

# Social Psychological Bulletin

Psychologia Społeczna

# The Role of Control Motivation in Germans' and Poles' Interest in History

Michał Bilewicz<sup>a</sup>, Anna Stefaniak<sup>b</sup>, Markus Barth<sup>c</sup>, Marta Witkowska<sup>a</sup>, Immo Fritsche<sup>c</sup>

[a] Faculty of Psychology, University of Warsaw, Warsaw, Poland. [b] Department of Psychology, Carleton University, Ottawa, Canada. [c] Institute of Psychology, University of Leipzig, Leipzig, Germany.

Social Psychological Bulletin, 2019, Vol. 14(2), Article e33399, https://doi.org/10.32872/spb.v14i2.33399

Received: 2019-01-26 • Accepted: 2019-05-27 • Published (VoR): 2019-08-16



Handling Editor: Sabina Toruńczyk-Ruiz, University of Warsaw, Warsaw, Poland

Corresponding Author: Michał Bilewicz, University of Warsaw, ul. Stawki 5/7, 00-183 Warszawa, Poland. E-mail: bilewicz@psych.uw.edu.pl

**Related:** This article is part of the SPB Special Issue "A Festschrift in Honour of Maria Lewicka", Social Psychological Bulletin 14(2), https://spb.psychopen.eu

#### Abstract

Contemporary societies seem to be obsessed with history. This is reflected in the popularity of historical books, films, and reenactments. In our research, we aimed to assess the specific types of content that interest people when exploring their national histories and the psychological factors motivating such explorations. Following the two-dimensional model of social cognition that points to morality and competence as the main dimensions in individual and group perception, we distinguished interest in competence-related aspects of national history (control) from interest in historical moral actions (moral agency). Two studies performed in Poland and Germany showed that in both countries people's interest in history is structured in a similar way, in which moral agency and control play essential roles. Additionally, in both countries people reacted to individual control threats with enhanced curiosity about the past moral agency of their nations. We discuss these results within the framework of the model of group-based control and compensatory control processes.

# Keywords

interest in history, group based control restoration, personal control, moral agents

Contemporary societies are obsessed with history. Despite Fukuyama's assertion of the "end of history" (Fukuyama, 1989) and Connerton's thesis that the essential cultural ele-



ment of modernity is forgetting rather than remembering (Connerton, 2009), social sciences now acknowledge that history and memory remain crucial issues in modern politics and culture. History is the source of legitimacy for contemporary politics, a topic of heated clashes and intergroup disagreements; it is a highly visible pop-culture theme, and a source of inspiration for fine arts. Thousands of people gather to reenact historical events, such as the 1813 Battle of the Nations in Leipzig or the 1920 Battle of Warsaw. History becomes a subject of best-selling books, such as Polish crime fiction portraying pre-war Breslau (Krajewski, 1999, 2003) and Warsaw (Twardoch, 2016). Among four top box office movies in Poland after 1989 three took place in the historical realities of the 17<sup>th</sup> century ("Ogniem i Mieczem"), 19<sup>th</sup> century ("Pan Tadeusz"), and antiquity ("Quo Vadis"). Historical monographs belong to the most widely read non-fiction books – including such global bestsellers as "Sapiens. A brief history of humankind" (Harari, 2014) or "On Tyranny. Twenty lessons from the twentieth century" (Snyder, 2017). Almost every large Polish weekly and daily (DoRzeczy, Newsweek, Polityka, Gazeta Wyborcza, Rzeczpospolita) publishes a special thematic magazine on history.

Psychological insights into the nature of historical curiosity remain relatively scarce. Maria Lewicka's research on place memory (Lewicka, 2008, 2012, 2014; Wójcik, Lewicka, & Bilewicz, 2010, 2011) is probably the most systematic approach to the study of human interest in history. Lewicka views interest in history (both the history of a place of residence and the history of one's family genealogy) as a way to connect to the place. This history-oriented strategy of building place attachment is particularly visible among relocated people – whom historical explorations allow to connect to newly inhabited cities or villages (Lewicka, 2012). Therefore, interest in history may constitute a means to obtain a psychological bond with a place of residence.

## **Interest in History**

Interest in history entails people's curiosity about history and it is typically associated with their place of residence or local community (Lewicka, 2008). It is shaped by sociodemographic factors. For instance, research found that younger people tend to show less interest in the past than middle-aged people (Lewicka, 2012). People with higher cultural capital (measured by levels of education, the size of one's home library, and cultural tastes; Lewicka, 2013) declare more interest in local history. It is significant that although interest in local history is positively associated with the need for cognition (Lewicka, 2012; Petty, Briñol, Loersch, & McCaslin, 2009), its effects also remain significant after the effects of pure cognitive motivation have been controlled for.

People who are interested in history tend to possess greater historical knowledge (Lewicka, 2012) but historical interest is also associated with a host of positive psychological and social outcomes. It correlates with place attachment (Lewicka, 2005, 2014), sense of continuity (Sani, Bowe, & Herrera, 2008), positive attitudes towards museums commemorating the historical presence of outgroups (Wójcik, Lewicka, & Bilewicz, 2011), fa-



vorable attitudes towards various ethnic groups in the contemporary city landscape (Wójcik et al., 2011), and local social capital (Stefaniak, Bilewicz, & Lewicka, 2017).

In all the studies cited above interest in history was treated as a unidimensional construct whereby people are seen as more or less interested in the history of their places of residence and this - in turn - relates to other phenomena. We propose that people's interest in history might also be selective and motivated. When reading about the history of successful battles and victorious leaders, people focus their attention on quite specific aspects of their collective memory - a different one than when they are analyzing history of victimhood and martyrdom. Studying specific historical content could also have unique consequences. For example, after reading about historical acts of moral courage and rescue, people become much more open to contact with outgroup members (Čehajić-Clancy & Bilewicz, 2017; Witkowska, Beneda, Čehajić-Clancy, & Bilewicz, 2018), whereas confrontations with historical acts of war and conflict make people less open to contact with outgroup members (Bilewicz, 2007). In the research described below, we attempted to distinguish interest in historical events and figures related to control from interest in those related primarily to morality. With this approach, we wanted to explore the factors that motivate people's curiosity about different aspects of their national past, along the lines of the two-dimensional model of social cognition.

## Interest in National Control and Morality: The Big Two of History

There are two fundamental dimensions in human social cognition. Reeder and Brewer (1979) as well as Wojciszke (2005) proposed that *competence* (skills, capabilities, and efficiency in achieving one's goals) and *morality* (fairness, loyalty, compatibility between one's goals and well-being of other people) constitute two crucial dimensions on which people evaluate others. On the collective level, Cuddy, Fiske, and Glick (2007) suggested that people assess groups on two similar dimensions: *warmth* (friendliness, sincerity, trustworthiness) and *competence* (skills, intelligence, capability to achieve collective goals). Warmth stereotypes determine whether in-group members will more likely antagonize or cooperate with outgroup members. Competence stereotypes affect passive forms of harming (neglect) and associating behavior. Summarizing different lines of research on the topic, Abele and Wojciszke (2014) named the first dimension "*communion*", and the latter "*agency*" and demonstrated the prevalence of agentic traits in self-perception and communal traits in the perception of others.

Historical perception could be construed using the same two dimensions of human social cognition. Historical leaders (kings, military officers, revolutionaries) are often portrayed through the lens of their control over others, competence, and efficacy (as opposed to passive victims, prisoners or slaves). On the other hand, heroic rescuers, glorious victims, and peacemakers are often viewed as high in morality (as opposed to historical criminals, perpetrators of genocide, and instigators of war). Similarly, collective memory of national groups can be either focused on episodes in which a given nation had



control over others or the historical episodes in which the nation acted in a highly moral way. In Germany, for instance, highly agentic figures such as chancellor Otto von Bismarck and emperor Frederick III used to play important roles in collective memories, whereas today it is rather Oskar Schindler or Sophie Scholl who are seen as role models in national identity due to their highly moral actions during World War II.

With history, the separation in morality and agency can only go so far. Even though we might be able to think about historical acts that were mainly representative of power and control, it is hard to think about historical morality without associating it with action. History itself is the narration of critical decisions and actions taken by individuals or groups that impacted the fate of a people. As such, even highly moral historical actions are actions at their core. There was a decision to act and the means and resources to achieve that goal were available. Although we might be able to think about passive morality, many of the most moral historical events were also highly agentic in nature. Consequently, it might be more appropriate to think of the two dimensions (i.e., control and morality) as differences in emphasis on either the moral dimension of an action or the expression of power and control through action.

When people explore their national history, they might focus on the episodes and characters whose actions were indicative of high (vs. low) control or those whose actions indicated high (vs. low) morality. Due to basic social identity concerns, people are motivated to view their national history in a positive manner: both in the domain of control and morality (Ellemers, Spears, & Doosje, 2002). At the same time, it is known that collective self-perception on the morality dimension is more important to positive in-group evaluation than self-perceived competence (Leach, Ellemers, & Barreto, 2007).

