

## RESEARCH ARTICLE

# The Psychological Effects of Terrorism are Moderated by Cultural Worldviews

## Les Effets Psychologiques du Terrorisme sont Modérés par les Normes Culturelles

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Terrorism cannot be easily studied experimentally for obvious reasons. We report the results of a laboratory study ( $N = 149$ ) testing the effect of cultural worldviews on feelings of threat and hostility toward Muslims in France that include in the design the deadly terrorist attack of January 7<sup>th</sup> 2015 in Paris as a naturally occurring independent variable. The results replicate past research by showing that in a natural context, people felt more threatened and more hostile toward Muslims after the terrorist attack than before. However, the reverse occurred in an experimental condition that made the French cultural worldview of colorblind equality salient: People felt less threatened and less hostile after the terrorist attack than before. These results provide, for the first time in the context of a real terrorist attack, support for Terror Management Theory's proposal that cultural worldviews are an effective buffer against terror.

**Keywords:** Terrorism; threat; cultural worldview; colorblind equality; ingroup bias; terror management theory; laboratory

Il n'est pas aisé d'étudier les effets du terrorisme expérimentalement pour des raisons évidentes. Nous rapportons les résultats d'une étude de laboratoire ( $N = 149$ ) testant les effets des normes culturelles sur les sentiments de menace et l'hostilité envers les Musulmans en France qui inclue, dans son plan expérimental, la présence des attentats mortels du 7 Janvier 2015 en tant que variable indépendante naturelle. Les résultats de notre étude répliquent les résultats des recherches passées en montrant que les participants se sentaient plus menacés et ressentaient plus d'hostilité envers les Musulmans après les attentats qu'avant. Cependant, lorsque la norme culturelle de l'égalité citoyenne était rendue saillante, les participants se sentaient moins menacés et ressentaient moins d'hostilité envers les Musulmans après les attentats qu'avant. Ces résultats fournissent, pour la première fois dans un contexte réel d'attaque terroriste, un soutien au postulat avancé par la Théorie de la Gestion de la Terreur selon lequel les normes culturelles peuvent servir de bouclier psychologique face à la terreur.

**Mots clés:** Terrorisme; menace; normes culturelles; colorblind; biais intergroupe; Théorie du management de la terreur; laboratoire

This experiment is concerned with the psychological consequences of terrorism. On January 7, 2015, France was in a state of shock. All the news channels were showing reports of dramatic events in Paris that resulted in several

losses of lives. Two heavily armed gunmen, Saïd and Chérif Kouachi, introduced themselves in the office of a satirical newspaper called Charlie Hebdo and killed 12 people (see Khosrokhavar, 2015, Nugier & Guimond, 2016).

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Most of the victims were well-known French cartoonists and journalists. Shortly after the killings, the two gunmen could be heard saying that revenge for the prophet was a success. Indeed, Charlie Hebdo had published cartoons of Mohammed that were considered offensive by some members of the Muslim community (see Guimelli, Lo Monaco, & Deschamps, 2010; Kamiejski, De Oliveira, & Guimond, 2012a). These events were followed on January 9 by other killings and hostage taking in a Jewish store, adding to the drama. On January 11 2015, a total of 4 million people gathered all over France in a rally of national unity, making of this collective movement the largest in French history (Weil, 2015, see also Mayer & Tiberj, 2016; Zehrouni, Rougier, & Müller, 2016). Past research has shown that in the USA, Spain, or the UK, people become more authoritarian, more anti-Muslims and more anti-immigrants following a terrorist attack (see Etcheberria-Echabe & Fernandez-Guede, 2006; Landau et al., 2004; Van de Vyver, Houston, Abrams & Vasiljevic, 2016; see also Doosje, Zimmermann, Küpper, Zick, & Meertens, 2010). The present research provides, for the first time to our knowledge, experimental evidence documenting conditions under which people become significantly less threatened and less hostile towards Muslims following a deadly terrorist attack.

### **Coping with Terrorism: Terror Management Theory**

Our understanding of how people cope with threat has greatly benefited from the development of research inspired by Terror Management Theory (Greenberg, Pyszczynski, & Solomon, 1986; Greenberg & Arndt, 2013). Because being human means being aware of our own mortality, TMT argues that we all have the need to manage the ever-present potential for intense anxiety or terror that comes with this awareness. One central hypothesis of TMT is that cultural worldviews defined as “shared conceptions of reality” (Greenberg & Arndt, 2013, *p.* 402) are an important defense mechanism allowing people to cope with existential threats. In other words, it is through the construction of cultural worldviews that people can cope effectively with existential threats on the long run, and avoid being paralyzed by it.

