antecedents and the formation of conspiracy belief itself.

Within this structural context, the model integrates three key antecedents supported by the present findings and previous research: (a) beliefs and attitudes (e.g., conspiracy mentality and belief in science) (21,33), (b) eco-anxiety, particularly its cognitive components, and (c) coping. In contrast to the preregistered framework, coping is conceptualized as an antecedent rather than a moderator, reflecting the findings of the present study. Future research should test the proposed model longitudinally and examine additional antecedents, mediators, and moderators, including antagonistic outgroups, critical thinking, and social media use (55,58).

As research on conspiracy beliefs among adolescents and young adults is limited, future research should examine individual and contextual variation in the antecedents identified in this model as well as additional covariates (e.g., threat experience). Different coping strategies should be examined, as prior research indicates that they are differentially associated with climate distress and well-being (28). Similarly, eco-anxiety varies across sociodemographic factors such as age (59) and cultural contexts (60). Future studies would benefit from a more diverse and representative sample. Finally, climate-policy-related conspiracy beliefs should be broadened beyond political mistrust to include, for instance, beliefs about scientific fraud or media manipulation. Understanding those mechanisms underlying climate-policy-related conspiracy beliefs can help create preventive and psychosocial interventions aimed at reducing climate-related distress among young people while also decreasing susceptibility to conspiracy beliefs. These findings also have implications for policymakers. Participatory climate action that acknowledges young people’s concerns may help address climate-related distress while simultaneously fostering trust in public institutions and increasing self-efficacy (61). Given the observed association between eco-anxiety and climate-policy-related conspiracy beliefs, reducing the discrepancy between scientific evidence and perceived political action may benefit both individual well-being and societal trust.

Conclusion

This study provides evidence that psychological distress, particularly eco-anxiety, is positively associated with climate-policy-related conspiracy beliefs in adolescents and young adults. Among all distress variables examined, eco-anxiety emerged as the most robust predictor, with cognitive components showing the strongest associations, even after accounting for conspiracy mentality and belief in science. Contrary to the preregistered hypotheses, meaning- and problem-focused coping did not buffer this relationship; rather, it functioned as a positive predictor. Based on these findings, a psychosocial model is proposed that situates the formation of climate-policy-related conspiracy beliefs within a broader structural context for future research. A more refined understanding of the psychosocial factors associated with climate-policy-related conspiracy beliefs may inform the development of targeted interventions for young people during this critical developmental period.

Declarations

Authors' Contributions

David Phan served as lead for formal analysis, investigation, software, validation, visualization, methodology, writing–original draft, and served in a supporting role for data curation, conceptualization, and project administration. **Nora Spirkl** has served as a lead for conceptualization, data curation, and project administration and contributed equally to methodology and served in a supporting role for writing–review and editing. **Julian Kauk** has contributed equally to conceptualization and methodology and served in a supporting role for writing–review and editing. **Julia Asbrand** has served as lead for conceptualization, data curation, project administration, investigation, supervision and writing–review and editing and contributed equally to methodology and validation.

Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Availability of Data and Materials

Preregistration is accessible at https://osf.io/md6zs. The codebook, dataset, and analytic code are openly available through the Open Science Framework https://osf.io/7qc8z/files/osfstorage. The dataset has previously been used in one peer-reviewed publication and presented at some scientific conferences; for details, see the preregistration.

Ethics Approval and Consent to Participate

All participants provided written informed consent prior to participation. The overarching study "Climate on your Mind: A Questionnaire Study" received ethical approval from the Ethics Committee of the Faculty of Social and Behavioural Sciences at Friedrich Schiller University Jena (reference number: FSV 24/041). The study was conducted in accordance with the Declaration of Helsinki.

Consent for Publication

Not applicable.

Clinical Trial Registration

Clinical trial number: not applicable.

