

Threat and right-wing attitudes: a cross-national approach

Emma Onraet, Alain van Hiel, & Ilse Cornelis

Ghent University, Department of Developmental, Personality, and Social Psychology

WORD COUNT: approximately 4200 words. Tables and figures included.

RUNNING HEAD: Threat and right-wing attitudes

Authors' Note: Correspondence should be addressed to Emma Onraet or Alain Van Hiel, Department of Developmental, Personality and Social Psychology, Henri Dunantlaan 2, B-9000, Ghent, Belgium. E-mail addresses: Emma.Onraet@UGent.be and Alain.VanHiel@UGent.be

Abstract

Threat relates to right-wing ideological attitudes at the individual level. The present study aims to extend this relationship to the national level. More specifically, in a sample of 91 nations, we collected country-level indicators of threat (including inflation, unemployment, gross national product, homicide rate, and life expectancy). Moreover, we analyzed data from the European and World Value Survey (total N = 134,516) to obtain aggregated country-level indicators for social-cultural and economic-hierarchical right-wing attitudes for each of these countries. In accordance with previous findings based on the individual level, a positive relationship between threat indicators and right-wing attitudes emerged. This relationship was stronger than what was usually reported at the individual level. In the discussion, we focus on the mutually reinforcing influence at the individual and national levels in terms of right-wing attitudes.

The hypothesis that threat relates to right-wing attitudes has been confirmed in many political psychological studies over the years using several right-wing ideological attitudes, including authoritarianism, social dominance orientation, and conservatism (for meta-analytic overviews, see Jost, Glaser, Kruglanski, & Sulloway, 2003; Onraet, Van Hiel, Dhont, & Pattyn, 2011). In these studies, threat has been rather diversely operationalized, mostly focusing on subjective perceptions. When being exposed to the same threatening situations or events, individuals greatly differ in the extent to which they experience these threats; some of these individuals are hardly affected, whereas others are paralyzed by anxiety. Studies of subjective threat revealed that perceiving the world as a dangerous place with low levels of social cohesion, high levels of perceived terroristic threat and problematic economic or political situations, as well as the experience of threat posed by the presence of outgroups, is associated with higher levels of right-wing attitudes (for example, Duckitt, 2001; Duckitt & Sibley, 2009). However, despite the advantages of investigating these subjective threat perceptions, which allow to tap into the private views of individuals, the validity of these studies might be at risk because of self-report and response biases.

A number of studies have also presented evidence for the effects of threatening situations on right-wing attitudes (e.g., Doty, Peterson, & Winter, 1991; McCann, 1997; Winter, 1996). As an example, following the September 11th, 2001 terrorist attacks, individuals who were close to the World Trade Center at the moment of the attacks moved toward political conservatism (Bonanno & Jost, 2006). Similar results were obtained in Spain after the Madrid attacks in March 2004 (Echebarria-Echabe, & Fernández-Guede, 2006). Finally, some studies have investigated situational indicators of threat, typically using “objective” measures based on statistical indicators, such as income, unemployment and crime rate. These studies also yielded corroborative evidence for the positive relationship between threat and right-wing attitudes. As an example, on the basis of archival data, Sales

(1972, 1973) reported higher conversion rates to authoritarian churches and increased manifestations of authoritarianism (such as increased budgets for police) during a period of high threat, as compared with a period when threat levels were low. Changes in societal threat (including economic, social, and political threat) thus increase right-wing attitudes (see Doty et al., 1991; McCann, 1997).

Towards a two-dimensional representation of right-wing attitudes

A comprehensive view of right-wing attitudes requires the differentiation between the social-cultural and economic-hierarchical domains (see, Duckitt, 2001; Middendorp, 1978). In the social-cultural domain, progressive, left-wing attitudes refer to the freedom to arrange life according to one's own insights, whereas right-wing ideology reflects adherence to traditional values and norms. Cultural right-wing attitudes thus favor authoritarian parent-child relationships, traditional work ethics, and conventional female roles (see, Middendorp, 1978). This dimension typically has been labeled cultural or social conservatism, authoritarianism and traditionalism at one pole, versus openness, autonomy, liberalism, or personal freedom at the other pole.

From an economic-hierarchical perspective, left-wing attitudes emphasize equality of the distribution of power, income, and opportunities (see, Middendorp, 1978). Economic right-wing attitudes refer to adherence to capitalist ideology, private initiative and unrestricted competition among individuals. This dimension has been labeled as economic conservative beliefs, social dominance orientation, belief in hierarchy or inequality at one pole versus egalitarianism, humanitarianism, social welfare, or concern at the other pole (Duckitt, 2001).

Whereas initially right-wing attitudes were considered the expression of a deeply ingrained personality dimension (e.g., Adorno et al., 1950; Altemeyer, 1998), recent research showed that right-wing attitudes should instead be considered as generalized attitudes and beliefs of a broadly ideological nature (e.g., Duckitt, 2001). Moreover, it is believed that this

set of attitudes can change over time and across social contexts. Most notably, social threat is reported to impact upon right-wing attitudes (e.g. Doty et al., 1991; Duckitt, 2001; Stenner, 2005).

Trait variables at the national level

There has been a long interest in the national level analysis of psychological constructs reflected in studies of cross-national differences in, for example, personal values (e.g., Buchanan & Cantril, 1953). More recent research has examined cross-national differences in mean-level scores on personality traits and particularly on the cross-national variation in the prevalence of the traits included in the Five-Factor Model of personality (e.g., McCrae, Terracciano, & 79 Members of the Personality Profiles of Culture Project, 2005). Moreover, the utility of the national character has been amply demonstrated, such that the national Five-Factor Model dimensions have been reported to strongly relate to, for example, health outcomes and mortality (e.g., Bogg & Roberts, 2004).

