INTERNATIONAL REVIEW OF SOCIAL PSYCHOLOGY

Pelletier, P., & Drozda-Senkowska., E. (2016). The Charlie Hebdo Terror Attack in Paris: Follow-up of French Citizens' Terrorist Threat Perception and Its Aftermath. *International Review of Social Psychology*, 29(1), 85–98, DOI: http://dx.doi.org/10.5334/irsp.51

RESEARCH ARTICLE

The Charlie Hebdo Terror Attack in Paris: Follow-up of French Citizens' Terrorist Threat Perception and Its Aftermath

L'attaque Terroriste de Charlie Hebdo à Paris : Evolution temporelle de la Perception de la Menace Terroriste et de ses Conséquences auprès des Citoyens Français

Petra Pelletier and Eva Drozda-Senkowska

Terrorism is one of the most frightful large-scale societal threats nowadays. The January 7, 2015 Charlie Hebdo terrorist attack in Paris shattered French's sense of security. The present research investigates French citizen's ($N = 160$) terrorist threat perception (personal vs. collective), behavioral changes, social sharing of emotions and perceived socioemotional climate using the social stage model of collective coping with disasters (Pennebaker & Harber, 1993). This study was conducted by a questionnaire at three points of time (i.e., one week, one month and two month) following the attack. The results suggest that terrorist threat perception has not decreased across time at the personal level nor at the collective level. However, the extent of social sharing of emotions and the positive socioemotional climate decreased from the initial emergency stage to the subsequent adaptation stage. Such findings point to the importance of taking temporality into account to provide better understanding of lay people's responses to terrorism.

Keywords: Terrorism; threat perception; behavioral changes; social sharing of emotion; socioemotional climate

Le terrorisme est l'une des menaces sociétales à grande échelle les plus effroyables de nos jours. L'attaque terroriste de Charlie Hebdo du 7 janvier 2015 à Paris a ébranlé le sentiment de sécurité des Français. La présente recherche examine la perception de la menace terroriste (personnelle vs. collective), les changements comportementaux, le partage social des émotions et le climat socio-émotionnel perçu auprès des citoyens français ($N = 160$) en se basant sur le modèle des étapes sociales de *coping* collectif avec les catastrophes (Pennebaker & Harber, 1993). Cette étude a été conduite par questionnaire à trois points temporels (c.-à-d., une semaine, un mois et deux mois) après l'attaque. Les résultats suggèrent que la perception de la menace terroriste n'a pas diminué à travers le temps, ni au niveau personnel, ni au niveau collectif. Toutefois, l'ampleur du partage social des émotions et du climat socio-émotionnel positif perçu a diminué entre la phase initiale d'urgence et la phase ultérieur d'adaptation. Ces résultats soulignent l'importance de la prise en compte de la temporalité pour une meilleure compréhension des réponses des personnes au terrorisme.

Mots clés: Terrorisme; perception de la menace; changements comportementaux; partage social des émotions; climat socio-émotionnel

Laboratoire de Psychologie Sociale: Menace et Société (EA 4471) & Université Paris Descartes-Sorbonne Paris Cité, France

Corresponding author: Petra Pelletier (petra.pelletier@parisdescartes.fr)

Since September 11, 2001 terrorist attack against the World Trade Center in New York, the rise of terrorism fatalities and injuries has been noticed worldwide and especially in Europe according to the Global Terrorism

Index Report (Institute for Economics and Peace, 2014). Europe has suffered frightening terrorist attacks in recent years such as the Madrid commuter train bombings in March 2004, the London public transportation bombing in July 2005, the Oslo bombing and the Utøya gun attack in July 2011 and more recently the Paris Charlie Hebdo gun attack. This assault, which occurred on January 7, 2015 was perpetuated by two individuals who entered the satiric Charlie Hebdo journal office in Paris around 11:30 AM and killed twelve people: the cartoonists, the journalists and the editor's police bodyguard. The massacre was followed by shooting in southern suburbs of Paris and hostage taking in Paris kosher supermarket "Hyper Cacher" where four hostages were killed. Highly efficient civil security response took place to pursue the murderers, who were finally shot by the police two days later in northern suburbs of Paris (see also Nugier & Guimond, 2016). These three days of terror not only shattered French citizens' sense of security but were followed by huge spontaneous manifestations of solidarity all over the French territory. In Paris, the biggest demonstration in recent history took place on *place de la République* on January 11, 2015. Thus, millions of French citizens in Paris and other French cities (e.g., Bordeaux, Lyon, Rennes) expressed through the "Je suis Charlie" slogan their fear and sorrow caused by the terrorist attack and also their solidarity with its victims and their families (see Mayer & Tiberj, 2016; Zerhouni, Rougier, & Muller, 2016). Further, they expressed also their unity against terrorism and their profound attachment to the fundamental democratic values including liberty, equality, fraternity and freedom of speech especially.

Indeed, regardless of the different forms of terrorism, its primary goals and consequences are psychological. Zimbardo (2003) highlighted the invasive power of terrorists' strategic actions on citizens' mind, emotions and attitudes by comparing terrorism to "faceless, omnipotent enemy" (p. 3). Thus, terrorism can be considered as a form of "psychological warfare" based primarily on the public perception of threat (Friedland & Merari, 1985, p. 592). Despite the fact that several studies tried to understand the nature of terrorist threat perception, its specific components remain unclear. Theoretical insights derived from the study of naturalistic contexts suggest that this perception involves at least two distinct components. Huddy, Feldman, Capelos and Provost (2002) have differentiated between personal threat and national threat following the September 11, 2001 terrorist attack. Jacobson and Bar-Tal (1995) differentiated personal threat and collective threat as components of security concerns among citizens living in a chronic terror context. Other scholars have distinguished between personal threat and general threat in the context of London public transportation terrorist attack (Goodwin, Willson, & Gaines, 2005) and in a long-term terror context in the Gaza Strip (Rosenboim, Benzion, Shahrabani, & Shavit, 2012). Consequently, citizens can feel threatened by the terrorist attack not only personally by being a direct victim of an attack but also collectively when they perceive that their country is a target for terrorism. However, the exact effects of the differentiated terrorist threat perception on citizens' behavioral and socio-emotional reactions remain rather unexplored.

Nevertheless, one of the consequences of an increased general terrorist threat perception is a number of adaptive behaviors related to the frightening nature of terrorist events. A general perceived threat of terrorism has been associated to specific behavioral reactions of avoidance related to reduced sense of citizens' safety. Such reactions include the delaying or cancelling of air travels following the September 11, 2001 (Gigerenzer, 2006; Huddy et al., 2002), limiting the citizens' use of public transportation following the September 11, 2001 (Huddy et al., 2002) and the London terrorist attack (Prager, Beeler Asay, Lee, & von Winterfeldt, 2011). An increased general terrorist threat perception is also related to behavioral avoidance such as visiting public places (Huddy et al., 2002), avoiding public open spaces (Rosenboim et al., 2012) and general changes in citizens' daily actions (McArdle, Rosoff, & John, 2012). Scholars reported also changes within the relationship domain such as greater concern for the others, the close ones especially, following the London terrorist attack (Bux & Coyne, 2009), greater contact and time spent with family and friends following the London terrorist attack (Goodwin et al., 2005) and the September 11, 2001 terrorist attack (Huddy et al., 2002).

Moreover, the consequences of an increased terrorist threat perception are not limited to citizens' adaptive behaviors. The terrorist attacks are frightening events which, by their random nature and highly destructive consequences, elicit strong dread feelings (Slovic, Finucane, Peters, & MacGregor, 2004). The appraisal theory framework based on the articulation between emotions and cognitions posits that emotions are elicited by people's cognitive appraisals of the circumstances (e.g., Frijda, 1993; Lazarus, 1991). Thus, a precise combination of specific cognitive appraisals such as certainty or control is an antecedent of specific emotional reactions (Smith & Ellsworth, 1985). Terrorism is a complex phenomenon which has been associated in the available empirical studies with a variety of specific emotional reactions including mostly fear and anger (e.g., Giner-Sorolla & Maitner, 2013; Skitka, Bauman, Aramovich, & Morgan, 2006). In addition, sadness, disgust and contempt were assessed following the Madrid train terrorist attack (Conejero & Etxebarria, 2007) and distress and sorrow were reported following the London terrorist attack (Bux & Coyne, 2009). Further, an Odoxa poll (January 11, 2015) which has been taken in France following the Charlie Hebdo terrorist attack revealed that French citizens reported the feelings of anger (61%), grief (49%), solidarity (46%) and fear (17%).

