



Bachelor Thesis

Theorist meets Terrorist:
*A reviewing examination
of the impact of threat and
efficacy beliefs on fear of
terrorism.*

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Abstract

To investigate how fear of terrorism can be best reduced, a review was conducted on scientific literature referring to the topic. Thereby, it was examined whether the assumptions of Protection Motivation Theory and Extended Parallel Process Model, that threat and coping beliefs impact behavioral responses apply to fear of terrorism. Sixteen research articles were analyzed and their information referring to the research question gathered.

The outcomes of the review revealed that Protection Motivation Theory and Extended Parallel Process Model have the potential to explain fear of terrorism to a certain degree. It was found that higher threat beliefs as perceived severity and perceived probability lead to increases in fear. Further, stronger coping beliefs were associated to the reduction of fear and worry responses.

Additionally, the impact and role of the media, the government and other aspects of relevance were discussed. The information derived from the review may prove useful for the guidance of future research as well as for the development of effective risk communication strategies and interventions aimed at the reduction of fear and other negative responses to terrorism.

Samenvatting

Om te onderzoeken hoe angst voor terrorisme het beste kan worden verminderd is een review onderzoek uitgevoerd op basis van wetenschappelijke literatuur m.b.t. het onderwerp. Daarbij is onderzocht of de veronderstellingen van de Protectie Motivatie Theorie en de Extended Parallel Process Model, de percepties van dreiging, *threat beliefs*, en percepties van zelfredzaamheid, *coping beliefs*, van toepassing zijn op angst voor terrorisme. Zestien onderzoeksartikelen zijn geanalyseerd en de vergaarde informatie betreffende de onderzoeksvraag is verzameld.

Vanuit de uitkomsten van de review blijkt dat Protectie Motivatie Theorie en Extended Parallel Process Model het potentieel hebben om angst voor terrorisme in zekere mate te verklaren. Het is gebleken dat sterkere percepties van dreiging zoals waargenomen ernst en waargenomen waarschijnlijkheid leiden tot een toename van angst. Sterkere percepties van zelfredzaamheid zijn gerelateerd aan de vermindering van angst en bezorgdheid.

Bovendien is de impact van de media, de overheid en andere belangrijke aspecten besproken. De informatie die voortvloeit uit het onderzoek kan nuttig zijn voor toekomstig onderzoek, evenals voor de ontwikkeling van effectieve risicocommunicatie en interventies gericht op het verminderen van angst en andere negatieve reacties op terrorisme.

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1. Introduction

1.1. Purpose & research question

Fear of terrorism is a phenomenon common among many people, yet not everybody is affected by it equally. Although the probability of becoming a victim of a terrorist attack is quite low, unrealistic and biased estimates of chances to be involved increase risk perceptions and often negatively impact quality of life and mental health. Therefore, the question where fear of terrorism depends on is worth precise investigation.

The study at hand investigates how fear of terrorism can be best reduced. To answer this broad question scientifically correct, knowledge is needed on fear of terrorism and its determinants; one has to take a step back and to enlighten fear and its determinants in order to give advice how it may be best reduced.

Fear of terrorism may be understood as a maladaptive response to the actual threat, as it has a lot of negative consequences. According to the Protection Motivation Theory (PMT; Rogers, 1975), this maladaptive response would be based on reduced protection motivation. In PMT, four cognitive factors, organized into two appraisal processes, are evaluated in the deliberation of protective behavioral intentions. Based on the assumptions of the theory, fear of terrorism should result from high threat beliefs in combination with low efficacy beliefs.

The Extended Parallel Process Model (EPPM; Witte, 2002) relies on threat and coping beliefs, too, but explains not only danger control, which is protective behavioral change, but also fear control and the occurrence of no response.

Consequently, this study investigates the value of PMT and EPPM in explaining fear of terrorism. Knowledge for the answer of this question is gathered from a review of scientific literature referring to fear of terrorism.

1.2. Terrorism & its consequences

Terrorism is related to the term terror which derives from the Latin verb *terrere* and means to frighten. The words' meaning, to frighten, reveals the character and aim of terroristic attacks.

According to Dutch law, terrorism refers to crime with a terroristic purpose. The definition of a terroristic purpose includes the following criteria; it either has the purpose to seriously frighten a nations' population or parts of it, or to unlawfully coerce governments or international organizations to do, not to do or to tolerate something, or to disrupt or destroy a nations' or international organizations' fundamental political, constitutional, economic or social structure.

