Testing Theories of Threat, Individual Difference, and Ideology: Little Evidence of Personality Based Individual Differences in Ideological Responses to Threat

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Abstract

Recent attempts to establish the veracity of the conservative shift hypothesis have failed to find supportive evidence. Instead, this work yields inconsistent results and reveals considerable individual differences in ideological responses to ecological threats. In two studies, we build upon this work in two ways. First, we test the conservative shift hypothesis across five ecological threats: unemployment, immigration, racial diversity, COVID-19, and violent crime, more than has been examined in previous work. Second, we test political personality theories which predict that ideological responses to threat will be moderated by conscientiousness and openness to experience. In one nationally representative panel study from the Netherlands (N = 11,189) and one nationally representative repeated cross-sectional study in the U.S. (N = 9,040), we find minimal support for the conservative shift hypothesis and theories that predict personality based individual differences in ideological responses to threat.

Key Words: Conservatism, Threat, Personality, Political Attitudes

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Personality Based Individual Differences in Ideological Responses to Threat

The world can be a dangerous place. Although political ideologies and attitudes are relatively stable (Brandt & Morgan, 2023; Kiley & Vaisey, 2020), prominent theories of ideology suggest that during threatening times, society should shift to the political right (e.g., Jost et al., 2003; Onraet et al., 2013; Sibley et al., 2012). For example, Sales (1972) found that when economic conditions are favorable, conversion rates are higher at liberal churches, while during economic downturns, conversion rates are higher at conservative churches. This finding is consistent with meta-analyses, which find that threat experiences are associated with more conservative political beliefs ($r = .18$, Jost et al., 2003; r's range = [.07, .14], Jost et al., 2017, r = .28, Onraet et al., 2013). We probe the veracity of this conservative shift hypothesis. We examine how multiple real-world ecological threats are associated with political ideology and test if the threats' effects on ideology are moderated by people's personality traits.

Threat and Politics

The key idea behind the conservative shift hypothesis is that conservative attitudes are part of a broader coping response to ecological threats, such as economic downturns, violent crime, and disease (e.g., Hetherington & Weiler, 2009; Inbar et al., 2016; Jost et al., 2017; Sibley et al., 2012). Conservatism is thought to serve this function because the resistance to social change, support for tradition, and support for established hierarchies associated with the ideology (Jost et al., 2003) can help buffer the uncertainty caused by the ecological threat. That is, conservatism entrenches the status quo, thus providing stability and predictability.

The empirical evidence supporting the conservative shift hypothesis, however, tends to examine a narrow range of threats (e.g., with a particular focus on Islamist terrorist threats, Nail

& McGregor, 2009), during a particular period (e.g., Thórisdóttir & Jost, 2011), in particular socio-political contexts (e.g., WEIRD countries, Jost et al., 2003; Onraet et al., 2013), using mostly (but not solely) small cross-sectional samples of undergraduates (e.g., Jost et al., 2003; 2017; Sibley et al., 2012). For instance, recent meta-analyses show that Islamist terrorist threats in western democracies reliably predict conservative shifts (Godefroidt, 2023; Jost et al., 2017). However, this evidence comes mostly from small cross-sectional samples of undergraduates (Jost et al., 2017). Another small study found that New Zealand undergraduate students moved to the right when randomly assigned to read about a threatening future, marred by economic decline and violent crime (Duckitt & Fisher, 2003). Relatedly, people expressed more prejudicial attitudes towards gay men during the Ebola outbreak than before it (at least on a reaction-time attitude measure, Inbar et al., 2016).

Other work has linked racial diversity, immigration, unemployment, and violent crime to conservatism. For instance, Craig and Richeson (2014) found that exposing Whites to information that Whites will constitute a minority of U.S. citizens by 2042 caused White respondents to shift their ideologies in a conservative direction (see also Major et al., 2018). Similarly, an increase in foreign born residents in a community predicted an increase in the vote share received by right wing populist parties in Europe (Halla et al., 2017). When it comes to crime, although evidence has suggested that individual level crime victimization is *not* directly associated with conservatism (e.g., Unnever et al., 2007), *societal* level increases in violent crime have been linked with greater support for conservative "law and order" ideologies (Stack et al., 2007). Taken together, this work suggests that ecological threats *can* push people to the right.

Different Threats, Different Shifts?

The literature, however, is more mixed than the work above suggests (Brandt & Bakker, 2022). For example, when experimentally assigned to read about a climate change, healthcare, or corporate misconduct threat, people shifted their ideologies in a *liberal* direction (Eadeh & Chang, 2020). Likewise, the onset of the COVID-19 pandemic did not shift many attitudes and when it did shift attitudes, the largest changes were in a liberal direction (Brandt et al, in press; Stern & Axt, 2021). Considering this mixed evidence, we believe that there are several questions left unanswered. For one, this work focuses either on a few experimentally induced threats in the context of a survey experiment (Eadeh & Chang, 2020), or one particular (though highly salient) real-world threat (e.g., the onset of the COVID-19 pandemic; Brandt et al., 2023). This raises the question of how findings generalize across other realistic ecological threats. It is possible that findings in line with the conservative shift hypothesis emerge in the face of some threats, but not others.