According to the social functional approach, emotions have an important role in coordinating social interactions and relationships (Keltner & Haidt, 1999). Studies on social sharing of emotions indicate that people experiencing an emotion following a personal or a collective event seek social support and tend to share their emotions and their understanding of the event by talking with others (for reviews, see Rimé 2005, 2009). The others engage in

their turn in social sharing with some other person and so forth. Such social sharing dynamics called secondary and tertiary social sharing (Christophe & Rimé, 1997; Rimé & Christophe, 1997) are social construction processes which allow spreading of emotional communications within social networks. The interpersonal dynamics of social sharing have been documented following the exposure to negative emotions in a laboratory setting (Luminet, Bouts, Delie, Manstead, & Rimé, 2000) and following threatening naturalistic contexts such as the Madrid trains' terrorist attack (Rimé, Páez, Basabe, & Martínez, 2010). Moreover, social sharing occurs not only in private interpersonal contexts but also in public contexts such as demonstrations and other forms of meetings in a public open space. Páez, Basabe, Ubillos and Gonźalez-Castro (2007) showed that participating in demonstrations aids citizens to cope with the consequences of terrorism. Further, it reinforces positive emotions and positive social beliefs about others and the society. By enhancing mutual confidence and solidarity (Páez, Rimé, Basabe, Wlodarczyk, & Zumeta, 2015; Rimé, 2005), it contributes to the construction of the positive socioemotional climate within a society (Páez et al., 2007; Rimé, 2007).

From a social psychological perspective, the concept of socioemotional climate lacks a precise definition. According to the conclusions drawn from the theoretical review of Drozda-Senkowska and Oberlé (2006), the social climate refers to a metaphor-concept related to circumstances in which we are living. Similarly, the emotional climate has been defined as a set of feelings reflecting collective responses to the general situation of the society, including the social, political and economic structures of the society (de Rivera, 1992; de Rivera, Kurrien, & Olsen, 2007). Contrary to personal emotions which refer to strictly personal feelings of individuals, the socioemotional climate refers to a macro-social phenomenon including emotions and social situations perceived by the citizens within a concrete society (Conejero & Etxebarria, 2007). The socioemotional climate is supposed to be a dynamic phenomenon despite its relatively stable nature (de Rivera, 1992) because it is a result of social construction processes. Consequently, the social sharing of emotions is one of the processes that foster the construction of a common socioemotional climate (Páez et al., 2007). However, despite the fact that temporality might affect social sharing dynamics following a terrorist attack, the temporal perspective has rarely been taken into account.

Seminal work of Pennebaker and Harber (1993) formalized the temporal dynamics of social sharing processes week by week within the social stage model of collective coping with disasters. The social stage model has been designed from the available survey data following the San Francisco's earthquake and the Persian Gulf War. Indeed, Pennebaker and Harber (1993) mentioned three main stages to identify the way people share their experience of large-scale societal threats. The first stage, called the *emergency phase*, lasts on average about two weeks following the event, and it is characterized by an intensive social sharing with others. The second stage, called the *inhibition phase*, lasts on average about two to six weeks following the event, and it is characterized by significant decrease in social sharing processes. The third and last stage of the model, called the *adaptation phase*, which occurs from about six weeks following the event, is characterized by return to low levels in social sharing with others. Furthermore, the social stage model has been applied to account for the temporal dynamics of social sharing processes following the Madrid terrorist attack (Rimé et al., 2010). Rimé et al. (2010) showed the temporal evolution of Spanish citizens' talking and hearing across time within eight weeks following the Madrid trains' terrorist attack in 2004. At one week following the terrorist attack, Spanish citizens' talking and hearing about the attack reached high values that halved after three weeks and reached negligible values at eight weeks following the terrorist attack.

The longitudinal approach proposed by the social stage model of collective coping with disasters (Pennebaker & Harber, 1993) might improve the comprehension of lay people's responses to terrorist attacks and their temporal evolution. The first aim of the current study is to examine in a French context the results of the post-terrorist social sharing dynamics reported by Rimé et al. (2010) following the Madrid trains' terrorist attack. We hypothesized that the extent of social sharing processes will reach high values one week following the January 7, 2015 terrorist attack, it would halve after one month, and it would decrease to low values at two months following the terrorist attack. The second objective of this study is to extend the social stage model of collective coping with disasters to the other variables including citizens' emotional reactions, behavioral changes and perceived socioemotional climate to improve the comprehension of their temporal evolution in the aftermath of the terrorist attack. Third, this study aims to explore the specific components (personal vs. collective) of the terrorist threat perception and its temporal evolution in the frame of the social stage model of collective coping with disasters. In order to test empirically the social stage model of collective coping with disasters, the current study was conducted within two months following the January 7, 2015 Charlie Hebdo terrorist attack in Paris.

Method

Participants

Participants (N = 160) were French citizens recruited through probability sampling among citizens at the Republic square (*Place de la République*) in Paris. Participants were randomly approached by the first author at different times of a day at three points of time: one week (Time 1, N = 55), one month (Time 2, N = 53) and two months (Time 3, N = 52) following the January 7, 2015 terrorist attack in Paris. One participant was excluded from the study because he or she was a minor. Participants completed an anonymous and structured paper-and-pencil version of the questionnaire directly at the Republic square and they were subsequently fully debriefed. Participants' age ranged from 18 to 74 years (M = 35.79, SD = 15.46). The details of participants' sociodemographic

characteristics at three measurement times are reported in **Table 1**. More than half of participants declared their participation in some of the solidarity demonstrations following the Charlie Hebdo attack in Paris or in other cities in France (58.10%) and less than half of participants has not participated in any solidarity demonstration (41.90%). The assessment of participants' acknowledgement about the January 7, 2015 terrorist attack revealed the personal involvement by seeing or hearing the terrorist attack themselves or by their close ones (18.80%), discovering the terrorist attack in the media (48.10%), learning about the attack from someone (30.00%) and learning about the attack by some another way such as Facebook or Twitter (3.10%).

Measures

Word-Association Task

Respondents completed a structured, multi-part paper-and-pencil version of the questionnaire. First, participants were asked to complete a word-association task in order to indicate five words maximum expressing their personal ideas and feelings related to the January 7, 2015 terrorist attack. The objective of this task was to explore the content of French citizens' responses to the terrorist attack in order to provide a broader and finer account of participants' reactions and their temporal evolution by enriching the quantitative data.

Terrorist Threat Perception Assessment

Following the word association task, respondents were asked to rate the terrorist threat perception. The personal terrorist threat perception was assessed by three items adapted from Goodwin et al. (2005) and Huddy et al. (2002). Respondents were asked to what extent they are personally concerned about being victims of another terrorist attack, to what extent their close ones are concerned about being victims of another terrorist attack and to what extent the probability of any future terrorist attack affects their daily life. The collective terrorist threat perception was assessed by three items adapted from Huddy et al. (2002). Respondents were asked to what extent terrorism is threatening to their country, to what extent they think that there will be another terrorist attack in their country in the near future and to what extent the probability of any future terrorist attack affects the present of their country. These responses were rated on a 5-point Likert scales with anchors ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's coefficient showed a high internal consistency for the personal terrorist threat perception items (α = .82) and for the collective terrorist threat perception items (α = .87). The personal and collective threat measures were positively correlated, $r(152) = .56$, $p < .01$, similarly to the correlation coefficient of .60 reported by Huddy et al. (2002). The personal and the collective terrorist threat perception were calculated as a mean of the scores for the three related items.