There has also been a long interest in the national level analysis of political psychological traits. This interest is exemplified by Inglehart (1990), who has shown that a country's economic growth and prosperity shifts incumbents' attitudes in the direction of postmaterialism. The work of Fromm (1941) on the national character of fascist prone countries versus democratic ones represents an early treatment of national character, although this author did not present empirical data on the matter. Despite the attention on the relationship between threat and right-wing attitudes, however, previous studies have neglected to study the relationship between threat and cross-national level data of right-wing attitudes.

The present study

In the present study, we aimed to extend the hypothesis that threat is associated with heightened levels of social-cultural and economic-hierarchical right-wing attitudes at the national level. In the present study, we examined whether country-level indicators of threat

are related with mean levels of inhabitants' right-wing attitudes. In line with previous studies on the individual level (see, Jost et al., 2003; Onraet et al., 2011), as well as with the few studies that established within-nation longitudinal effects (e.g., Doty et al., 1991; McCann, 1997; Sales, 1972, 1973), we expected to find a positive relationship between country-level threats and national levels of right-wing attitudes. This research question was investigated by including countries from all over the world, which extends previous studies that almost exclusively included highly developed, democratic societies.

We selected threat indicators based on previous archival studies investigating the relationship between threat and authoritarianism at the national level (Sales, 1973; Doty et al., 1991). Moreover, the worldwide availability of data of these indicators was another necessary condition. As a result, we selected five threat indicators: inflation rate, unemployment rate, Gross Domestic Product, homicide rate, and life expectancy. This selection included diverse types of threat, such as economic threat and direct threat to one's life (see also Sales, 1973; Doty et al., 1991). Data of these indicators for each country were retrieved from reliable data sources, such as the CIA World Fact Book and the United Nations.

National levels of right-wing attitudes were computed on the basis of items from the WVS (<http://www.worldvaluessurvey.org/>) and the EVS (<http://www.europeanvaluesstudy.eu/>). Both surveys are administered in representative samples and use practically identical questionnaires and methodologies. We selected items tapping into social-cultural and economic-hierarchical right-wing attitudes (Duckitt, 2001; Middendorp, 1978). Country-level indicators were obtained by calculating the mean score for each item.

Method

Country sample

We analyzed data from 91 countries: 42 European, 2 North American, 11 South American, 20 Asian, 14 African, and 2 countries in the Australian region. The choice of countries was determined by data availability.

Country level threat indicators

In each country, the national threat measures were taken from the year before the corresponding EVS/WVS wave. Using the CIA World Factbook (<https://www.cia.gov/library/publications/the-world-factbook/>), we obtained measures for inflation rate (consumer price index), unemployment rate, Gross Domestic Product (per capita), and life expectancy. Furthermore, a measure for homicide rate (per 100,000 individuals in a given population) was taken from the United Nations Office on Drugs and Crime Website (UNODC, <http://www.unodc.org/unodc/>). Because these indicators were not available for each country at the time period being studied, we established several rules to fill in these missing values. First, we looked for data from a nearby year. If these data were not available, we computed the mean score of the indicator for all neighboring countries and assigned this value to the target country. If computing this mean score was not possible, we computed the mean score of all available countries within that continent.

Country-level indicators for right-wing attitudes

We used the last available wave of the EVS (2008, 36 countries included) and WVS (2005, 39 countries included) as a starting point. To obtain additional countries, we also included 16 countries included in the 2000 WVS wave. In these surveys, two items were closely related to the construct of social-cultural right-wing attitudes. First, *obedience as a child-rearing value* was measured by giving participants a list of qualities which children can be encouraged to learn at home. Participants indicated which qualities they found especially important. The response was coded as 1 corresponding to “not mentioned” and 2 corresponding to “mentioned” (overall $M = 1.39$, $SD = .19$). Second, *respect for authority* was

measured using the question, “Do you think if there would be greater respect for authority in the near future, it would be a good thing or a bad thing?” The response was coded with 1 for “a bad thing” and 2 for “a good thing” (overall $M = 1.83$, $SD = .18$).

Two items tapped the construct of economic-hierarchical attitudes. First, preference for *income inequality* was measured by agreement with the statement “Incomes should be equal” versus “There should be greater incentives for individual effort.” Answers were given on a 10 point Likert scale with 1 corresponding to full agreement with the first opinion and 10 to full agreement with the second opinion (overall $M = 5.81$, $SD = 1.11$). Similarly, *attitudes towards competition* was measured by agreement with the statement, “Competition is harmful. It brings out the worst in people” versus “Competition is good. It stimulates people to work hard and develop new ideas” (overall $M = 6.20$, $SD = .69$).

Results

First, we computed the correlations among the study’s variables (see Table 1). Most importantly, national threat was significantly related with the aggregated scores on several items of right-wing attitudes (i.e., 17 out of 20 correlations were significant, $r_s > .23$).

Next, structural equation modeling (SEM) with latent variables was performed using Lisrel 8.71 (Jöreskog & Sörbom, 2004). SEM has several advantages over zero-order correlations; most noticeably, SEM enables one to model latent variables while taking into account the unreliability of the indicators. Figure 1 represents the model of the relationships between threat and right-wing attitudes¹. The goodness-of-fit of this model was assessed using the chi-square test, the comparative fit index (CFI), the root-mean-square error of approximation (RSMEA), and the standardized root-mean-square residual (SRMR).