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Figures

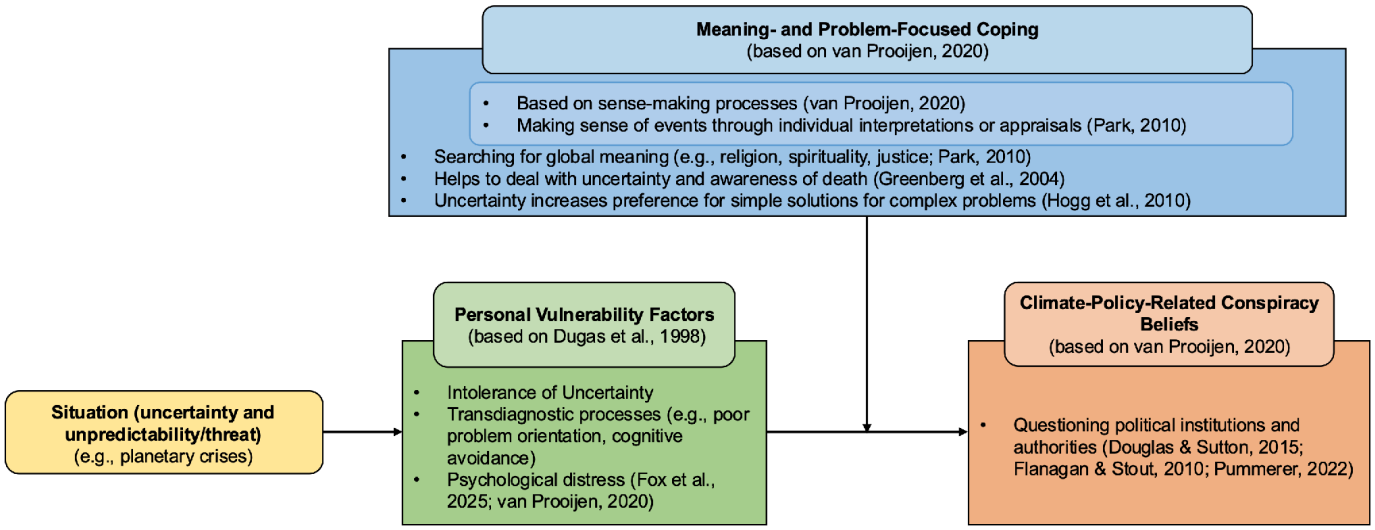

Figure 1

Adapted Theoretical Framework of Climate-Policy-Related Conspiracy Beliefs Formation

Note. The figure presents the preregistered, adapted theoretical framework developed for the study. It integrates the Existential Threat Model (25) with the Intolerance of Uncertainty Model (26). Situational uncertainty and unpredictability associated with planetary crises are conceptualized as a distal trigger, psychological distress as an individual vulnerability factor, and meaning- and problem-focused coping as a moderator of the association between distress and climate-policy-related conspiracy beliefs. The antagonistic outgroup component proposed by the Existential Threat Model is treated as inherent to the outcome construct of climate-policy-related conspiracy beliefs rather than as a separate process. Please refer to Appendix B.2 for a more detailed description.