Behavioral Changes Assessment

In order to assess the behavioral changes following the January 7, 2015 terrorist attack, respondents were asked to complete a set of seven questions adapted from studies on behavioral changes related to the aftermath of terrorist attacks (Goodwin et al., 2005; Huddy et al., 2002). Participants were asked about the changes in their daily life since the terrorist attack. The set of items aimed to assess the participant's use of public transportation and car, avoiding certain areas of Paris due to the fear of terrorist attack, air or train travel delaying or cancellation and the nature of the general changes in their daily routine. An open-ended form of some questions aimed to assess details about the nature of the possible changes. Additionally, two items assessed participants' relationship changes

		Total		Time 1		Time 2		Time 3	
		M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Age		35.79	15.46	36.73	15.99	35.60	15.41	35.01	15.17
		n	**%**	***n***	**%**	***n***	**%**	***n***	**%**
Gender	Male	70	43.80	24	43.60	22	41.50	24	46.20
	Female	90	56.30	31	56.40	31	58.50	28	53.80
Living Area	Paris	75	49.70	24	43.60	24	52.20	27	54.00
	Suburbs	48	31.80	19	34.50	14	30.40	15	30.00
	Other	28	18.50	12	21.80	8	17.40	8	16.00
Educational	College	20	12.50	6	11.00	7	13.20	7	13.50
Attainment	HS Diploma	35	21.90	10	18.20	13	24.50	12	23.10
	< 4 years HS	53	33.10	24	43.60	15	28.30	14	27.00
	Graduate Diploma	52	32.50	15	27.30	23	34.00	19	36.50
Religious	Yes	55	34.40	17	30.90	19	35.80	19	36.90
Affiliation	No	105	65.60	38	69.10	34	64.20	33	63.50

Table 1: Sociodemographic Characteristics of the Sample at Three Measurement Times.

including the frequency of contacting family and friends and the amount of time spent with them since the Charlie Hebdo terrorist attack.

Personal Emotions Assessment

The personal emotions of French citizens following the Charlie Hebdo terrorist attack were assessed with the French version of Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988). The scale consists of twenty adjectives assessing ten positive mood states (i.e., enthusiastic, inspired, proud) and ten negative mood states (i.e., afraid, upset, ashamed). These adjectives were rated on 5-point Likert scales with anchors ranging from 1 (*not at all or very slightly*) to 5 (*extremely*). Internal consistency was satisfactory for the ten items of global positive affect scale (α = .72) and the ten items of global negative affect scale (α = .78). The global positive affect state was calculated as a mean of the scores for the ten positive items and the global negative affect state was calculated as a mean of the scores for the ten negative items.

Social Sharing Assessment

In order to assess the social sharing of emotions following the Charlie Hebdo terrorist attack, respondents were asked to complete a set of five items adapted from studies on social sharing of emotions (Christophe & Rimé, 1997; Rimé, Mesquita, Philippot & Boca, 1991; Rimé et al., 2010). First, the immediate social sharing of emotions following the terrorist attack was assessed with three items asking participants about the time span they have talked to someone after their acknowledgment of the January 7, 2015 terrorist attack. These responses were rated on a 6-point Likert scales with following anchors: 1 (*I haven't talked about it*), 2 (*less than 15 minutes*), 3 (*15 minutes to 1 hour*), 4 (*more than 1 hour*), 5 (*in the evening*) and 6 (*the next day*). The following items aimed to assess participants' first interlocutor with whom they have talked following the terrorist attack and the way they have communicated about the terrorist attack. These responses were rated on a 8-point scale with following anchors: 1 (*my partner*), 2 (*a family*), 3 (*a friends*), 4 (*a colleges*), 5 (*a neighbors*), 6 (*a tradespeople*), 7 (*an unknown person*), 8 (*someone else*) and a 6-point scale with following anchors: 1 (*orally*), 2 (*a phone call*), 3 (*a SMS*), 4 (*an email*), 5 (*a social networks like Facebook or Twitter*), 6 (*I haven't talked about it*), respectively.

The extent of social sharing of emotions was assessed with two items adapted from Rimé et al. (2010). In order to assess the extent of social sharing of emotions participants were asked about the frequency they have talked about the terrorist attack over the past week and they have heard people talking about the terrorist attack over the past week. These responses were rated on a 6-point Likert scales with following anchors: 1 (*I haven't talked to anyone*), 2 (*once to twice*), 3 (*three to four times*), 4 (*five to six times*), 5 (*seven to nine times*) and 6 (*more than 10 times*). The Cronbach's coefficient calculated for the two items showed a high internal consistency (α = .81).

Socioemotional Climate Assessment

Perceived socioemotional climate in participants' country following the terrorist attack was assessed with a set of eight items extracted and adapted to the post-terrorist context from two different instruments: The Emotional Climate Scale (Páez et al., 1997) and The Climate Dimension Scale (de Rivera, 1992; de Rivera et al., 2007). Participants were asked to assess their agreement with statements related to the positive socioemotional climate (i.e., people's institutional trust, manifestation of confidence and cooperation between the various social groups, manifestation of solidarity and mutual helping between people and people's hope about the future) and to the negative socioemotional climate (i.e., feeling insecure because of the amount of recent violence, being afraid of saying of what people really think, feeling of anger and hostility, being afraid and despaired). These responses were rated on a 5-point Likert scales with anchors ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The negative items were recoded in order to obtain reversed scores. The exploratory factor analysis conducted on the eight items measuring the socioemotional climate followed by Varimax rotation yielded two distinct components explaining together 52.31% of the total variance. The first of these components explaining 30.22% of the variance had high loadings for the four positive items and the second component explaining 22.09% of the variance had high loadings for the four negative items. The Cronbach's alpha coefficients showed an acceptable internal consistency for the four positive items (α = .68) and for the four negative items (α = .65). The global positive socioemotional climate was calculated as a mean of the scores for the four items and the global negative socioemotional climate was calculated as a mean of the scores for the four negative items.

Sociodemographic Data

The last part of the multi-part questionnaire assessed participants' sociodemographic characteristics including their age, gender, postal code of their living areas, educational level, religious affiliation, their presence in the solidarity demonstrations and the way they were learned about the 7th January, 2015 Charlie Hebdo terrorist attack.

Results

Word-Association Task

Participants produced a large variety of word associations related to the January 7, 2015 Charlie Hebdo terrorist attack at one week (Time 1), one month (Time 2) and two months (Time 3) following the attack. After reviewing the open-ended part of the questionnaire several times to appraise the complexity of participants' responses, a qualitative content analysis guided the analysis of the data. The totality of participants' responses was coded by two coders and analyzed with the Atlas.ti version 7.5.11 for Windows (Friese, 2014). Atlas.ti is a CAQDAS (Computer Assisted Qualitative Data Analysis Software) which allows an efficient and flexible coding (i.e., open and in vivo coding), categorizing, interlinking, analyzing data and creating research reports (Hwang, 2008). Thus, Atlas.ti software

contributes to enhance the overall rigor, accuracy and scientific validity of qualitative data treatment and analyses compared to the traditional manual methods. Intercoder reliability calculated for all items reached a satisfactory level (.94). The codes of concepts with similar meanings were grouped into categories and the categories were grouped into themes. The content analysis of participants' responses revealed thirty-one emerging categories which were classified into twelve principal themes. In line with research aim, the effectives and the frequencies of participants' responses at the three measurement times are reported in **Table 2**.

The specific statistical analyses of main results showed that one week following the terrorist attack (Time 1), the most frequently elicited word-associations were related to Emotional Responses (24.75%), in particular to specific emotional categories such as Fear (8.42%) and Sadness (7.92%). Similar pattern of results for Emotional Responses was obtained at one month (Time 2) and at two months (Time 3) following the terrorist attack, (25.00%) and (26.55%), respectively, χ^2 (12, N = 145) = 17.51, p = .131. Further, participants' responses were frequently related to Democratic Values at Time 1 (20.30%), including mainly two specific categories: Solidarity (9.93%) and Freedom of Speech (9.91%). The frequency distribution of participant's responses related to Democratic Values decreased at Time 2 (16.67%), and at Time 3 (11.30%), χ^2 (4, N = 93) = 9.69, p < .05, with a weak strength of association (V = .23). Participants also frequently evoked the Evaluative Responses related to the terrorist attack at Time 1 (14.36%), the overall frequency distribution of Evaluative Responses was similar at Time 2 (13.02%), and at Time 3 (13.00%), χ^2 (8, N = 77) = 5.74, p = .676. Unsurprisingly, one of the most frequently elicited responses were directly related to the Terrorist Attack at Time 1 (11.88%), with a similar frequency distribution at Time 2 (14.58%) and at Time 3 (18.64%), $\chi^2(2, N=85) = 1.07$, p = .586. Such results indicate that the temporal evolution of French citizens' responses to the Charlie Hebdo terrorist attack occurred mainly for Democratic Values which decreased from the initial emergency stage to the subsequent adaptation stage, despite the fact that the overall frequency distributions of participants' responses were rather similar over time, χ^2 (22, N = 571) = 29.62, p = .128.