Following standard recommendations, a satisfactory fit is indicated by: chi-square values lower than double the degrees of freedom, CFI values greater than .95, RMSEA values of less

¹ The extraction of one principal component from the five threat indicators revealed high loadings of all indicators (all loadings $\geq .70$), explaining 59.55% of the variance. The threat indicators thus seem to be adequately represented by a single dimension.

than .06, and SRMR values of less than .08 (Hu & Bentler, 1999). The model indices reflected a good fit ($N = 91$; $\chi^2 = 29.11$, $df = 24$, $RMSEA = .05$, $SRMR = .05$, $CFI = .99$). Additionally, as can be seen in Figure 1, highly significant paths between the latent variables emerged. These paths between the latent constructs were often stronger than the loadings of the indicators on their latent constructs. Hence, to establish whether we can indeed empirically distinguish between the latent constructs, we compared the fit of the model depicted in Figure 1 with the fit of several models that constrained the correlation between two latent constructs to 1 (for example, testing the fit of a model where the correlation between economic-hierarchical attitudes and threat is set to 1). The fit of all these constrained models was significantly worse ($\Delta\chi^2$'s > 12.98 , $ps < .001$), suggesting that threat, social-cultural attitudes, and economic-hierarchical attitudes represent separate, but strongly related, latent constructs.²

Insert Figure 1 about here

To further clarify the obtained associations between threat and right-wing attitudes, Figures 2a and 2b depict the scores of all countries related to threat (on the X-axis) and social-cultural (Figure 2a) and economic-hierarchical (Figure 2b) right-wing attitudes (on the Y-axis). From these Figures, it can be easily inferred that countries with high levels of threat are more likely to have high levels of right-wing attitudes. Figure 3a and 3b depict levels of social-cultural and economic-hierarchical right-wing attitudes on a world map. To obtain a classification for right-wing attitudes, we divided the countries into five categories for both social-cultural and economic-hierarchical right-wing attitudes using the 20th, 40th, 60th and

² A model with the 4 single indicators as manifest variables instead of two latent variables of social-cultural and economic-hierarchical attitudes did not show significant better fit ($\Delta\chi^2 = 0.6$). Furthermore, it was revealed that the strength of the paths between the threat latent variable and the single indicators of attitudes remained strongly positive, corroborating our previous findings (the path coefficients were .65, .36, .34, and .36 for the relationship of threat with obedience, authority, incomes, and competition, respectively).

80th percentiles of these variables. As can be seen in all Figures, countries situated in Africa show the highest levels of right-wing attitudes.

Insert Figures 2a and 2b about here

Insert Figures 3a and 3b about here

Finally, we tested for potential exponential relationships between threat and right-wing attitudes using curve estimation on the basis of the latent scores. Specifically, in countries under very high threat, levels of right-wing attitudes might be disproportionately high. Indeed, historical events illustrate that the collective mind is remarkably efficient in absorbing right-wing authoritarian ideas when confronted with extremely high levels of threat (e.g. the rise of Hitler). It was revealed that the exponential relationship was significant for both social-cultural right-wing attitudes, $F(1, 89) = 20.30, p < .001$, and economic-hierarchical right-wing attitudes, $F(1, 89) = 10.52, p < .01$. These results indicate that with high levels of threat, the increase in right-wing attitudes is especially pronounced (see Figures 2a and 2b).

Discussion

The main aim of the present study was to examine the relationship between threat and right-wing attitudes at the national level. Therefore, we investigated national threat indicators based on statistical data, as well as aggregated scores on social-cultural and economic-hierarchical right-wing attitudes. We were able to show that the level of threat in a country is positively related to the national level of right-wing attitudes. More specifically, countries under high levels of threat are more inclined to have overall higher levels of social-cultural and economic-hierarchical right-wing attitudes than countries under low threat levels. These findings attest to the strength of the macro social context to elicit an attitudinal shift in the right-wing direction of the entire population. Our results corroborate psychological theories considering threat as an important correlate of authoritarianism (see, Jost et al., 2003; Onraet et al., 2011), as well as studies reporting strong relationships between situational threat and

right-wing attitudes within nations (e.g., Doty et al., 1991; Sales, 1972, 1973). The magnitude of the relationship between threat and national right-wing attitudes was impressive, with standardized path coefficients of .70 and .79. This relationship is much stronger than previous findings reported at the individual level. Indeed, based on meta-analytic integrations of studies (Jost et al., 2003; Onraet et al., 2011), the relationship between threat and right-wing attitudes at the individual level has been reported to be in the range of .25-.50. It should be noted that these very strong effect sizes cannot be attributed to shared method variance, since the national level right-wing attitudes are based on self-report measures, while the national threat indicators are based on statistical indicators such as unemployment rate. A possible explanation for this stronger relationship of national data is the principle of aggregation, which typically occurs because reduced measurement error produces a highly stable and reliable assessment (see, Epstein, 1986; Steel & Ones, 2002). Hence, when two variables are similarly related at the individual and national levels of analysis, the observed correlations at the national level may be expected to be higher than those found at the individual level.

