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Individual Differences in Coping with Mortality Salience in Germany vs. Poland: Cultural World View or Personal View Defense?

Abstract: We investigated the influence of personality and culture on effects of mortality salience (MS) over cultural worldview defense (CWVD). We hypothesized that CWVD reactions to MS differ between Germany and Poland because of the higher conservatism of the latter country, and that they are moderated by action vs. state orientation. In this study German (N=112) and Polish (N=72), participants were exposed either to MS or to a control condition (dental pain). Punishment ratings to trivial offences and serious social transgressions were measures of CWVD. Results showed that social transgressions in both conditions were more strongly punished in Poland than in Germany. Additionally, compared to the control condition, under MS action oriented punished serious transgressions more strongly in Germany whereas state oriented punished serious transgressions more strongly in Poland. That is, the effects of MS on CWVD are moderated by personality and culture. We interpret the opposite pattern of punishment to serious social transgressions given by action and state oriented in Germany and Poland, respectively, according to the higher emotional autonomy of action-oriented persons in either culture.

Key words: Terror Management Theory, PSI Theory, Germany, Poland, Action Orientation

Research on terror management theory (TMT) has shown that concerns about one's own mortality elicit a broad range of behaviors oriented toward the pursuit of positive self-images and faith in one's cultural worldview (Pyszczynski, Greenberg, & Solomon, 1999; for a review of research on TMT see Solomon, Greenberg, & Pyszczynski, 2004). The basic premise of TMT is that human beings are motivated to avoid the potential terror that would occur from experiencing the uncertainty surrounding the circumstances of inevitable personal death. These theorists argue that the same psychological abilities of symbolic thinking and imagination that gave rise to the human awareness of personal death also give rise to psychological defenses against the anxiety elicited by that awareness. These defenses represent symbolic protection against death, which are conceptualized as cultural worldview defenses. Cultural worldview offer ways to achieve "symbolic immortality." Research on terror management is carried out through induction of mortality salience (MS),

a method used to experimentally investigate the tenets of TMT and its effects on cultural worldview defense (for a meta-analysis of more than 160 investigations, see Burke, Martens, & Fauche, 2010). For example, induction of MS has been found to elicit self-serving attributions (Mikulincer & Florian, 2002), ingroup biases (Castano, Yzerbyt, Paladino, & Sacchi, 2002), nationalistic biases (Nelson, Moore, Olivetti, & Scott, 1997), and negative reactions to those who violate cultural values (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989).

Although much work has been done on MS (Solomon, et al., 2004) one area that needs further development is the direct comparison of persons belonging to different cultures in their reactions to confrontations with their own mortality (Burke et al, 2010; Yen & Chen, 2010). Moreover, most investigations on MS have been carried out in one country, USA (Burke et al., 2010; Solomon, et al., 2004).

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In this study we investigate MS effects on punishment to moral infringements comparing two European countries: Germany vs. Poland. Mortality salience is expected to enhance expressions of own-culture preferences. Nationally and socially constructed mentalities and sensibilities can have implications for the cultural specificity concerning punishment of social transgressions (Garland, 1990). Here, we argue that there are differences between Polish and German people in this regard due to the higher degree of conservatism of the former. This conservatism may be related to the predominance of the Catholic Church and of religious beliefs in Poland. In a survey comparing different European countries, 86% of Polish participants agreed to the statement “Religion holds an important place in my life”, compared to only 56% of Germans (TNS, Sofres, 2005; cited in Heinen & Portet, 2009, p. 11). Polish people have more conservative attitudes than Germans on moral issues, for example, those related to abortion. To the statement “If a woman doesn’t want children, she should be able to have an abortion” only 47% of Polish participants agreed, compared to 64% of Germans (TNS, Sofres, 2005; cited in Heinen & Portet, 2009, p. 24). Conservative attitudes are also found in Poland regarding sex education at school (Heinen & Portet, 2009, pp. 26-29). There are indications of religious conservative political stances in Poland (Riedel, 2009; Smolar, 2006). One author (Zafirovski, 2011) even finds parallels between medievalism (“Catholic-based authoritarian conservatism”) and neo-conservatism, such as that found in Poland (p. 245). Religious conservatism has an impact on the degree of punishment to social transgressions, even influencing attitudes towards the death penalty (Fijalkowski, 2005).

Our first hypothesis is that Polish participants will show a general tendency to punish social transgressions more severely than Germans, because of differences in conservatism between the two countries.