Experimental research has provided much support for TMT (see Pyszczynski, Solomon, & Greenberg, 2015) using a large variety of experimental manipulations to activate people’s awareness of mortality (e.g., open-ended question about death, reminders of real terrorist attacks or tragic events, exposition to cemeteries or funeral home, subliminal death prime, etc.). All in all, the results of these studies converge in showing that strivings for self-worth and bolstering of one’s worldview is observed when people are reminded of their death (see Burke, Martens, & Faucher, 2010; Greenberg & Arndt, 2013). For example, in a series of studies, Landau et al. (2004) demonstrated that reminders of 9/11 terrorist attacks increased the appeal of a candidate with a charismatic and authoritarian style (i.e., one who displayed self-confidence, emphasized the greatness of the state and nation, and gave the

illusion of providing security from threats such as terrorist attacks). The authors first showed that compared with people in a neutral condition, those who were asked to think about their own death (mortality salience) became more favorable toward G.W. Bush and his policy. Of course, issues of national security were an important component of Bush 2004’s presidential campaign. In additional studies, Landau et al. (2004) established the cognitive linkage between the 9/11 terrorist attacks and death-thought accessibility, suggesting that reminders of a terrorist attack can be seen as similar to mortality salience induction (see Pyszczynski, Solomon, & Greenberg, 2003). Overall, the results supported the hypotheses that making 9/11 salient was functionally equivalent to mortality in increasing support for President Bush. Thus terrorist attacks, as a form of mortality salience, may push people to seek for reassurance and rely on worldviews that may help them to fulfill their aim when the time comes.

After showing that mortality salience can increase authoritarian tendencies and intergroup hostility, TMT researchers began to study variables that might curb such effects (Motyl et al., 2011). Although there are still relatively few studies, findings suggest that reminding individuals of some core aspects of their worldviews can help them cope with the threat of death (see Greenberg et al., 1992; Gailliot et al. 2008; Jonas et al., 2008; Rothschild, Abdollahi, & Pyszczynski, 2009). Motyl et al. (2011) reported that priming a perception of a common humanity attenuated an increase in anti-Arab prejudice and hostility toward immigration among Americans reminded of death. In a similar vein, Jonas et al. (2008, Study 2) showed that in a context making salient the danger of terrorism and the threat of nuclear weapons, priming pacifism related thoughts among participants who were in a death salience condition (i.e., participants requested to complete a word-search puzzle with death-related words) increased their interest in peace promoting measures and their approval of peaceful conflict resolution. Thus, fear, hostility or conservatism, are not the inevitable consequences of terrorism or of mortality salience at large.

Of course, being conducted in a laboratory setting, these studies do not provide any direct evidence that these findings are related to the behavior of people who are confronted with a real terrorist attack. The present research provides a unique test of this possibility by taking advantage of the fact that a major terrorist attack occurred almost at mid-point of a program of experimental research that was conducted to test the impact of various cultural worldviews. In the present research, we were especially interested in the buffering role of cultural worldviews. We suggest that if cultural worldviews are an effective defense mechanism, as argued in TMT, then when people are reminded of their worldview, this should help them cope with existential threats (i.e., Charlie Hebdo terrorist attacks). A clear indication of such an effective coping strategy would be lower levels of feelings of threat, and lower levels of outgroup antagonism.

## Cultural Worldviews in France: Colorblind Equality vs. *Laïcité*<sup>1</sup>

Studies conducted in several western countries provided evidence pointing to a significant role of cultural norms or worldviews<sup>2</sup> in the explanation of anti-Muslim prejudice (see Guimond, de la Sablonnière, & Nugier, 2014). In support of an original theoretical framework, findings showed that national immigration and integration policies that were in place in various countries generated distinctive cultural norms of integration, representing distinctive shared beliefs or worldviews about the best way to deal with issues of cultural and religious diversity. Because of variations in the social and political context, a given worldview may be impactful in one country but not in another (see Guimond et al., 2013). Indeed, one can generally expect that a cultural worldview will be impactful in a country when it is representative of this country's policy and traditions. For example, on the basis of Guimond et al.'s (2013) results, multiculturalism can be expected to have a more powerful impact in Canada or in the U.S.A. where it is a widely shared cultural worldview than in Germany or France where most people are perceived as being against multiculturalism (see Guimond, Streith, & Roebroek, 2015). In the present experiment, four worldviews representing different approach to the management of diversity were experimentally induced: assimilation, multiculturalism, colorblind equality, and *laïcité*. These worldviews represent different policy orientations that are found in various countries around the world (see Guimond et al., 2014; Levin et al., 2012). However, the latter two were expected to be especially impactful in France.