However, it is important to note that individual-level relationships do not always replicate at higher levels of analysis. For example, it is possible that relationships on the individual and national level show reversed signs, suggesting that different processes operate at both levels. However, when the relationship between two variables is the same at different levels, this indicates that similar constructs and processes operate at these levels (Steel & Ones, 2002). Hence, the present results suggest that processes underlying the relationship between threat and right-wing attitudes are the same at the individual and the national level. It might, however, be recommendable to conduct multilevel analysis, including not only country-level threat indicators, but also experienced threat at the individual level. Such a design would allow to examine the relationship between individual level threat and right-wing attitudes, while statistically modeling the national level. It should be stressed, however, that

these ideas require testing individual-level threat items that are not included in the values surveys used in the present study.

The present study also revealed an exponential relationship between threat and right-wing attitudes. More specifically, it was revealed that at the high end of the threat continuum, right-wing attitudes increase to disproportionately high levels. In other words, very high levels of country-level threat may go together with a collective mindset that tends to shift to the (far) right. Historical observations indeed speak to this conclusion. The rise of Hitler in Germany, for instance, occurred during a period of severe recession and economic hardship. As the present results indicate, in the face of threat, the collective mind seems to be remarkably efficient in becoming authoritarian and potentially accepting autocratic leadership.

Finally, our results also speak for the universal nature of the relationship between threat and right-wing attitudes. More specifically, the present relationship emerged using a worldwide sample, including countries from all continents. However, it should be noted that the available survey data cannot be considered as fully exhaustive as they are limited by the possibility of personally questioning individuals within a specific country. The issue arising here is whether the present relationships between threat and right-wing attitudes would remain when including other, extremely threatening contexts, such as Afghanistan, Myanmar, and North Korea.

In the remainder of this article, we discuss the interplay between national character and the psychology of the individual. We also discuss some of the strengths and limitations of our study.

The interplay between individual and nation

Rentfrow, Gosling, & Potter (2008) have developed a theoretical framework to understand the relationship between individuals and nations for variables that relate on the individual and national levels. Rentfrow and colleagues start with the straightforward

observation that in countries with higher mean levels of a trait, such as right-wing attitudes, there is an increased likelihood of finding people who score highly on this trait. Moreover, because attitudes are often expressed in behavior (e.g., Ajzen, 1991), there is an increased likelihood of right-wing expressions, like increased support for right-wing parties, in such countries. These common tendencies may become represented at the collective and institutional levels, such as the mental representation of the nation as a conservative country. These tendencies might even become institutional, as expressed, for example, by the presence of strict laws. According to Rentfrow and colleagues, such a context “could also affect individuals in the environment who score comparatively low on those traits” (p. 344). In other words, a right-wing climate may create a psychosocial environment that influences “the ways in which people in that region think, feel, and behave, even if those tendencies are contrary to their natural dispositions” (p. 344). Hence, the general shift towards the right-wing not only expresses itself in higher levels of right-wing attitudes among incumbents who already have right-wing attitudes, but also among those on the left-wing side.

The application of Rentfrow and colleagues’ (2008) theory on mutual, reinforcing individual and national levels speaks to the context dependability of ideology and the flexibility of individuals and groups to shift their ideological attitudes in either direction. The idea that right-wing attitudes have the potential to influence the group level is certainly not new and some scholars have even described right-wing attitudes in terms of group processes. Authoritarianism, which is often considered a typical variable that taps into the social-cultural domain, has been repeatedly described in terms of adherence to ingroup norms (see, Duckitt, 2001; Stellmacher & Petzel, 2005) and as a means to foster large scale cooperation (Kessler & Cohrs, 2008). Threat has also been reported to increase adherence to norms in small groups (Turner, Pratkanis, Probasco, & Leve, 1992), and the increase in right-wing attitudes might be interpreted as a large scale strategy of adhering to group norms in the face of collective threat.

Moreover, the finding that in threatened countries there is a collective tendency to accept economic-hierarchical right-wing attitudes, such as income inequality and increased competition, also aligns well with System Justification Theory (Jost & Banaji, 1994), which holds that under heightened system threat status, inequalities are better accepted.

Strengths and limitations

Our study has various strengths and limitations. A definite strength is the use of statistical threat indicators retrieved from reliable sources. By using these statistical threat indicators, item response biases were avoided. Moreover, statistical measures are more comparable over countries than subjective perceptions of threat. Another strength of the present study is the use of country-level scores of right-wing attitudes based on well-validated, high-quality questionnaires, administered in large, representative samples. Furthermore, due to the worldwide availability of Values Survey data and statistical threat indicators, we were able to include less developed countries.

However, there are also methodological weaknesses to the present study. First, although we used well-validated questionnaires, cultural biases from linguistic or cultural differences may still have pervaded our study. However, if such biases do exist, they would add measurement error, thus potentially weakening the relationships between the constructs under study. In other words, cultural biases cannot explain the emergence of the present relationships. Moreover, we were restricted in the choice of items for the right-wing attitudes, as we had to rely on items already included in the WVS/EVS. Our set of objective threat indicators might seem somewhat limited, as some threat types previously investigated in relation to right-wing attitudes, such as outgroup threat, terrorist threat and threat to social cohesion, are not included. However, it is very difficult to find “objective” indicators for these types of threats.

Finally, because of the use of cross-sectional data in the present study, we cannot make claims about causality. Indeed, it might be that high national threat causes higher national levels of right-wing attitudes, or the other way around. In other words, threat may not only influence right-wing attitudes, but right-wing attitudes may also influence the perception of threat. Using cross-lagged analyses of longitudinal individual-level data, Sibley, Wilson and Duckitt (2007) indeed reported bidirectional effects between an indicator of threat (i.e., dangerous worldviews) and right-wing attitudes (i.e., RWA). Longitudinal research using a full cross-lagged design on the basis of country-level data would thus be needed to fully test causality.