Terrorist Threat Perception

The mean values for terrorist threat perception at the personal level and the collective level at one week (Time 1), one month (Time 2) and two months (Time 3) following the January 7, 2015 Charlie Hebdo terrorist attack are reported in **Table 3**.

One-way ANOVA analyses with criteria for Time revealed that the terrorist threat perception has not decreased over time neither at the personal level, F(2, 149) = 1.52, p = .223, nor at the collective level, F(2, 149) = .074, p = .929.

One sample t-test against the mean scale value showed that the participants' overall terrorist threat perception was situated at the collective level, t(151) = 13.80, p < .001, rather than at the personal level, t(151) = – 4.15, p < .001.

Complementary statistical analyses showed that participants' age, gender, living area, religious affiliation, presence in the solidarity demonstrations and the way they were learned about the 7th January, 2015 Charlie Hebdo terrorist attack were unrelated to their terrorist threat perception, Fs < 1. However, participants with lower educational attainment perceived higher threat of terrorism at the personal level (M = 3.07, SD = .86) than participants with higher educational attainment, (M = 2.46, SD = 1.12) 86), t(68) = 2.13, p = .036, and also at the collective level, (M = 4.35, SD = .53) and (M = 3.84, SD = 1.09) respectively, t(68) = 1.97, p = .053.

Behavioral Changes

The frequency distributions of participants' behavioral changes related to the Charlie Hebdo terrorist attack at one week (Time 1), one month (Time 2) and two months (Time 3) following the terrorist attack are reported in **Table 4**. The analysis of overall frequency of behavioral changes revealed that participants who reported at least some behavioral changes one week following the Charlie Hebdo terrorist attack were 65.40%, one month following the attack the frequency reached 81.50%, and two months following the attack the frequency decreased to 76.80%. The results revealed that participants' main behavioral changes were reported in avoiding certain areas in Paris due to the fear of terrorist attack for 11.20% participants (e.g., "*I'm avoiding railway stations"; ". . . touristic places such as the Eiffel Tour"; ". . . shopping centers"; ". . . La Défense and Châtelet quarters"*), general daily routines changes for 10.63% participants (e.g., "*I pay attention to strange objects"; "I'm participating in various demonstrations and public meetings in honor of the Charlie Hebdo victims"; "It's sad but I'm afraid of the others I'm meeting in a public space"; "I come every evening to gather at the Republic square"*) and relational changes for 12.50% of participants who reported to tend to spent at least a little more time with their family and/or friends. Complementary statistical analyses showed that socio-demographic characteristics were unrelated to participants' behavioral changes, Fs < 1.

A simple linear regression analyses conducted for the behavioral changes variables revealed that the personal and the collective terrorist threat perception were significant predictors only of participants' avoidance of certain areas in Paris due to the fear of terrorist attack, R^2 = .060, F (1, 150) = 9.53, p = .002, η^2_p = .06, and, R^2 = .034, F (1, 150) = 5.31, p = .023, η^2_p = .03, respectively.

Personal Emotions

One sample t-test against the mean scale value showed that participants' overall scores measured with the Positive and Negative Affect Schedule (PANAS) were situated around the mean scale value for the participants' positive affect state (M = 2.48, SD = .64), t(151) = –.44, p = .659, and for the negative affect state (M = 2.56, SD = .76), t(151) = .91, p = .365. One-way ANOVA analyses with criteria for Time revealed that participants' overall positive affect

Themes & Categories	Time1		Time2		Time3	
	n	%	*n*	%	*n*	%
Emotional Responses	**50**	**24.75**	**48**	**25.00**	**47**	**26.55**
General Emotional state	2	0.99	1	0.52	0	0
Anger	5	2.48	6	3.13	8	4.52
Disgust	5	2.48	1	0.52	0	0
Fear	17	8.42	22	11.46	19	10.73
Sadness	16	7.92	11	5.73	15	8.48
Shame	4	1.98	3	1.56	0	0
Surprise	1	0.50	4	2.08	5	2.82
Democratic Values	**41**	**20.30**	**32**	**16.67**	**20**	**11.30**
Freedom of speech	20	9.91	18	9.38	11	6.22
Secularism	7	3.47	0	0	0	0
Solidarity	14	9.93	14	7.29	9	5.09
Terrorist Attack	**24**	**11.88**	**28**	**14.58**	**33**	**18.64**
Terrorism	11	5.45	9	4.69	12	6.78
Massacre	13	6.44	19	9.90	21	11.86
Insanity	**5**	**2.48**	**5**	**2.60**	**6**	**3.39**
Folly	4	1.98	1	0.52	3	1.70
Foolishness	1	0.50	4	2.08	3	1.70
Sorrow	**10**	**4.95**	**14**	**7.29**	**9**	**5.09**
Grief	2	0.99	4	2.08	3	1.70
Shock	8	3.96	10	5.21	6	3.39
Evaluative Responses	**29**	**14.36**	**25**	**13.02**	**23**	**13.00**
Indignation	11	5.45	5	2.60	4	2.26
Disappointment	1	0.50	1	0.52	2	1.13
Injustice	4	1.98	8	4.17	6	3.39
Nonsense	11	5.45	10	5.21	10	5.65
Mess	2	0.99	1	0.52	1	0.57
Societal Context	**10**	**4.95**	**19**	**9.90**	**14**	**7.91**
Intolerance	4	1.98	9	4.69	9	5.09
Hatred	2	0.22	4	2.08	2	1.13
Amalgam	4	1.98	6	3.13	3	1.69
Attack's Causes	**13**	**6.44**	**5**	**2.60**	**3**	**1.69**
Radicalization	9	4.46	5	2.60	3	1.69
Ideology	4	1.98	0	0	0	0
Attack's Consequences	**2**	**0.99**	**6**	**3.13**	**3**	**1.69**
Danger	1	0.50	2	1.04	1	0.57
Insecurity	1	0.50	4	2.08	2	1.13
Charlie Hebdo	**10**	**4.95**	**5**	**2.60**	**7**	**3.96**
Conspiracy	**1**	**0.50**	**1**	**0.52**	**5**	**2.83**
Religion	**7**	**3.47**	**4**	**2.08**	**7**	**3.96**
TOTALS	**202**	**100%**	**192**	**100%**	**177**	**100%**

Table 2: Effectives and Percentages of Word Associations' Themes and Categories at Three Measurement Times.

	Total		Time 1		Time 2		Time 3	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Personal Threat	2.64	1.06	2.74	1.05	2.44	1.06	2.77	1.06
Collective Threat	3.99	0.89	4.01	0.83	4.01	0.90	3.95	0.95

Table 3: Mean Levels of Personal and Collective Terrorist Threat Perception at Three Measurement Times.

Items	Time 1		Time 2		Time 3	
	n	%	*n*	%	*n*	%
"Since the recent terrorist attack, have you been using public transportation in Paris:"						
Less or much less often	1	1.80	5	9.50	6	11.50
About the same time	51	92.70	43	81.10	42	80.80
More or much more often	1	1.80	3	5.70	4	7.60
I never use public transportation	2	3.60	2	3.80	0	0.00
"Since the recent terrorist attack, have you been using your car in Paris:"						
Less or much less often	1	1.80	1	2.00	1	1.90
About the same time	23	41.8	16	32.00	12	23.10
More or much more often	0	0.00	1	2.00	4	7.70
I don't have car	31	56.4	32	64.00	35	67.30
"Have you been avoiding certain areas of Paris due to fear of terrorist attack?"						
Yes	7	12.7	8	15.10	3	5.80
No	48	87.3	45	84.90	49	94.20
"Since the recent terrorist attack, have you been making general changes in your daily routine?"						
Yes	5	9.10	8	15.10	4	7.70
No	50	9.90	45	84.90	48	92.30
"Since the recent terrorist attack, have you cancelled or delayed any specific plans to travel by train or by plain?"						
Yes	0	0.00	0	0.00	3	5.80
No	55	100.00	53	100.00	49	94.20
"Since the recent terrorist attack, have you find yourself contacting your family and/or friends?"						
Less or much less often	0	0.00	1	1.90	2	3.80
About the same time	41	74.50	42	79.20	44	84.60
More or much more often	14	25.50	10	18.90	6	11.50
"Since the recent terrorist attack, have you been making changes in your daily routine to spend more time family and/or friends?"						
A great deal	0	0.00	1	1.90	0	0.00
Little more	7	12.70	6	11.30	7	13.50
Not at all	48	87.30	46	86.80	45	86.50

Table 4: Frequency Distributions for Behavioral Changes Items at Three Measurement Time.

state have evolved over time, $F(2, 149) = 2.90$, $p = .058$, contrary to the overall negative affect state, $F(2, 149) = .24$, $p = .788$. The specific t-test for independent sample for the overall positive affect state at three measurement times suggest a decrease in participants' overall positive affect state from Time 1($M = 2.64$, $SD = .64$) to Time 2 ($M = 2.40$, $SD = .62$), $t(102) = 1.93$, $p = .056$, however the participants' overall positive affect state has not evolved from Time 2 to Time 3 ($M = 2.37$, $SD = .64$), $t(96) = .29$, $p = .770$.