Since morality is essential in group perception, it would seem obvious that people should be particularly keen to learn about moral acts and to commemorate them. However, it is easily perceptible that in the real world successful historical battles and leaders attract a great deal of attention and interest. Conquests and victorious battles are not only still remembered, but also intensively studied and described in popular literature. What makes people select certain aspects of their national history that connote morality, agency, or both? We hypothesize that salient individual needs might raise interest in specific aspects of history, particularly the need for control. Interest in the national ingroup's history might reflect a stronger group orientation under control threat.

# **Group Based Control Restoration in History**

History is a source of knowledge about the self. It informs the way we think about who we are (individually but also on the collective level), and how we arrived in the position we are in today. History is also the foundation for many present social relationships, as a shared past affects the way in which groups and individuals interact with each other. As history appears to be a very important factor for the construction of a subjective reality,



current psychological needs and interests might bias and affect the representation of the past.

The satisfaction of psychological needs is a central basis for good health and effective functioning (Deci & Ryan, 2000), and we argue that one of the central needs discussed in the literature (e.g., Skinner, 1996; Stevens & Fiske, 1995), the need for control, is also meaningful for the construction of an individual's representation of their personal or collective past. We define the need for control as the need to perceive impact on meaningful aspects of the environment through the autonomous self. The need for control seems to be especially salient and influential for experiences and behavior whenever personal control is threatened (Pittman, 1998). Under control threat, people usually either try to bring their environment in line with their wishes (i.e., regain "primary control", Rothbaum, Weisz, & Snyder, 1982) or they bring themselves in line with their environment, for example, using strategies of vicarious control ("secondary control"). In more recent theorizing, Fritsche and colleagues have argued that people threatened in their personal control can also use their membership in a social group to regain a sense of control (Fritsche, Jonas, & Kessler, 2011; Fritsche et al., 2013). According to their model of group-based control, identification with agentic in-groups and consequently acting consistent with the group's values and goals can maintain and restore a sense of control on the personal level. Because groups are usually associated with collective agency and control (Brewer, Hong, & Li, 2004) and individuals can self-categorize as members of these groups (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), the group's perceived level of control can become a source of need satisfaction under personal control threat. In this way, even if I have no control, WE do.

Empirical evidence from experimental studies supports this view. Following a threat to personal control, participants reported stronger in-group identification (e.g., Stollberg, Fritsche, & Bäcker, 2015) and favored their in-group more (Fritsche, Jonas, & Fankhänel, 2008; Fritsche et al., 2013). The authors interpreted these findings as a stronger orientation towards the group when personal control is threatened which would indicate that the group becomes a psychological tool to protect a sense of control. Importantly, stronger identification with a group was positively related to a collective sense of control (Stollberg et al., 2015). Reminding participants of their group membership also increased perceptions of personal control and well-being (Greenaway et al., 2015). This is further evidence that groups can become sources of satisfaction for the need for control.

Beyond the cognitive level, a stronger group orientation under control threat should also lead to changes in behavioral intentions. In line with this reasoning, studies show that control threat increased conformity with salient in-group norms (Stollberg, Fritsche, & Jonas, 2017) and collective action intention (Fritsche et al., 2017). The empirical data also suggests that the effects of control threat are not content-specific. Salient loss of control in a specific area of life does not only affect group-oriented reactions related to this area. Work on the effects of climate change threat (i.e., the perceived helplessness of



an individual to do something about the global effects of climate change) found that threat increased authoritarian aggression and led to more derogation of members of social groups that are associated with threats to the social order (e.g., drug addicts; Fritsche, Cohrs, Kessler, & Bauer, 2012). Authoritarian attitudes have been associated with the fostering and protection of the integrity of social groups (Kessler & Cohrs, 2008; Kreindler, 2005). In line with this explanation, we see the finding that threat can increase authoritarian responses as additional support for a motivated cognition perspective.

Returning to the question of history and representations of the past, we argue that a group's portrayal of its history can be especially indicative of that group's resources and its general power and influence. As such, a salient need for control might motivate people to concentrate on aspects of their group's past that were highly agentic and representative of control to regain their own sense of control and satisfy their current needs. At the same time, moral agency can restore the sense of control by portraying the in-group in a generally positive light - both on morality and competence dimensions. As we have argued above, historical morality is also often about decisive action. When applied to history, both dimensions (control and morality) could thus be interpreted as an indication of the in-group's past agency. In one case, all forms of agency would be salient (even instances of great crimes and collective crimes) and in the other case, the agency would be infused by morality and only the good deeds of the group would become relevant. Theoretically, both moral and immoral acts might be useful in the restoration of a sense of control. On the other hand, only morality-infused action should be able to satisfy a need for morality. Therefore, interest in specific contents of national history could be an effective means to restore an individual's threatened psychological needs even if the source of the threat is unrelated to history.

## Poles and Germans Meet a Historian: A Study of Interest in History

Psychological studies looking at people's interest in history assessed this phenomenon to be unidimensional. Participants in these studies indicated their interest in the history of their place of residence (Lewicka, 2008), their curiosity about their family roots and knowledge of family/place history (Lewicka, 2005). When it was operationalized in this way, interest in history could be differentiated from nostalgia – as interest in the past does not necessarily determine willingness to restore the past in the same way that sentimental, nostalgic longing for the past does (Smeekes, 2015; Wildschut, Bruder, Robertson, van Tilburg, & Sedikides, 2014).

In the present research, we employed a more fine-grained approach to interest in history and assessed people's interest in specific contents/aspects of national history. In order to capture the contents of people's interest in history we developed a task in which we asked respondents to imagine participating in a meeting with a highly competent historian, who is particularly knowledgeable about their national history. In preparation for such a meeting, they could decide about the topic that the historian would talk about. We



presented participants with a list of different aspects of national history that could be covered during such conversation (e.g., "Times when Germans/Poles were particularly well-meaning"; "Times when all Germans/Poles were determined") and asked them to decide to what extent they would like the historian to cover these topics.

Based on this task we wanted to capture the content structure of Germans' and Poles' interest in history and to test whether the two central dimensions of social cognition would apply in both countries. Furthermore, by using an experimental design, we were able to test the potential antecedents of people's interest in different historical content. Particularly, we tested for the effects of control threat on people's interest in either control-related aspects of national history.

We conducted two studies with an identical design: one in Germany and one in Poland. This allowed us to compare the structure of people's interest in history between the two countries that had entirely different histories in terms of their control and suffering (see Bilewicz & Liu, in press). From the world-system point of view, Germany has played a central role in modern history, whereas Poland has remained peripheral in global power relations (Chase-Dunn, Kawano, & Brewer, 2000). In the 20<sup>th</sup> century, Nazi Germany conquered most of the European continent, becoming responsible for one of the worst crimes in the history of humanity (Snyder, 2015). On the contrary, Poland was one of the key victims of this conquest – as one of the Eastern European "bloodlands" where genocidal crimes took place (Snyder, 2010). By looking at the motivations for Poles' and Germans' interest in specific aspects of their national history, we test the universality of people's motivated approach to history – as these two national contexts, although geographically proximal, are extremely distant in terms of their historical dominance, moral status, and role in the global structure of power.

# Study 1: Germany

The main objective of the experimental study performed in Germany was to examine what the primary dimensions of Germans' interest in history are and to investigate the effect of control motivation on people's interest in different aspects of national history.

#### Method

#### **Participants**

One hundred and forty-one German participants volunteered to participate in the study. Since the data was collected in University of Leipzig (Germany) facilities, the sample consisted mostly of students (89%), among whom 55% were women, 42% men, and 3% indicated other gender. The age of the oldest participants was 52. Two participants indicated an age below 18 ("0" and "14"), which we interpret as a lack of willingness to indicate their



age. When excluding these two invalid answers we obtained the following estimates:  $M_{age} = 24.50$ ,  $SD_{age} = 4.92$ . Participants declared rather leftist political orientation: M = 2.94, SD = 1.06 on a 7-point scale from definitely leftist (1) to definitely right (7). All stages of the study were carried out in German.

#### **Procedure and Measures**

We tested the effects of individual motivations on interest in different history topics using a between-subjects factorial design with one experimental factor (individual threat) with three levels (morality threat vs. control threat vs. baseline condition). We decided to include morality threat in the study in order to capture the specific effects of control threat. The morality threat condition allowed us to rule out the alternative explanation that interest in history could be motivated by a general threat to one's self-esteem, rather than a specific threat to personal control. The additional condition also allowed us to explore whether morality threat would increase the motivation to restore a sense of morality on the collective level in a similar way as we hypothesized for control threat. If that were the case, morality threat should increase participants' interest in morality-infused historical action but not in events mainly associated with control.