Kazén, Baumann, and Kuhl (2005) found that action vs. state orientation, a personality disposition related to emotion regulation, moderates reactions towards mortality salience. Because of prevalence of negative attitudes towards nationalism in Germany, due to historical reasons related to the Nazi regime, Germans were expected to show lower endorsement of national pride after a MS induction compared to a control condition. In two studies, Kazén et al. found that to be the case, but only for state oriented participants (those with lower emotion regulation). After induction of MS state oriented rated national pride more negatively, compared to the control condition. Action oriented (those with higher emotion regulation), in contrast, rated national pride *less negatively* after MS compared to the control condition. This result was interpreted according to a higher level of “emotional autonomy” of action compared to state oriented persons. That is, as a way of dealing with thoughts about their own death, action oriented relied on their own “personal view” concerning national pride and did not follow the expected “cultural world view” of their society. Notice that this is not predicted by TMT, because it postulates no differences in emotion regulation moderating CWVD-responses to MS inductions (cf. Pyszczynski et al., 1999).

The proposal that action oriented persons have a higher level of emotional autonomy and better access to their own preferences compared to state oriented is well supported, both theoretically and empirically (see Kuhl & Beckmann, 1994a, for a series of Chapters on this construct). For example, compared to state oriented, action oriented persons do not show typical “learned helplessness” effects in the current task after a previous failure, because they are able to stop rumination about the unsolved task (Kuhl & Weiß, 1994). Action oriented show less “latent alienation” than state oriented, that is, they are less influenced by the opinion of authorities and have higher consistency in preference ratings (Kuhl & Beckmann, 1994b, pp. 384-386). Action oriented, compared to state oriented, do not show “self-infiltration” effects (unconsciously mistaken alien norms or goals as self-generated) under stress (Baumann & Kuhl, 2003; Kazén, Baumann, & Kuhl, 2003; Kuhl, & Kazén, 1994). The mechanism by which they are able to avoid self-infiltration was investigated by Kazén et al. (2003) and consists in better “self-compatibility checking”, which refers to thoroughly verifying whether a previous choice is compatible with one’s own preferences. Self-compatibility checking occurs unconsciously and it is indexed by longer decision times in counter-preferential compared to preferential choices. Based on these results, we propose that through self-compatibility checking, which may occur implicitly under stress, action-oriented persons are able to access their own preferences and to show a higher degree of emotional autonomy after induction of MS, instead of relying on societal cultural values.

Based on findings related to national pride after MS in Germany (Kazén, et al., 2005) and on those reviewed in the previous paragraph, we expect action vs. state orientation to moderate cultural world view reactions to MS. That is, we predict a significant interaction between MS induction and personality. If the consensus in modern Germany is to give less punishment to severe social transgressions, which is indicated among other things by the reluctance to reinstate the capital punishment in that country, it will require emotional autonomy to counter this general social tendency, especially after induction of MS (which should strengthen conformity to socially-shared values). Our hypothesis is therefore that *action-oriented* German participants (having higher emotional autonomy), compared to state-oriented, will show a tendency to give higher punishment ratings to severe social transgressions after MS. This difference between state and action oriented participants is not expected under control conditions or in response to trivial social offences, that is, whenever the level of punishment is likely to be low.

To examine the proposed differences in conservatism between Germany and Poland, we investigated an equivalent sample of participants in the latter country. Because punishing social transgressions is more socially acceptable in a conservative society, we predict here punishment-related coping (CWVD) as a function of induced MS. That is, after a reminder of one’s own death, we expect that the general tendency among Polish participants will be to more harshly punish severe social transgressions, and perhaps trivial offences. In contrast to Germany, it will

require emotional autonomy (i.e., action orientation) to deviate from this socially-preferred tendency to punish rule violators. Therefore, in a Polish sample, *state* compared to action oriented will be more likely to endorse higher level of punishment for social transgressions and perhaps trivial offences after exposure to a mortality reminder.

In the Polish sample in addition to punishment ratings to trivial offences and severe social transgressions, we presented some items about cultural adaptation (cf. Sani, Herrera, & Bowe, 2009), aimed to assess positive aspects of the Polish culture and to explore possible rating differences due to induction of MS or personality.

In sum, members of the German and Polish cultures are expected to deviate from the socially preferred tendency to refrain from or endorse punishment, respectively, as a terror management strategy to the extent that they have well-developed self-regulatory skills. Notice that our predictions for action and state oriented persons in each country run in the opposite direction concerning coping with MS. German action oriented should be more willing to punish severe social transgressions, whereas Polish state oriented should be more willing to harshly punish severe social transgressions.

Method

Participants

Participants of the German sample were 112 volunteers (81 women and 31 men). They were all workers and had different occupations. *Mean* age was 35.1 years; *SD* = 15.0 (range 15 to 71). In the MS condition there were 56 participants: *Mean* age = 33.5, *SD* = 13.0 (range 15 to 66). The control condition inducing negative affect was dental pain, also with 56 participants: *Mean* age = 36.7, *SD* = 16.8 (range 15 to 71).

Participants of the Polish sample were 72 volunteers (47 women and 61 men). They were all workers and had different occupations. They had an equivalent age as the German participants. *Mean* age was 32.4 years; *SD* = 10.8 (range 20 to 58). In the MS condition there were 36 participants: *Mean* age = 32.1, *SD* = 10.5 (range 20 to 52). In the dental pain condition there were 36 participants: *Mean* age = 32.9, *SD* = 11.2 (range 20 to 58).