Complementary statistical analyses showed that participants' age, gender and educational level were unrelated to their positive and negative affect state, Fs < 1.

A simple linear regression analyses showed that participants' overall positive affect state was predicted by personal terrorist threat perception, $R^2 = .063$, $F(1, 145) = 9.77$, $p = .002$, and by collective terrorist threat perception, $R^2 = .051$, $F(1, 145) = 7.85$, $p = .006$. Thus, the higher the score on personal and collective terrorist threat perception scale, the higher the score on positive PANAS scale, ($b = .150$, $p = .002$) and ($b = .160$, $p = .006$), respectively. The participants' overall negative affect state was predicted only by the personal terrorist threat perception, $R^2 = .079$, $F(1, 145) = 12.43$, $p < .001$, the collective terrorist threat perception has not predicted participants' overall negative affect state, $R^2 = .018$, $F(1, 145) = 2.67$, $p = .104$. Thus, the higher the score on personal terrorist threat perception scale, the higher the score on negative PANAS scale ($b = .199$, $p < .001$), however the scores on collective terrorist threat perception scale and negative PANAS scale were unrelated ($b = .113$, $p = .104$).

Social Sharing of Emotions

Results for the immediate social sharing items revealed that the majority of participants have talked to someone after their acknowledgement about the January 7, 2015 terrorist attack in less than 15 minutes (63.10%). Participants who have talk to someone in a delay from 15 minutes to one hour (14.40%), after more than 1 hour (7.50%), in the evening (13.10%) or next day (1.90%) were proportionally less.

The first person with whom the French citizens shared their feelings after their acknowledgement about the terrorist attack was most frequently their colleagues[1] (28.90%), one of their relatives (28.30%) and their life partner (23.30%). Participants reported also the primary social sharing with their friends (16.40%), their neighbors (1.30%), a tradesman or a tradeswoman (0.60%) and an unknown person (1.30%).

French citizens have communicated most frequently about the terrorist attack after their immediate acknowledgement about it orally (53.10%), by a telephone call (20.00%) and by a text message (18.10%). Participants reported also to communicate by social networks such as Facebook or Twitter (5.00%) and by an email (1.90%).

In order to test the temporal evolution of social sharing in the frame of the social stage model of collective coping with disasters (Pennebaker & Harber, 1993), we assessed the extent of participants' talking and hearing about the terrorist attack over the past week at three points of time: one week following the attack (Time 1), one month following the attack (Time 2) and two months following the attack (Time 3). The two scales assessing the extent of talking and hearing were positively and strongly correlated, $r(160) = .68$, $p < .001$ and the mean ratings decreased in parallel over time as reported in **Figure 1**. One-way ANOVA with criteria for Time revealed a significant main effect of time on talking $F(2, 157) = 32.97$, $p < .001$ and hearing $F(2, 157) = 53.64$, $p < .001$. In order to conduct complementary statistical analyses, the two items assessing the extent of talking and hearing were collapsed into an Index of social sharing extent. In line with the research hypothesis, the specific t-test for independent sample for the Index of social sharing extent revealed a decrease in participants' social sharing from Time 1($M = 4.97$, $SD = 1.20$) to Time 2 ($M = 3.01$, $SD = 1.33$), $t(106) = 8.07$, $p < .001$,

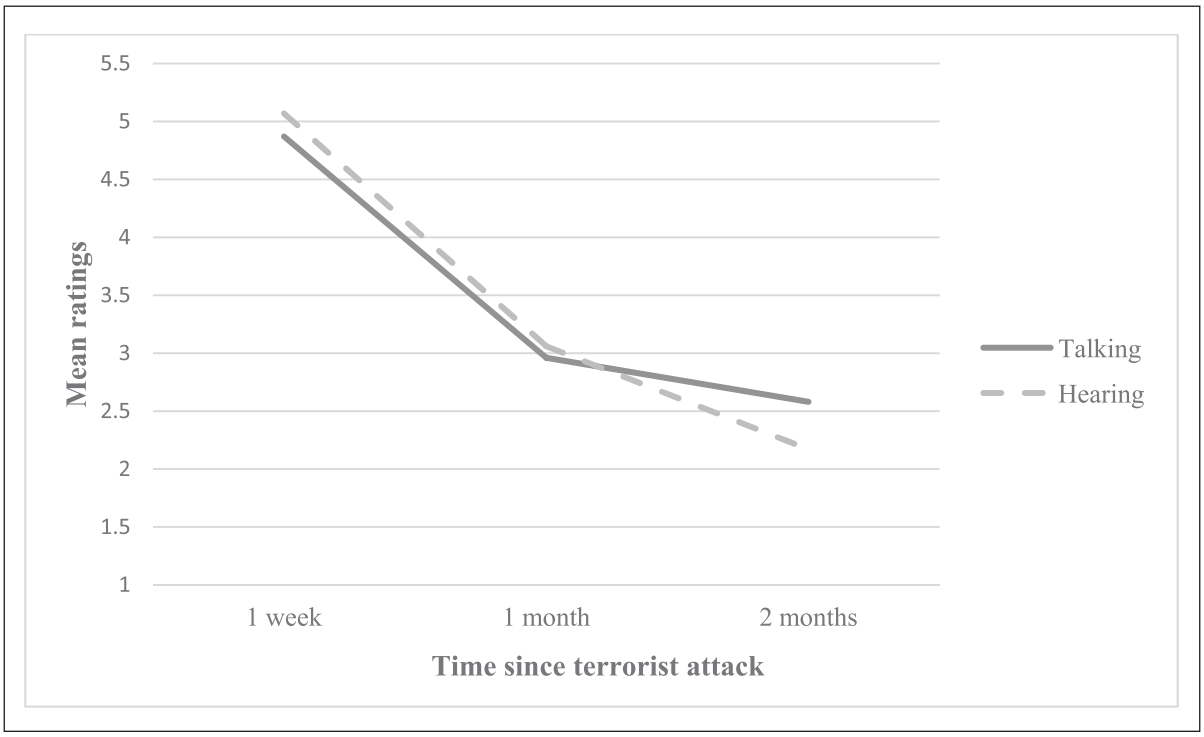

Figure 1: Mean Ratings for Scales Assessing the Extent of Talking and Hearing about the January 7, 2015 Terrorist Attack at Three Measurement Times.

and from Time 2 to Time 3 (M = 2.38, SD = 1.48), $t(103) = 2.32$, $p = .022$. The specific t-test for independent sample showed that citizens who declared their participation in some of the solidarity demonstrations following the Charlie Hebdo terrorist attack had tendency to share with others to greater extent (M = 3.70, SD = 1.73) than citizens who did not participate in any solidarity demonstration (M = 3.17, SD = 1.71), $t(158) = 1.91$, $p = .058$. Further, the specific t-tests for independent sample conducted for the other sociodemographic characteristics have not revealed any significant differences in social sharing of emotions, t's = *ns*.