Historians and political philosophers have described at length the founding principles of the French Republic summarized by the motto 'Liberté, Égalité, Fraternité' (see Amiraux & Simon, 2006; Bleich, 2001; Jennings, 2000; Laborde, 2001, 2010). These principles are centuries old. However, systematic attempts at understanding the psychology of French republicanism have begun only recently. There is now strong evidence suggesting that there are, not one, but two distinct dimensions that characterizes cultural worldviews in France (Roebroek & Guimond, 2015). The first dimension, called colorblind equality, is a worldview that has a strong egalitarian component (Roebroek & Guimond, 2015). It refers to the fact that France is made up first and foremost of "free and equal citizens", not of groups or communities (see Guimond et al., 2014). It involves colorblindness in the sense that it implies that one should avoid categorizing people into an ethnic, racial, or religious group. This principle is often described as a central feature of French public policy (see Guimond et al., 2014).

The second dimension is related to the political principle of "*laïcité*" (see Akan, 2009). This principle is related to the French law of 1905 separating Churches and State (see Baubérot, 2012). However, important changes occurred over the last decade resulting in what Baubérot (2012) called a "new *laïcité*".

In contrast to historic *laïcité* that focused on freedom of conscience and had a strong egalitarian component, "new *laïcité*" is centrally defined by the belief that religion should be a private matter. This new meaning of *laïcité* can be seen as an outcome of the law voted in 2004 in France banning conspicuous religious signs among all pupils in public schools. One argument to justify this 2004 law was that it was needed to fight against Islamic fundamentalist movements (Idriss, 2005; see also Milot, 2013).

Research revealed that new *laïcité* was significantly and *positively* related with anti-immigrant and anti-Muslim prejudice whereas support for colorblind equality was significantly and *negatively* related with anti-immigrant and anti-Muslim prejudice (see Guimond et al., 2014; Kamiejski, Guimond, De Oliveira, Er-Rafiy, & Brauer, 2012b; Nugier, Oppin, Cohu, Kamiejski, Roebroek, & Guimond, 2016; Roebroek & Guimond, 2015). Moreover, the societal trend in France from 2010 to 2015 has been one where the theme of new *laïcité* has been on the rise such that participants in a control group in France can be considered as being in tune with the worldview of new *laïcité* perhaps more than colorblind equality (see Roebroek, 2015). Thus, of the four worldview conditions, only colorblind equality was expected to reduce feelings of threat and intergroup hostility in France whereas new *laïcité*, in line with the baseline worldview of the control group, was expected to have the opposite effect. Finally, if cultural worldviews are involved in managing terror, as proposed in TMT, then the psychological effects of terrorism should be moderated by cultural worldviews. On the other hand, if the effect of the terrorist attack is the same regardless of experimental conditions, this would suggest that cultural worldviews do not have much to do with terror management.

## Method

### Sample

Participants were 149 undergraduate students enrolled in the psychology program at a French University (84.6% women,  $M_{\text{age}} = 19.07$ ,  $SD = 1.70$ ). Participants were randomly assigned to the experimental conditions. The design of the study was a  $5 \times 2$  factorial in which the cultural worldview of the organization (Control vs. New *Laïcité* vs. Colorblind Equality vs. Assimilation vs. Multiculturalism) was manipulated, and the terrorist attack of January 7, 2015 against Charlie Hebdo was included as a naturally occurring independent variable by coding whether testing occurred Before vs. After the terrorist attack. Because participants were tested just before or in the immediate aftermath of the most dramatic terrorist attacks perpetrated in France at the time of the study<sup>3</sup>, we expected these terrorist attacks to have a major impact (medium-to-large effect sizes) on our dependent variables. Power analysis indicated a 66% chance of detecting a medium effect (Cohen's  $d = .50$ ) and a 96% chance of detecting a large effect (Cohen's  $d = .80$ ) significant at the 5% level (two-tailed).