Similarly, the cross-sectional association between a wide range of *perceived* threats and political ideology varies depending on the threat and the context (i.e. the country; Brandt et al., 2021). However, because of the cross-sectional design and the measures of threat perceptions, this work is unable to examine how *changes* in ecological conditions predict *changes* in political ideology. Eadeh and Chang's (2020) experimental approach is better equipped to study change, but was designed to elicit liberal shifts and the threats were induced by reading texts making the threat salient, rather than experiencing the threatening conditions naturalistically. Testing how the experience of real-world threats predicts attitudes is important because it provides the most ecologically valid test of the ideas. There are ecologically valid tests of the threat-politics association, that suggest that different threats might move people in different directions, but these

focus on one threat at a time (e.g., Brandt et al., in press; Inbar et al., 2016) making cross-threat

comparisons difficult.

Individual Differences in Shifts?

While the evidence is unclear that people on average shift towards conservatism in the

face of threat, the average effects may mask person-to-person variability. That is, when

researchers estimate how threats affect political attitudes, they estimate the average effect in the

sample. However, if there is variation around the effect the average effects may not be a good

representation of the effects for many individuals (Bryan et al., 2021). Consistent with this

possibility, at least in one context, there was significant person-to-person variation in the effect

of the pandemic's onset on attitudes (Brandt et al., in press). What might explain this kind of

person-to-person variation in the threat-politics association? We test two ideas.

One explanation predicts that individuals high in openness should be more likely to shift

towards conservatism in threatening times (Sibley et al., 2012). The idea is that open individuals

are not typically prone to the experience threat. However, when an ecological threat becomes

salient, open individuals experience threat and uncertainty in a way they do not under typical

conditions. During these threatening times, they may also benefit from the stability and

predictability provided by political conservatism. This threat-constraint model thus predicts that

open individuals will be more likely to shift towards conservatism when ecological threat is

higher compared to when levels of ecological threat are lower (i.e., a positive and significant

threat-openness interaction). Evidence for this comes from a meta-analysis of the openness-

ideology association (Sibley et al., 2012), that included ecological threat moderators (violent

crime, unemployment, and lower human development). They find that the typical negative

relationship between openness to experience and conservative (vs. liberal) ideology is reduced when systemic threat is higher (i.e., a positive and significant moderation term).

A second explanation predicts that people high in conscientiousness and low in openness to experience should be more likely to shift towards conservatism during threatening times (Hibbing et al., 2013; 2014). The idea is that not all people are equally likely to recognize and respond to threats and that people high in conscientiousness and low in openness to experience are more likely to register ecological threats than others. This negativity bias perspective thus predicts that individuals low in openness and high in conscientiousness will be more likely to adopt a conservative ideology when ecological threat is high compared to when ecological threat is low (i.e. a negative and significant threat-openness interaction, and a positive and significant threat-conscientiousness interaction). Some of the key findings underpinning this perspective have not replicated successfully (Bakker et al., 2020; Feldman & Huddy, 2014; Fournier et al., 2020; Johnston & Madson, 2022). However, we think it is nonetheless valuable to test this perspective because the failed replications have not addressed the personality predictions. It is possible that some ecological threats that have been linked with conservatism may only be subjectively experienced as threatening by those with this personality profile. For instance, those who are low in openness and averse to novelty may be more likely to experience immigration or racial diversity as threatening. Likewise, those who are high in conscientiousness may be particularly disturbed by increases in crime.

The Current Research

We build on existing work in several ways. First, we examine the real-world impact of a variety of ecological threats on political ideology. In Study 1, we use a large nationally representative 14-wave panel study from the Netherlands to examine whether year-to-year

changes in threat predict within-person shifts political attitudes. In Study 2, we test the relationship between threat and conservatism in the U.S. context. This is an important context to test because most previous evidence in support of such a relationship comes from the US. context (e.g., Jost et al., 2003; 2017), making it a best-case context for our tests. Second, we test if personality traits moderate the effects of threat on ideology. We test whether in line with the threat constraint model, those high in openness are particularly likely to shift towards conservatism during threatening times (Sibley et al., 2012). We also test whether in line with negativity bias perspectives, those high in conscientiousness and low in openness are particularly likely to shift towards conservatism during threatening times (Hibbing et al., 2014). Across both studies, we include multiple operationalizations of ideology since the personality-politics and the threat-politics association may differ across these operationalizations (e.g., Brandt et al., 2021; Johnston et al., 2017). As both authors have worked extensively before with both datasets, and our analyses are exploratory, rather than confirmatory, neither study is preregistered. According to a Markov-Chain-Monte-Carlo (MCMC) power analysis conducted in the package simr (Green & MacLeod, 2016) we possess 100 percent power to detect a small-moderate (.2 on a 0-1 scale) direct effect of threat and 100 percent power to detect a small-moderate threat by personality interaction in the LISS. In the ANES, we possess 100 percent power to detect a small-moderate direct effect of threat, and 84 percent power to detect a small-moderate threat by personality interaction.

Method Study 1

We use the LISS panel (see Scherpenzeel & Das, 2010), a large nationally representative 14 wave panel study from the Netherlands (N = 11,189; *M* waves = 9.34, *SD* waves = 4.39; Demographics wave 1: 49 percent male, *M* age = 36, *Mdn* income = €2,401-€3,000/ month; *Mdn*

education = vocational school) that contains measures of personality and political ideology. We retain individuals in our sample who completed at least two waves of data collection. We merge these data with information about ecological threats in the Netherlands at the time of data collection.

