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**THE EFFECT OF MORTALITY
SALIENCE ON ATTITUDES
TOWARD NATIONAL
OUTGROUPS**

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THE EFFECT OF MORTALITY SALIENCE ON ATTITUDES TOWARD NATIONAL OUTGROUPS³

Psychological studies show the effect of mortality salience (MS) on attitudes and behavioral patterns in different spheres of social life, particularly, in intergroup relationships. This study examines the influence of MS on attitudes toward national outgroups. In line with terror management theory (TMT), previous studies indicate a contradictory impact of death-related thoughts. Reminders of death enhance unfavorable attitudes toward all national outgroups, however, MS reinforces the negative attitudes only toward unfriendly countries or toward those perceived as threatening. To shed light on the influence of MS, we conducted two experimental studies that were differentiated by MS manipulation and the specifics of the outgroups. In Study 1 we actualized the reminders of death through military news, whereas in Study 2 by the presentation of terrorism news (close and distant). In Study 1 (N = 180) we analyzed the impact of MS on attitudes toward Ukraine, Belarus, and Estonia. The results showed that MS mostly reinforced the unfavorable attitudes toward ‘unfriendly’ and ‘neutral’ countries. Study 2 (N = 242) focused on MS and attitudes toward Ukraine, Belarus, the USA, and China. The results indicated that MS enhanced negative attitudes toward Ukraine as an ‘unfriendly’ country. However, the close or distant terrorism-related content did not illustrate the specific influence on attitudes toward national outgroups.

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Introduction

Psychologists have long been interested in the study of attitudes toward various social groups. Numerous studies show that unfavorable attitudes toward others may be induced by non-specific threats, especially, by mortality salience (MS). This tendency is mostly considered in Terror Management Theory (TMT).

People have an instinct for self-preservation (Solomon, Greenberg, & Pyszczynski, 1991). To survive, people form consistent representations of the world. Only human beings have the ability for abstract thinking which permits them to be aware of the inevitability of death. The conflict between the inevitability of death and the instinct for self-preservation actualizes a 'paralyzing fear'. To mitigate this emotional state, two consequential defenses (proximal and distal) are activated (Pyszczynski, Greenberg, & Solomon, 2015). The activation of these defenses depends on whether thoughts about death are represented unconsciously or consciously.

The proximal defense is activated when death-related thoughts are conscious, in order to make the 'paralyzing' information unconscious. This process may appear in such mechanisms as denial (the exclusion of death-related information from the mind) and rationalization (focus on the positive explanations of the 'self') (Greenberg, Solomon, & Pyszczynski, 1997). Therefore, proximal defense may reduce the effect of MS at the conscious level, but death-related thoughts continue to be active unconsciously and as a consequence are available to return to conscious form. To reduce the unconscious accessibility of death-related thoughts, distal defenses activate (Greenberg et al., 1997). The distal defense is represented in the anxiety-buffer system that consists of cultural worldview (meaningful beliefs) and self-esteem (an individual's sense of value consistent with cultural views) (Greenberg et al., 1997).

To mitigate the 'paralyzing fear', people form and try to maintain their cultural beliefs (the conception of reality with specific standards and views). Initially, people try to match these standards in order to reach symbolic or literal immortality (Pyszczynski et al., 2015). Therefore, if there is a potential threat, people need cultural worldviews that might appear in the context of social interaction. To protect individual values, people mostly show favorable attitudes toward people who share the same views and unfavorable attitudes toward those who hold contradictory positions (Pyszczynski et al., 2015). The perceived similarity in worldviews reinforces the person's confidence in his conception of the world, whereas contradictory views eliminate this assurance.

Previous studies indicated that MS has a stable impact on a person's attitudes toward others (Burke, Martens & Faucher, 2010). In line with TMT, these attitudes might appear in different forms – from severe punishment for offenders to negative appraisals of essays with unfavorable positions about the participant's university or country. These attitudes may be

associated with the specifics of social groups. Participants mostly identify with ingroup and as a consequence tend to demonstrate more negative attitudes toward ethnic, religious, national, and racial outgroups (Burke et al., 2010). For example, a reminder of death reinforces unfavorable attitudes toward African Americans among European Americans (Bradley, Kennison, Burke, & Chaney, 2012); Germans toward Turks (Pyszczynski, Solomon & Greenberg, 2003); Arabs toward Europeans (Das, Bushman, Bezemer, Kerkhof, & Vermeulen, 2009); Americans toward Jews (Cohen, Harber, Jussim, & Bhasin, 2009); men toward pro-women courses (Jonas & Fritsche, 2005); Christians towards Jews and Muslims (Greenberg et al., 1990); people with different political orientations toward political opponents through extra hot sauce (McGregor et al., 1998).