Materials

Mood Ratings. We administered a 21-item self-report inventory to investigate participants' mood ("Right now, I feel ...") on a 4-point Likert scale from 0 (*not at all*) to 3 (*very strongly*), before and after the experimental induction. To calculate a broadly defined mean positive affect score we combined the subscales "*happiness*", "*activation*" and "*calmness*", each consisting of 3 items (Cronbach's alpha = .82 and .89 for the German and Polish samples, respectively). To calculate a (broadly defined) mean negative affect score we combined the subscales "*helplessness*", "*distress*" and "*listlessness*": Each scale contained 3 items (Cronbach's alpha = .74 and .82 for the

German and Polish samples, respectively).

Action Control Scale. We used the Action Control Scale (ACS-90; Kuhl, 1994; see also Diefendorff, Hall, Lord, & Streat, 2000, for psychometric properties). Based on previous findings (Kazén, et al., 2005) we applied the *threat or failure*-related scale (AOF), which measures individual differences in emotion regulation (self-relaxation after a negative affective experience). Two example items are: "When I am told that my work has been completely unsatisfactory: (a) I don't let it bother me for too long, or (b) I feel paralyzed." and "When I have to put all my effort into doing a really good job on something and the whole thing doesn't work out: (a) I don't have too much difficulty starting something else, or (b) I have trouble doing anything else at all." In these examples option *a* corresponds to action-oriented and option *b* to state-oriented alternatives. The scale ranges from 0 – 12 with higher scores indicating action and lower scores state orientation. Adequate internal consistency was obtained in a large sample of participants (Cronbach's alpha = .78).

Applying the norms (Kuhl, 1994), 56 participants of the German sample were classified as state oriented because their score was below the median (indicating a stronger disposition to preoccupation, *M* = 1.96, *SD* = 1.08) and 56 as action oriented because their score was above the median (indicating a stronger disposition to disengage, *M* = 6.10, *SD* = 1.80). In each condition (MS and dental pain) there were 28 state- and 28 action-oriented participants.

For the Polish sample, applying the norms, 34 participants were classified as state oriented because their score was below the median (indicating a stronger disposition to preoccupation, *M* = 3.71, *SD* = 1.13) and 38 as action oriented because their score was above the median (indicating a stronger disposition to disengage, *M* = 6.66, *SD* = 1.26). In the MS condition 18 were state and 18 action oriented. In the dental pain condition 19 were state and 17 action oriented.

Cultural World View Defense. To measure CWVD, we used a well-known procedure measuring responses to violations of cultural values (see Rosenblatt, et al., 1989), but varied the level of the transgression (trivial offences vs. serious transgressions). Specifically, the participant was asked to pretend that she/he was an educator, teacher, or judge, who was to punish a person accountable to her/him for committing a series of "social transgressions." Participants did their ratings using a 7-point Likert scale: (1) *no punishment*; (2) *very mild punishment*; (3) *mild punishment*; (4) *middle punishment*; (5) *strong punishment*; (6) *stronger punishment*; (7) *very strong punishment*. These labels were shown above the list. There were four social transgressions, which can be classified as „trivial offences“: Pick flowers from a „bed“ of a public park; Forget to return things that were borrowed for a short time; Knock over and break an expensive vase due to carelessness; Forget to return a borrowed book (Cronbach's alpha = .68 and .72 for the German and Polish samples, respectively). There were four social transgressions which can be classified as „serious“: Take (steal) things from an unattended bag; Drive a car with higher levels of blood alcohol than legally allowed;

Seduce a married person (man or woman, depending on the participant); Divulge secrets confided to you by a close friend (Cronbach's $\alpha = .71$ and $.78$ for the German and Polish samples, respectively). The eight statements were presented in random order.

For the Polish sample we included three additional statements related to cultural or professional adaptation, but unrelated to punishment, to investigate more positive aspects of CWVD (cf. Sani, Herrera, & Bowe, 2009). These statements were presented after the social transgressions items and were rated on 7-point Likert scales: (1) "I expect that foreigners who live in Poland adapt themselves to our life style" (1 = *not at all...7 = very strongly*). (2) "If I meet someone who says something positive about my profession, I would:" (1 = *do not like it at all...7 = like it very much*). (3) How disappointed would you be if Adam Malysz (a famous Polish ski jumper) does not win the final competition?" (1 = *not at all...7 = very disappointed*). (Cronbach's $\alpha = .52$).