Measures

All measures are detailed in Table 1. We include measures of symbolic ideology (i.e., ideological self-identification) and substantive social and political attitudes (i.e. issue positions, Ellis & Stimson, 2012). Personality was measured using the Dutch version of the IPIP (Goldberg et al., 2006). Because the theories we test treat personality as a stable between-person variable, we average participants' personality scores across waves.

We assessed four threats that varied across the 14-wave study and have been examined in prior work testing threat effects on political attitudes (e.g., Brandt et al., in press; Halla et al., 2017; Sibley et al., 2012; Stack et al., 2007). We looked at the effect of COVID-19, net migration rate per 1,000 individuals, unemployment rate, and homicide rate. COVID-19 was operationalized by coding a dummy indicator for whether data collection took place during the peak of the pandemic (we coded this as whether data collection took place after the first COVID-19 case in the Netherlands on February 27th, 2020, and before March of 2022). Data on the unemployment rate and intentional homicide rate were gathered from the World Bank Data Center and data on the net migration rate was gathered from the United Nations Department of Economic and Social Affairs (United Nations 2023; Word Bank 2023a, World Bank, 2023b). These data were merged with LISS panel data such that the respective year of LISS panel data were coded as having the corresponding unemployment rate, immigration rate, homicide rate, and COVID-19 presence/absence.

Table 1

Summary of LISS panel individual level measures used in analyses

Measure	N Items	N Waves	Example Item	α / r
Ideology				
Income Inequality	1	14	Some people believe differences in income should increase in our country. Others feel that they should decrease. Still others hold an opinion somewhere in between. Where would you place yourself on a scale from 1-5, where 1 means that differences in income should increase, and 5 means differences should decrease?	NA
EU Support	1	14	Some people and political parties feel that European unification should go a step further. Others think that European unification has already gone too far. Where would you place yourself on a scale from 1 to 5, where 1 means European unification should go further and 5 means that it has already gone too far?	NA
Immigrant Culture	1	14	In the Netherlands, some people believe that immigrants are entitled to live here while retaining their own culture. Others feel that they should adapt entirely to Dutch culture. Where would you place yourself on a scale from 1 to 5, where 1 means that immigrants can retain their own culture and 5 means they should adapt entirely?	NA
Symbolic Ideology	1	14	In politics, a distinction is sometimes made between "the left" and "the right." Where would you place yourself on the scale below, where 0 means left and 10 means right?	NA
Union Support	2	13	Trade unions should take a much tougher political stance if they wish to promote workers interests.	.40

Gender & Childrearing	4	14	A woman is more suited for rearing young children than a man.	.70
Mothers of Young Children Working	4	14	Do you think that women, under the circumstances described below, should be able to have a full-time job, a part time job, or no job at all? Example: If she has a baby (a child younger than 1 year).	.69
Fathers Working	4	14	The father should earn money, while the mother takes care of the household and the family.	.65
Mothers of Kids Any Age Working	3	14	For each statement, please indicate to what extent you agree or disagree. Example: A working mother's relationship with her children can be just as close and warm as that of a non-working mother.	.80
Traditional Marriage	7	14	It is perfectly fine for a couple to live together without marriage intentions.	.71
Immigration Ability	8	14	It should be made easier to obtain asylum in the Netherlands.	.69

Personality Traits

Openness	10	14	How accurately do the statements below describe you (as a person)? I… Example: have a rich vocabulary	.77
Conscientiousness	10	14	How accurately do the statements below describe you (as a person)? I… Example: am always prepared	.77
Agreeableness	10	14	How accurately do the statements below describe you (as a person)? I… Example: feel little concern for others (reverse scored)	.80
Extraversion	10	14	How accurately do the statements below describe you (as a person)? I… Example: am the life of the party	.86

Neuroticism	10	14	How accurately do the statements below describe you (as a person)? I…	.88
			Example: am relaxed most of the time	

Note: All multi-item scales can be found in the supplemental materials. We report alpha for all scales with 3 or more items. We report

inter-item correlations for all scales with 2 items.

Modeling Strategy

We fit growth curve models using a multi-level modeling framework with waves nested within individuals (e.g., Bryk & Raudenbush, 1987; Raudenbush & Bryk, 2002). All models were fitted using the lme4 package (Bates et al., 2014) in R version 4.3.0. All variables were recoded to range from 0-1 such that zero represented the minimum value in the dataset on the variable and 1 represented the maximum. Coefficients thus represent the expected proportion change in the dependent variable upon moving from the minimum value to the maximum value of the respective independent variable in the dataset. All continuous predictors are grand-mean centered.

We fit two primary sets of models. First, for each measure of ideology we examine the effects of threats on ideology controlling for personality and wave of data collection, estimating the extent people shift to the political right in response to threat. Second, for the same ideology dependent variables we estimated models also including interaction terms between openness and threats and conscientiousness and threats. The research questions we test, the models we fit, and the patterns of statistical results that would provide support for the frameworks reviewed here are presented in Table 1. The models we present in the main text are our preferred models. However, to show if and how the results may vary across reasonable specifications, we also conducted multiverse analyses (e.g., Simonsohn et al., 2020, Steegen et al., 2016) that varied in the inclusion and exclusion of big five personality control variables and examined ecological threats both in isolation and tandem. The results of this analysis are broadly consistent with the results we discuss in the main text. See supplemental materials for the multiverse analyses.