Nowadays, terrorism mainly activates memories of the World Trade Center attacks, known as 9/11. This century's terrorism differs substantially from terrorism known from history, and is commonly called 'new terrorism'. New terrorism aims at causing as much victims as possible, thereby frightening and disrupting entire societies. Others propose the name 'catastrophic terrorism', consisting of a combination of disaster and terrorism (Rosenthal, Muller & Ruitenberg, 2006). The attacks from 9/11, the train bombing from Madrid, 2004, as well as the public transport bombings in London, 2005, may be seen as examples of catastrophic terrorism.

With the death of Osama bin Laden in May, 2011, the 'psychological' leader of Al-Qaeda and Islamic terrorism as well as the head behind 9/11 and other attacks, is no longer in power. As bin Laden didn't took terrorism to the grave, his killing through US units stoked fears of vengeance and new attacks from the Islamic world. Indeed, there were some smaller attacks in geographically distant areas receiving little attention by the Western media and public.

Nevertheless, terrorism is not only committed by Islamic extremists and it is crucial to keep this knowledge in mind to prevent the development of prejudices and injustice. In July 2011, Europe and especially the Scandinavian countries were shocked by the right-oriented attacks of Anders Breivik. After destroying parts of government buildings in the Norwegian capital Oslo through a car-bomb thereby killing eight people, Breivik went on in heading towards the island Utøya where a social-democratic youth camp took place. Dressed as policeman, Breivik entered the island where he shot 69 members of the meeting. The youths' flight for life was accompanied by a lot of media attention showing many pictures of youth hiding under rocks and shocking statements of those who succeeded escaping from the island. Breivik confessed and justified his attacks with the motivation to protect Norway against the Islam and 'cultural Marxism'.

Cases of terroristic attacks committed by right-oriented individuals and groups seem to become more common. Just recently, eight cases of murder of Turkish and Greek shopkeepers in Germany are solved. After the death of two males and the arrest of their female accomplice, the assassinations are found to have been right-wing motivated and more and more information on right-wing organizations, their participants and involvement in many crimes is revealed. In the German media, the term 'Right Terrorism' is established and viewers are faced with the danger of terrorism from and against their fellow citizens.

Indeed, terrorism from domestic civilians to achieve political goals is known to many countries. Historically, there are many groups as the IRA in Ireland, and the ETA in Spain fighting for political aims in their own country. Established in the 1970's in Germany, the

RAF, a radically left-wing group, was responsible for 34 murders, several bank robberies and explosive attacks on high-status politicians.

These attacks and killings make clear that terrorism may not only be religiously motivated and committed by radical Muslims. Many politically right-wing and left-wing oriented groups and individuals are known for their cruel attacks, giving reason to reconsider terrorism and its danger. Nobody knows whether the next terrorist seen on TV will be a turban-wearing, bearded man from Far East aiming to spread his religious and cultural beliefs and convictions, or the blond native guy from next door, disappointed of societal grievance or overburdened with personal circumstances he sees no escape from. Accordingly, one should try to estimate the risk of terrorism more realistically and to weaken possible prejudices, negative beliefs and avoidant behavior, factors having a negative impact on quality of life.

Terrorists use their attacks ‘psychologically’ as a means to achieve higher aims, such as having an influence on policies or spreading cultural or religious beliefs. In order to accomplish these goals, terrorists spread fear among the general public and politically responsible persons, thereby trying to gain control over them to impact or even direct their decisions.

In addition to a political association, there is also an affective one. Terrorists’ attacks have detrimental effects on directly affected individuals, especially because random people are victimized due to being in the wrong place at the wrong time. Also, next to the direct effects terrorism can have on involved parties and their families, even more distant individuals feel threatened by terrorism and experience fear. According to Slovic (2002, p.425), “terrorism is a new species of trouble”. A common quality of terrorism is its capability to provoke immense fear, despite the fact that the actual probability of its occurrence is quite low.

The range of impacts of terrorism goes far beyond causing physical harm or injury and the destruction of buildings and property (Comer, Furr, Beidas, Weiner & Kendall, 2008).