References

- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York: Harper and Row.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Altemeyer, B. (1998). The other "authoritarian personality". *Advances in Experimental Social Psychology*, 30, 47-92.
- Bogg, T., & Roberts, B. W. (2004). Conscientiousness and health behaviors: A meta-analysis. *Psychological Bulletin*, 130, 887–919.
- Bonanno, G. A., & Jost, J. T. (2006). Conservative shift among high-exposure survivors of the September 11th terrorist attacks. *Basic and Applied Social Psychology*, 28, 311-323.
- Buchanan, W., & Cantril, H. (1953). *How nations see each other: A study in public opinion*. Urbana: University of Illinois Press.
- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. *Advances in Experimental Social Psychology*, 33, 41-113.
- Duckitt, J., & Sibley, C. G. (2009). *A dual process model of ideological attitudes and system justification*. In J. Jost, A. Kay, & H. Thorisdottir (Eds.), *Social and psychological bases of ideology and system justification* (pp. 292–313). New York: Oxford University Press.
- Doty, R. M., Peterson, B. E., & Winter, D. G. (1991). Threat and authoritarianism in the United-States 1978-1987. *Journal of Personality and Social Psychology*, 61, 629-640.
- Echebarria-Echabe, A., & Fernandez-Guede, E. (2006). Effects of terrorism on attitudes and ideological orientation. *European Journal of Social Psychology*, 36, 259-265.

- Epstein, S. (1986). Does aggregation produce spuriously high estimates of behavioral stability? *Journal of Personality and Social Psychology*, *50*, 1199-1210.
- Fromm, E. (1941). *Escape from freedom*. New York: Rinehart & Co.
- Hu, L., & Bentler, P.M. (1998). Fit indices in covariance structure modeling: sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*, 424 – 453.
- Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton, NJ: Princeton University Press.
- Jöreskog, K. G., & Sörbom, D. (1996). PRELIS Users's reference guide. Chicago, IL: Scientific Software International.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, *33*, 1 – 27.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, *129*, 339-375.
- Kessler, T., & Cohrs, J. C. (2008). The evolution of authoritarian processes: Fostering cooperation in large-scale groups. *Group Dynamics: Theory, Research, and Practice*, *12*, 73-84.
- McCann, S. J. H. (1997). Threatening times, "strong" presidential popular vote winners, and the victory margin, 1824-64. *Journal of Personality and Social Psychology*, *73*, 160-70.
- McCrae, R.R., & Terracciano, A., & 79 Members of the Personality Profiles of Cultures Project. (2005). Personality profiles of cultures: Aggregate personality traits. *Journal of Personality and Social Psychology*, *89*, 407–425.
- Middendorp, C. (1978). *Progressiveness and conservatism. The fundamental dimensions of ideological controversy and their relationship to social class*. Den Haag/Paris/New York: Mouton.

- Onraet, E., Van Hiel, A., Dhont, K., & Pattyn, S. (2011). Internal and external threat in relationship with right-wing attitudes. Manuscript submitted for publication.
- Rentfrow, P. J., Gosling, S. D. & Potter, J. (2008). A Theory of the Emergence, Persistence, and Expression of Geographic Variation in Personality Traits. *Perspectives on Psychological Science*, 3, 339-369.
- Sales, S. M. (1973). Threat as a factor in authoritarianism – an analysis of archival data. *Journal of Personality and Social Psychology*, 28, 44-57.
- Sales, S. M., & Friend, K. E. (1973). Success and failure as determinants of level of authoritarianism. *Behavioral Science*, 18, 163-172.
- Sibley, C., Wilson, M., & Duckitt, J. (2007). Effects of dangerous and competitive worldviews on right-wing authoritarianism and social dominance orientation over a five-month period. *Political Psychology*, 28, 357 – 371.
- Steel, P., & Ones, D.S. (2002). Personality and happiness: A national-level analysis. *Journal of Personality and Social Psychology*, 83, 767–781.
- Stellmacher, J., & Petzel, T. (2005). Authoritarianism as a group phenomenon. *Political Psychology*, 26, 245 – 274.
- Stenner, K. (2005). *The Authoritarian Dynamic*: Cambridge University Press.
- Turner, M. E., Pratkanis, A. R., Probasco, P., & Leve, C. (1992). Threat, cohesion, and group effectiveness: Testing a social identity maintenance perspective on groupthink. *Journal of Personality and Social Psychology*, 63, 781-796.
- Winter, D. G. (1996). *Personality: Analysis and interpretation of lives*. New York: McGraw-Hill.

Table 1. Correlation table

	GDP	Inflation	Unemployment	Homicide Rate	Life expectancy	Obedience	Authority	Incomes	Competition
GDP		-.46***	-.52***	-.37***	.59***	-.47***	-.31**	-.27**	-.31**
Inflation			.45***	.46***	-.52***	.41***	.25*	.11	.20*
Unemployment				.38***	-.64***	.46***	.33***	.16	.35***
Homicide Rate					-.52***	.43***	.34***	.23*	.15
Life expectancy						-.58***	-.28**	-.33***	-.26*
Obedience							.47***	.35***	.32**
Authority								.16	.20*
Incomes									.20*
Competition									

Note. The correlations between the indicators of threat and the indicators for social-cultural and economic-hierarchical right-wing attitudes

* $p < .05$; ** $p < .01$; *** $p < .001$.