However, previous research indicated that MS has an impact on attitudes toward one group but does not influence views toward others. Specifically, after reminders of death American students tend to express more unfavorable views toward illegal migrants from Mexico without a corresponding effect for those from Vancouver (Bassett & Connelly, 2011). Similarly, Americans showed more negative attitudes toward Israel but not toward India (Cohen et al., 2009). In contrast, Feng and colleagues (2017) observed that after MS, Chinese showed less discrimination toward Koreans as a national outgroup. These results induce our central research question: to which national outgroups does mortality salience enhance negative attitudes?

The current study analyzes how MS influences attitudes toward national outgroups. We assumed that reminders of death would worsen attitudes toward other countries. Nevertheless, it would have a greater impact on attitudes towards unfriendly than friendly countries (Hypothesis 1).

Mortality salience as a result of a reminder of close and distant death. In line with TMT, the researchers do not distinguish between various types of death reminders. In other words, they propose that different types of MS manipulation lead to the same psychological reactions. This assumption is supported by the empirical research. For instance, Burke and colleagues (2010) found that different experimental manipulations of MS (standard death essay questions, subliminal death prime, survey questions and stories/slide shows/videos about death) induced the same patterns (Burke, Martens & Faucher, 2010). However, a detailed analysis of wide-spread MS manipulations revealed a common perspective. As a rule, researchers ask participants to think about personal death or death of ingroup members (close relatives, citizens of their own country). In both cases, participants have to imagine a death that concerns them personally.

Although, only a few authors distinguish between reminders of close and distant death.

For instance, Perloff (2016) assumed that news about death leads to more positive attitudes toward the ingroup and more negative attitudes toward outgroups, only if the death is perceived to be physically or psychologically close to viewers. Similarly, Das and colleagues (2009) found that news about terror attacks in USA did not increase prejudices toward Muslims among Dutch, but news about crime in the Netherlands led to the negative view about Arabs as a national outgroup. Although, other studies showed that the closeness of a threat did not have a specific role in attitudes towards outgroups'. For instance, Gebauer, Raab, and Carbon (2017) indicated that after news about the Ukrainian conflict, Germans preferred a military response toward Russians as an outgroup. In this case, military news about Ukraine defined a distant threat for Germans, but this reporting determined the attitudes toward the outgroup.

In general, the assumption about the difference between close and distant MS corresponds with TMT, according to which, the aspiration to defend cultural beliefs is the result of the contradiction between the instinct of self-preservation and the awareness of the inevitability of one's own death. Since a person more easily imagines himself in a place physically or psychologically closer, the observation of a close death can have a greater impact on attitudes toward individual and groups than situations of distant death.

In our study we analyzed how different types of MS influence attitudes toward national groups. We hypothesized that reminders of close death would have greater impact on attitudes toward other countries than distant death (Hypothesis 2). These hypotheses were tested experimentally.

The current research

The current research includes two experimental studies. Participants, students of Russian Universities, watched videos about death (experimental condition) or dental treatment (control condition) and, thereafter, expressed their attitudes toward unfriendly (threatening) or friendly (non-threatening) countries. These studies differed in MS manipulations and the targets of evaluation.

In Study 1, participants watched videos about military action in Ukraine and then expressed attitudes toward closely located 'friendly' or 'unfriendly' countries. The countries were chosen on the basis of a sociological survey conducted on a representative Russian sample (Friends and Enemies of Russia, 2017). In this study, we examined Hypothesis 1.

In Study 2, respondents watched videos about terrorist acts in Russia (close MS) or European countries (distant MS), and then expressed their attitudes toward close or far 'friendly' or 'unfriendly' countries (Friends and Enemies of Russia, 2017). In the current study, we used the non-specific MS stimuli that did not include any frames about national outgroups. The countries were selected on the basis of the sociological survey Friends and Enemies of Russia

(2017). In this study we verified Hypotheses 1 and 2.

Study 1

Method

Participants

A total of 180 students from the Higher School of Economics (73 males and 107 females) took part in the study. They were aged between 18 and 27 ($M = 20.40$; $SD = 2.09$). Participants received course credit for their psychology course.

Experimental design

Participants were randomly assigned to one of six cells in a 2 (MS: military news or dental treatment) \times 3 (Ukraine (unfriendly country), Belarus (friendly country), and Estonia (neutral country)) independent-group design.

Mortality salience. To activate MS, we used the technique proposed by Rosenblatt, et al. (1989). In this procedure, participants watched news about the military conflict in Ukraine (experimental condition) or about dental treatment (control condition), and then answered two open-ended questions about their thoughts and emotions. Each videotape included four videos and lasted 10 minutes.