### Procedure

The procedure was modeled after the one used by Michinov et al. (2005). Participants were invited to take part in a study about leadership in organizations. Participants were first introduced to the organization and their role as a member of the organization having important responsibilities. The organization was characterized by either (a) a pleasant working environment (Control condition), (b) a shared striving for *laïcité*, banning the display of conspicuous religious signs at work (New *Laïcité*), (c) a shared striving for equal rights regardless of differences in origin or background between employees (Colorblind Equality), (d) a shared striving for unity and employees homogeneity (Assimilation), or (e) a shared striving for diversity and the acceptance of cultural differences among employees (Multiculturalism). Each of these cultural worldviews was presented as a mean to foster organizational performance. More specifically, all descriptions were identical to those of the control group with the exception of 5 keywords and short sentences added to define each of the four worldviews conditions. To reinforce this manipulation, the participants were also presented with 10 statements on the computer screen and asked to select three that best represented the culture of their organization. After having completed various organizational tasks, participants were asked to fill out a paper and pencil questionnaire that included the dependent measures of the present study.

### Measures

**Group threats.** A six-item self-developed measure inspired from Stephan, Ybarra, and Bachman (1999), sought to measure the overall perception that immigrants are threatening. Among the six items, three measured the perception of a symbolic threat (i.e., “Immigration has a negative impact on the French culture.”,  $\alpha = .63$ ) and three others measured the perception of a realistic threat (i.e., “North Africans living in France benefit from social security at the expense of the French.”,  $\alpha = .70$ ). Participants were asked to indicate to what extent they agreed with each of the statements on a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistency coefficient of the measure of overall threat was .79.

**Ingroup bias.** To measure ingroup bias we asked participants to indicate their feeling towards 18 target groups on a scale from 0 (*very negative feeling*) to 10 (*very positive feeling*). Embedded within this list of groups were the two target groups of interest for the present study: French (ingroup) and Muslims (outgroup). To create the measure of ingroup bias, we subtracted the ratings of Muslims from the rating of French. A high score on this measure indicates a higher level of bias in favor of the ingroup, the French. Overall, participants displayed a significant ingroup bias by rating the ingroup ( $M = 8.4$ ,  $SD = 1.58$ ) significantly more favorably than the outgroup ( $M = 6.79$ ,  $SD = 2.34$ ,  $t(148) = 7.65$ ,  $p = .001$ ).

### Results

The effects of worldview condition and terrorism (before vs. after the attack) were assessed using  $5 \times 2$  ANOVAs (for the complete Table of means and standard deviations,

see **Table 1**). These analyses yielded a significant worldview condition by terrorism interaction on overall threat,  $F(4,139) = 3.15$ ,  $p = .02$ ,  $\eta_p^2 = .083$ , on symbolic threat,  $F(4,139) = 3.37$ ,  $p = .01$ ,  $\eta_p^2 = .089$ , on ingroup bias,  $F(4,139) = 3.66$ ,  $p = .007$ ,  $\eta_p^2 = .095$ , but not on realistic threat,  $F(4,139) = 1.95$ ,  $p = .11$ ,  $\eta_p^2 = .05$ . None of the main effects were statistically reliable. As expected, these overall interaction effects derived from the effects of the cultural worldviews that are typical in France (see **Table 1** for more details). Indeed, looking at the effects of the terrorist attack within the control, colorblind equality and new *laïcité* conditions, respectively we can see that within the control condition, the terrorist attack increased symbolic threat,  $t(139) = 1.70$ ,  $p = .090$  (marginal), and ingroup bias,  $t(139) = 2.23$ ,  $p = .027$ . In contrast, within the colorblind equality condition, the terrorist attack actually decreased overall threat,  $t(139) = -2.38$ ,  $p = .018$ , symbolic threat,  $t(139) = -2.10$ ,  $p = .038$ , and ingroup bias,  $t(139) = -2.50$ ,  $p = .014$ . There was no effect of the terrorist attack in the new *laïcité* condition on either of the measures, although the trends were similar to those observed in the control condition,  $ts(139) < |1.24|$ ,  $ps > .210$ . Indeed, combining the control and *laïcité* condition to increase sample size showed that the terrorist attack resulted in a reliable increase in overall threat  $t(139) = 1.89$ ,  $p = .06$  (marginal), symbolic threat,  $t(139) = 2.10$ ,  $p = .028$ , and ingroup bias,  $t(139) = 2.43$ ,  $p = .016$ .