Figure 1. Model of the relationships between threat and the right-wing attitudes (with standardized path coefficients)

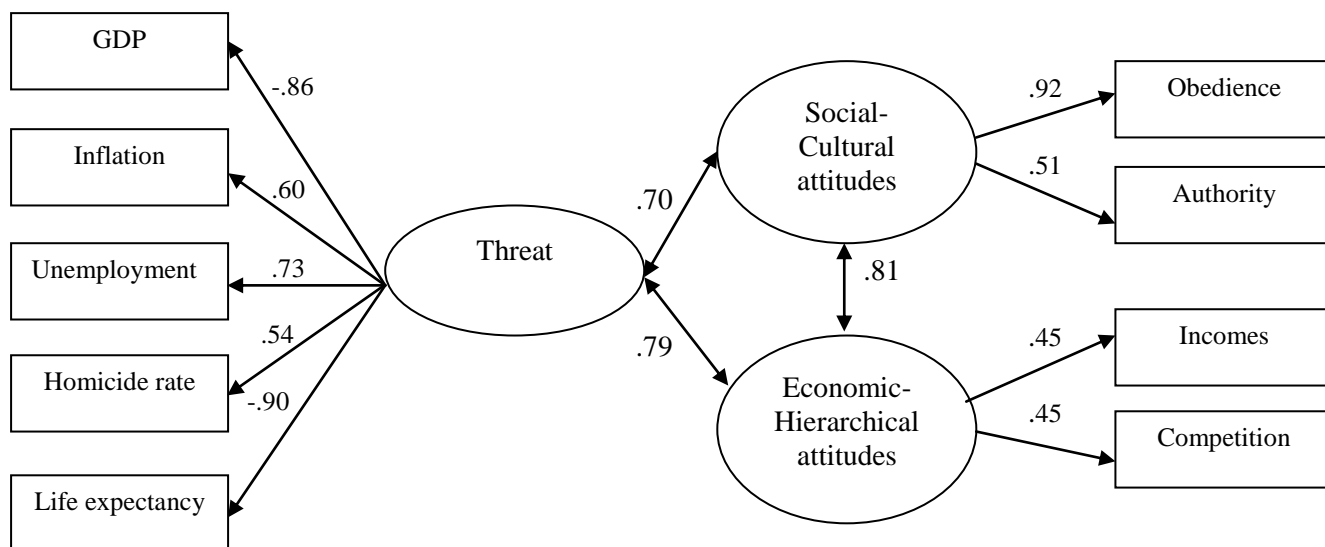


Figure 2a. Relationship between levels of threat (X-axis) and social-cultural right-wing attitudes (Y-axis), with a fit line for the linear relationship (full line) and the exponential relationship (dotted line). The full country names can be found in the appendix