Procedure

Participants were tested in groups of 8-10 persons. As a cover story they were told that the investigation dealt with the effects of moods in different life situations. They were first asked to rate their momentary mood (time 1 or t1) and filled out the action control scale. Participants were then randomly assigned to one of the experimental conditions: *Mortality salience or dental pain*. In each condition participants filled out the same set of questionnaires. After filling out some of them, participants in the *MS* condition were asked to imagine what it would happen to them and their body when they die and to provide a written description, as detailed as possible, about the feelings and thoughts aroused while imagining their own death. Participants in the *dental pain* condition were requested to imagine what would happen to them and their body when they go to the dentist for a dental treatment. They were likewise asked to make a written description as detailed as possible about the feelings and thoughts aroused in them while imagining going to the dentist for dental treatment. A sheet of paper was provided with instructions on top and 22 lines of space for their descriptions. Subsequently, participants were asked to rate their momentary mood (time 2). Afterwards, participants filled out additional questionnaires, including the punishment ratings of the hypothetical trivial offences

and serious social transgressions. The Polish participants filled out the additional items related to CWVD. They were then fully debriefed and dismissed. The session lasted about 45-50 minutes.

Results

Manipulation Check

Mood effects. We analyzed positive and negative affect ratings of participants before and after the experimental induction with a mixed-design analysis of variance (ANOVA) using Country (Germany, Poland) and Condition (dental pain, MS) as between-participant factors and Time (time1, time2) as within-participant factor.

Results of the ANOVA on positive affect ratings indicated a main effect of Time, $F(1, 180) = 23.7, p < .0001, \eta^2_p = .11$. Positive ratings were higher at time 1 ($M = 2.81; SD = 0.67$) than at time 2 ($M = 2.68; SD = 0.73$), after the induction. There was a Time X Condition interaction: $F(1, 180) = 6.36, p < .02, \eta^2_p = .03$. The reduction in positive affect for the MS condition was significant (Means: 2.87 vs. 2.66, for times 1 and 2, respectively, $p < .001$). For the dental pain condition the reduction in positive affect was not significant (Means: 2.71 vs. 2.64, for times 1 and 2, respectively, $p = .10$).

Results of the analogous mixed ANOVA on negative affect ratings yielded only a significant Country X Time interaction, $F(1, 180) = 4.31, p = .05, \eta^2_p = .03$. There was a significant reduction of negative affect for German participants (Means: 1.57 vs. 1.48, for times 1 and 2, respectively, $p < .01$). For Polish participants there was no change in negative affect (Means 1.50 vs. 1.52, for times 1 and 2, respectively, n.s.). The Country X Time X Condition interaction was not significant ($p > .14$), nonetheless within the German sample the reduction in negative affect was higher for the MS (Means: 1.52 vs. 1.38, for times 1 and 2, respectively, $p < .01$) than for the dental pain (Means: 1.62 vs. 1.53, for times 1 and 2, respectively, n.s.) condition.

Preliminary Analysis on CWVD¹

We first carried out a mixed-design ANOVA on punishment ratings involving the main variables: Country (Germany, Poland) X Condition (dental pain, MS)² X Personality (state oriented, action oriented) X Type of

¹ We carried out all of the analysis on CWVD reported using age of participants as a covariate because of possible differences of age between German and Polish participants. The results of all analyses entering age as a covariate were practically identical as before. That is, there is no confounding due to age of participants in the results.

² In addition to MS and dental pain, in the Polish sample we had a control condition related to work failure with 36 participants (*Mean* age = 31.1, *SD* = 8.6; range 23 to 56). Whereas dental pain induces negative affect, it is not necessarily self-relevant in the same sense as when you are confronted with your own death. We therefore added work failure to induce self-relevant negative affect, which we did not expect to be elicited by dental pain. We asked participants to imagine what they would feel during a subjectively important failure in their work place or after making a serious mistake in their occupation or profession. They were to vividly represent to themselves the concrete situation and to make a detailed written description of the events leading to the represented situation, up to getting near to the failure (or mistake). Participants should focus on feelings and thoughts aroused in them while imagining their own failure or mistake. We analyzed this control condition with a mixed Personality (state oriented, action oriented) X Type of Offence (trivial offences, serious transgressions) ANOVA. There was only a main effect of Type of Offence: $F(1, 34) = 68.5, p < .0001, \eta^2_p = .66$, with higher punishment given to serious transgressions ($M = 4.49, SD = 1.36$) than to trivial offences ($M = 2.40, SD = .92$). Personality did not have any effect at all ($F < 1$).

The fact that state oriented participants' harsher punishment did not generalize to the work-failure condition further supports the hypothesis that MS effects are based on representations of existential threat rather than physical (dental pain) or any self-worth related threat (work failure).

Offence (trivial offences, serious transgressions), with the last factor as repeated measure. The four-way interaction was highly significant: $F(1, 210) = 13.32, p < .001, \eta_p^2 = .06$. To elucidate the nature of this interaction, we carried out separate analyses according to Type of Offence, which are reported next.