During the study, the military conflict in Ukraine was actively discussed in the Russian media. Therefore, we assumed that it would be relevant for the participants. The videos were taken from the television newscasts of “Channel One” and “Russia 1” and included pictures of bomb attacks and victims of the war. Then, people answered 2 questions: “Imagine yourself as a victim of war, like the people in this video and indicate your emotions” and “Describe your thoughts about potential actions if you were a victim of war” (Rosenblatt et al., 1989).

In the dental treatment condition, participants watched videos about dental treatment with images of dental implantation. Thereafter, participants answered two open-ended questions: “Imagine yourself as a patient of a dental clinic, like the people in the video and indicate your emotions” and “Describe your thoughts about potential actions if you were a patient of the dental clinic” (Rosenblatt et al., 1989).

To change the conscious information about death into unconscious form and activate the distal defense, participants solved puzzles with pictures about Russian proverbs. To control the experimental manipulation, we used the level of negative affect and the number of death-related words.

Positive and Negative Affect Scale (PANAS). To indicate the mood of the participants after the experimental manipulation, we used a self-assessment questionnaire (Watson, Tellegen,

& Clark, 1988). The Russian equivalent of PANAS includes 20 adjectives that defined 10 positive and 10 negative emotional states (Osin, 2012). Participants assessed their mood by a 5-point scale (1 – slightly, 5 – extremely). To verify the MS manipulation, we used only the negative affect subscale. We suggest that people from the experimental and control conditions would demonstrate the same level of negative emotions.

Word-Completion Task. In accordance with the procedure, participants solved the Russian variant of the word-completion task (Greenberg et al., 1994). This measurement consisted of 5 death-related (“trup-trap” (corpse-ladder)) and 5 neutral words (“rama” (frame)), in which some letters were omitted. Participants had to complete the missing letters. We expected that under MS conditions people would define more death-related words than those in the control condition.

Type of country. In the second part of the research, participants evaluated attitudes towards national outgroups (Ukraine, Belarus, and Estonia). These countries are close to Russia culturally (co-existence within the common state (USSR)) and geographically (bordering each other). After the collapse of the Soviet Union, the relationships between Russia and Ukraine/Estonia/Belarus have transformed.

In line with previous surveys conducted by Levada-Center, Russians defined Ukraine as an ‘enemy’, Belarus as a ‘friend’, whereas Estonia is considered neutral (Friends and Enemies of Russia, 2017). In this experiment, Ukraine was considered as a potential ‘enemy’ via specific frames in the news content, while Belarus and Estonia were not showed in the news (‘neutral’ to the news content). Therefore, in the present study, we considered Ukraine as an unfriendly outgroup, Belarus as friendly outgroup, and Estonia as neutral.

Measures

To indicate the attitudes towards national outgroups, we used four indicators: liking, implicit attitudes, readiness to interaction, and trust.

Liking. To define the liking of Estonians, Belarusians or Ukrainians, participants had to evaluate their attitudes toward mentioned outgroups through 100-point scale (0 – cold, 100 – warm).

Implicit attitudes. To measure the implicit attitudes toward national outgroups, we focused on the IAT procedure, which was developed by Greenwald, Schwartz, and McGhee (1998). We developed new software with such countries as Belarus, Ukraine, and Estonia. In line with the procedure, participants had to decide as quickly as possible.

This technique consisted of two types of stimuli: national and emotional. The national stimuli included 8 pictures with national symbols (money, animals, dance, food, flag, map, traditional clothes, and buildings) and 2 words (politician and city). These foundations for

comparison were distinguished after pilot interviews. In the present research, we used these bases to define the attitudes in the following pairs: Russia-Estonia, Russia-Belarus, and Russia-Ukraine. The national category was shown in white. The emotional category consisted of twenty words, in which 10 positive (e.g., love) and 10 negative (e.g., harm) characteristics were represented in green. The emotional and national labels were located at the top left and right sides of the display respectively. Initially, these stimuli were illustrated in seven blocks. In Block 1, people classified the national stimuli (10 Russian and 10 Ukrainian/Estonian/Belarusian), in Block 2 they sorted the 20 emotional words. Blocks 3 and 4 showed a combination of national and emotional stimuli. Specifically, on the right part of the screen, participants could see the combination 'Estonia' and 'Negative', whereas on the left part 'Russia' and 'Positive'. Block 3 showed a short conjunction of national (5 'Russian' and 5 'Estonian/Ukrainian/Belarusian') and emotional (5 negative and 5 positive) stimuli. Block 4 illustrated the full variant of Block 3 (20 national and 20 emotional). In Block 5, participants classified only national pictures and words into reverse categories. Blocks 6 and 7 showed the same stimuli and procedure with the labels from Blocks 3 and 4 reversed. In the analysis, we focused on the results of Blocks 4 and 7 via the differences in mistakes and response times. After standardization, we estimated the coefficients of the implicit attitudes, where a positive value identified negative attitudes toward national outgroups.