We randomly assigned the participants to one of the three conditions and asked them to recall two situations from their life, summarize each in one sentence, and describe thoughts and feelings they had in each situation. In the morality threat condition, the task concerned situations of breaking one or more important moral rules and later feeling bad about it. In the control threat condition, following a procedure by Fritsche et al. (2013), participants recalled events when they felt they did not have any influence over some aspect of their life. Finally, in the baseline condition, participants recalled two of their habits or routines that they go through (almost) every morning. The manipulation had been successfully pretested prior to data collection (see Appendix A for a detailed description of the pretest).

Following other studies on control deprivation and other existential threats (see Fritsche et al., 2013), once participants recalled the events and completed the manipulation check, they were asked to fill in a delay task consisting of the 20-item Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Finally, they completed a questionnaire with several relevant dependent variables, including, among others, the interest in history task.

**Interest in history task** — Participants were asked to imagine that they had an opportunity to participate in a lecture given by one of the most competent historians in their country. The historian was supposed to have a reputation for speaking in a highly interesting and entertaining way about history, so participants would know that they would learn a lot from the lecture. All attendees would be asked to specify the areas that would be of particular interest to them so that the lecture could be designed in a way that



matched the interests of the audience. Our participants selected (from a list) the aspects of history that they would like to learn about in the lecture. The list consisted of twenty items tapping into different aspects of national history in which people could be interested. Based on the two-dimensional model of social cognition, some aspects of history were indicative of collective agency, but without referring to national morality, e.g., "Times when all Germans were determined", whereas some others were focused on collective morality, e.g., "Times when the German nation helped other nations". We summarized all items in Table 1. The participants indicated their answers on a 7-point Likert scale (ranging from 1 = I definitely don't want to hear about this to 7 = I definitely want to hear about this).

#### Results

#### **Structure of Interest in History Scale**

When examining correlations between all items comprising the scale (see Table B.1 in Appendix B), we were able to demonstrate their high factorability, KMO = .90, which was further confirmed by a significant Bartlett's test of sphericity,  $\chi 2(190) = 1483.66$ , p < .001. In order to examine the dimensions of Germans' interest in history, we conducted principal components analysis using Oblimin rotation of the factor loading matrix. Initial Eigenvalues indicated three factors that explained 41%, 12%, and 6% of the variance respectively. The first two factors were along the line of a control and morality dimension, respectively (i.e., action predominantly indicative of control and power and action infused by morality – which is why we referred to this factor as "moral agency"). The third factor covered only one item with moderately high loading (.62), pointing to the interest in times when Germans were idealistic (see Table 1).

To generate the final measures of interest in control and interest in moral agency we used only those items that loaded higher than .70 on the factor. The highest cross-loading for selected items was .21. We examined internal consistency for the first two subscales using Cronbach's alpha. Both alphas were high (.88 and .84 for morality and control subscale, respectively). We created composite scores for each of these two factors by calculating the mean of the selected items based on their loadings. Higher scores indicated greater interest in the respective dimension related topics.



Table 1

Content of Germans' Interest in Their National History. Factor Loadings Based on a Principal Components Analysis With Oblimin Rotation in the German Sample

Item	Factor 1 (moral agency subscale)	Factor 2 (control subscale)	Factor 3
Times when the German nation was particularly generous	.82	08	29
Times when Germans were particularly well-meaning	.82	03	06
Times when Germans were just	.81	.03	.00
Times when the German nation was particularly hospitable	.81	18	.10
Times when the German nation helped other nations	.72	.16	16
Times when the German nation was highly moral	.70	.02	.33
Times when the German nation sacrificed itself for others	.65	.06	.20
Times when Germans were particularly reliable	.59	.25	01
Times when all Germans were particularly united	.44	.30	.11
Times when the German nation was particularly powerful	21	.85	.09
Times when Germans were efficacious	09	.81	.14
Times when the German nation was successful	.01	.79	09
Times when the German nation was autonomous	.15	.74	02
Times when the German nation was independent	.06	.69	.01
Times when the German nation was agentic	.001	.69	.26
Times when all Germans were determined	.17	.68	24
Times when Germans were particularly skilled and industrious	.16	.59	47
Times when Germans were people of honor	.36	.51	25
Times when the German nation was particularly like-minded	.34	.35	.25
Times when Germans were idealistic	.32	.26	.62

*Note.* The items that were selected to form the morality and control composite scores are in bold.

#### **Experimental Group Comparisons**

In order to compare interest in different facets of group history across conditions we conducted a planned contrast analysis with the control threat and morality threat condition contrasted against the other two conditions, respectively (see Table 2).

Table 2

The Effects of Individual Morality and Control Threat on Interest in Moral Agency and Control Related History Topics

		eline = 54)		y threat 41)		l threat 46)			
Variable	М	SD	М	SD	М	SD	F(2, 138)	p	$\eta_p^2$
Interest in moral agency	4.44 <sub>a</sub>	1.32	4.22 <sub>a</sub>	1.54	4.88 <sub>b</sub>	1.25	2.68	.072	.04
Interest in control	3.75	1.41	3.70	1.56	3.92	1.47	0.30	.74	.004

Note. Different subscripts indicate a significant planned contrast.



First, we used the interest in moral agency subscale as the outcome variable. Under control threat (compared to the two other conditions) participants declared more interest in morality-related history topics, t(138) = -2.24, p = .027. Under morality threat (compared to the two other conditions) this effect was only marginally significant, t(138) = 1.72, p = .089. Secondly, we repeated the two contrast analyses for the control subscale as the outcome variable. We did not observe any differences between control threat versus other conditions, t(138) = -0.77, p = .444 or morality threat versus other conditions, t(138) = -0.51, p = .610.

#### Discussion

The results of this study suggest that the structure of historical curiosity is largely in line with the two central dimensions of social cognition. We identified two main aspects of national history in which people are interested. The first of them could be considered interest in historical moral agency (people willing to know more about the times when their nation offered help to other nations, when their compatriots were generous, well-meaning and hospitable). The second aspect could be interpreted as an interest in historical control (people interested in learning more about the times when their nation was powerful, successful, autonomous, efficacious and determined – regardless of the moral implications).

The experimental manipulation increased the participants' interest in moral agency in the control threat condition. There was no similar effect of control threat on interest in historical events indicative of pure control (although the descriptive results suggest a small increase in interest). The observed effects of the experimental manipulation suggest that control motivation could explain people's willingness to explore the highly moral aspects of their nation's history. Recalling an uncontrollable situation (a threat to personal control) increased participants' interest in learning more about times when their compatriots helped and rescued others, as well as acted in a righteous way. In that way, our participants might have regained a sense of control by focusing on events where their ingroup was not only agentic and in control but also moral. We will return to this finding in the General Discussion. Of interest, a threat to morality did not increase interest in moral agency.

# Study 2: Poland

The main aim of Study 2 was to replicate the results obtained in Germany in a completely different historical context of a country that had relatively low power in modern history. At the same time, we wanted to explore whether the historical curiosity of Polish participants would follow the same structure in terms of content as observed in Germany.



#### Method

#### **Participants**

We recruited one hundred and thirty-nine participants at the main library of the University of Warsaw, Poland. The majority (88.5%) were students with a mean age of M=22.84, SD=3.08 (age range from 18 to 41 years of age). Ninety-one participants (65.5%) identified as female and 48 (34.5%) identified as male. About 36% of the sample identified as more or less politically left-leaning, 28% positioned themselves in the center, while 36% identified with more or less right-wing political views. One participant did not answer the question about political orientation. All study materials were in Polish.

#### **Procedure and Measures**

Study 2 used the same between-subjects factorial design and the same experimental manipulation as Study 1. We randomly assigned participants to either the morality deprivation, the control deprivation or the baseline condition.

**Interest in history topics** — Following the experimental manipulation, the participants filled in the *Interest in history topics* scale consisting of the same 20 items with a 7-point answer scale as in Study 1 but adjusted to the Polish context (e.g., "Times when all Poles were determined." and "Times when the Polish nation helped other nations.")

#### Results

#### Structure of Interest in History Scale in the Polish Sample

Correlations among all items comprising the main dependent variable are presented in Table B.2 in Appendix B. Results of the KMO test indicated that our data were suitable for factor analysis, KMO = .917, which was further confirmed by a significant Bartlett's test of sphericity,  $\chi^2(190) = 1695.851$ , p < .001.

As in Study 1, we conducted a principal components analysis with an Oblimin rotation. The results indicated three factors that explained 47.4%, 9.2%, and 6.5% of the variance respectively (see Table 3). Specifically, the first factor corresponded to moral agency (e.g., "Times when the Polish nation sacrificed itself for others"), and the second to control (e.g., "Times when the Polish nation was autonomous"). The third consisted of only two items: "Times when Poles were particularly skilled and industrious" and "Times when the Polish nation was agentic". We decided to concentrate on the first two factors for our analyses. We selected items with high factor loadings (above .70) to create composite scores as means of items pertaining to moral agency (6 items,  $\alpha = .86$ ) and control (4 items,  $\alpha = .87$ ). The highest cross-loading for the selected items was -.21.