Table 2

*Summary of research questions, models, terms of interests, and criteria for supportive results*

Research Question/ Framework	Model	Terms of Interest	Supportive Results
Do people shift to the right in the face of threat? (conservative shift)	Growth curve model with waves nested within individuals Threat terms as time-varying predictors Controls for big five personality	IVs: unemployment rate, immigration rate, homicide rate, and COVID-19 presence/absence DVs: self-rated conservatism, 10 substantive attitude measures	Positive and significant coefficients for threat variables
Are individuals who are *high* in openness more likely to shift to the right? (threat constraint)	Growth curve model with waves nested within individuals Threat terms and big five personality terms Threat by openness and conscientiousness interaction terms	IVs: unemployment rate, immigration rate, homicide rate, and COVID-19 presence/absence; threat by openness interaction DVs: self-rated conservatism, 10 substantive attitude measures	Positive and significant openness by threat interaction terms
Are individuals who are *low* in openness and *high* in conscientiousness more likely to shift to the right? (negativity bias)	Growth curve model with waves nested within individuals Threat terms and big five personality terms Threat by openness and conscientiousness interaction terms	IVs: unemployment rate, immigration rate, homicide rate, and COVID-19 presence/absence; threat by openness and threat by conscientiousness interactions DVs: self-rated conservatism, 10 substantive attitude measures	Positive and significant conscientiousness by threat interaction terms Negative and significant openness by threat interaction terms

Results: Study 1

Threat (conservative?) shifts

Across all threats and measures of ideology, results reveal that significant changes in ideology do sometimes occur in the face of threat (see Figure 1). However, the size of this shift is very small (the average threat shift is $b = .007$ on a 0-1 scale), and it is not consistently in a conservative direction (range $b = -.07$ to $b = .08$). People also sometimes shift in a liberal direction during threatening times (9 liberal shifts), sometimes they don't significantly shift at all (14 non-significant shifts), and sometimes they shift in a conservative direction (21 conservative shifts). The mean significant liberal shift was -.02. The mean significant conservative shift was 03. This raises questions regarding even the significant shift's practical importance. In short, more terms emerged as significant and in a conservative direction, but over half of shifts were either non-significant or in a liberal direction.

Interestingly, the largest effects in both a liberal and a conservative direction emerged in the face of increased immigration. Higher levels of immigration predicted the largest liberal shift, more support for mothers in the workforce ($b = -.07$, SE $= .007$, $p < .001$), and the largest conservative shift, less support for labor unions ($b = .08$, SE $= .009$, $p < .001$).

Figure 1

Fixed Effects of Ecological Threats on Different Operationalizations of Ideology
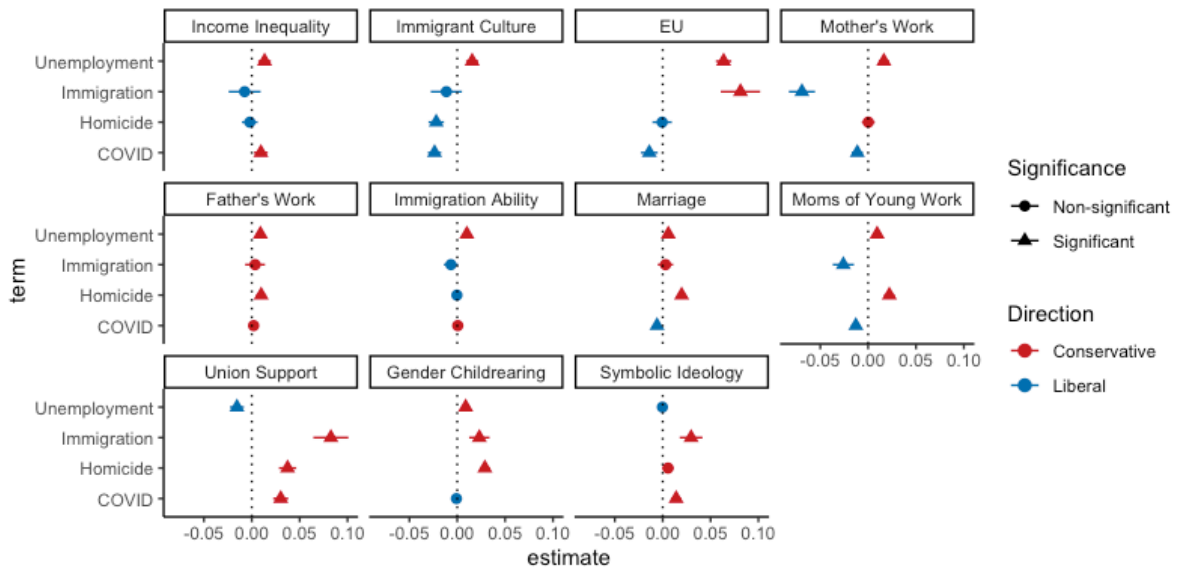
Note: This figure displays fixed effects of threats from 11 growth curve models (one per ideology measure) fitted in a multi-level modeling framework examining the main effects of ecological threats on ideological attitudes. All models control for wave.