Readiness to interact. To indicate the readiness to interact with Ukrainians, Belarusians or Estonians, participants evaluated their desire to interact with them as potential neighbors, subordinates, bosses, friends, or family members through a 5-point Likert scale (1 - absolutely disagree, 5 - absolutely agree) (Gulevich, Sariyeva, & Prusova, 2015).

Trust. To define the trust toward Belarusians, Ukrainians or Estonians, participants evaluated the trust towards national outgroups through a 10-point scale (1 - absolutely distrust, 10 - absolutely trust).

Procedure

Participants received an invitation to participate in a study about cultural worldviews. They came to the laboratory and signed a consent form. Participants then watched the MS or dental treatment video, completed the control questionnaires (PANAS and word-completion tasks), tried to guess the puzzles, and, finally, indicated their attitudes toward Belarusians, Ukrainians, and Estonians. At the end of the research, we conducted a debriefing about the real purpose of the study and showed funny cartoon to reduce the MS effect. The participation lasted about 40 minutes.

Results and Discussion

Manipulation check

To examine the effect of mortality salience, we focused on the negative affect and the number of death-related words. The Mann-Whitney test indicated the expected influence. In both conditions, participants evaluated their emotions as negative ($M_{MS} = 3.21$, $M_{control} = 3.11$, $H = 3461$, $p = .091$). However, in the MS condition people mostly tended to complete words in a death-related way ($M_{MS} = 3.74$, $M_{control} = 1.31$, $H = 7342.5$, $p = .001$) in contrast with the control condition.

Main analysis

In the main analysis, we used the multivariate linear model (SPSS 23.00) (Table 1). This model illustrated the independent effect of country specifics, MS, and the interaction between these factors.

Type of country. Previously, we found that the country defined the specifics of the attitudes toward national outgroups in liking ($F(2, 177) = 20.11$, $p < .001$, $\eta^2 = .188$), trust ($F(2, 177) = 9.83$, $p < .001$, $\eta^2 = .101$), and readiness to interact ($F(2, 177) = 12.75$, $p < .001$, $\eta^2 = .128$). The post hoc Scheffe test ($p < .05$) showed that people evaluated Ukrainians lower in liking ($M_{Ukraine} = 68.92$, $M_{Estonia} = 76.58$, $M_{Belarus} = 87.42$), trust ($M_{Ukraine} = 6.12$, $M_{Estonia} = 7.10$, $M_{Belarus} = 7.88$), and readiness to interact with them ($M_{Ukraine} = 3.32$, $M_{Estonia} = 3.73$, $M_{Belarus} = 4.10$) in contrast with other national outgroups. These results indicated that people tended to show more unfavorable attitudes toward Ukrainians, independently of the experimental manipulations.

Table 1

The effect of mortality salience and type of country on attitudes toward national outgroups (N = 180)

IV	DV	SS	df	MS	F	p	η^2
Mortality Saliense	Liking	3017.61	1	3017.61	11.71	.001	.063
	Interaction ⁴	1.18	1	1.18	1.64	.202	.009
	IAT	2.73	1	2.73	.16	.691	.001
Type of country	Trust	51.20	1	51.20	10.70	.001	.058
	Liking	10367.78	2	5183.89	20.11	<.001	.188
	Interaction	18.43	2	9.21	12.75	<.001	.128
	IAT	5.45	2	2.73	.16	.853	.002
Mortality Saliense *	Trust	94.03	2	47.02	9.83	<.001	.101
	Liking	396.04	2	198.02	.77	.465	.009
	Interaction	.19	2	.10	.13	.877	.002
Type of country	IAT	5.45	2	2.73	.16	.853	.002
	Trust	6.03	2	3.02	.63	.534	.007
	Liking	44848.10	174	257.75			
	Interaction	125.70	174	.72			
Error	IAT	2987.86	174	17.17			
	Trust	832.53	174	4.79			

Mortality salience and attitudes toward national outgroups. As expected, MS influenced attitudes towards national outgroups in liking ($F(1, 178) = 11.71, p = .001, \eta^2 = .063$) and trust ($F(1, 178) = 10.70, p = .001, \eta^2 = .058$). In detail, after MS, participants considered national outgroups lower in liking ($M_{MS} = 73.54, M_{control} = 81.73$) and trust ($M_{MS} = 6.50, M_{control} = 7.57$).