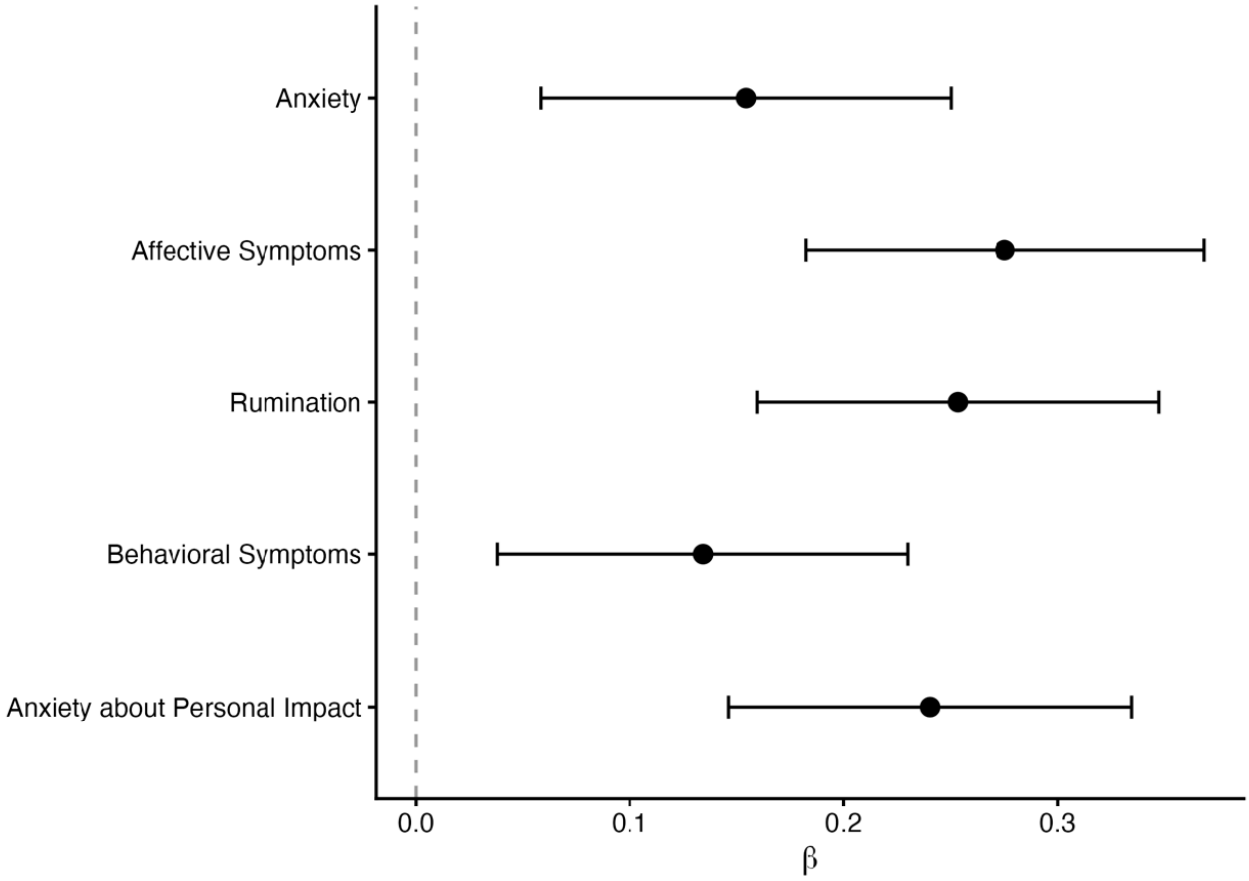

Figure 2

Standardized Effects of Primary Predictors on Climate-Policy-Related Conspiracy Beliefs

Note. Points are standardized regression coefficients (β), and error bars represent 95% confidence intervals. Coefficients were estimated from Block 1 regression models. The dashed vertical line indicates β = 0.