Table 3

Content of Poles' Interest in Their National History. Factor Loadings Based on a Principal Components Analysis With Oblimin Rotation in the Polish Sample

Item	Factor 1 (moral agency subscale)	Factor 2 (control subscale)	Factor 3
Times when the Polish nation helped other nations	.85	04	.01
Times when the Polish nation was particularly hospitable	.82	21	19
Times when Poles were particularly well-meaning	.80	09	26
Times when the Polish nation was highly moral	.75	.07	.04
Times when the Polish nation sacrificed itself for others	.72	04	.35
Times when Poles were just	.72	.06	06
Times when Poles were particularly reliable	.65	.23	14
Times when the Polish nation was particularly like-minded	.62	.16	.05
Times when the Polish nation was particularly generous	.61	.26	.02
Times when Poles were people of honor	.54	.39	.31
Times when all Poles were particularly united	.49	.31	06
Times when the Polish nation was particularly powerful	09	.93	.12
Times when the Polish nation was independent	.00	.80	06
Times when the Polish nation was successful	.03	.77	18
Times when the Polish nation was autonomous	02	.77	06
Times when Poles were efficacious	.14	.65	16
Times when Poles were idealistic	.25	.59	.41
Times when all Poles were determined	.24	.43	31
Times when Poles were particularly skilled and industrious	.18	.33	63
Times when the Polish nation was agentic	.24	.38	59

*Note.* The items that were selected to form the morality and control composite scores are in bold.

#### **Experimental Group Comparisons**

Table 4 presents the means and standard deviations on the moral agency and control subscales of interest in history scale in all three experimental conditions. In order to compare participants' interest in historical topics related to moral agency and control, we conducted a planned contrast analysis of variance. We compared the scores of participants exposed to control threat with the baseline and morality threat groups (Control Threat contrast) and similarly, the scores of participants exposed to morality threat were compared to those in the baseline and control threat conditions (Morality Threat contrast).

Variances of the dependent variables were not homogenous across conditions, which was taken into account for the effects reported below. For moral agency-related topics, the Control Threat contrast was significant, t(87) = 2.47, p = .016, while the Morality Threat contrast was not, t(79.295) = -0.779, p = .438. These results indicate that – as compared to people in the morality threat and baseline conditions – those exposed to control threat were motivated to learn about historical events that showed their nation as acting in a moral way. Those in the morality threat condition did not differ in their desire to listen to a morality-focused lecture from people in the other conditions.



Table 4

The Effects of the Individual Morality and Control Threat on Interest in Moral Agency, Control, and Resourcefulness Related History Topics

		eline = 47)		y threat = 51)		l threat 41)			
Variable	M	SD	М	SD	М	SD	F(2, 136)	p	$\eta_p^2$
Interest in moral agency	4.72 <sub>a</sub>	1.25	4.80 <sub>a</sub>	1.78	5.37 <sub>b</sub>	1.38	2.67	.073	.04
Interest in control	5.04	1.47	4.77	1.90	5.41	1.41	1.09	.339	.02

Note. Different subscripts indicate a significant planned contrast.

There were no significant differences between experimental groups in terms of their interest in control-related topics, both contrasts p > .117.

#### Discussion

The study conducted in Poland confirmed the results obtained in the German sample. First, the two main dimensions of social cognition were also visible in the way that Poles wanted to explore their history – they expressed interest in control-related content and in moral agency in their national past. Participants' interest in control-related issues was substantially higher than in the German sample. At the same time, there were slightly different indicators of these two dimensions of historical curiosity: the control-related aspects of history were mainly those that indicated power and independence (rather than efficacy – as in Germany). The indicators of moral agency were helping others, sacrificing oneself for others, and general morality – rather than generosity (that was important for Germans).

In line with our findings from the previous study, control deprivation increased interest in moral agency. We did not observe a similar effect of control threat on interest in historical events associated with control (descriptively, as in Study 1, control threat increased interest in this dimension by a small amount). We also did not observe a similar effect for the other form of threat to self-esteem (a threat to morality). In that respect the results obtained in Poland and Germany were similar.

#### General Discussion

The two studies presented above explored the structure and motivated nature of Poles' and Germans' interest in history. We argued that interest in history can be differentiated into at least two general dimensions of interest: (1) interest in control and power and (2) interest in morality-infused agency. We further proposed that interest in specific aspects



of history might be motivated by current individual needs such as the need for control. Our data offer first evidence for both assumptions.

First, analyses of our participants' expressed preferences for a history lecture revealed two general dimensions of interest in national history. Importantly, although the structure was similar in both samples, we found specific differences with regard to the items that loaded highest on the factors. We believe that it is worthwhile to pay attention to these specific differences as they might give additional insights into the unique cultural aspects of each country. We called the first dimension moral agency, such as being helpful to others, being generous (particularly in the German case) and sacrificing oneself for others (particularly in the Polish case). The differences in specific items tapping into moral agency in both countries reflect the national history in which Poland was more often victimized, therefore moral agency was expressed through sacrifices, whereas Germany was more often in the high power position, therefore moral agency was expressed through generosity (cf. Bilewicz & Liu, in press). Moral acts such as heroic rescue (as in the case of Oskar Schindler) or disobedience (the example of Sophie Scholl) seem to combine high morality with an attempt to regain control in times when people were fundamentally deprived of personal control. Any act of disobedience against totalitarian regimes can be considered agentic. What is more, the results of psychological studies on moral typecasting (Gray & Wegner, 2009) suggest that agency versus passivity is a fundamental dimension in moral cognition: people view others as being either moral agents (good and evil-doers) or moral patients (recipients of good and evil). Therefore, when exploring historical episodes in which one's own national or ethnic group acted in a virtuous way people would view their in-group as both moral and agentic. As such, even a need for control could increase interest in moral agency (see below).

The second dimension of national history that Poles and Germans share is the dimension of control. The control-related aspects included the history of being independent (in Poland), powerful (in both countries) and efficacious (in Germany). These differences again reflect the divergent positions of both countries across history. What mattered in modern Polish history was rather independence from the pressures of neighboring empires (*personal control, self-control*), whereas in Germany it was rather power and control over others (*power, impact*, Cislak, Cichocka, Wojcik, & Frankowska, 2018; Grzelak, 1999).

Although there was a third factor in both studies, we are hesitant to interpret these findings in depth as none of the items loaded sufficiently high on any of the factors. At best, these additional factors might further reflect the differences between the two countries. In Germany, the idealist aspects of national history emerged as a separate factor in people's interest in history. This could correspond to the importance of romantic tradition (Goethe, Schiller, Schlegel, Herder) in the creation of the German national identity (Seyhan, 1992). The third factor in the second study was less clear and might reflect specific skills that are needed for survival among disadvantaged societies. During the years of communism, as well as under Nazi German occupation, Poles were effectively using



informal economic strategies ("kombinowanie") that were composed of specific skills that allowed prosperity and sometimes even survival in difficult times (Wedel, 1986). However, based on the empirical evidence from our two studies, we cannot offer further insights into this interpretation and would recommend additional research.

The present research offered initial evidence for the motivated character of selective interest in history. Particularly, we observed that people's deprivation of personal control leads to greater interest in historical national moral agency. As we have argued in this work, both proposed dimensions are at their core about historical action (i.e., agency and active behavior) with one dimension focusing on morality-infused agency and the other dimension focusing on actions associated with control and power but independent of morality. When our participants were confronted with the aspects of their life that they could not control, they focused on the great righteous and generous aspects of their national past (perhaps as a way to regain a sense of control). This process seems to correspond to the assumptions of the model of group-based control (Fritsche et al., 2008, 2017), however it applied only to the moral aspects of group action rather than any other forms of action. Why did we not find similar results for the dimension independent of control? We believe that the answer might be linked to the specific Polish and German historical background. It is plausible that immoral aspects of national history are threatening to people's social identity, and therefore they cannot effectively restore any threatened individual-level need. In other words, an immoral act could potentially satisfy the need for control, but it would threaten the need for acceptance and moral integrity at the same time. As such, it is arguable that people will usually prefer historic episodes that were both agentic and moral. For German participants, the most salient episodes of control and power in the recent past might be Germany's role in the two World Wars and the terrible crimes against humanity that were committed by the Nazi regime. These episodes (although highly agentic and indicative of power) might have threatened our German participants' positive sense of collective self. Consequently, they might have turned to the specific events in their nation's past that were free of an immoral stain. In contrast, our Polish participants might have shared the predominant view of Poland as one of the major victims of the conflicts of the last century with no real power or influence (Snyder, 2010). As a result, moral agency might have been the more accessible dimension of historical action to them (referring to heroic deeds of a suppressed and victimized people), while examples of Polish power and control (independent of morality) were cognitively unavailable. Although these ideas are fascinating, we can only offer our readers this interpretation post hoc as we did not expect this specific pattern of results to occur. Additional data are necessary to corroborate our view. If we are correct with our assumption, replications of our studies in countries with a history of power but not of questionable morality should find increases in interest for both dimensions after control threat.