Socioemotional Climate

One-way ANOVA analyses with criteria for Time suggest that the participants' perception of positive socioemotional climate of their country have evolved over time, $F(2, 142) = 2.99$, $p = .054$, contrary to the negative socioemotional climate of their country, $F(2, 143) = 1.53$, $p = .221$. The specific t-test for independent sample conducted for the three measurement times suggests a significant decrease in participants' perception of the positive socioemotional climate from Time 1(M = 3.21, SD = .76) to Time 2 (M = 2.87, SD = .71), $t(96) = 2.27$, $p = .026$. However, the participants' perception of socioemotional climate was stable from Time 2 to Time 3 (M = 2.91, SD = .82), $t(90) = -.23$, $p = .816$. The participants' perception of the negative socioemotional climate was stable from Time 1 (M = 2.72, SD = .82) to Time 2 (M = 2.58, SD = .78), $t(97) = .91$, $p = .363$, and also from Time 2 to Time 3 (M = 2.45, SD = .75), $t(92) = .81$, $p = .420$.

Complementary statistical analyses showed that participants' age and educational level were unrelated to their overall perception of positive and negative socioemotional climate, Fs < 1. Participants' gender was unrelated to the overall perception of negative socioemotional climate, $F(1, 144) = .53$, $p = .470$. However the perception of the overall positive socioemotional climate was higher for women (M = 3.13, SD = .76) than for men (M = 2.84, SD = .77), $F(1, 143) = 4.87$, $p = .029$.

In order to examine whether there is a link between the personal emotions and the socioemotional climate and whether this relationship is mediated by social sharing of emotions, a mediation analysis was conducted. A simple linear regression analysis showed that participants' overall positive affect state (β = .29, $p < .001$) predicted the positive socioemotional climate scores, R^2 = .082, $F(1, 141) = 12.54$, $p < .001$. However, the extent of social sharing did not predicted socioemotional climate (β = .07, $p = .411$), which implies that it did not mediate the relation between participants' positive affect state and the positive socioemotional climate, $R^2 = .086$, $F(2, 140) = 6.60$, $p = .002$. A simple linear regression analysis showed that participants' overall negative affect state ($\beta = -.29$, $p < .001$) predicted the negative socioemotional climate scores, $R^2 = .085$, $F(1, 142) = 13.27$, $p < .001$. However, the extent of social sharing did not predicted socioemotional climate (β = .08, $p = .295$), which implies that it did not mediate the relation between participants' negative affect state and the negative socioemotional climate, $R^2 = .093$, $F(2, 141) = 7.19$, $p < .001$. Such results do not provide support for the role of social sharing of emotions as a mediator of participants' emotional state and the perceived socioemotional climate.

Discussion

The purpose of the present study was to provide a broader understanding of lay people's responses to terrorism by taking temporality into account. The current study conducted in the French context replicated similar pattern of results of the post-terrorist social sharing dynamics reported by Rimé et al. (2010) in the aftermath of the Madrid trains' terrorist attack. Consequently, the social stage model of collective coping with disasters (Pennebaker & Harber, 1993) might be an adequate theoretical framework providing an understanding of the temporal dynamics of social sharing of emotions following the terrorist attacks and other types of large-scale societal threats. Further, the attempt to extend the social stage model of collective coping with disasters to the citizens' terrorist threat perception and the related behavioral and socio-emotional reactions might improve the comprehension of the evolution of lay people's responses to terrorism over time.

One of the contribution of the current study was to provide a better understanding of the terrorist threat perception's components. The terrorist threat perception remains a vague concept despite the fact that several studies attempted to understand its specific components (e.g., Goodwin et al., 2005; Huddy et al., 2002; Jacobson & Bar-al, 1995; Rosenboim et al., 2012). The January 7, 2015 Charlie Hebdo terrorist attack was perceived by French citizens as threatening at the collective level rather than at the personal level. Such findings might be linked with self-categorization theory (Turner et al., 1987), which focuses on the way people perceive and define themselves. Thus, French citizens reacted as group members rather than as individuals to the terrorist attack. Indeed, their social and collective identity might be activated because of the symbolic value of the attack discussed below. The sociodemographic characteristics were unrelated to the terrorist threat perception at the personal and at the collective level, except for education. The results are consistent with previous research which highlighted that people with a lower education background are more likely to fear terrorism than people with a higher education background (Huddy et al., 2002; Mumpower et al., 2013). Additionally, the content analysis of participants' responses revealed that one of the most frequently elicited responses of French citizens' were related to democratic values, freedom of speech especially. Such findings indicate that the Charlie Hebdo terrorist attack in Paris was perceived by French citizens as a threat to their country and its values, rather than a threat to one's security. In fact, the terrorist attack directed against Charlie Hebdo journal had a strong symbolic value for French citizens related to the freedom of speech which is one of the essential principles of French Republic rooted in the Declaration of the Rights of Man and of the Citizen of 1978 (Déclaration des Droits de l'Homme et du Citoyen, 1789).

One of limitations of the present study is that despite the fact that the methodology was based on qualitative and quantitative data, the direct link between these data is lacking. Consequently, a field research studying terrorism might stand rather on the methodological triangulation, defined by Denzin (1978) as a "combination of methodologies in the study of the same phenomenon" (p. 291). Such methodological triangulation might not only increase the comprehension of reality in the post-terrorist contexts in a more holistic way but it also offers an opportunity to increase the scientific validity of applied research (Flick, 1992).

Further, the findings suggest that the terrorist threat perception was stable at the collective level and also at the personal level within two months following the terrorist attack. Such terrorist attack perception stability over time might be related to the extensive media coverage of the Charlie Hebdo terrorist attack which lasted for a months and thus maintained French citizens' fear of another terrorist attack.

Previous empirical studies demonstrated that citizens' terrorist threat perception elicit a number of behavioral and socio-emotional responses (e.g., Goodwin et al., 2005; Huddy et al., 2002). However, the temporal dynamics of the citizens' responses were frequently neglected (see Cohu, Maisonneuve & Testé, 2016, for an exception). The pattern of the overall French citizens' behavioral changes was characterized by a peak at about one month following the January 7, 2015, terrorist attack and a slight decrease from one month to two months following the attack. Such results are probably due to the narrow time span of this study. Several studies showed that citizens' concerns about terrorist threat following the September 11, 2001 terrorist attack decreased slightly over six month following the terrorist attack and continued to decrease over the next thirty months (Scott et al., 2013). Similarly, it has been shown that participants' behavioral changes were noted up to four month following the London public transportation terrorist attack (Prager et al., 2011). Consequently, a broader time span of this study might improve the comprehension of the citizens' terrorist threat perception and the behavioral responses to terrorism.

Further, neither the personal, nor the collective terrorist threat perception have been related to participants' behavioral changes and the participants' socio-demographic characteristics were unrelated to the behavioral changes. The lack of consistency between people's declarations and their actions was pointed out in social psychology research several decades ago. A seminal explanation of attitude-behavior gap highlighted the fact that verbal declarations are easier to perform than acts (Campbell, 1963). Moreover, Ajzen and Fishbein (1977) pointed out the fact that people's attitude toward an object influences the overall pattern of their responses toward the object, but that their attitude might not necessarily predict their actions (p. 888). Consequently, the attitude-behavior relationship might be considered as an axiomatic connection rather than a causal connection (Greve, 2001). Such inconsistency between participants' terrorist threat perception and their behavior might be explained by the generalized reaction in France following the Charlie Hebdo terrorist attack expressing the idea that people shouldn't be afraid and ought to live normally.

The participants' emotional reactions were characterized by an increase in positive emotions and perceived positive socioemotional climate at one week following the terrorist attack. Such results might be related to the solidarity demonstrations in honor of Charlie Hebdo's victims and the French democratic values such as freedom of speech which occurred all over the French territory at this time. Páez et al. (2007) showed that participation in collective gatherings such as demonstrations contributed to the reinforcement of positive emotional climate two months following the Madrid trains' terrorist attack and to the reinforcement of positive feelings and positive social beliefs related to solidarity, social integration and justice (Páez et al., 2015).

The specific analysis of positive socioemotional climate items revealed that French citizens reported not only elevated perceived solidarity and mutual helping between people but also elevated institutional trust. Institutions have a central function in our society in maintaining social order and stability (Devos, Spini, & Schwartz, 2002). Such results join the system justification theory framework (Jost & Banaji, 1994) which holds that individuals under threat tend to bolster and justify the actual status quo and the related social, political and economic structures of the society. Specifically, it has been showed that when people have to cope with unknown threats such as unforeseeable terrorist acts, it leads to an increased feeling of dependence on a government and an increased trust in a government (Shepherd & Kay, 2012). Dinesen and Jæger (2013) highlighted the "rally effect" which consists in approval of political leaders and institutions following the Madrid terrorist attack in 2004 which lasted about seven months.