First of all, terrorism has the potential to negatively impact mental health. According to Comer et al. (2008, p. 568), research provides evidence that “contact with terrorism is associated with psychological distress, traumatic stress symptoms, and posttraumatic stress disorder (PTSD)”. Following the 9/11 attacks, psychological distress in terms of anxiety, fear, depression and insomnia is more likely experienced by Americans with a heightened perceived personal threat of terrorism (Huddy, Khatib & Capelos, 2002). A survey study conducted by Blendon & Benson (2001) found that 40% to 50% of US adults still feared for their safety in the months after 9/11.

In addition to these mental health impacts, there are a number of negative behavioral responses. One such response is the avoidance of certain places or modes of transportation, generally referred to as avoidance behavior. Conformingly, it was found that Americans with increased perceived personal risk perception of terrorism refused to travel overseas and to use public transport (Huddy, Feldman, Capelos & Provost, 2002). The 9/11 attacks had indirect impacts on Canada, more specifically, destroying effects on the Canadian airline industry were documented (Fiorino, 2001). Another survey collected data during the three months following 9/11 and revealed 10% of their respondents to report voluntary alterations concerning travel plans, avoidance of crowded places and stocking of goods (The Gallup Organization, 2005). This survey also found that 40% of their respondents opened their mail more cautiously. Overall, more than a third indicated changing or planning to change their behavior as a result of the 9/11 attacks. This precautionary behavior was also found in Americans with a heightened personal risk perception of terrorism (Huddy et al., 2002).

Moreover, heightened perceived risk of crime significantly predicts the purchase of a weapon (Smith & Uchida, 1988), and one in the ten people purchase a weapon as a behavioral response to terrorism (The Gallup Organization, 2005).

Nevertheless, there are also some behavioral responses to terrorism that can generally be seen as more favorable. The Gallup survey (2005) found that about a third of their respondents reported engagement in information seeking about bioterrorism, which is proactive as those who seek information do not deny the risk. Another study found that Americans who perceive themselves to be personally at heightened risk spent more time with their families as a response to the attacks (Huddy et al., 2002).

All the above mentioned behavioral responses as well as those referring to mental health resulting from fear of terrorism can also lead to negative economic impacts. As people avoid places and public transport, air travel and tourism are reduced (Bleich, Gelkopf, & Solomon, 2003). Besides, people suffering from psychological distress as depression or anxiety are not able to function normally in their daily duties and at work. An increase in the number of people suffering from such distress also impacts health care, more professionals are needed and costs for the public health sector are rising.

Additionally, fear of terrorism can have an impact on political attitudes and decisions. Public support for antiterrorism policies curtailing on civil liberties illustrates the political impact of terrorism (Huddy, Feldman, Taber, & Lahav, 2005). The 9/11 attacks also had an

enormous impact on countries not directly involved, influencing for example Canada's involvement in the war on terror (Harumi & Lee, 2005).

1.3. Terrorism in the Netherlands

In the Netherlands, there were no such attacks as those from 9/11. Nevertheless, the train bombing from Madrid and London brought international terrorism to Europe and closer to the Dutch population. Finally, the assassination of the Dutch and Islam-criticizing author and movie director Theo van Gogh by an Islamic fundamentalist made the Netherlands part of the world targeted at by terrorism. In addition, Dutch military forces are present in Afghanistan and Iraq, thereby potentially attracting attention at the Netherlands as target.

According to Rosenthal et al. (2006, p. 61), "there is no reason to put the Netherlands at the bottom of the list of threatened countries". For some considerable time, Dutch government estimated the risk of a terrorists attack as substantial (Rosenthal et al. 2006). As the authors further state, the Dutch General Information and Security Service (AIVD) warns about plans and attacks executed by young, radicalized Muslims, so called 'home-made terrorists' and assumes that Dutch targets would rather be prominent persons instead of so called 'soft targets', thus innocent people, hit by catastrophic attacks.

Recently, the 'Nationaal Coördinator Terrorismedebestrijding' (NCTb) published a progress report concerning the fight against terrorism. One part of this report is dedicated to an illustration of the actual threat level in the Netherlands which is based on a number of aspects. According to NCTb (2011), the threat level is limited but the possibility of targeting the Netherlands cannot be ruled out. Firstly, the Netherlands are still seen as a legitimate target by Jihadists. Besides, an expansion of the national debate on the Islam as well as the involvement in international military missions can further inflame conflicts and draw terrorist's attention to the Netherlands. Nevertheless, it is concluded that the threat deriving from Jihad networks is quite small, which may be due to the unchanged high opposition to violent radicalism, extremism and terrorism according to NCTb (2011).