### Discussion

This experimental study was designed to investigate the effects of cultural worldviews on perceptions of group threat and intergroup attitudes in France. Because some of the participants were tested before the deadly terrorist attack of Paris in January 2015, this naturally occurring independent variable was included in the design. We found that the psychological effects of the terrorist attack were moderated by the worldview condition. In their usual social worldview context, participants tend to become more threatened and more hostile toward Muslims as a result of the terrorist attack. This finding is consistent with previous research documenting similar effects of terrorism in other major cities (e.g., Etcheberria-Echabe & Fernandez-Guede, 2006, see also Cohu et al. 2016). However, the major contribution of the present research is in showing that this type of reaction is not an inevitable consequence of terrorism. Indeed, when colorblind equality, a principle that is central to the French Republic, was salient, the terrorist attack resulted in lower feelings of threat and lower ingroup bias. This result suggests that the cultural worldview of colorblind equality was an effective defense mechanism allowing participants to stand up against terrorism. Such a reaction is consistent with the collective movement that occurred on January 11 2015 across all major cities in France (for evidence concerning the participation in this march, see Mayer & Tiberj, 2016, and Zerhouni, Rougier, & Muller 2016, in this issue). During this march, people displayed signs of “Liberté, égalité, fraternité” and “not afraid”, that are in line with our findings. People who used the French equalitarian cultural worldview were apparently able to resist against the trap of terrorism.

DV	Worldviews	Before the attack			After the attack			<i>t</i> (139)	Cohen's <i>d</i>
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Overall threat	Control	6	2.45	.39	24	2.96	.61	1.51	1.00
	New <i>Laïcité</i>	13	2.62	.82	19	2.95	.86	1.15	.39
	Colorblind Equality	12	3.25	.62	18	2.57	.69	-2.38*	1.04
	Assimilation	12	2.95	.76	17	2.59	.81	-1.27	.46
	Multiculturalism	11	3.12	.78	17	2.57	.90	-1.95†	.65
Symbolic threat	Control	6	2.45	.34	24	3.07	.64	1.70†	1.21
	New <i>Laïcité</i>	13	2.69	.86	19	3.06	.80	1.24	.45
	Colorblind Equality	12	3.36	.69	18	2.72	.69	-2.10*	.93
	Assimilation	12	3.11	.71	17	2.65	.81	-1.56	.60
	Multiculturalism	11	3.27	1.00	17	2.65	1.07	-2.03*	.60
Realistic threat	Control	6	2.44	.69	24	2.86	.78	1.03	.57
	New <i>Laïcité</i>	13	2.56	.96	19	2.70	.89	.73	.15
	Colorblind Equality	12	3.14	.81	18	2.41	.87	-2.18*	.87
	Assimilation	12	2.78	.94	17	2.52	.85	-.77	.29
	Multiculturalism	11	2.97	.69	17	2.46	.94	-1.49	.62
Ingroup bias	Control	6	-.83	1.33	24	1.71	2.14	2.24*	1.43
	New <i>Laïcité</i>	13	.07	1.97	19	1.70	3.06	1.10	.63
	Colorblind Equality	12	3.17	2.59	18	.82	2.35	-2.50*	.95
	Assimilation	12	1.92	2.61	17	1.32	1.79	-.65	.27
	Multiculturalism	11	3.18	3.12	17	1.72	3.05	-1.53	.47

**Table 1:** Means (and standards deviation) for the DVs, as function of experimental conditions.

Note. *N* = 149. † .05 < *p* < .10; \**p* < .05; \*\**p* < .01; \*\*\**p* < .001. Cohen's *d* are calculated with the following formulae  $d = (M_1 - M_2) / \sqrt{((s_1^2 + s_2^2) / 2)}$  (see Cohen, 1988).

They redefined the terrorist “threat” as a “challenge” and did not feel incapacitated by it (Scheepers, Saguy, Dovidio, & Gaertner, 2014).