Personality based individual differences in shifts

Next, we examined the second set of models testing if threat interacted with openness and conscientiousness in predicting ideology. The threat constraint model (Sibley et al., 2012) predicts that individuals high in openness will shift towards conservatism in the face of threat. The negativity bias perspective (Hibbing et al., 2014) suggests that individuals low in openness and high in conscientiousness should be more likely to recognize threats in society and respond with conservative shifts. Neither of these frameworks explain much with respect to symbolic ideology (see Figure 2). Except for a small openness-unemployment interaction, open individuals are no more or less likely to shift to the right than less open individuals. Likewise, conscientious individuals are no more likely to shift towards conservatism.

We find very little evidence in support of either framework for the substantive policy items (Figure 2). About 8 percent of coefficients (or 6 of 80 relevant terms) emerged in line with predictions generated by the negativity bias perspective, which predicts that positive and significant coefficients should emerge for conscientiousness by threat interaction terms and negative and significant coefficients should emerge for openness by threat interaction terms. 10 percent of coefficients (or 4 of 40 relevant terms) emerged in line with predictions generated by the threat constraint model, which predicts that positive and significant coefficients should emerge for openness by threat interaction terms.

Figure 2

Fixed Effects Threat by Personality Interaction Terms
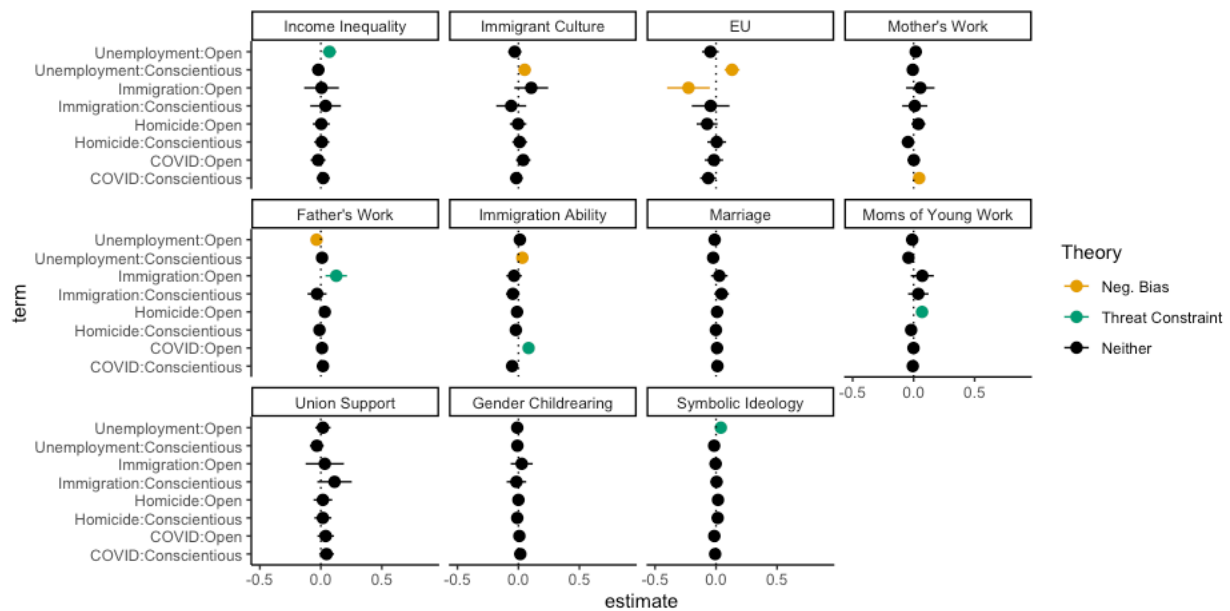
Note: This figure shows the fixed effects for interaction terms between ecological threats and personality variables for 11 growth curve models (one per ideology measure) fitted in a multilevel modeling framework. The models examine whether personality moderates the effects of ecological threats on different operationalizations of ideology. Significant coefficients

consistent with the threat constraint model are coded green. Significant coefficients consistent with the negativity bias perspective are coded orange. All models control for wave.

Discussion: Study 1

We do not find a consistent conservative shift, with support for the conservative shift hypothesis emerging in less than half of cases. Moreover, the typical size of a threat-shift coefficient is very small. The largest effect shifts emerge for the immigration threat, but these shifts are still small (-.07 in a liberal direction, and .08 in a conservative direction respectively). Results are even less supportive of models predicting that personality moderates the effects of threat, with the overwhelming majority of coefficients not emerging as statistically significant.

Method: Study 2

We sought to conceptually replicate our study in the U.S. context. We use the repeated cross-sectional data of the 2012 and 2016 waves of the American National Election Studies (ANES, 2012; ANES, 2016; N = 9,040; *Mdn* age = 50-54, *Mdn* income = $50,000 - $54,999; *Mdn* education = some college, 65 percent white, 48 percent male). The ANES is a nationally representative repeated cross-sectional study of U.S. American eligible voters. These two years contain both a measure of personality and multiple measures of political ideology. We merge these data with data on threat conditions across states.

Measures

All measures are detailed in Table 3. We include measures of symbolic ideology (i.e., ideological self-identification) and substantive social and political attitudes (i.e. issue positions, Ellis & Stimson, 2012). Substantive attitudes were measured separately for the economic and social domains, as research suggests that there are meaningful distinctions between the meaning and correlates of these two dimensions of ideology in the U.S. context (e.g., Johnston et al.,

2017). Respondent personality on each of the big five traits was measured using the TIPI (Gosling et al., 2003).