As another important point, we observed an increase in historical interest only when participants were deprived of personal control. The effect was not a general reaction to



threat as we did not find a similar result for our morality threat condition. This highlights the unique role of groups as a source of control and agency for individuals who are motivated to regain their sense of control. At the same time, our findings suggest that not all individual needs can be satisfied by extending the self to the group level. In the case of morality, the threat might even increase. Because the individual violation of a moral norm stands in contrast to the perceived superior morality of the in-group, this might lead to the impression that the individual self does not meet the expectations of the group (Higgins, 1987).

Although our data point to a promising new direction for research, the present work had several important limitations. In both studies we applied only one method of control deprivation - and it is obvious that different forms of control deprivation could produce different effects in people's interest in history (although see: Whitson & Galinsky, 2008). The amount of options we gave our participants to choose from for the content of the lecture probably did not cover all relevant areas of interest. As such, future studies might gain additional insights from interview data or open questionnaires that aim to assess the full breadth of topics people might want to hear about. More importantly, in the present studies we inferred about the process of control-restoration, although no direct measure of people's sense of control after "meeting a historian" was included. Further studies should more directly examine whether interest in history in fact restores people's sense of personal control after it is threatened. Research in other national contexts (beyond Poland and Germany) could determine whether the observed process of control restoration through the specific interest in history is indeed universal. Nevertheless, it is clear that even in countries with completely different national histories similar processes seem to shape people's interest in history in an analogous way.

In general, the studies performed in Germany and Poland point to the crucial role of control motivation in human historical curiosity. People restore their sense of personal control through active explorations in their national history, by focusing their attention on such aspects of national history that emphasize national agency and communion. Previous research found that people compensate the threatened sense of personal control by supporting their government, political system (Kay et al., 2008), enhancing religious convictions (Kay, Whitson, Gaucher, & Galinsky, 2009) and those cultural concepts that bolster social order (Shepherd, Kay, Landau, & Keefer, 2011). At the same time, they stick to their national or social groups in order to restore control by membership in stronger and more agentic entities (Fritsche et al., 2011, Fritsche et al., 2013). These same processes seem to be responsible for the way in which people explore their past – seeking content that allows them to create, at least temporarily, a picture of their nation (and consequently of themselves by association) as highly moral and agentic.



**Funding:** Preparation of this article was supported by the Polish National Science Center (NCN) and Deutsche Forschungsgemeinschaft (DFG) BEETHOVEN Grant DEC-2014/15/G/HS6/04589.

Competing Interests: The authors have declared that no competing interests exist.

Acknowledgments: The authors have no support to report.

### References

- Abele, A. E., & Wojciszke, B. (2014). Communal and agentic content in social cognition: A dual perspective model. *Advances in Experimental Social Psychology, 50*, 195-255. https://doi.org/10.1016/B978-0-12-800284-1.00004-7
- Bilewicz, M. (2007). History as an obstacle: Impact of temporal-based social categorizations on Polish-Jewish intergroup contact. *Group Processes & Intergroup Relations*, *10*, 551-563. https://doi.org/10.1177/1368430207081540
- Bilewicz, M., & Liu, J. (in press). Collective victimhood as a form of adaptation: A world system perspective. In J. R. Vollhardt (Ed.), *The social psychology of collective victimhood*. Oxford, United Kingdom: Oxford University Press.
- Brewer, M. B., Hong, Y., & Li, Q. (2004). Dynamic entitativity: Perceiving groups as actors. In V. Yzerbyt, C. M. Judd, & O. Corneille (Eds.), The psychology of group perception: Contributions to the study of homogeneity, entitivity, and essentialism (pp. 25-38). New York, NY, USA: Psychology Press.
- Čehajić-Clancy, S., & Bilewicz, M. (2017). Fostering reconciliation through historical moral exemplars in a postconflict society. *Peace and Conflict: Journal of Peace Psychology, 23*, 288-296. https://doi.org/10.1037/pac0000210
- Chase-Dunn, C., Kawano, Y., & Brewer, B. D. (2000). Trade globalization since 1795: Waves of integration in the world-system. *American Sociological Review, 65*(1), 77-95. https://doi.org/10.2307/2657290
- Cislak, A., Cichocka, A., Wojcik, A. D., & Frankowska, N. (2018). Power corrupts, but control does not: What stands behind the effects of holding high positions. *Personality and Social Psychology Bulletin*, 44, 944-957. https://doi.org/10.1177/0146167218757456
- Connerton, P. (2009). How modernity forgets. New York, NY, USA: Cambridge University Press.
- Cuddy, A. J., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology*, 92, 631-648.

https://doi.org/10.1037/0022-3514.92.4.631

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.

https://doi.org/10.1207/S15327965PLI1104\_01



- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, 53, 161-186. https://doi.org/10.1146/annurev.psych.53.100901.135228
- Fritsche, I., Cohrs, J. C., Kessler, T., & Bauer, J. (2012). Global warming is breeding social conflict: The subtle impact of climate change threat on authoritarian tendencies. *Journal of Environmental Psychology, 32*(1), 1-10. https://doi.org/10.1016/j.jenvp.2011.10.002
- Fritsche, I., Jonas, E., Ablasser, C., Beyer, M., Kuban, J., Manger, A. M., & Schultz, M. (2013). The power of we: Evidence for group-based control. *Journal of Experimental Social Psychology*, 49(1), 19-32. https://doi.org/10.1016/j.jesp.2012.07.014
- Fritsche, I., Jonas, E., & Fankhänel, T. (2008). The role of control motivation in mortality salience effects on ingroup support and defense. *Journal of Personality and Social Psychology*, 95, 524-541. https://doi.org/10.1037/a0012666
- Fritsche, I., Jonas, E., & Kessler, T. (2011). Collective reactions to threat: Implications for intergroup conflict and for solving societal crises. *Social Issues and Policy Review*, *5*(1), 101-136. https://doi.org/10.1111/j.1751-2409.2011.01027.x
- Fritsche, I., Moya, M., Bukowski, M., Jugert, P., de Lemus, S., Decker, O., ... Navarro-Carrillo, G. (2017). The great recession and group-based control: Converting personal helplessness into social class in-group trust and collective action. *Journal of Social Issues*, 73, 117-137. https://doi.org/10.1111/josi.12207
- Fukuyama, F. (1989). The end of history? The National Interest, 16, 3-18.
- Gray, K., & Wegner, D. M. (2009). Moral typecasting: Divergent perceptions of moral agents and moral patients. *Journal of Personality and Social Psychology*, 96, 505-520. https://doi.org/10.1037/a0013748
- Greenaway, K. H., Haslam, S. A., Cruwys, T., Branscombe, N. R., Ysseldyk, R., & Heldreth, C. (2015). From "we" to "me": Group identification enhances perceived personal control with consequences for health and well-being. *Journal of Personality and Social Psychology*, 109, 53-74. https://doi.org/10.1037/pspi0000019
- Grzelak, J. (1999). Preferencje kontroli i zachowania społeczne [Control preferences and social behaviours]. *Studia Psychologiczne, 37*, 93-114.
- Harari, J. N. (2014). *Sapiens: A brief history of humankind*. London, United Kingdom: Harvill Secker. Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, *94*, 319-340. https://doi.org/10.1037/0033-295X.94.3.319
- Kay, A. C., Gaucher, D., Napier, J. L., Callan, M. J., & Laurin, K. (2008). God and the government: Testing a compensatory control mechanism for the support of external systems. *Journal of Personality and Social Psychology*, 95, 18-35. https://doi.org/10.1037/0022-3514.95.1.18
- Kay, A. C., Whitson, J. A., Gaucher, D., & Galinsky, A. D. (2009). Compensatory control: Achieving order through the mind, our institutions, and the heavens. *Current Directions in Psychological Science*, 18(5), 264-268. https://doi.org/10.1111/j.1467-8721.2009.01649.x
- 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. https://doi.org/10.1037/1089-2699.12.1.73