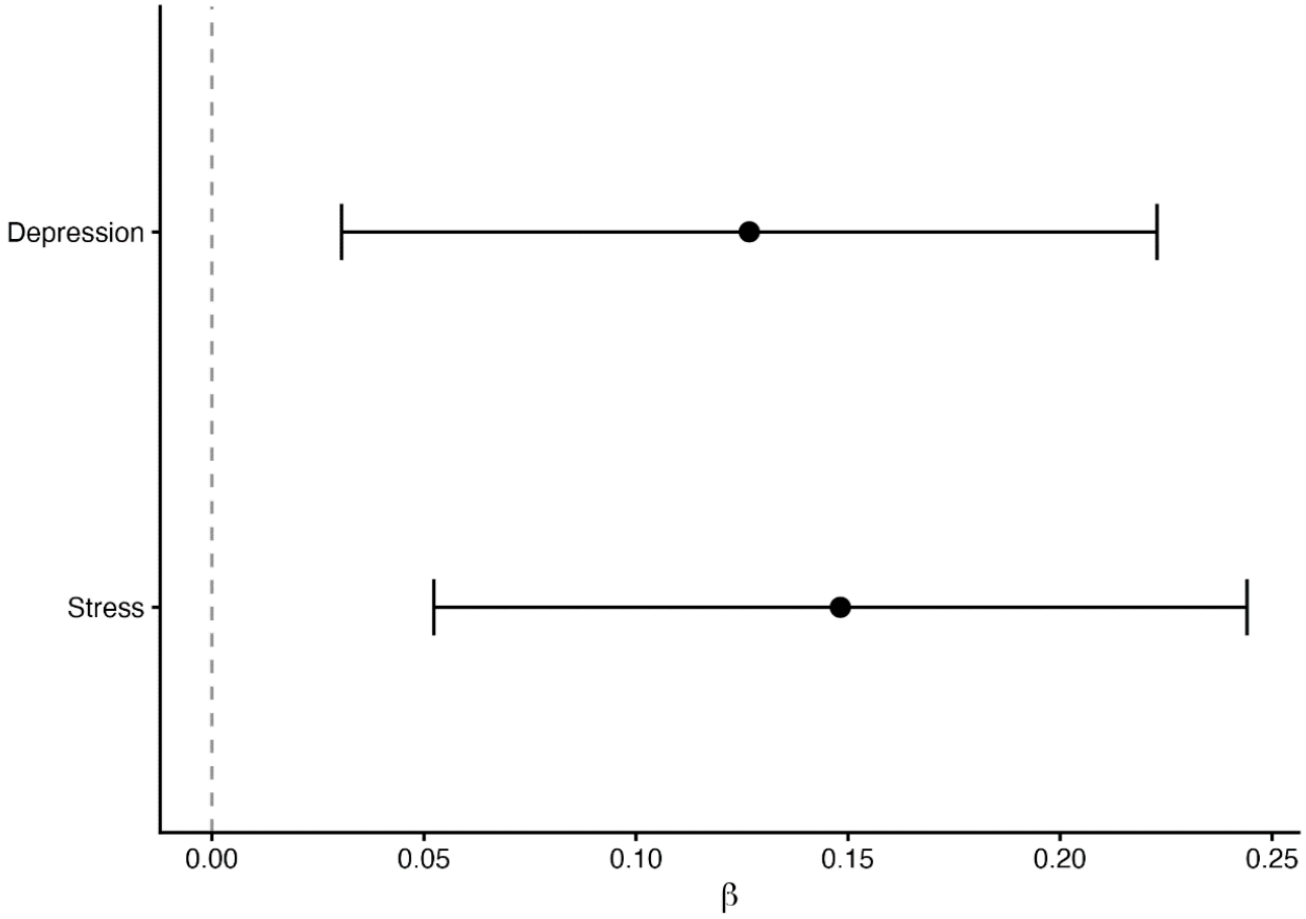

Figure 3

Standardized Effects of Secondary Predictors on Climate-Policy-Related Conspiracy Beliefs

Note. Points are standardized regression coefficients (β), and error bars represent 95% confidence intervals. Coefficients were estimated from Block 1 regression models. The dashed vertical line indicates β = 0.

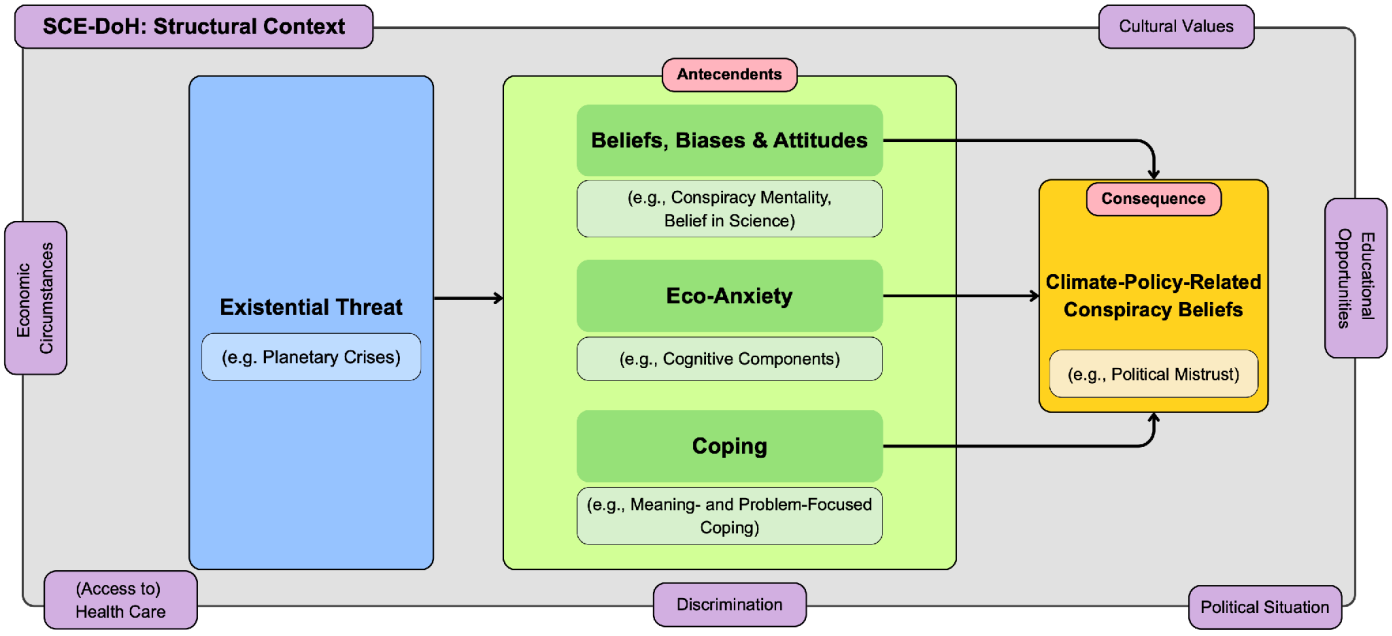

Figure 4

Toward a Psychosocial Model of Climate-Related Conspiracy Beliefs

Note. The figure presents the proposed psychosocial model of climate-policy-related conspiracy beliefs derived from the present findings and previous theoretical and empirical research. Structural contextual factors (see SCE-DoH) are assumed to shape the experience of existential threat, individual antecedents, and the development of climate-policy-related conspiracy beliefs.

Supplementary Files

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- CopingClimateSupplementaryInformation.docx