The interaction between the country and mortality salience on attitudes toward national outgroups. The results in Table 1 show that there was no interaction between MS and country. However, detailed analysis of each country showed that MS influenced the attitudes towards national outgroups in different ways. Specifically, it impaired the views toward Ukrainians and Estonians without correspondent effects for Belarusians. After MS, participants demonstrated lower levels of liking ($F(1, 58) = 5.32, p = .025, \eta^2 = .084; M_{control} = 74.53, M_{MS} = 63.30$) and trust ($F(1, 58) = 6.95, p = .011, \eta^2 = .107; M_{control} = 6.90, M_{MS} = 5.33$) in contrast with the control condition. Similarly, MS enhanced the unfavorable attitudes toward Estonians through lower levels of liking ($F(1, 58) = 4.50, p = .038, \eta^2 = .058; M_{control} = 81.17, M_{MS} = 72.00$).

Thus, in Study 1, contradictory results were obtained. A separate analysis of attitudes toward Belarus, Estonia, and Ukraine has shown that MS impaired the evaluation of the

⁴ The analysis showed that this scale had a good reliability ($\alpha = .86$).

unfriendly country but did not influence the friendly country. These results confirmed Hypothesis 1. On the other hand, the multivariate linear analysis indicated that this difference was not statistically significant. Therefore, Study 1 showed that MS enhanced the unfavorable attitudes toward 'others' independently of the video about Ukraine as a potential 'enemy'. These results contradict Hypothesis 1.

These results might be explained through the specific choice of countries. From a historical perspective, Ukraine, Belarus, and Estonia were part of the USSR. Specifically, news about the military conflict in Ukraine could generalize views toward groups with similar historical past. Moreover, the general atmosphere of news and the correspondent emotional state might reinforce the tendency to evaluate different national outgroups through negative perspective without any specific effect of an 'enemy' frame. This tendency corresponds to Das et al. (2009), in which after MS, Europeans demonstrated more unfavorable attitudes toward Arabs, and Arabs as a threatening outgroup demonstrated prejudices toward Europeans. Therefore, we propose that under MS, people tend to perceive national outgroups as a realistic and cultural threat. This assumption needs to be considered in the context of future studies in line with Intergroup Threat Theory (Stephan, Ybarra & Morrison, 2009).

Previous studies in TMT were mostly oriented to attitudes toward national outgroups for real conflicts. For instance, Pyszczynski, Greenberg, Solomon, and Maxfield (2006) indicated that Americans demonstrated favorable attitudes toward military politics against Iranians, while Iranians evaluated suicide bombing as a useful tactic in relationships with 'enemies'. In the present research, we considered national outgroups that were not involved in the military conflict with Russia. In other words, the negative attitudes toward Ukraine and Estonia might represent the general view toward 'others' only as a consequence of emotional states. These results induced further questions and implications for future studies about the impact of MS actualized by military news: do people tend to demonstrate negative attitudes toward all national outgroups or only for real conflict?

This study has some limitations. First, when we chose national outgroups, we focused on the results of a sociological survey. Although, the survey was conducted on a representative Russian sample, the results might not reflect the opinion of our sample of students. As a consequence, it was not obvious that participants considered Belarus a friendly country, Estonia neutral, or Ukraine unfriendly. Second, the videos with reminders of death described events which happened in Ukraine, one of the three target countries. This MS video included footage from Russian state TV-channels, in which Ukrainians were negatively framed. As a result, the more negative attitudes toward Ukraine in the experimental group could be linked with both non-specific threats and negative thoughts about this country. These limitations we tried to eliminate

in the next study.

Study 2

Method

Participants

A total of 242 students from the State Academic University for the Humanities and Higher School of Economics volunteered to participate in the research. The students (102 males and 140 females) were aged between 18 and 30 ($M = 21.34$, $SD = 2.31$). Participants received course credit for their social psychology course.

Experimental design

Participants were randomly assigned to one of twelve cells in a 3 (mortality salience: terrorism in Russia (close), terrorism in Europe (distant), or dental treatment (control)) \times 4 (close countries: Ukraine (unfriendly country), Belarus (friendly country), and distant countries the USA (unfriendly country), China (friendly country)) independent-group design.

Mortality salience. To activate MS, we used a similar procedure to Study 1 with new stimuli. For this purpose, we focused on information about terror acts in Russia and Europe that might activate the ‘paralyzing fear’. Each video consisted of four segments that lasted 10 minutes in total. Participants watched one of the three videotapes and then wrote answers to two open-ended questions about their thoughts and emotions in the correspondent situations.

News about terror attacks in Russia. The first experimental manipulation included information about terror attacks in Saint-Petersburg, Beslan, Volgograd, and Moscow which occurred between 2004 and 2017. This experimental manipulation included footage with the consequences of terror acts showing victims and ruined buildings. Participants then answered two open-ended questions about their emotions and thoughts had they been in the similar situations (Rosenblatt et al., 1989).