We assessed three variables – racial diversity, unemployment, and violent crime – that have been characterized as threats and found to lead citizens towards conservatism (e.g., Craig & Richeson, 2014; Roccato et al., 2013; Stack et al., 2007). Threat conditions in each state for each year of data collection (2012 and 2016) were merged with ANES data for the corresponding state and year. Data on the unemployment rate and racial diversity are collected from the U.S. Census API using the tidycensus R package (Walker & Herman, 2021). Data on the violent crime rate were collected from the FBI Crime in the U.S. database (USDOJ, 2013; 2017).

Table 3

Summary of ANES individual level measures used in analyses

Measure	N Items	Example Item	α / *r*
Ideology			
Symbolic Ideology	1	We hear a lot of talk these days about liberals and conservatives. Where would you place yourself on this scale or haven't you thought about it much? 1- Extremely liberal… 7- Extremely conservative… - 2- Haven't thought about it much… -8- Don't know… -9 Refused to answer	NA
Social Ideology	4	Newer lifestyles are breaking down society. (Rate agreement on scale from 1- Agree strongly to 5- Disagree strongly)	.71
Economic Ideology	5	Which of the two statements comes closer to your view? 1. The main reason government has become bigger is because it has gotten involved in things that people should do for themselves. 2. Government has become bigger because the problems we face have become bigger.	.79
Personality			
Openness	2	Intro: We're interested in how you see yourself. Please mark how well the following pair of words describes you, even if one word describes you better than the other. Example: Open to new experiences, complex.	.24
Conscientiousness	2	Intro: We're interested in how you see yourself. Please mark how well the following pair of words describes you, even if one word describes you better than the other. Example: Disorganized, careless	.37
Extraversion	2	Intro: We're interested in how you see yourself. Please mark how well the following pair of words describes you, even if one word describes you better than the other. Example: Reserved, quiet	.32

Agreeableness	2	Intro: We're interested in how you see yourself. Please mark how well the following pair of words describes you, even if one word describes you better than the other. Example: Sympathetic, warm	.19
Neuroticism	2	Intro: We're interested in how you see yourself. Please mark how well the following pair of words describes you, even if one word describes you better than the other. Example: Anxious, easily upset.	.37

Note: Multi-item measures are reported in supplemental materials. We report alpha for all scales with 3 or more items. We report

inter-item correlations for all scales with 2 items.

Modeling Strategy

We estimated multilevel models with individuals nested within states using the lme4 package (Bates et al., 2014). We include year in our analyses as a dummy coded covariate. All continuous variables in the model are mean centered and recoded to range from 0-1. Coefficients thus represent the expected proportion change in the dependent variable upon moving from the minimum to the maximum value of the respective independent variable in the dataset. As some socio-demographic variables are correlated with both state-level threat and political ideology, we control for race, gender, age, education, and income in the analyses reported in the main text.

We fit two sets of primary models for each of the three dependent variables. The first set of models look at the main effect of state-level threats (here, considered simultaneously) on ideology controlling for personality. The purpose of these models is to investigate whether those who live in states with more threatening ecological conditions are more likely to be conservative. The second set of models includes relevant trait by threat interaction terms to test whether personality moderates the propensity to be more conservative in the face of threat. More information on these models, and the patterns of results suggested by different frameworks is presented in Table 4 below. We also conduct multiverse analyses, as above, to probe the extent to which results are robust to the inclusion and exclusion of demographic covariates, and when personality and threat variables are considered in isolation and tandem. The general conclusions based on the models presented in text are also consistent with the results of the multiverse analysis (see supplemental materials)[2].

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[2] Note: Because the theories we test predict variation in the relationship between ideology and personality based on state level threat, we initially attempted to fit models including a random effect of personality by state. These models did not converge due to lack of variation. We think this in and of itself is evidence against the political personality theories we test.

Table 4

Summary of frameworks, models, and supportive results ANES analysis

Research Question/ Framework	Model	Terms of Interest	Supportive Results
Are people more conservative in states with more threatening conditions? (i.e., conservative shift hypothesis)	Multilevel model with individuals nested within states Threat condition and personality predictors, demographic controls, dummy indicator for year	IVs: violent crime rate, unemployment rate, proportion non-white, big five DVs: symbolic ideology, social ideology, economic ideology	Positive and significant threat terms, people in more threatening environments are more conservative
Are people who are *high* in openness more likely to shift to the right in the face of threat? (threat constraint)	Multilevel model with individuals nested within states Threat condition and personality predictors, demographic controls, dummy indicator for year Relevant personality by threat interactions	IVs: violent crime rate, unemployment rate, proportion non-white, big five, relevant personality by threat interaction terms DVs: symbolic ideology, social ideology, economic ideology	Positive and significant openness by threat terms
Are people who are *low* in openness and *high* in conscientiousness more likely to shift to the right in the face of threat? (negativity bias)	Multilevel model with individuals nested within states Threat condition and personality predictors, demographic controls, dummy indicator for year	IVs: violent crime rate, unemployment rate, proportion non-white, big five, relevant personality by threat interaction terms DVs: symbolic ideology, social ideology, economic ideology	Negative and significant openness by threat interaction terms Positive and significant conscientiousness by threat interaction terms

Relevant personality by
threat interactions

Results: Study 2

Threat (conservative?) shifts

State-level ecological threats do not predict conservatism (Figure 5). None of the threat

variables we examined significantly predicted any of the operationalizations of conservatism. In

one model, the unemployment rate emerges as a marginally significant predictor of social

conservatism. However, the relationship between these variables is small ($b = .06$, SE $= .03$, $p =$

.08).