Effects on CWVD

As a remainder, our first hypothesis was that Polish would be more willing to punish any type of social transgression than Germans, because of their higher level of conservatism. To investigate this issue as well as the influence of personality on CWVD, we analyzed punishment ratings given to trivial offences and serious social transgressions, each with a Country (Germany, Poland) X Personality (state oriented, action oriented) X Condition (dental pain, MS) ANOVA.

Trivial Offences. Results of the analysis of *trivial offences* yielded a highly significant effect of Country: $F(1, 176) = 56.3, p < .0001, \eta_p^2 = .24$. As expected, Polish participants gave more punishment ($M = 2.90; SD = 1.10$) to hypothetical trivial offences than Germans did ($M = 1.85; SD = 0.74$). Neither Condition, Personality, or any higher order interaction was significant ($p > .25$ in each case). Descriptive results are shown in Table 1.

Table 1. Mean Punishment Score (SD in parenthesis) given to Trivial Offences as a Function of Country (Germany vs. Poland), Condition (Dental Pain vs. MS) and Personality (State vs. Action Orientation). The 3-way interaction was not significant.

	Germany		Poland	
	Dental Pain	Mortality Salience	Dental Pain	Mortality Salience
State Oriented	1.96 (.96)	1.82 (.59)	3.08 (.74)	2.81 (1.17)
Action Oriented	1.69 (.61)	1.93 (.74)	2.88 (.93)	2.89 (1.45)

Note: The main effect of country was significant ($p < .001$): Punishment ratings given by Polish were significantly higher than those given by Germans. Scale ranged from 1 (*no punishment*) to 7 (*very strong punishment*).

Serious Transgressions. Results of the analogous ANOVA on punishment ratings to serious transgressions yielded also a highly significant effect of Country: $F(1, 176) = 12.3, p < .001, \eta_p^2 = .07$. As predicted, Polish participants gave more punishment ($M = 5.03; SD = 1.30$) to hypothetical serious transgressions than Germans did ($M = 4.32; SD = 1.10$). More importantly, the Country X Personality X Condition interaction was highly significant: $F(1, 176) = 14.69, p < .0001, \eta_p^2 = .08$. For state-oriented Germans there were no significant differences between MS and dental pain conditions in punishment ratings ($M = 4.53$ vs. $M = 4.28$, respectively, *n.s.*), action-oriented Germans, in contrast, gave significantly higher punishment ratings under the MS than under the dental pain condition ($M = 4.60$ vs. $M = 3.89$, respectively, $p < .02$). The results were reversed for the

other country. State-oriented Polish gave more punishment under the MS than under the dental pain condition ($M = 5.61$ vs. $M = 4.43$, respectively, $p < .009$) whereas action-oriented Polish showed no significant differences in punishment ratings under the MS or the dental pain condition ($M = 4.58$ vs. $M = 4.18$, respectively, $p = .10$). Descriptive results are shown in Table 2.

Table 2. Mean Punishment Score (SD in parenthesis) given to Serious Transgressions as a Function of Country (Germany vs. Poland), Personality (State vs. Action Orientation) and Condition (Dental Pain vs. MS). The 3-way interaction was highly significant ($p < .0001$).

	Germany		Poland	
	Dental Pain	Mortality Salience	Dental Pain	Mortality Salience
State Oriented	4.53 (1.27)	4.28 (.92)	4.43 _c (1.15)	5.61_d (1.16)
Action Oriented	3.88 _a (1.11)	4.60_b (.97)	5.18 (1.13)	4.58 (1.51)

Note: The main effect of country was significant ($p < .001$): Punishment ratings given by Polish were significantly higher than those given by Germans. Scores in each row for the respective country that do not share subscripts differ significantly. 'a' vs. 'b' $p < .02$; 'c' vs. 'd' $p < .009$. Main results in boldface. Scale ranged from 1 (*no punishment*) to 7 (*very strong punishment*).

We calculated correlations between punishment ratings given to trivial offences and serious transgressions, separately by Country and Condition. The correlations for the German sample were: $r(54) = .50, p < .001$, for dental pain and $r(54) = .44, p < .001$, for MS. The correlations for the Polish sample were: $r(34) = .47, p < .004$, for the dental pain and $r(34) = .11, n.s.$, for the MS condition.

Positive CWVD. For the Polish sample, we analyzed ratings to the more cultural adaptive aspects of CWVD with a Personality (state oriented, action oriented) X Condition (dental pain, MS) ANOVA. None of the results were significant (all $ps > .15$). The means for state and action oriented participants under dental pain were 4.13 ($SD = 1.20$) and 4.56 ($SD = 1.08$), respectively. The means for state and action oriented participants under MS were 4.81 ($SD = 1.02$) and 4.56 ($SD = 1.08$), respectively.