News about terror attacks in Europe. The second experimental manipulation consisted of news about terror attacks in European countries (France, Belgium, the UK, and Spain) which occurred between 2015 and 2017. In this case, people encountered similar pictures as in the previous condition, but in another geographical context. Participants then answered two open-ended questions about their emotions and thoughts had they been in similar situations.

News about dental care. The control condition included the same video about dental therapy and two open-ended questions as in Study 1.

To check the experimental manipulations, we used PANAS and the Word-Completion Task as in Study 1. The distal defense was activated by an additional task which included

puzzles about Russian proverbs. We used the same questionnaires and techniques (liking, implicit attitudes, readiness to interaction, and trust) to identify the attitudes towards national groups as in Study 1 with the China, the USA, Belarus, and Ukraine.

Type of country. In the second part of the research, participants evaluated attitudes toward national outgroups (Ukraine, Belarus, China, and the USA). In addition, in Study 2 we changed the foundations for the analysis of national outgroups. In line with a survey conducted by Levada-Center, we distinguished two aspects: cultural similarity (Ukraine and Belarus)/dissimilarity (the USA and China), and friendly (China and Belarus)/unfriendly (the USA and Ukraine) (Friends and Enemies of Russia, 2017). The cultural similarity/dissimilarity comes from the shared (or lack of) historical background with Russia. Initially, Ukraine and Belarus had common roots from Eastern Slavs, close territorial barriers, and all were part of the USSR. The USA and China do not share historical or territorial closeness with Russia. The friendly/unfriendly was defined by the results of the sociological study in which Belarus and China were ranked first and second in the scale of ‘friends’, whereas the USA and Ukraine were first and second on the scale of ‘enemies’.

Procedure

This study included the same steps as Study 1. Participants were invited to take part in individual sessions about cultural worldviews. They arrived at the HSE laboratory and signed a consent form. Then, they watched one of the three videos and answered the two open-ended questions about their emotions and thoughts in the situations. We asked participants to fill out the same control measurements and questionnaires to identify the attitudes toward national outgroups as in Study 1. Finally, we conducted the same debriefing. Participation in experiment lasted 40 minutes.

Results and Discussion

Manipulation check

The Kruskal-Wallis test indicated the expected influence. In all conditions, participants evaluated their emotions as negative ($M_{MS\text{ Russia}} = 2.40$, $M_{MS\text{ Europe}} = 2.32$, $M_{\text{control}} = 2.20$, $H = .392$, $p = .773$). However, in the MS conditions (terror in Russia and Europe) people tended to complete words in a death-related way ($M_{MS\text{ Russia}} = 2.82$, $M_{MS\text{ Europe}} = 2.42$, $M_{\text{control}} = 1.05$, $H = 83.807$, $p < .001$) in contrast to the dental care case.

Main analysis

In the main analysis, we used the multivariate linear model as in Study 1 (SPSS 23.00).

Table 2

The influence of mortality salience and country on attitudes toward national outgroups (N = 242)

IV	DV	SS	df	MS	F	p	η^2
Mortality Salience	Liking	7072.94	2	3536.47	8.35	<.001	.068
	Interaction ⁵	.55	2	.28	.29	.745	.003
	IAT	2.85	2	1.42	.50	.606	.004
Type of country	Trust	52.43	2	26.22	5.00	.007	.042
	Liking	28835.90	3	9611.97	22.69	<.001	.228
	Interaction	17.01	3	5.67	6.02	.001	.073
Mortality Salience *	IAT	7.194E-5	3	2.398E-5	.00	1.000	.001
	Trust	349.52	3	116.51	22.23	<.001	.225
	Liking	6645.34	6	1107.56	2.61	.018	.064
Type of country	Interaction	4.61	6	.77	.82	.559	.021
	IAT	19.37	6	3.23	1.14	.342	.029
	Trust	47.40	6	7.90	1.51	.176	.038
Error	Liking	97452.32	230	423.706			
	Interaction	216.63	230	.94			
	IAT	653.14	230	2.84			
	Trust	1205.21	230	5.24			

Type of country. Table 2 illustrates that the country predicted the attitudes toward national outgroups for liking ($F(3, 238) = 22.69, p < .001, \eta^2 = .228$), trust ($F(3, 238) = 22.23, p < .001, \eta^2 = .225$), and readiness to interact ($F(3, 238) = 6.02, p = .001, \eta^2 = .073$). The post hoc Scheffe test ($p < .05$) showed that participants ‘liked’ Belarusians and Chinese more than Ukrainians and Americans ($M_{Ukraine} = 47.87, M_{US} = 47.02, M_{Belarus} = 73.23; M_{China} = 62.81$). For social distance participants tended to avoid contact with Americans and Chinese but closely interact with Belarusians ($M_{Ukraine} = 3.82, M_{US} = 3.61, M_{Belarus} = 4.22; M_{China} = 3.55$). However, people demonstrated different positions in the social trust according to the country, specifically, high trust for Belarusians and distrust toward Americans ($M_{Ukraine} = 5.00, M_{US} = 3.52, M_{Belarus} = 6.92; M_{China} = 5.26$).