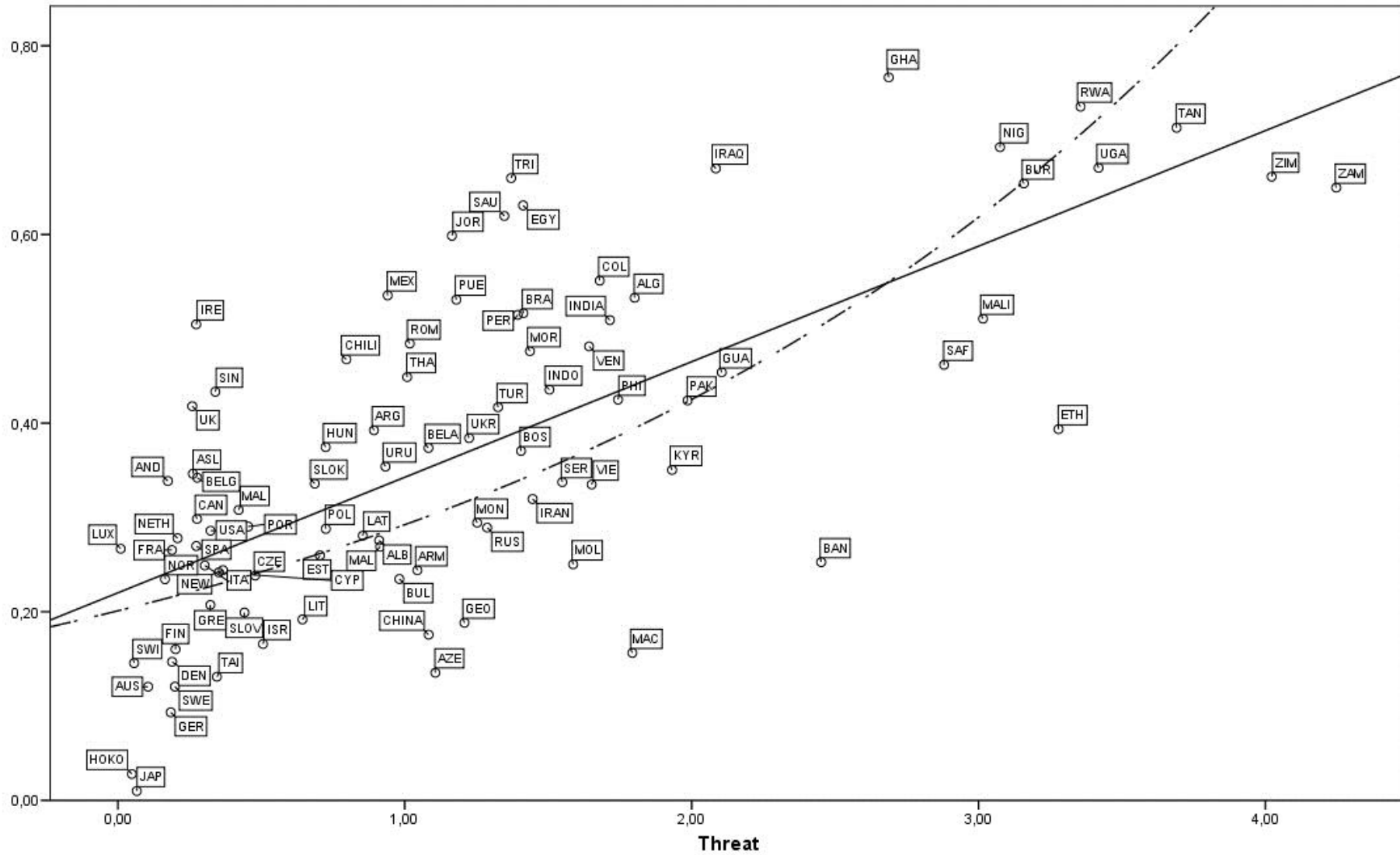


Figure 3a. Levels of social-cultural right-wing attitudes in the world

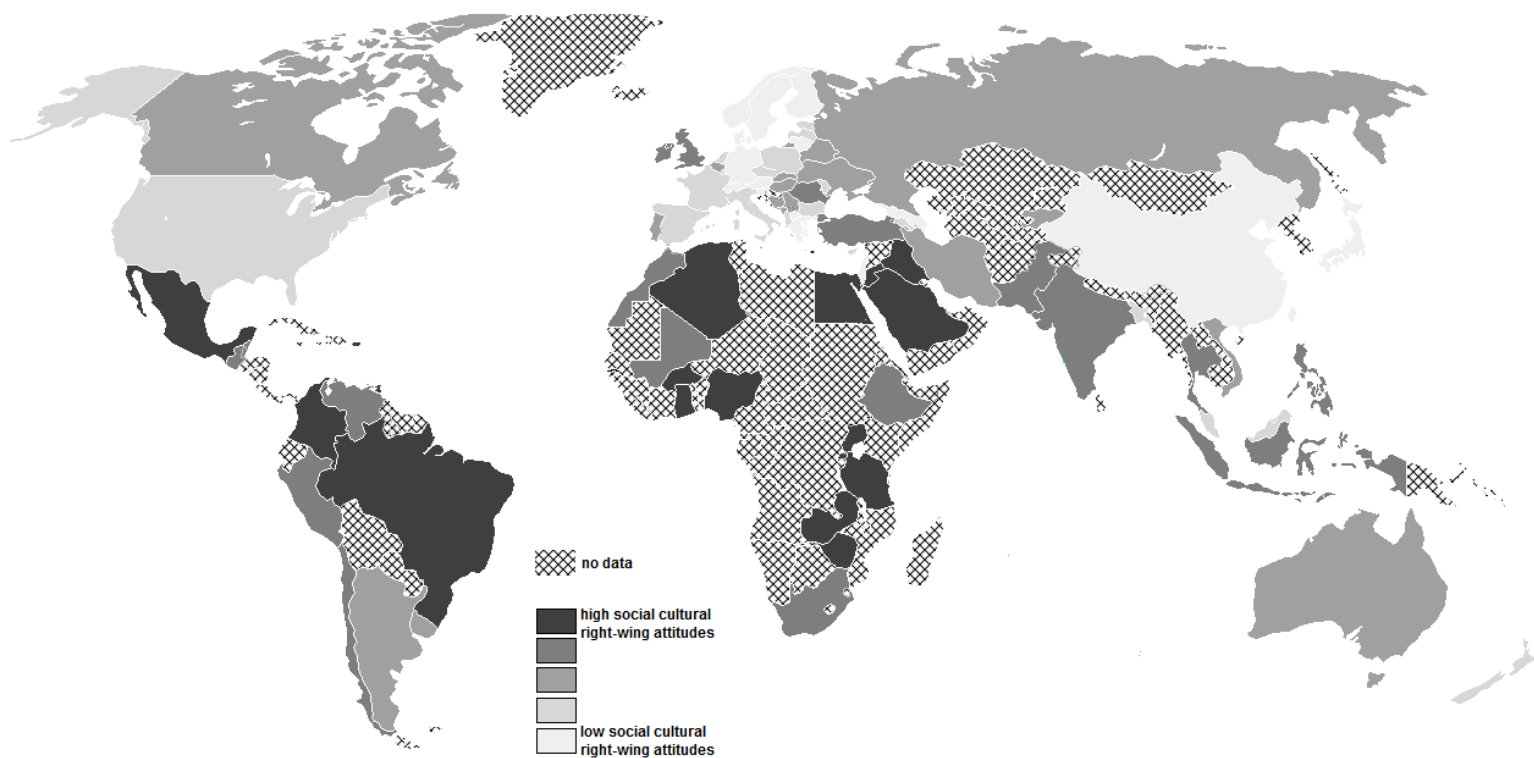
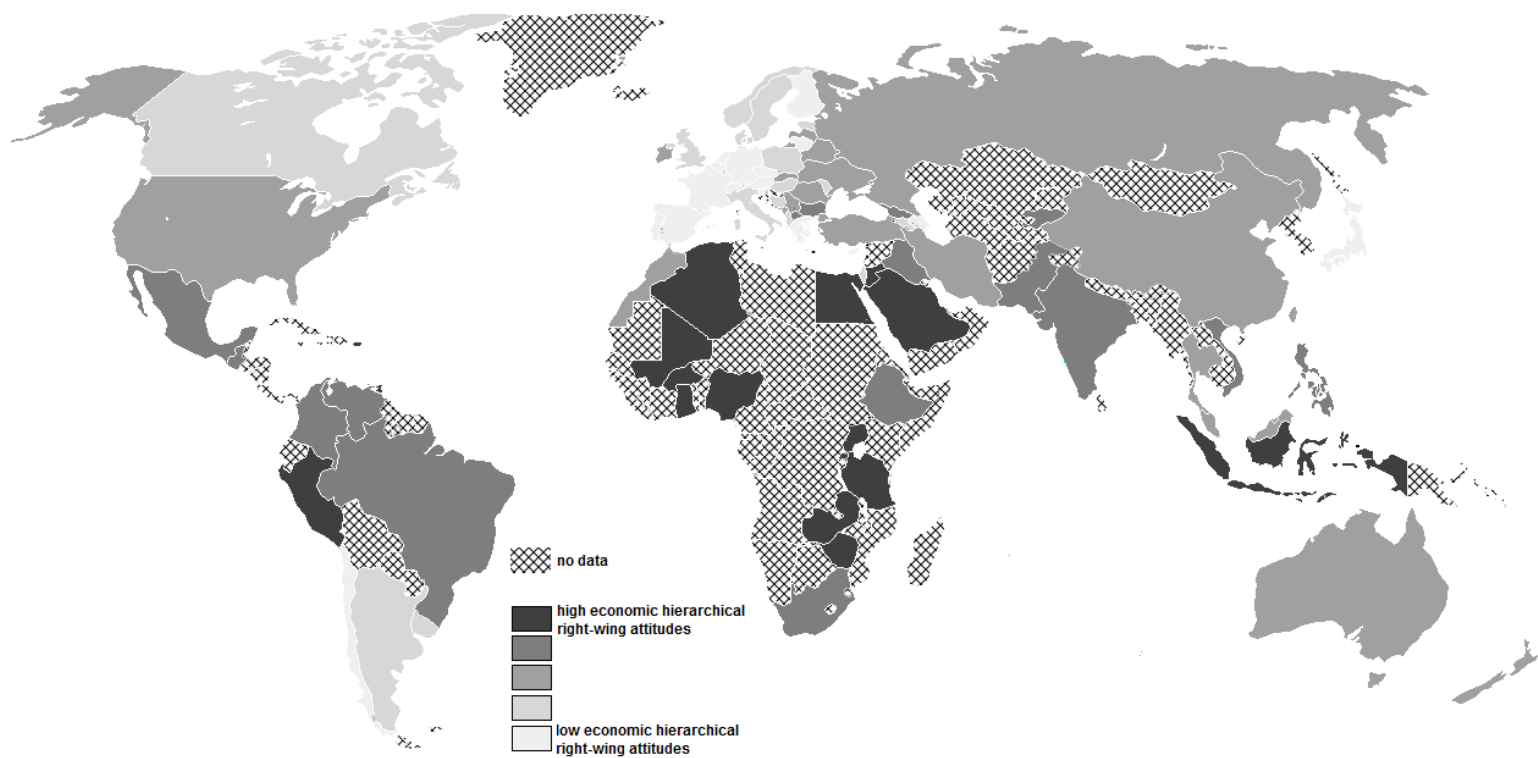