- Krajewski, M. (1999). Śmierć w Breslau [Death in Breslau]. Wrocław, Poland: Wydawnictwo Dolnośląskie.
- Krajewski, M. (2003). *Koniec świata w Breslau* [End of the world in Breslau]. Warszawa, Poland: Wydawnictwo W.A.B.
- Kreindler, S. A. (2005). A dual group processes model of individual differences in prejudice. Personality and Social Psychology Review, 9, 90-107. https://doi.org/10.1207/s15327957pspr0902\_1
- Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, 93, 234-249. https://doi.org/10.1037/0022-3514.93.2.234
- Lewicka, M. (2005). Ways to make people active: The role of place attachment, cultural capital, and neighborhood ties. *Journal of Environmental Psychology*, *25*(4), 381-395. https://doi.org/10.1016/j.jenvp.2005.10.004
- Lewicka, M. (2008). Place attachment, place identity, and place memory: Restoring the forgotten city past. *Journal of Environmental Psychology*, *28*, 209-231. https://doi.org/10.1016/j.jenvp.2008.02.001
- Lewicka, M. (2012). *Psychologia miejsca* [Psychology of place]. Warszawa, Poland: Wydawnictwo Naukowe "Scholar".
- Lewicka, M. (2013). Localism and activity as two dimensions of people–place bonding: The role of cultural capital. *Journal of Environmental Psychology, 36*, 43-53. https://doi.org/10.1016/j.jenvp.2013.07.002
- Lewicka, M. (2014). In search of roots: Memory as enabler of place attachment. In L. C. Manzo & P. Devine-Wright (Eds.), *Place attachment: Advances in theory, methods, and applications* (pp. 49-60). New York, NY, USA: Routledge.
- Petty, R. E., Briñol, P., Loersch, C., & McCaslin, M. J. (2009). The need for cognition. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 318-329). New York, NY, USA: Guilford Press.
- Pittman, T. S. (1998). Motivation. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, pp. 549-590). New York, NY, USA: McGraw-Hill.
- Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in interpersonal perception. *Psychological Review*, *86*(1), 61-79. https://doi.org/10.1037/0033-295X.86.1.61
- Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, 42(1), 5-37. https://doi.org/10.1037/0022-3514.42.1.5
- Sani, F., Bowe, M., & Herrera, M. (2008). Perceived collective continuity and social well-being: Exploring the connections. *European Journal of Social Psychology, 38*(2), 365-374. https://doi.org/10.1002/ejsp.461
- Seyhan, A. (1992). *Representation and its discontents: The critical legacy of German romanticism.*Berkeley, CA, USA: University of California Press.



- Shepherd, S., Kay, A. C., Landau, M. J., & Keefer, L. A. (2011). Evidence for the specificity of control motivations in worldview defense: Distinguishing compensatory control from uncertainty management and terror management processes. *Journal of Experimental Social Psychology*, 47(5), 949-958. https://doi.org/10.1016/j.jesp.2011.03.026
- Skinner, E. A. (1996). A guide to constructs of control. *Journal of Personality and Social Psychology*, 71, 549-570. https://doi.org/10.1037/0022-3514.71.3.549
- Smeekes, A. (2015). National nostalgia: A group-based emotion that benefits the in-group but hampers intergroup relations. *International Journal of Intercultural Relations*, 49, 54-67. https://doi.org/10.1016/j.ijintrel.2015.07.001
- Snyder, T. (2010). Bloodlands: Europe between Stalin and Hitler. London, United Kingdom: Bodley Head
- Snyder, T. (2015). *Black earth: The Holocaust as history and warning*. New York, NY, USA: Tim Duggan Books.
- Snyder, T. (2017). On tyranny: Lessons from the twentieth century. New York, NY, USA: Tim Duggan Books.
- Stefaniak, A., Bilewicz, M., & Lewicka, M. (2017). The merits of teaching local history: Increased place attachment enhances civic engagement and social trust. *Journal of Environmental Psychology*, *51*, 217-225. https://doi.org/10.1016/j.jenvp.2017.03.014
- Stevens, L. E., & Fiske, S. T. (1995). Motivation and cognition in social life: A social survival perspective. *Social Cognition*, *13*(3), 189-214. https://doi.org/10.1521/soco.1995.13.3.189
- Stollberg, J., Fritsche, I., & Bäcker, A. (2015). Striving for group agency: Threat to personal control increases the attractiveness of agentic groups. *Frontiers in Psychology, 6*, Article 649. https://doi.org/10.3389/fpsyg.2015.00649
- Stollberg, J., Fritsche, I., & Jonas, E. (2017). The groupy shift: Conformity to liberal ingroup norms as a group-based response to threatened personal control. *Social Cognition*, *35*(4), 374-394. https://doi.org/10.1521/soco.2017.35.4.374
- Turner, J. C., Hogg, M., Oakes, P., Reicher, S., & Wetherell, M. (1987). *Rediscovering the social group:* A self-categorization theory. Oxford, United Kingdom: Basil Blackwell.
- Twardoch, S. (2016). Król [King]. Kraków, Poland: Wydawnictwo Literackie.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070. https://doi.org/10.1037/0022-3514.54.6.1063
- Wedel, J. R. (1986). The private Poland: An anthropologist's look at everyday life. New York, NY, USA: Facts on File.
- Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, 322, 115-117. https://doi.org/10.1126/science.1159845
- Wildschut, T., Bruder, M., Robertson, S., van Tilburg, W. A., & Sedikides, C. (2014). Collective nostalgia: A group-level emotion that confers unique benefits on the group. Journal of Personality and Social Psychology, 107, 844-863. https://doi.org/10.1037/a0037760



- Witkowska, M., Beneda, M., Čehajić-Clancy, S., & Bilewicz, M. (2018). Fostering contact after historical atrocities: The potential of moral exemplars. *Political Psychology, 40*(3), 565-582. https://doi.org/10.1111/pops.12529
- Wojciszke, B. (2005). Morality and competence in person- and self-perception. *European Review of Social Psychology*, *16*(1), 155-188. https://doi.org/10.1080/10463280500229619
- Wójcik, A., Lewicka, M., & Bilewicz, M. (2010). Living on the ashes. Collective representations of Polish-Jewish history among people living in the former Warsaw Ghetto area. *Cities*, *27*(4), 195-203. https://doi.org/10.1016/j.cities.2010.01.002
- Wójcik, A., Lewicka, M., & Bilewicz, M. (2011). *Tolerancyjny Oświęcim. Diagnoza Postaw Mieszkańców Oświęcimia wobec Obcych* [Tolerance in Oświęcim. Diagnosis of the attitudes of Oświęcim inhabitants toward others]. Oświęcim, Poland: Centrum Żydowskie w Oświęcimiu.



## **Appendices**

## Appendix A: Pretest of Control Threat and Morality Threat Manipulation

Prior to the research presented in this article, we conducted a binational pilot study aimed at pretesting manipulation materials. The pilot study questionnaire was translated from English to Polish and German. Following the translation the research team (some of whom are fluent in all three languages) discussed the Polish and German versions in order to ensure their equivalence. The pilot study utilized a between-subjects factorial design with one experimental factor (individual threat) with three levels (morality threat vs. control threat vs. baseline condition). The manipulation materials read as follows:

Morality threat	Control threat	Baseline
People's lives are guided by the social rules that define what is good and bad, and what one should or shouldn't do.	People most of the time feel that they have a lot of influence over what happens in their lives.	People like to have positive feelings in everyday life.
However, sometimes, people severely violate these rules, which usually results in negative feelings of guilt and shame.	However, sometimes people recognize that this is not true at all, which usually results in negative feelings of helplessness and anxiety.	However, sometimes people are in a negative mood without any reason, which results in negative feelings of displeasure and uneasiness.
Now, please, spend a moment thinking about two situations from your own life when you broke one or more of these important rules and later felt bad about it.	Now, please, spend a moment thinking about two situations from your own life when you felt that you did not have any influence over some aspect of your life.	Now, please, spend a moment thinking about two situations from your own life when you were in a negative mood without any obvious reason.
Please describe these two events below.	Please describe these two events below.	Please describe these two events below.

#### **Dependent Variables**

#### Semantic Differential

Directly after the manipulation participants were asked to indicate how they felt in situations that they described. Their answers were assessed on a 7-point semantic differential scale containing 12 bipolar choices. The different feelings that the participants were asked to evaluate pertained to morality (3 items, e.g., dishonest-honest) and control (4 items, e.g., uncertain-certain) dimension; there were also 2 items pertaining to judgments of competence (e.g., competent-incompetent), 2 items pertaining to warmth (e.g., friendly-unfriendly) and one additional filler item (sad-happy). Evaluation by an Unknown Observer

Following the semantic differential scale and a filler task (PANAS; Watson, Clark, & Tellegen, 1988), the participants were asked to imagine that they were being evaluated by a stranger who does not know anything about them and who would form their opinion about them based solely on the descriptions of the two events that the participants had provided earlier. The participants were then presented with a list of 22 descriptive items pertaining to control (e.g., with no influence), morality (e.g., dishonest), competence (e.g., resourceful), and warmth (e.g., friendly), there were also 3 filler items: happy, depressed, and sad. The participants indicated the extent to which the observer would judge them to possess each of these traits on a scale from 1 = not at all to 7 = very much.



#### Results in Germany

#### **Participants**

One hundred and fifty-five German participants volunteered to participate in the study. The data was collected in University of Leipzig (Germany) facilities, and therefore the sample consisted mostly of University of Leipzig students (92%). Among the participants 59% were female, 40% male and 1% indicated "other" as their gender. Participants' age ranged from 18 to 42, M = 23.45, SD = 3.75.