Mortality salience and attitudes toward national outgroups. As expected, MS influenced attitudes toward national outgroups by liking ($F(2, 239) = 8.35, p < .001, \eta^2 = .068$) and trust ($F(2, 239) = 5.00, p = .007, \eta^2 = .042$). After MS, participants considered national outgroups lower in liking ($M_{control} = 65.08, M_{MS\ Russia} = 56.14, M_{MS\ Europe} = 52.20$) and trust ($M_{control} = 5.83, M_{MS\ Russia} = 4.96, M_{MS\ Europe} = 4.74$) compared to the control condition. The post hoc Scheffe test indicated statistically significant differences between the control and the two

⁵ The analysis showed that this scale had a good reliability ($\alpha = .89$).

experimental conditions in the ‘liking’ of national outgroups. There was no difference in the effect between the two experimental conditions. For trust, the Scheffe test only illustrated differences between terrorism in Europe and the control condition, without contrasts in other pairings. These results disconfirmed Hypothesis 2.

The interaction between mortality salience and country. Table 2 shows the interaction between MS and country for ‘liking’ ($F(6, 235) = 2.61, p = .018, \eta^2 = .064$). Participants showed less ‘liking’ toward Ukrainians after both experimental manipulations (terror acts in Russia and Europe) than in the control condition ($M_{\text{control}} = 64.40, M_{\text{MS Russia}} = 38.35, M_{\text{MS Europe}} = 40.85$). Thus, MS strengthens the unfavorable views only toward Ukrainians and, consistent with these different types of MS, do not illustrate a specific effect. These results partly confirmed Hypothesis 1.

Additional analysis of the MS effect and attitudes toward national outgroups, separately for each country, indicated the following results. After both experimental manipulations (terror attacks in Russia and Europe), participants showed less ‘liking’ toward Ukrainians than in the control condition ($F(2, 57) = 9.40, p < .001, \eta^2 = .248$). MS impaired the level of trust toward Americans ($F(2, 57) = 3.86, p = .027, \eta^2 = .119$). The post hoc Scheffe test indicated significant differences only between the experimental condition with European terrorism and the control condition ($M_{\text{control}} = 4.35, M_{\text{MS Russia}} = 3.40, M_{\text{MS Europe}} = 2.80$). Similarly, for China, MS decreased the level of trust ($F(2, 59) = 4.93, p = .010, \eta^2 = .143$). The results of the post hoc Scheffe test showed that MS in both experimental conditions reduced the level of trust toward Chinese in contrast with the control condition ($M_{\text{control}} = 6.60, M_{\text{MS Russia}} = 4.67, M_{\text{MS Europe}} = 4.57$). However, MS did not show a statistically significant effect on attitudes toward Belarusians.

Study 2 indicated that MS influenced attitudes toward national outgroups. Initially, under MS, participants demonstrated less-positive evaluations of foreign countries in contrast to the control condition. A detailed analysis showed that reminders of death had no effect on: attitudes towards Belarus (a friendly and similar country); on trust, readiness to interact, and implicit attitudes toward Ukraine (an unfriendly but similar country); on liking, readiness to interact, and implicit attitudes toward China (a friendly but dissimilar country) and the USA (an unfriendly and dissimilar country). This tendency partly corresponds with the TMT hypothesis, in which MS enhances the prejudices and negative attitudes toward national groups that perceived as higher culturally or a realistic threat and are represented in this way in the cultural worldview (Pyszczynski et al., 2015). The present results might indicate the different role of intergroup threats and intergroup similarity in attitudes toward national outgroups. Particularly, intergroup similarity could predict trust for national outgroups whereas intergroup threat could predict

‘liking’. This assumption needs to be verified in further studies.

The results showed that MS stimuli with close (terror attacks in Russia) and distant (terror attacks in Europe) events did not show significant differences in attitudes toward national outgroups. After news about terror acts in Russia and Europe, participants expressed the same levels of ‘liking’ and ‘trust’. This tendency does not correspond with the previous assumptions by Perloff (2016) or the study conducted by Das et al. (2009). These differences could be explained by, first, death-related stimuli might actualize the MS effect independently of the geographical context. For example, Pyszczynski et al. (2015) showed that images of bomb attacks, death-related words, and funeral homes induced the MS effect which was reflected in the evaluations of friends and enemies.