Figure 3b. Levels of economic-hierarchical right-wing attitudes in the world



Appendix.

Abbreviations of countries

ALB	Albania	HUN	Hungary	RUS	Russia
ALG	Algeria	INDIA	India	RWA	Rwanda
AND	Andorra	INDO	Indonesia	SAF	South Africa
ARG	Argentina	IRAN	Iran	SAU	Saudi Arabia
ARM	Armenia	IRAQ	Iraq	SER	Serbia
ASL	Australia	IRE	Ireland	SIN	Singapore
AUS	Austria	ISR	Israel	SLOK	Slovak Republic
AZE	Azerbaijan	ITA	Italy	SLOV	Slovenia
BAN	Bangladesh	JAP	Japan	SPA	Spain
BELA	Belarus	JOR	Jordan	SWE	Sweden
BELG	Belgium	KYR	Kyrgyz Republic	SWI	Switzerland
BOS	Bosnia	LAT	Latvia	TAI	Taiwan
BRA	Brazil	LIT	Lithuania	TAN	Tanzania
BUL	Bulgaria	LUX	Luxembourg	THA	Thailand
BUR	Burkina Faso	MAC	Macedonia	TRI	Trinidad & Tobago
CAN	Canada	MAL	Malaysia	TUR	Turkey
CHIL	Chile	MAL	Malta	UGA	Uganda
CHINA	China	MALI	Mali	UK	United Kingdom
COL	Colombia	MEX	Mexico	UKR	Ukraine
CYP	Cyprus	MOL	Moldova	URU	Uruguay
CZE	Czech Republic	MON	Montenegro	USA	United States of America
DEN	Denmark	MOR	Morocco	VEN	Venezuela
EGY	Egypt	NETH	Netherlands	VIE	Vietnam
EST	Estonia	NEW	New Zealand	ZAM	Zambia
ETH	Ethiopia	NIG	Nigeria	ZIM	Zimbabwe
FIN	Finland	NOR	Norway		
FRA	France	PAK	Pakistan		
GEO	Georgia	PER	Peru		
GER	Germany	PHI	Philippines		
GHA	Ghana	POL	Poland		
GRE	Greece	POR	Portugal		
GUA	Guatemala	PUE	Puerto Rico		
HOKO	Hong Kong	ROM	Romania		