To find out whether the different measures (ratings to social transgressions and to cultural adaptive aspects of CWVD) were related to each other we calculated inter-correlations, separately for condition. Results are shown in Table 3. (See page 254) In all conditions there was a significant correlation between the punishment rating given to trivial offences and to serious social transgressions. Notably, the correlation between punishment ratings given to serious transgressions and the measure related to cultural adaptation aspects was significant for the MS ($p < .005$) and the dental pain condition ($p < .01$). The correlation between punishment ratings and the cultural adaptation aspects measure for trivial offences was significant for the dental pain ($p < .01$) but not for the MS condition.

Table 3. Correlations between Measures of CWVD for the Different Conditions of the Polish Sample. Punishment Ratings Given to Trivial Offences or Serious Transgressions and Ratings Given to Cultural Integrative (Positive) Measures of CWVD. Scales Ranged from 1 to 7 in each case.

	Trivial Offences	Positive CWVD
DENTAL PAIN		
Serious Transgressions	.14	.43*
Trivial Offences	-	.44*
MORTALITY SALIENCE		
Serious Transgressions	.47**	.48**
Trivial Offences	-	.07

Note: * $p < .01$, ** $p < .005$

Discussion

The results show that there are cultural differences in dealing with MS and CWVD. First, we predicted that because of their higher level of conservatism Polish participants would be *more* willing to punish social transgressions than persons from a less conservative country, such as Germany. This hypothesis was confirmed. Polish participants compared to Germans punished more harshly not only serious social transgressions but also trivial offences. This was the case for participants in the MS and the dental pain condition. That is, it reflects a general tendency. This finding may be surprising to some international readers because it runs against some stereotypes about the German character maintained for decades in the media (TV or films), but we believe that it reflects the social consensus in modern Germany, which is characterized by a lower level of conservatism and by hesitation in severely punishing social transgressions, as illustrated by the opposition of the German people to reinstating the capital punishment after its excessive use during the Nazi regime.

Second, we investigated the moderating role of action vs. state orientation, which relates to emotion regulation, on the effects of MS on CWVD, in two countries: Germany and Poland. Note that we expected differences between state and action oriented participants in punishment ratings given to serious social transgressions and we did not expect them for ratings given to trivial offences. This expectation was confirmed (compare results of Tables 1 and 2).

In the German sample our main hypothesis predicts higher levels of punishment to serious transgressions in the MS compared to dental pain condition for action-oriented participants, because of the delicate issue of punishing social transgressions and the general tendency in this country to avoid higher levels of punishment. We reasoned that it requires emotional autonomy to counter the general societal norm and we expected it for action oriented participants, who have shown more emotional autonomy in previous research (e.g., Kazén et al., 2003; Koole & van

den Berg, 2003; Kuhl & Beckmann, 1994b; Kuhl & Weiß, 1994). The data confirmed our expectation, action oriented participants gave significantly higher punishment ratings to serious social transgressions under the MS compared to the dental pain condition (see Table 2).

We interpret this main finding as evidence of higher emotional autonomy of action oriented persons under MS, which is comparable to the finding of significantly less negative ratings given to *national pride* by action oriented under MS compared to the control condition (Kazén et al., 2005). We reasoned that emotional autonomy (action orientation) is needed to engage in national pride because showing positive feelings toward national emblems is still a “delicate issue” in Germany. State oriented persons, in contrast, were expected to follow closely what society prescribes; that is, to endorse national pride to a lesser extent or, in the present study, to respond with less punishment to serious social transgressions under the MS compared to the dental pain condition. The data show this trend (4.28 vs. 4.53, respectively; see Table 2), although the difference between conditions for state-oriented participants was not significant.

In Poland we predicted the opposite tendency as in Germany, based on the higher level of conservatism in Poland and the self-regulation skills of participants. From a conservative social norms standpoint there is no reason to avoid giving high punishment to serious social transgressions. If this is true, Polish participants should have less difficulty in endorsing punishment to social transgressions, because this is not a delicate issue in Poland like it is in Germany and that would be the expected response in a more conservative society. Therefore our prediction was that state oriented participants, who show higher levels of conformity and self-infiltration under stress (Kazén, et al., 2003; Kuhl and Kazén, 1994) should follow more closely what society prescribes compared to action oriented, and therefore apply higher levels of punishment to social transgressions after induction of MS (see Rosenblatt et al., 1989).

In sum, we expected that state-oriented under induction of MS would give harsher punishment to social transgressions than action-oriented participants do in the same condition. This was expected only with reminders of one’s own mortality and not in the control (dental pain) condition. The results support the main hypothesis: State-but not action-oriented participants in the MS condition gave significantly harsher punishment to serious transgressions, compared to participants in the dental pain condition. Moreover, the absolute level of punishment given by state oriented under MS was the highest (5.61 in a 7-point scale) compared to all other conditions (Table 2).