Figure 3

Fixed effects of state-level threat on ideology
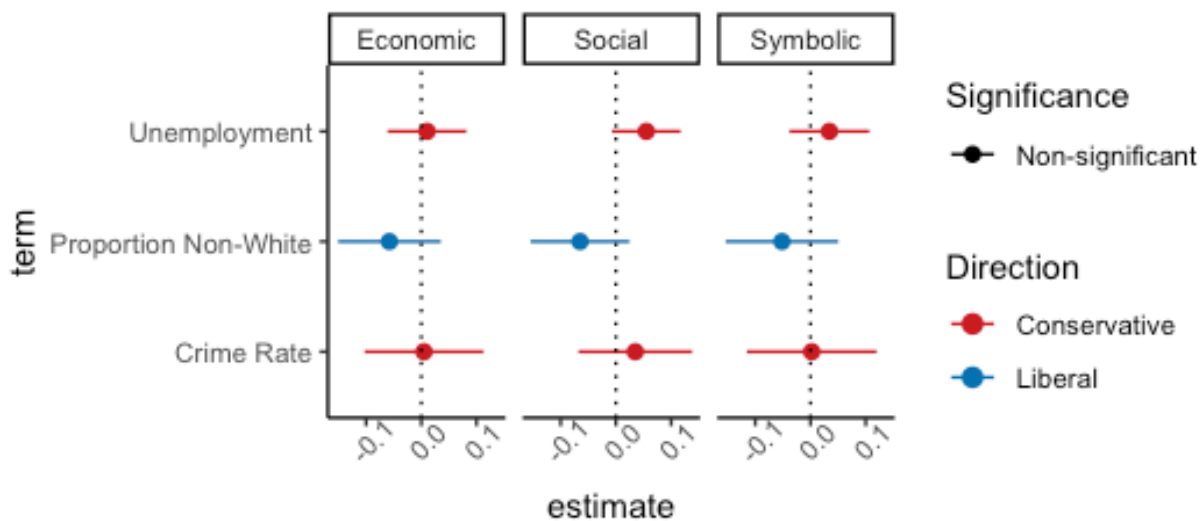
Note: This figure displays the effects of state-level ecological threats on political ideology.

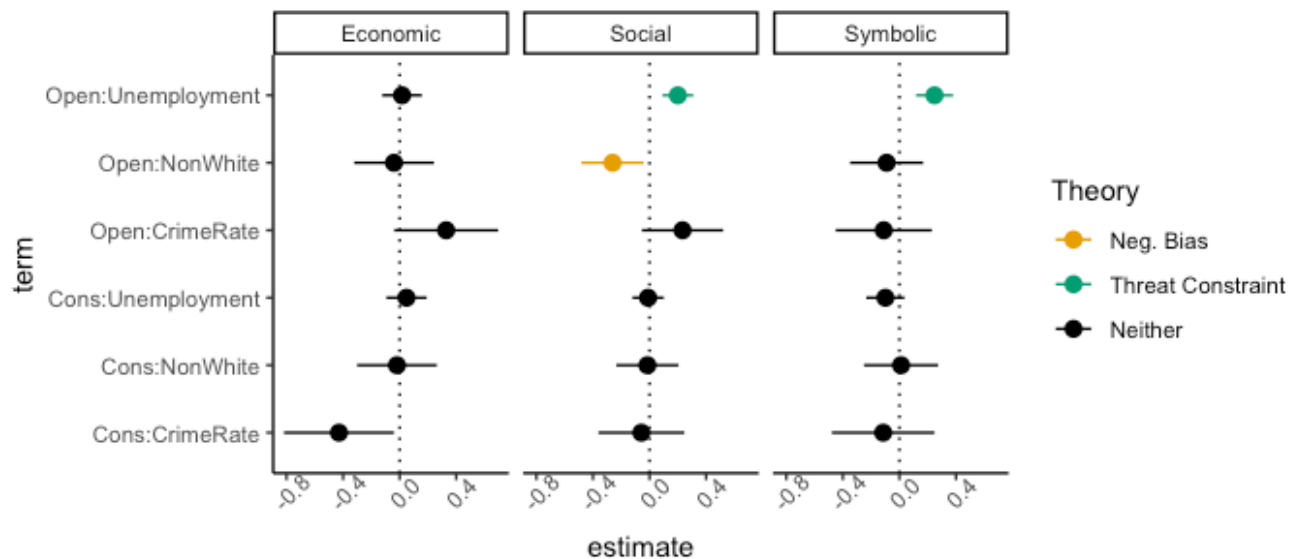Models control for race, gender, education, age, income, and big five personality traits.