#### Results

Participants' responses on the semantic differential scale were factor-analyzed using a Principal Component Analysis with an Oblimin rotation. The solution returned 3 factors that explained 28.19%, 22.01%, and 10.10% of the variance. Three items, *dishonest*, *guilty* and *foolish*, loaded equally strongly on more than one dimension and therefore were disregarded. All morality and warmth items loaded on the first factor. The second factor was loaded by control items only. The third factor was loaded by one control item (*uncertain*) and one competence item (*incompetent*). All items loading on to the same factor were averaged to create composite scores. As a result, we obtained three subscales pertaining to morality and warmth (*friendly*, *unfair*, *nice*;  $\alpha = .74$ ); control (*agentic*, *powerless - reversed*, *I had a lot of control*;  $\alpha = .73$ ); control and competence (*competent*, *certain*;  $\alpha = .46$ ). Additionally, since we were primarily interested in the effects of the experimental manipulation on the morality and control dimension, we recreated the first factor using the morality item only (*unfair*). A higher score on a given subscale indicated a higher self-evaluation on its respective dimension.

We used the exact same procedure to determine the factorial structure of the scale measuring evaluation by a stranger. All 19 items (i.e., all items except for the filler items) were entered into a Principal Component Analysis with an Oblimin rotation. The solution returned 4 factors that explained 28.93%, 19.08%, 7.49% and 6.03% of variance. Two items, competent and efficient, loaded equally strongly on more than one dimension and therefore were disregarded. All morality and warmth items loaded on the first factor. The second and third factor pertained to low and high control dimensions respectively. The fourth factor comprised one control item (uncertain) and one competence item (smart), however since both of them loaded negatively we disregarded this factor as presenting the analysis residuals without any theoretical sense. All items loading on to the same factor were averaged to create composite scores. As a result, we obtained three subscales pertaining to morality and warmth (immoral-reversed, good-natured, friendly, fair, untrustworthy-reversed, loyal, sincere, dishonest-reversed, selfless;  $\alpha = .89$ ); low control (helpless, weak, powerless, with no *control*;  $\alpha = .82$ ) and high control (*agentic*, *mighty*;  $\alpha = .68$ ). Additionally, since we were primarily interested in the effects of the experimental manipulation on the morality and control dimension, we recreated the first factor using the morality items only (immoral-reversed, fair, untrustworthyreversed, loyal, sincere, dishonest-reversed, selfless;  $\alpha = .84$ ). A higher score on a given subscale indicated a higher self-evaluation on its respective dimension.

In order to verify whether the experimental manipulation proved effective in affecting participants' emotions and their assumption of how they might be judged by a stranger, we conducted two mixed model ANOVAs. Since we were specifically interested in the effects on the morality and control dimension, only subscales pertaining to these two dimensions are reported below. They were entered as a repeated measure dependent variable with two (for the first DV: morality, con-



trol) or three (for the second DV: morality, low control, high control) levels. The experimental group was entered as a between subjects factor (see Table A.1 in Appendix A).

Table A.1

The Effects of the Individual Morality and Control Threat on Morality and Control Self-evaluation Subscale of Semantic Differential Measure and on Morality and Control Subscales of the Evaluation by a Stranger Scale

Variable	М	SD	М	SD	М	SD
		eline = 51)		y threat 50)	Contro	l threat 47)
Morality (own feelings)	3.08	1.32	$2.40_{\rm a}$	1.20	3.55 <sub>b</sub>	1.76
Control (own feelings)	$2.87_a$	1.02	$3.65_{b}$	1.36	$2.08_{\rm c}$	1.17
		eline = 52)		y threat		threat 51)
Morality (evaluation by a stranger)	$4.26_{\mathrm{a}}$	1.04	$3.05_{\rm b}$	1.38	4.98 <sub>c</sub>	.96
Low Control (evaluation by a stranger)	$4.40_{\rm a}$	1.40	$3.75_{\rm b}$	1.25	$4.84_{\rm a}$	1.20
High Control (evaluation by a stranger)	3.01	1.18	$3.53_{a}$	1.14	$2.88_{\mathrm{b}}$	1.11

*Note.* Means with differing subscripts (in each row) are significantly different at p < .05 (or lower) based on Bonferroni's post hoc paired comparisons.

With regard to the first dependent variable, the semantic differential scale, neither the main effect of experimental group was significant, F(2, 145) = .59, p = .557,  $\eta_p^2 = .008$  nor was the main effect of the evaluation dimension, F(1, 145) = 1.02, p = .314,  $\eta_p^2 = .007$ . As predicted, we observed a significant interaction, F(2, 145) = 30.10, p < .001,  $\eta_p^2 = .293$ . Participants in the control deprivation condition felt less in control than participants in the morality (p < .001) and baseline (p = .004) conditions, and the two latter conditions also differed significantly from each other (p = .004). Furthermore, participants who were asked to remember their immoral acts declared experiencing emotions related to morality significantly less intensely than did participants in the control condition (p < .001) and marginally less intensely than those the baseline condition (p = .057), while the two latter conditions did not differ significantly from each other (p = .313)<sup>1</sup>.

The results were similar for evaluations by an imaginary stranger although this time the main effect for the experimental group was significant, F(2, 150) = 25.18, p < .001,  $\eta_p^2 = .251$ , and so was the main effect of the dimension, F(2, 281) = 36.84, p < .001,  $\eta_p^2 = .197$ . Again, these main effects were qualified by a significant interaction, F(4, 281) = 13.72, p < .001,  $\eta_p^2 = .155$ . Under control threat participants were significantly more prone to expect a stranger to see them as low in control and significantly less prone to expect a stranger to attribute high control to them as compared to partic-

<sup>1)</sup> We repeated the analysis for the three original subscales of morality and warmth, high control, and high control and competence. The results for the morality and warmth subscale descriptively replicated results observed in the analysis using its shortened version (the morality subscale), however this time all conditions differed significantly from each other. The results of the high control and high competence dimension replicated descriptively those for the pure high control subscale but only the difference between baseline and control condition was statistically significant.



ipants in the morality deprivation condition (p < .001 and p = .013). The differences between the control deprivation and baseline condition were not significant for the low (p = .256) or high control dimension (p = 1.00). The morality deprivation and baseline groups differed significantly or marginally from each other for both subscales (p = .032 and p = .069 respectively).

In terms of stranger's judgment on the morality dimension, all groups were significantly different from one another. Specifically, the morality deprivation group believed that a stranger would judge them to be significantly less moral than both the control deprivation (p < .001) and the baseline group (p < .001). The control threat group expected a stranger to rate them as significantly more moral than the baseline group (p = .005)<sup>2</sup>.

#### Results in Poland

#### **Participants**

One hundred and forty-one individuals participated in the pretest in Poland. The data was collected at the main library of the University of Warsaw. Thus, the sample consisted mainly of students. They were between 18 and 29 years of age (M = 21.65; SD = 2.19). The majority of the sample (71.6%) was female, 27.7% was male, while 1 person did not indicate their gender (0.7%). Results

The participants' responses to the semantic differential questions were factor-analyzed using a Principal Component Analysis with an Oblimin rotation. All items pertaining to control loaded on a single factor and all items pertaining to morality loaded on a single factor. The competence items were split between the *morality* ("smart-stupid") and *control* ("competent-incompetent") factors and since this solution did not make theoretical sense, they were excluded from further analyses. Items pertaining to warmth loaded on a single factor, but as warmth was not the main focus of the study we do not describe these results below. We next computed composite scores on the two subscales of interest: the morality subscale (3 items;  $\alpha$  = .63) and the control subscale (4 items;  $\alpha$  = .79). Higher scores on these subscales indicate higher evaluations of one's morality or control.

The exact same procedure was used to determine the factorial structure of the scale measuring evaluation by a stranger: we entered all 19 items (i.e., all items except for the filler items) into a Principal Component Analysis with an Oblimin rotation. The solution returned 3 factors that explained 27.66%, 25.62%, and 8.84% of variance. All items loading on to the same factor were averaged to create composite scores pertaining to competence and power (competent, efficient, smart, agentic, mighty;  $\alpha$  = .86), morality (dishonest, loyal, untrustworthy, immoral, sincere, unfair, good-natured;  $\alpha$  = .85; note that all these items were recoded so that higher scores reflect higher morality); and control (uncertain, helpless, powerless, with no control, weak;  $\alpha$  = .89; please note that all items were recoded so that higher scores reflect higher judgments of control); 2 items, friendly and self-less, loaded equally strongly on the competence and morality factors and were therefore excluded from subsequent analyses. As with the semantic differential scale, we were primarily interested in the effects of the experimental manipulation on the morality and control subscales and therefore only these results are reported below.

With the aim to verify whether the experimental manipulation indeed affected participants' own feelings and their perceptions of how they might be judged by a stranger in terms of their

<sup>2)</sup> We repeated the analysis replacing the morality subscale with the original morality and warmth subscale. The results did not differ from those reported here.



morality and control, two mixed model ANOVAs were conducted with judgments of control and morality (either by the self or by a stranger) entered as a repeated measure dependent variable with two levels and experimental group entered as a between subjects factor (see Table A.2 in Appendix A).