The current study also provides an interesting attempt to link the individual emotional states with a macro-social phenomenon such as the socioemotional climate. Nevertheless, the findings do not provide support for the role of social sharing of emotions as a mediator of participants' emotional state and the perceived socioemotional climate. Consequently, scholars might bear a specific interest in the social sharing content as a potential mediator between the individual and the collective constructs. Thus, linking the social sharing emotions framework and the social representation theory (Moscovici, 1961/1976) might be relevant for future research. The core idea of social representation theory formulated by Moscovici (1961/1976) posits that social representations are collectively shared patterns of beliefs and values emerging from our everyday communications which are shaped by the interaction processes. Thus, specifying the secondary and tertiary social sharing characteristics and the content of emotional communications spreading between people might improve the comprehension of the propagation of contemporary large-scale societal threats within the society.

In conclusion, further longitudinal studies in the context of terrorist aftermath might be conducted with a larger

representative sample to improve the comprehension of lay people's reactions and its specificities. Also, one of the main limitation of the present study was that despite similar socio-demographic characteristics, the samples were not identical across the time span. Such sampling procedure improvements combined with methodological triangulation would contribute to enhance the scientific validity of applied research and the understanding of citizens' reactions to terrorism from a social psychological perspective. Additionally, future research might also tend to seize the interpersonal and the political consequences of terrorist acts such as citizens' political attitudes shifts and intergroup avoidance upswings.

Acknowledgements

We thank to Marie-Pierre Fayant and Silvia Krauth-Gruber for their hepful comments on an earlier version of this article.

Competing Interests

The authors declare that they have no competing interests.

Notes

[1] The January 7, 2015 terrorist attack has occurred on Wednesday around 11:30 a.m.

References

Ajzen, I., & **Fishbein, M.** (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*(5), 888–918. DOI: http://dx.doi.org/10.1037/0033-2909.84.5.888

Bux, S. M., & **Coyne, S. M.** (2009). The effects of terrorism: The aftermath of the London terror attacks. *Journal Of Applied Social Psychology*, *39*(12), 2936–2966. DOI: http://dx.doi.org/10.1111/j.1559-1816.2009.00556.x

Campbell, D. T. (1963). Social attitudes and other acquired behavioral dispositions. In Koch, S. (Ed.), *Psychology: A study of a science*, Vol. 6. New York: McGraw-Hill, pp. 94–172. DOI: http://dx.doi.org/10.1037/10590-003

Christophe, V., & **Rimé, B.** (1997). Exposure to the social sharing of emotion: Emotional impact, listener responses and secondary social sharing. *European Journal Of Social Psychology*, *27*(1), 37–54. DOI: http://dx.doi.org/10.1002/(SICI)1099-0992(199701)27:1<37::AID-EJSP806>3.0.CO;2-1

Cohu, M., Maisonneuve, C., & **Testé, B.** (2016). The "Charlie-Hebdo" effect: repercussions of the January 2015 terrorist attacks in France on prejudice toward immigrants and North-Africans, social dominance orientation, and attachment to the principle of *laïcité. International Review of Social Psychology, 29*(1), 50–58. DOI: http://dx.doi.org/10.5334/irsp.59

Conejero, S., & **Etxebarria, I.** (2007). The impact of the Madrid bombing on personal emotions, emotional atmosphere and emotional climate. *Journal Of Social Issues*, *63*(2), 273–287. DOI: http://dx.doi.org/10.1111/j.1540-4560.2007.00508.x

Déclaration des Droits de l'Homme et du Citoyen (1789). Retrieved from http://www.legifrance.gouv.fr/Droit-francais/Constitution/Declaration-des-Droits-de-l-Homme-et-du-Citoyen-de-1789.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods*. New York: Praeger.

de Rivera, J. (1992). Emotional climate: Social structure and emotional dynamics. In K. T. Strongman, K. T. Strongman (Ed.), *International review of studies on emotion, Vol. 2*. Oxford, England: John Wiley & Sons, pp. 197–218.

de Rivera, J., Kurrien, R., & **Olsen, N.** (2007). The emotional climate of nations and their culture of peace. *Journal Of Social Issues*, *63*(2), 255–271. DOI: http://dx.doi.org/10.1111/j.1540-4560.2007.00507.x

Devos, T., Spini, D., & **Schwartz, S. H.** (2002). Conflicts among human values and trust in institutions. *British Journal Of Social Psychology*, *41*(4), 481–494. DOI: http://dx.doi.org/10.1348/014466602321149849

Dinesen, P. T., & **Jæger, M. M.** (2013). The effect of terror on institutional trust: New evidence from the 3/11 Madrid terrorist attack. *Political Psychology*, *34*(6), 917–926. DOI: http://dx.doi.org/10.1111/pops.12025

Drozda-Senkowska, E., & **Oberlé, D.** (2006). Climat social en psychologie sociale: Un thème délaissé, un trésor oublié ou un concept détourné? [Social climate in social psychology, a forsaken topic, a lost treasure or a 'hijacked' concept?]. *Cahiers Internationaux De Psychologie Sociale*, *70*(2), 73–78. DOI: http://dx.doi.org/10.3917/cips.070.0073

Flick, U. (1992). Triangulation Revisited: Strategy of Validation or Alternative? *Journal for The Theory of Social Behaviour, 22*(2), 175–197. DOI: http://dx.doi.org/10.1111/j.1468-5914.1992.tb00215.x

Friedland, N., & **Merari, A.** (1985). The psychological impact of terrorism: A double-edged sword. *Political Psychology*, *6*(4), 591–604. DOI: http://dx.doi.org/10.2307/3791018

Friese, S. (2014). *ATLAS.ti 7 User Manual*. Berlin: ATLAS.ti Scientific Software Development GmbH.

Frijda, N. H. (1993). The place of appraisal in emotion. *Cognition And Emotion*, *7*(3–4), 357–387. DOI: http://dx.doi.org/10.1080/02699939308409193

Gigerenzer, G. (2006). Out of the Frying Pan into the Fire: Behavioral Reactions to Terrorist Attacks. *Risk Analysis*, *26*(2), 347–351. DOI: http://dx.doi.org/10.1111/j.1539-6924.2006.00753.x

Giner-Sorolla, R., & **Maitner, A. T.** (2013). Angry and the unjust, scared of the powerful: Emotional responses to terrorist threat. *Personality And Social Psychology Bulletin, 39*(8), 1069–1082. DOI: http://dx.doi.org/10.1177/0146167213490803

Goodwin, R., Willson, M., & **Gaines, S. J.** (2005). Terror threat perception and its consequences in contemporary Britain. *British Journal Of Psychology*, *96*(4), 389–406. DOI: http://dx.doi.org/10.1348/000712605X62786

Greve, W. (2001). Traps and gaps in action explanation: Theoretical problems of a psychology of human

action. *Psychological Review*, *108*(2), 435–451. DOI: http://dx.doi.org/10.1037/0033-295X.108.2.435

Huddy, L., Feldman, S., Capelos, T., & **Provost, C.** (2002). The consequences of terrorism: Disentangling the effects of personal and national threat. *Political Psychology*, *23*(3), 485–509. DOI: http://dx.doi.org/10.1111/0162-895X.00295

Hwang, S. (2008). Utilizing Qualitative Data Analysis Software: A Review of Atlas.ti. *Social Science Computer Review, 26*(4), 519–527. DOI: http://dx.doi.org/10.1177/0894439307312485

Institute for Economics and Peace (2014). Global Terrorism Index Report. Retrieved from http://www.visionofhumanity.org/sites/default/files/Global%20Terrorism%20Index%20Report%202014_0.pdf.