Personality based individual differences in shifts

Of the 18 relevant personality by threat interaction terms, only 4 emerge as statistically

significant. In line with the expectations of the threat constraint model, when unemployment is

high, individuals high in openness were more likely to identify as conservative and express

socially conservative attitudes (symbolic ideology: open*unemployment b = .25, SE = .07, p <

.001; social conservatism: open*unemployment b = .20, SE = .06, p < .001). In line with the

negativity bias perspective, a negative and significant openness by proportion non-white

interaction term emerges (b = -.26, SE = .11, p = .02) indicating that more (less) open individuals

are, the less (more) likely they are to endorse socially conservative attitudes when the proportion

of non-white individuals in a state is high. However, the fourth significant interaction term we

observed is not consistent with any of the individual difference theories we examine. We find

that conscientious people are *less* likely to adopt economically conservative attitudes when the

crime rate is high (b = -.44, SE = .2, p = .03).

Figure 4

Fixed effects of threat by personality interaction terms

Note: This figure displays the relevant threat by personality interaction terms from the second set

of multilevel models fitted to test theories of personality based individual differences in

ideological response to threat. Model controls for race, gender, education, age, and income as

well as big five personality traits. Significant coefficients in line with threat constraint are color coded green. Significant coefficients in line with negativity bias are coded orange.

Discussion: Study 2

Using a different study design in a different country, we largely replicate Study 1. Our analyses do not find evidence for a consistent conservative shift. Results are also largely unsupportive of models predicting that personality moderates the effects of threat on ideology, with the majority of coefficients not reaching statistical significance.

General Discussion

Across two socio-political contexts, we find little evidence in support of a consistent conservative shift and little support for political personality theories of individual differences in conservative shifts. In Study 1, slightly less than half of coefficients were consistent with the conservative shift hypothesis. However, liberal shifts occurred in about a quarter of cases, and tended to be of a similar size as conservative shifts. In Study 2, no coefficients were consistent with the conservative shift hypothesis. In both studies, only a small percentage of coefficients were consistent with either the negativity bias perspective or the threat constraint model. This suggests that ecological threats do not have consistent effects on ideological outcomes and the influence of these threats are not consistently moderated by openness and conscientiousness.

The finding that ideological responses to ecological threats in a naturalistic setting, are not accurately predicted by influential theoretical accounts (e.g., Jost et al., 2003; Hibbing et al., 2014) is an important finding. Political psychologists have long assumed that ecological threats are a core predictor of conservatism (Adorno, 1950; Fromm, 1941; Sales, 1972; Sales, 1973). Instead, we find that threat is, at best, a small and very inconsistent predictor of conservatism.

Indeed, we find that these frameworks would make *incorrect* predictions about ideological responses to ecological threat and individual differences in response in most cases. If ecological threats are a core predictor of conservatism, it is quite surprising that consistent evidence for these predictions are so hard to come by.

One interesting pattern that did emerge is that the largest effects in Study 1 are for threat-ideology pairs where the ideology could be plausibly construed as addressing the threat. For example, the largest liberal and conservative effects were observed for immigration. The largest liberal shift occurred with respect to women working outside the home, and the largest conservative shift occurred with respect to opposition to labor unions. Women earning money by working outside the home, and less political power afforded to unions, could be viewed by some as protecting the interests of the native-born and their families. This is because the additional income brought in by women in the workforce could increase socio-economic disparities between immigrants and the native born. Likewise, weaker unions could mean less political power afforded to immigrants who may be perceived as more likely to benefit from unions.

Such a phenomenon would be generally consistent with Eadeh and Chang (2020) who suggest that political attitudes can shift in either a liberal or a conservative direction in response to threat depending on whether a liberal or conservative policy is *subjectively perceived* as a better solution to the threat. Critically, their framework does not necessarily pertain to a particular threat/ ideology relationship, but rather the mechanism underlying such relationships. People can shift in either a liberal or a conservative direction depending on whether an ideology is subjectively perceived as addressing a threat. Although we think this is a plausible explanation that may help us account for some of the threat-ideology variation, we cannot directly test the

explanation with our data. Future work should further explore this possibility, as well as other possible mechanisms linking different threats to perceived ideological solutions.

The present work has several advantages. We test the theories in large nationally representative samples, one of our studies is a panel study allowing us to study within-person ideological responses, and we tested multiple naturalistically experienced ecological threats. Finally, we go beyond mere conceptual replication to investigate theoretically derived, but largely untested, personality moderators.

These strengths notwithstanding, there are limitations. Although Study 1 can assess within-person changes in ideology and their association with changes in ecological threat, Study 2 uses cross-sectional data that is unable to assess such dynamics. Second, we lack measures of subjective perceptions of threat. It is possible that when people feel subjectively threatened by ecological conditions, they will indeed shift to the right (although, see Brandt et al., in press for results contrary to this). Third, although we do examine more ecological threats than previous work, we do not examine all possible threats. We purposely selected 4 of our 5 threats because they have been linked to conservative shifts in the past; however, unexamined threats may be the key to predicting conservative shifts. Fourth, we used data from two countries. Threat dynamics may vary considerably across countries (cf. Brandt et al., 2021). Future research should address these limitations, for instance by experimentally manipulating multiple threats and measuring subjective threat perceptions in respondents living in multiple countries, or by examining a wider sample of possible threats.

We find only limited evidence in support of the conservative shift hypothesis, and very little evidence in support of political personality theories that predict systematic individual

differences in ideological responses to threats. This suggests that ecological threats are not key

drivers of conservatism.

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