Table A.2

The Effects of the Individual Morality and Control Threat on Morality and Control Self-evaluation Subscale of Semantic Differential Measure and on Morality and Control Subscales of the Evaluation by a Stranger Scale

	Base (n =	eline 43)		y threat		l threat 46)
Variable	М	SD	M	SD	М	SD
Morality (own feelings)	3.91	0.87	3.81	0.85	3.84	0.96
Control (own feelings)	$2.74_a$	1.41	$3.32_{a}$	1.06	$1.79_{\rm b}$	0.88
Morality (evaluation by a stranger)	$4.57_a$	0.97	$4.31_{\rm b}$	1.14	$5.26_{\rm c}$	1.01
Control (evaluation by a stranger)	3.78	1.54	$3.32_{a}$	1.26	$3.14_{\rm b}$	1.52

Note. Means with differing subscripts (in each row) are significantly different at p < .05 (or lower) based on Bonferroni's post hoc paired comparisons.

With regard to the semantic differential self-evaluation scale, the main effect of experimental group was significant, F(2, 129) = 10.59, p < .001,  $\eta_p^2 = .14$  and so was the main effect of the evaluation subscale, F(1, 129) = 118.34, p < .001,  $\eta_p^2 = .48$ . As predicted, these main effects were qualified by a significant interaction, F(2, 129) = 16.11, p < .001,  $\eta_p^2 = .20$ . Participants in the control deprivation condition declared that they experienced emotions associated with control less than participants in the morality threat (p < .001) and baseline (p < .001) conditions, who only marginally differed from each other (p = .053). Contrary to our predictions, participants who were asked to remember their immoral acts did not differ from participants in the other two conditions in terms of experiencing morality-related feelings (all ps were highly insignificant and thus the Bonferroni adjustments yielded only values of 1.000).

The results were similar for evaluations by an imaginary stranger, although this time the main effect for the experimental group was not significant F(2, 129) = 2.35, p = .100,  $\eta_p^2 = .04$ . The participants believed that a stranger would rate them as significantly more moral than in control, F(1, 129) = 19.59, p < .001,  $\eta_p^2 = .13$ . Again, these main effects were qualified by a significant interaction, F(2, 129) = 39.44, p < .001,  $\eta_p^2 = .38$ . Participants in the control deprivation condition reported that a stranger would judge them to have significantly less control than participants in the morality deprivation condition (p < .001), but the comparison with the baseline group was not significant

<sup>3)</sup> We did create composite scores of all items loading on the morality and control factors (including the 2 competence items) and repeated the mixed-design ANOVAs reported here for these two composite measures. The results for the control dimension (inclusive of the "competent-incompetent" competence item did not change) while the results for the morality dimension (inclusive of the "smart-stupid" competence item) actually became significant in the expected direction – i.e., participants in the morality threat condition rated their own morality significantly lower than those in the control threat and baseline conditions. However, as these latter effects were driven primarily by the "smart-stupid" item, which arguably is not as strongly related to the concept of morality as judgments of what is right and wrong, we decided not to report this result and focus on the pure morality dimension instead.



(p = .099). The morality deprivation and baseline groups did not differ from each other (p = .246). In terms of evaluations of morality, all groups were significantly different from one another. Specifically, the morality deprivation group believed that a stranger would judge them to be significantly less moral than both the control deprivation (p < .001) and the baseline group (p < .001). The control threat group expected a stranger to rate them as significantly more moral than the baseline group (p = .008).

#### Conclusions

Overall, the pretest study results provided substantial support for the validity of the experimental manipulation and showed that indeed recalling past states of morality and control threat resulted in experiencing such threat. While the morality threat did not result in the expected shift in self-evaluations on the morality dimension in Poland, we decided to keep this manipulation as it was successful in Germany and also had the expected effect on the evaluation by a stranger measure.

In most comparisons, the baseline condition means were in between the means of the two other conditions (morality and control threat). In order to make the baseline condition even more emotionally neutral in the main study, we decided to change its content for a description of an everyday habit.

<sup>4)</sup> We also excluded the 3 competence items from the first factor of the evaluation by a stranger scale factor solution in order to create a composite score of high power (which is similar to high control) and entered this composite measure as a third within-subjects dependent variable in a mixed-design ANOVA but the effect of the experimental manipulation on this measure was not significant (*p* > .500).



Appendix B: Correlations Among All Items Comprising the Main Dependent Variable – The Interest in History Scale in Studies 1 and 2

	1	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16	17	18	19
Times when the German nation (was) (particularly)/ Times when Germans (were) (particularly)	n natio	ı (was) (	particu	larly)/	Times	when G	ermans	(were)	(particu	larly)									
etin 1. autonomous																			
2. independent	.61***																		
3. like-minded	.46***	.49***																	
4. united	.52***	.32***	.49***																
	.59***	.54***	.42***	.36***															
6. agentic	.54***	.45***	.28**	.27**	.36***														
7. skilled and industrious	.46***	.44***	.22*	.33***	.56***	.42***													
8. powerful	.51***	.43***	.33***	.30***	.47***	.41***	.29***												
9. successful	.57***	.48***	.41***	.36***	.53***	.52***	.48***	,65***											
10. efficacious	.55***	.49***	.31***	.30***	.46***	.55***	.39***	.63***	.53***										
11. hospitable	.22**	.28**	.33***	.29***	.16	.17*	.14	.07	.18*	.13									
12. helped other nations	.49***	.31***	.34***	.45***	.44***	.29***	.39***	.26**	.37***	.34***	.53***								
13. generous	.28**	.22**	.31***	.34***	.31***	.13	.33***	60:	.30***	.16	.53***	.57***							
14. highly moral	.35***	.26**	.38***	.47***	.32***	.34***		.15	.24**		.48***	.45***	.48***						
15. idealistic	.30***	.29**	.35***	.29***	.31***	.43***			.29***					.47***					
16. reliable	.49***		.43***	.45***	.40***	.40***			.33***				.45***		.31***				
	.39***	.36***				.25**	.32***		.29***						.45***	.55***			
thers	.36***	.25**														.50***	.47***		
<ol><li>well-meaning</li></ol>		.23**					.30***	.15	.32***							.53***	.56***	.47***	
20. people of honor	.50***				.54***	.42***	.44***	.38***	.45***	.46***		.40***	.45***	.31***		.50***	.47***	.34***	.44***
p < .05. ** $p < .01$ . ** $p < .001$ .	< .001.																		





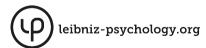
Correlations Among All Items Comprising the Interest in the History Scale (in Order of Presentation) in the Polish Sample

	П	2	3	4	5	9	7	8	6	10	11	12	13	14	15	16	17	18	19
Times when the Polish nation (was) (particularly)/ Times when Poles (were) (particularly).	nation (	was) (pa	ırticula	rly)/ T	imes wh	en Pole	s (were)	(particu	ılarly)										
1. autonomous																			
2. independent	,99																		
3. like-minded	.37***	.37***																	
4. united	.40***	.50***	***09																
5. determined	.43***	.50***	.34***	.45***															
6. agentic	.46***	.48***	.33***	.40***	.52***														
7. skilled and industrious	.40***	.44***	.31***	.35***	.40***	***69													
8. powerful	.58***	.64***	.33***	.42***	.44***	.40***	.34***												
9. successful	.57***	***09'	.44***	.47***	.49***	.55***	.54***	***69											
10. efficacious	.51***	.53***	.45***				.44***	.58***	.57***										
11. hospitable	.32***	.30***	.41***	.39***	.42***			.16	.29**	.28***									
12. helped other nations	.34***	.40***	.50***					.31***	.38***	.44***	.63***								
13. generous	.40***	.41***	.51***	.49***					.47***	.45***	.45***	.52***							
14. highly moral	.29**	.33***	.53***				.43***		.42***	.41***	.42***	.59***	.62***						
15. idealistic	.44***	.44***	.39***						.38***	.44***	.20*	.40***	.49***	.42***					
16. reliable	.46***	.39***	.52***	***09.			.39***		.53***	.52***	.56***	.57***	.67***	.56***	.45***				
17. just	.38***	.39***	.49***		.42***	.46***	.32***		.41***	.38***	.46***	.59***	.61***	.54***	.38***	.62***			
18. sacrificed for others	.27***	.32***	.37***	.35***	.21*			.25**	.25**	.21***	.46***	.59***	.39***	.49***	.39***	.38***	.38***		
19. well-meaning	.29***	.34***	.51***	.43***	.46***	.49***	.45***	.28**	.33***	.44***	.55***	.56***	.57***	.56***	.32***	.63***	.64***	.37***	
20. people of honor	.40***	.46***	.49***	.48***	.36***	.37***	.25**	.52***	.50***	.51***	.41***	.52***	.59***	.62***	.***09.	.56***	.53***	.46***	.48***
00 /4** 01 *** 00 /4*	- 001																		





Social Psychological Bulletin is an official journal of the Polish Social Psychological Society (PSPS).



PsychOpen GOLD is a publishing service by Leibniz Institute for Psychology Information (ZPID), Germany.