Jacobson, D., & **Bar-Tal, D.** (1995). Structure of security beliefs among Israeli students. *Political Psychology*, *16*(3), 567–590. DOI: http://dx.doi.org/10.2307/3792227

Jost, J. T., & **Banaji, M. R.** (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal Of Social Psychology*, *33*(1), 1–27. DOI: http://dx.doi.org/10.1111/j.2044-8309.1994.tb01008.x

Keltner, D., & **Haidt, J.** (1999). Social functions of emotions at four levels of analysis. *Cognition And Emotion*, *13*(5), 505–521. DOI: http://dx.doi.org/10.1080/026999399379168

Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, *46*(4), 352–367. DOI: http://dx.doi.org/10.1037/0003-066X.46.4.352

Luminet, O., Bouts, P., Delie, F., Manstead, A. R., & **Rimé, B.** (2000). Social sharing of emotion following exposure to a negatively valenced situation. *Cognition And Emotion*, *14*(5), 661–688. DOI: http://dx.doi.org/10.1080/026999300501176666

Mayer, N., & **Tiberj, V.** (2016). Who were the « Charlie » in the streets? A socio-political approach of the January 11 rallies. *International Review of Social Psychology, 29*(1), 59–68. DOI: http://dx.doi.org/10.5334/irsp.63

McArdle, S. C., Rosoff, H., & **John, R. S.** (2012). The dynamics of evolving beliefs, concerns emotions, and behavioral avoidance following 9/11: A longitudinal analysis of representative archival samples. *Risk Analysis*, *32*(4), 744–761. DOI: http://dx.doi.org/10.1111/j.1539-6924.2012.01814.x

Moscovici, S. (1961/1976). *La psychanalyse, son image, son public.* Paris: Presses Universitaires de France.

Mumpower, J. L., Shi, L., Stoutenborough, J. W., & **Vedlitz, A.** (2013). Psychometric and demographic predictors of the perceived risk of terrorist threats and the willingness to pay for terrorism risk management programs. *Risk Analysis*, *33*(10), 1802–1811. DOI: http://dx.doi.org/10.1111/risa.12033

Nugier, A., & **Guimond, S.** (2016). Je suis "Charlie": New findings on the social and political psychology of terrorism. *International Review of Social Psychology, 29*(1), 45–49. DOI: http://dx.doi.org/10.5334/irsp.60

Odoxa. (January 11, 2015). *Réactions des Français après les attentats et intention de mobilisation à l'occasion du rassemblement de ce dimanche 11 janvier*. Retrieved from http://www.odoxa.fr/les-reactions-des-francais-apres-les-attentats/.

Páez, D., Basabe, N., Ubillos, S., & **Gonźalez-Castro, J. L.** (2007). Social sharing, participation in demonstrations, emotional climate, and coping with collective violence after the March 11th Madrid bombings. *Journal Of Social Issues*, *63*(2), 323–337. DOI: http://dx.doi.org/10.1111/j.1540-4560.2007.00511.x

Páez, D., Rimé, B., Basabe, N., Wlodarczyk, A., & **Zumeta, L.** (2015). Psychosocial effects of perceived emotional synchrony in collective gatherings. *Journal Of Personality And Social Psychology*, *108*(5), 711–729. DOI: http://dx.doi.org/10.1037/pspi0000014

Páez, D., Ruiz, J. I., Gailly, O., Kornblit, A. L., Wiesenfeld, E., & **Vidal, C. M.** (1997). Clima emocional: Su concepto y medición mediante una investigación transcultural. [Emotional climate: Its concept and measurement in a crosscultural research]. *Revista De Psicología Social*, *12*(1), 79–98. DOI: http://dx.doi.org/10.1174/021347497320892045

Pennebaker, J. W., & **Harber, K. D.** (1993). A social stage model of collective coping: The Loma Prieta earthquake and the Persian Gulf War. *Journal Of Social Issues*, *49*(4), 125–145. DOI: http://dx.doi.org/10.1111/j.1540-4560.1993.tb01184.x

Prager, F., Beeler Asay, G. R., Lee, B., & **von Winterfeldt, D.** (2011). Exploring reductions in London Underground passenger journeys following the July 2005 bombings. *Risk Analysis*, *31*(5), 773–786. DOI: http://dx.doi.org/10.1111/j.1539-6924.2010.01555.x

Rimé, B. (2005). *Le partage social des émotions.* [*The social sharing of emotions*]. Paris, France: Presses Universitaires de France.

Rimé, B. (2007). The social sharing of emotion as an interface between individual and collective processes in the construction of emotional climates. *Journal Of Social Issues*, *63*(2), 307–322. DOI: http://dx.doi.org/10.1111/j.1540-4560.2007.00510.x

Rimé, B. (2009). Emotion elicits the social sharing of emotion: Theory and empirical review. *Emotion Review*, *1*(1), 60–85. DOI: http://dx.doi.org/10.1177/1754073908097189

Rimé, B., & **Christophe, V.** (1997). How individual emotional episodes feed collective memory. In Pennebaker, J. W., Paez, D., Rimé, B., Pennebaker, J. W., Paez, D., & Rimé, B. (Eds.), *Collective memory of political events: Social psychological perspectives*. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc., pp. 131–146.

Rimé, B., Mesquita, B., Philippot, P., & **Boca, S.** (1991). Beyond the emotional event: Six studies on the social sharing of emotion. *Cognition And Emotion*, *5*(5–6), 435–465. DOI: http://dx.doi.org/10.1080/02699939108411052

Rimé, B., Páez, D., Basabe, N., & **Martínez, F.** (2010). Social sharing of emotion, post-traumatic growth, and emotional climate: Follow-up of Spanish citizen's response to the collective trauma of March 11th terrorist attacks in Madrid. *European Journal Of Social Psychology*, *40*(6), 1029–1045. DOI: http://dx.doi.org/10.1002/ejsp.700

Rosenboim, M., Benzion, U., Shahrabani, S., & **Shavit, T.** (2012). Emotions, risk perceptions, and precautionary behavior under the threat of terror attacks: A field study among Israeli college students. *Journal Of Behavioral Decision Making*, *25*(3), 248–256. DOI: http://dx.doi.org/10.1002/bdm.728

Scott, S. B., Poulin, M. J., & **Silver, R. C.** (2013). A lifespan perspective on terrorism: Age differences in trajectories of response to 9/11. *Developmental Psychology*, *49*(5), 986–998. DOI: http://dx.doi.org/10.1037/a0028916

Shepherd, S., & **Kay, A. C.** (2012). On the perpetuation of ignorance: System dependence, system justification, and the motivated avoidance of sociopolitical information. *Journal Of Personality And Social Psychology*, *102*(2), 264–280. DOI: http://dx.doi.org/10.1037/a0026272

Skitka, L. J., Bauman, C. W., Aramovich, N. P., & **Morgan, G. S.** (2006). Confrontational and Preventative Policy Responses to Terrorism: Anger Wants a Fight and Fear Wants 'Them' to Go Away. *Basic And Applied Social Psychology*, *28*(4), 375–384. DOI: http://dx.doi.org/10.1207/s15324834basp2804_11

Slovic, P., Finucane, M. L., Peters, E., & **MacGregor, D. G.** (2004). Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality. *Risk Analysis*, *24*(2), 311–322. DOI: http://dx.doi.org/10.1111/j.0272-4332.2004.00433.x

Smith, C. A., & **Ellsworth, P. C.** (1985). Patterns of cognitive appraisal in emotion. *Journal Of Personality And Social Psychology*, *48*(4), 813–838. DOI: http://dx.doi.org/10.1037/0022-3514.48.4.813

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & **Wetherell, M.** (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, England: Basil Blackwell.

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*(6), 1063–1070. DOI: http://dx.doi.org/10.1037/0022-3514.54.6.1063

Zerhouni, O., Rougier, M., & **Muller, D.** (2016). "Who (really) is Charlie?" French cities with lower implicit prejudice toward Arabs demonstrated larger participation rates in Charlie Hebdo rallies. *International Review of Social Psychology, 29*(1), 69–76. DOI: http://dx.doi.org/10.5334/irsp.50

Zimbardo, P. G. (2003). *The political psychology of terrorist alarms: Psychologists for Social Responsibility*. Retrieved from http://www.zimbardo.com/downloads/2002%20Political%20Psychology%20of%20Terrorist%20Alarms.pdf.

How to cite this article: Pelletier, P and Drozda-Senkowska, E (2016). The Charlie Hebdo Terror Attack in Paris: Follow-up of French Citizens' Terrorist Threat Perception and Its Aftermath. *International Review of Social Psychology*, 29(1), 85–98, DOI: http://dx.doi.org/10.5334/irsp.51

Published: 23 August 2016

]u[*International Review of Social Psychology* is a peer-reviewed open access journal published by Ubiquity Press.

OPEN ACCESS