Second, MS stimuli with distant and close threats were formulated through the same frames represented in the Russian context. In line with the cultivation model, participants received repeated frames of threats by the mass media during socialization and, as a consequence, this experience could explain the stable effects of symbolic and realistic threats from national outgroups and the corresponding perception of threats. The experience of a distant threat might be considered as historically relevant, particularly for Russians encountering the consequences of terror acts. The reminders of similar events might actualize the association with the situation in Russia and lead to the same responses. In accordance with this, Hirschberger, Pyszczynski, and Ein-Dor (2009) indicated that, under MS, previous experience of war increased the unfavorable attitudes toward potential ‘enemies’. We might assume that the effect of MS stimuli linked the relevant experience and the ability to perceive themselves as a victims of a terror attack.

General discussion

The current studies focused on the analysis of mortality salience on attitudes toward national outgroups. We proposed that MS mostly impacts attitudes toward more unfriendly (threatening) outgroups in comparison with those friendly (less threatening). To verify this hypothesis, we conducted two experiments in which participants watched videos about military news or terror attacks and perceived themselves as victims and evaluated their liking, trust, implicit attitudes, and readiness to interact with people from ‘friendly’ or ‘unfriendly’ countries.

In general, terror news impacted attitudes toward countries through emotional components in contrast with cognitive or behavioral. For example, participants showed less liking and trust toward ‘enemies’ (the USA, Ukraine) or neutral countries (Estonia) than ‘friends’ (China and Belarus). However, the differences in social distance and implicit attitudes were not observed in the current view. From this perspective, liking and trust might identify

personal attitudes. The readiness to interact could be associated with external factors (such as language barriers or social norms). For example, the role of social distance mostly appeared in attitudes toward China and the USA (countries with foreign languages and cultural norms) independently of the experimental manipulations.

For IAT, we propose two explanations. The first point is linked with the specifics of the proximal defense (TMT) which moves information about death into the unconscious. This mechanism also requires cognitive resources, therefore, the additional task in the IAT procedure could interfere with the defensive mechanism and as a result lead to mistakes in IAT or violations in the proximal defense. The difficulties with the identification of implicit attitudes might be linked with the standardization of this coefficient. Particularly, in the standardization the values of the variables did not allow us to calculate this parameter using F-tests. Further studies should focus on the new procedures of IAT standardization.

Altogether, the present research allowed us to indicate how mortality salience impacted attitudes toward national outgroups and to develop studies in a similar area. Previous studies showed that MS increased negative attitudes toward 'others', whereas in this paper we found that reminders of death mostly predicted the attitudes toward those groups that are perceived as more threatening.

The current study has some limitations. First, in our study only students from Moscow universities took part. Previous sociological studies showed that people with higher education showed more favorable attitudes toward national outgroups compared to groups with lower levels of education) (Xenophobia and Nationalism, 2015). Thus, in further studies we need to consider the socio-demographic variability of participants.

Second, we did not consider the specific role of intergroup threats and perceived similarities between groups from a national perspective. To indicate the categories of 'friends and enemies', we used the results of sociological studies. We did not verify the level of intergroup threat for each country, therefore, we did not analyze pre-existing attitudes. The hypothesis about the perception of greater similarity between Russia and Belarus or Ukraine in contrast with the USA or China was not examined. Specifically, Belarus and Ukraine illustrated similar positions in the cultural perspective through previous experience in USSR, whereas China and USA indicated culturally different positions ('Eastern' and 'Western' civilizations). Therefore, to consider the specific role of perceived similarity and intergroup threats, we need to conduct additional studies.

Third, the specifics of the results might be associated with the socio-political context. These studies were conducted at the eventful political period. Participants mostly encounter programs on federal television channels about wars in Syria or Ukraine, terror attacks, strained

relations in the international arena, economic sanctions, and elections. This socio-political context might have an independent effect on attitudes toward national outgroups. In other words, unfavorable attitudes toward some countries might be linked with specific media frames that people received through the media. For instance, Study 1 was conducted during the period of military conflict in Ukraine while Study 2 during the situation of strained relations with the West. Consequently, in future studies we need to consider the long-term socio-political context.

The present findings showed the general role of mortality salience in international relationships and specific cultural contexts. Further studies should be oriented toward the analysis of a broad continuum of national outgroups, intergroup threats, and additional ideological predispositions (right-wing authoritarianism and social dominance orientation) which might show a more stable influence on attitudes toward national outgroups.

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