TMT suggests that people cope with mortality salience by investing in some forms of symbolic immortality. Thus, it predicts that in life-threatening conditions, cultural values and beliefs that are psychologically relevant and salient in the situation can be used in order to offset the debilitating effects of awareness of death. These values and beliefs can be more or less conservative and authoritarian. As a consequence, people can become more or less tolerant against others depending on what was activated in the situation. This is indeed exactly what we observed in our study. The cultural value of colorblind equality was found in previous research to be associated with greater tolerance in intergroup relations (see Kamiejski et al., 2012b). When these values were made salient in the present experiment, the terrorist attack led to greater tolerance. However, this type of effect was not observed when new *laïcité* was salient, and new *laïcité* was related, according to previous research, to less tolerance in intergroup relations. Thus, our results are consistent previous laboratory experiments (e.g., Gailliot et al. 2008; Jonas et al., 2008; Motyl et al., 2011; Rothschild et al. 2009) that have used the priming of reminders of attacks (or of death reminders) and shown that priming cultural values can reverse the

traditional negative aggression-enhancing effects of mortality salience. Nevertheless, all of these previous studies are laboratory experiments conducted in non-life threatening conditions. Whereas the variety of experimental manipulations that has been used lends convergent validity (Arndt & Vess, 2008), there is an almost complete shortage of knowledge about whether the effects of real terrorist attacks are similar or different from those observed in the laboratory. Thus, our results speak in a unique manner to the external validity of TMT. It is shown that the theoretical prediction about the buffering role of cultural worldviews is valid when including in the experimental design of a laboratory study the occurrence of a real and deadly terrorist attack. Indeed, it seems that the theory does explain the behavior of participants who are undergoing a real and significant threat following a major terrorist attack. Because the occurrence of this terrorist attack was totally unexpected, one important limitation of the present study is the sample size. In particular, we could not obviously insure that the number of participants tested before the attack was the same as the number of participants tested after the attack. Nevertheless, we took that into account in conducting our statistical analyses. Moreover, given the fact that, very few studies in social psychology have the occasion to examine the impact of real event such as terrorist attack on people's reactions,

we believe that these results are not trivial. Despite the small sample, the effects are significant and the effects size reported are acceptable according to the Cohen's criteria (1988). However, because small studies need to be interpreted carefully, we recognize the necessity to replicate these results in the future (Hackshaw, 2008).

Our results go beyond the simple replication of TMT precepts in a real-world context. It also improves our understanding of the specific conditions under which mortality salience may allow people to act in one or another direction. More specifically, the other major contribution of the present research is in showing that not all cultural worldviews are equally impactful in a given setting. The rationale behind our propositions in this regard comes from an analysis of 15 years of research using the experimental paradigm developed by Wolsko, Park, Judd, and Wittenbrink (2000, see Sasaki & Vorauer, 2013 for a review). Wolsko et al. (2000) were the first to suggest that one could study the effect of broad cultural ideologies on cognition and behaviors in the laboratory setting. In their paradigm, participants are randomly allocated to a condition stressing the value of multiculturalism or colorblindness in the management of intergroup relations. This experimental manipulation was shown to have an impact of stereotyping and racial prejudice in the USA, going beyond past correlational research to suggest definite causal relations. To understand the results obtained with this paradigm, Guimond et al. (2014) have argued for the need to consider not only the laboratory variables but also the wider social and political context of the experiment. It was suggested that what happens outside the laboratory in the society at large (i.e., the extent to which there is widespread support for multiculturalism or not) can have an impact on the behavior of participants inside the lab. Because a terrorist attack occurred in France during testing for the present experiment, the results provide compelling evidence in support of this argument. Not only, there are significant interaction effects between independent variables manipulated in the laboratory and events that occurred outside the laboratory, but also these interactions show that the impact of a worldview on terror management is culturally dependent (i.e., in France, there is a greater impact of French republicanism model compared with other cultural norms such as assimilation or multiculturalism).

Because the need to understand the psychological resistance to terrorism is probably more important now than ever before, the findings of the present study strongly reinforce the importance of conducting theoretically sound research on the critical role of cultural worldviews.

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### Competing Interests

The authors declare that they have no competing interests.

### Notes

- <sup>1</sup> Following Akan (2009) and Roebroock and Guimond (2015), we use the term *laïcité* rather than *secularism*, because the latter is often confused with the concept of "secularization" (Baubérot & Milot, 2011). In fact, these two concepts are clearly distinct (see also Cohu et al., 2016). *Laïcité* refers to a political approach for managing diversity of religious fundamental beliefs, not to the general cultural process of secularization that result in a loss of the influence of religion over time.
- <sup>2</sup> In this article, we used interchangeably the concept of cultural worldviews with the concept of cultural norms to refer to systems of beliefs that are widely shared in a society (see Gelfand & Jackson, 2016).
- <sup>3</sup> The data was collected between the 26 November 2014 and the 6 February 2015.

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