We propose that the mechanism by which action oriented participants in either country are able to follow their “own personal view” rather than the general “cultural world view” of the society after reminders of their own death is implicit (unconscious) and is related to self-compatibility checking (see Kazén et al., 2003), that is, thoroughly verifying whether a particular behavior is compatible with one’s own preferences. If there is a reason to oppose the

general tendency of the society action but not state oriented will be able to do it, showing what we call emotional autonomy. The present study was not specifically designed to investigate this process, and the answer to this question has to await future research. For example, a study in which additional measures of self-access after a MS induction are applied.

Third, for the Polish sample we explored whether induction of MS would influence not only the tendency to punish persons who violate social rules but also aspects related to cultural adaptation, assessed with some positive formulated items (cf. Sani, Herrera, & Bowe, 2009). Results showed no significant differences in ratings due to Condition (MS or dental pain) or Personality (state or action). Notably, the correlation between punishment ratings given to serious transgressions and ratings of those cultural adaptation aspects was significant for both conditions (MS and dental pain), and it may reflect a general tendency to give higher ratings rather than something specifically related to induction of MS.

Concerning mood ratings, in both samples there was a significant decrease in positive mood after the MS but not after the dental pain instruction. This result can be expected but it is not normally reported in the literature (Greenberg, Solomon, & Pyszczynski, 1997). Notably, the German participants had a reduction in negative mood after each experimental induction, significantly after MS. This result was unexpected and it may be related to the specific sample of German participants because we did not find it in the Polish sample. At any rate it deserves further scrutiny in future studies. What we did not find after induction of MS was an increase in negative mood in either sample of participants, replicating previous findings (see Greenberg, et al., 1997). This implies that MS inductions may affect CWVD behavior in an implicit manner and not through conscious experience of negative affect, as some authors suggest (Arndt, Greenberg, & Cook, 2002; Kuhl, 2000).

Although the results of this investigation are consistent with our theoretical expectations and extend previous work (Kazén et al., 2005), they should be replicated to overcome some limitations. The first is that although we assumed for reasons elucidated in the introduction that the Polish should be more conservative than the German participants we did not actually measure conservatism. In addition, an independent measure of cultural adaptation given to all participants of each country was lacking. These instruments could be applied in future studies. A second limitation is the lack of a “no-induction” control group. In our investigation we had the usual MS and a control negative affect (dental pain) condition, as most investigations on MS do (Burke, et al., 2010). We even had a second control condition for the Polish in which we induced work failure (see Footnote 2). It would be desirable to have a control group with no induction to have an additional baseline to compare participants of different cultures (Germany vs. Poland) and personality (action oriented, state oriented) on their CWV related responses.

On a more general perspective, the differential effects on CWVD that we found in the two countries

examined are consistent with results of a recent meta-analysis showing different CWVD patterns after MS in different cultures (Burke et al, 2010). Note that most research based on TMT theory using MS reminders has been carried out in one country, USA, which may not be representative of the responses to mortality salience given by persons of other cultures. The authors of a recent review paper of MS studies carried out in Asian countries (Yen & Chen, 2010) even question the western conception of TMT (Pyszczynski et al., 1999; Solomon et al., 2004), after their failure to replicate expected CWVD behavior as a result of MS inductions.

Conclusion

The effects of mortality salience on cultural worldview defense are moderated by a personality disposition related to emotion regulation, action versus state orientation, and are divergent or even opposite, depending on culture. Whereas in Germany it requires the emotional autonomy of action oriented persons to punish harshly social transgressions, in Poland does not, and state oriented were more willing to punish violations to social norms in the latter country. The individual difference measure used here demonstrates that CWVD effects do not occur in all individuals in the same way. As a form of conformity CWV effects seem to be confined to people who respond to existential (and other threats) with heightened conformity, state oriented. Our study suggests that some people may respond to MS in ways that differ from conformity, action oriented. Exploring alternative ways of dealing with existential threats (e.g., self-confrontational coping), that is, following “our own personal view”, remains an open question which deserves increased attention in future research.

References

- Arndt, J., Greenberg, J., & Cook, A. (2002). Mortality salience and spreading activation of worldview-relevant constructs: Exploring the cognitive architecture of terror management. *Journal of Experimental Psychology: General*, 131, 307-324. doi: 10.1037/0096-3445.131.3.307
- Baumann, N., & Kuhl, J. (2003). Self-infiltration: Confusing assigned tasks as self-selected in memory. *Personality and Social Psychology Bulletin*, 29(4), 487-497. doi:10.1177/0146167202250916
- Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of Terror Management Theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review*, 14, 155-195. doi: 10.1177/1088868309352321
- Castano, E., Yzerbyt, V., Paladino, M.-P., & Sacchi, S. (2002). I belong, therefore, I exist: Ingroup identification, ingroup entitativity, and ingroup bias. *Personality and Social Psychology Bulletin*, 28, 135-143. doi: 10.1177/0146167202282001
- Diefendorff, J. M., Hall, R.J., Lord, R. G., & Streat, M. L. (2000). Action-state orientation: Construct validity of a revised measure and its relationship to work-related variables. *Journal of Applied Psychology*, 85, 250-263. doi: 10.1037/0021-9010.85.2.250
- Fijalkowski, A. (2005). Capital punishment in Poland. An aspect of the “cultural life” of Death Penalty discourse. In: A. Sarat, & Ch. Boulanger (Eds). *The cultural lives of capital punishment: Comparative perspectives* (pp. 147-168). Stanford, CA: Stanford University Press.
- Garland, D. (1990). *Punishment and modern society: a study in social theory*. Oxford: Clarendon Press.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management

- theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In P. M. Zanna (Ed.), *Advances in social psychology* (Vol. 29, pp. 61-141). San Diego, CA: Academic Press.
- Heinen, J., & Portet, S. (2009). Religion, politics, and gender equality in Poland. UNRISD (*United Nations Research Institute for Social Development*) and *Heinrich Böll Stiftung*: Final Research Report (39 pp.).
- Kazén, M., Baumann, N., & Kuhl, J. (2003). Self-infiltration and self-compatibility checking in dealing with unattractive tasks: The moderating influence of state vs. action-orientation. *Motivation and Emotion*, 27, 157-197. doi: 10.1023/A:1025043530799
- Kazén, M., Baumann, N., & Kuhl, J. (2005). Self-regulation after mortality salience: National pride feelings of action-oriented German participants. *European Psychologist*, 10, 218-228. doi: 10.1027/1016-9040.10.3.218
- Koole, S. L., & Van den Berg, A. E. (2005). Lost in the wilderness: Terror management, action orientation, and nature evaluation. *Journal of Personality and Social Psychology*, 88(6), 1014-1028. doi: 10.1037/0022-3514.88.6.1014
- Kuhl, J. (1994). Action and state orientation: Psychometric properties of the action control scales (ACS-90). In J. Kuhl & J. Beckmann (Eds.), *Volition and personality: Action versus state orientation* (pp. 47-59). Göttingen: Hogrefe.
- Kuhl, J. (2000). A functional-design approach to motivation and volition: The dynamics of personality systems interactions. In M. Boekaerts, P.R. Pintrich & M. Zeidner (Eds.), *Self-regulation: Directions and challenges for future research* (pp. 111-169). New York: Academic Press.
- Kuhl, J. & Beckmann, J. (Eds.). (1994a). *Volition and personality: Action versus state orientation*. Göttingen: Hogrefe.
- Kuhl, J., & Beckmann, J. (1994b). Alienation: Ignoring one's preferences. In J. Kuhl & J. Beckmann (Eds.), *Volition and personality: Action versus state orientation* (pp. 375-390). Göttingen: Hogrefe.
- Kuhl, J. & Kazén, M. (1994). Self-discrimination and memory: State orientation and false self-ascription of assigned activities. *Journal of Personality and Social Psychology*, 66, 1103-1115. doi: 10.1037/0022-3514.66.6.1103
- Kuhl, J., & Weiß, M. (1994). Performance deficits following uncontrollable failure: Impaired action control or generalized expectancy deficits? In J. Kuhl & J. Beckmann (Eds.), *Volition and personality: Action versus state orientation* (pp. 317-328). Göttingen: Hogrefe.
- Mikulincer, M., & Florian, V. (2002). The effects of mortality salience on self-serving attributions. Evidence for the function of self-esteem as a terror management mechanism. *Basic and Applied Social Psychology*, 24, 261-271. doi: 10.1207/S15324834BASP2404_2
- Nelson, L. J., Moore, D. L., Olivetti, J., & Scott, T. (1997). General and personal mortality salience and nationalistic bias. *Personality and Social Psychology Bulletin*, 23, 884-892. doi: 10.1177/0146167297238008
- Riedel, R. (2009). *The phenomenon of religious-political subculture in Poland: Democracy in practice – a case study from central Europe*. Center for European Studies ARENA, University of Oslo.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory I: The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology*, 57, 681-690. doi: 10.1037/0022-3514.57.4.681
- Sani, F., Herrera, M., & Bowe, M. (2009). Perceived collective continuity as defense against death awareness. *Journal of Experimental Social Psychology*, 45, 242-245. doi: 10.1016/j.jesp.2008.07.019
- Smolar, A. (2006). *Poland: Radicals in power*. <http://www.eurozine.com/articles/2006-09-28-smolar-en.html>
- Solomon, S., Greenberg, J., & Pyszczynski, T. (2004). The cultural animal: Twenty years of terror management theory and research. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 13-34). New York: Guilford.
- Yen, C., & Cheng, C. (2010). Terror management among Taiwanese: Worldview defense or resigning to fate. *Asian Journal of Social Psychology*, 13, 185-194. doi: 10.1111/j.1467-839X.2010.01328.x
- Zafirovski, M. (2011). Contemporary conservatism and medievalism: 'Nothing new under the sun'. *Social Science Information*, 50(2), 223-250. doi: 10.1177/0539018410396617