Additionally, societal and political debates on possible failure of the integration of immigrants in the Netherlands, as well as in Germany and France might have an impact on strengthening prejudices and intolerance against the 'stranger' and in intensifying the gap between the culturally and religiously different parts of society.

1.4. Impact of the media

Few have experienced terrorism at first hand. Most people know terrorism only by second-hand accounts framed by media reports. According to Comer et al. (2008, p.568) “technological advances and new trends in mass media provide a stage unlike any in history, a stage from which terrorist acts and threats can reach a truly wide audience”. As broadcasting corporations and print media try to have respectively high audience ratings and high circulation, they often tend to exaggerate and show emotionally laden pictures to their audience. Moreover, the amount of content referring to terrorism from Islamic extremists is disproportionate to its actual occurrence. Since 9/11, TV viewers are yearly faced with horrible pictures of the attacks and emotional interviews of survivors and victims, losing family members and friends.

According to Altheide (2002), the media present terrorism in ways similar to crime news and disproportionately underline possibilities of becoming a direct victim of terrorism instead of realistic probabilities. Consequently, a huge amount of TV exposure is associated with developing distorted perceptions of the world wherein life is more dangerous and threatening than it actually is (Comer et al., 2008).

The youth, a group spending much time on media, is also exposed to a huge amount of media coverage of terrorism-related news (Hoven, Duarte, Lucas, Wu, Mandell, Goodwin et al., 2005). Especially for children and youth, horrific news representations of rare terrorist attacks can have detrimental effects on threat perception and perceived vulnerability. As Comer et al. (2008, p. 568) summarize, “media-based contact with terrorism has great effects upon children’s emotional functioning, for example, PTSD symptoms, behavioral withdrawal, anxiety, and sleep problems”.

Through the ongoing coverage of actual attacks in real time, through subsequent news reviewing the consequences of attacks as well as through continually raising the prospect of future terrorist attacks, the media close the distance between viewers and actual directly affected victims, thereby increasing identification with them (Johnson, 1996). Consequently, it is not surprising that the rapid circulation of such intimidating portrayals of terror, war and violence have the power to raise anxiety reactions and other negative consequences.

1.5. Theoretical background

Human perceptions of a multitude of risks are studied in the domain of risk psychology. Next to the degree of the perceived risk, it is interesting to investigate where these risk perceptions are based upon. Through enlightening the determinants of risk perception, knowledge is

derived on how risk perceptions can be reduced or heightened, which is crucial for the development of theories explaining different processes as well as for interventions.

Research reveals that people do not always estimate the risk of occurrences rationally. Rather, emotions and biases influence risk perceptions and consequences of threats. Regardless of whether the perceived threat is estimated realistically or not, threat perceptions enormously influence emotions, feelings and behavior, especially when fear comes into play. There are a number of theories delineating human thoughts and cognitive processes. Psychological theories of behavioral change as the Theory of Planned Behavior (TPB; Ajzen, 1985), Protection-Motivation Theory (PMT; Rogers, 1975) and the Extended Parallel Process Model (EPPM; Witte, 2002) are applied in many studies and interventions to explain and predict behavior across different domains. When faced with threat or fear appeals, these theories explain why people engage in changes of behavior.

Protection Motivation Theory

Initially developed to investigate fear appeals and how people cope with them, PMT explains adaptive coping with a (health) threat based on two cognitive appraisal processes, the threat and the coping appraisal, which include the following four cognitive factors:

Threat appraisal

- perceived severity of a threatened event
- perceived probability or vulnerability

Coping appraisal

- perceived efficacy of the recommended preventive behavior (response efficacy)
- self-efficacy

The intention to engage in protective or maladaptive behavior relies on the outcomes of the two appraisal processes.

During the first process, threat appraisal, the perceived severity and perceived vulnerability as well as the rewards of an unhealthy behavior or harming event are assessed, thereby evaluating the threat's seriousness. Severity refers to the harm resulting from the unhealthy behavior or threat, whereas vulnerability covers the probability of the potential harm. Moreover, rewards, referring to positive aspects of starting or persisting in the unhealthy behavior, are part of the threat appraisal. Apparently, higher threat appraisals should lead to negative arousal and coping, thereby potentially worsening psychological symptomatology.

Secondly, perceived efficacy of the recommended preventive behavior (response-efficacy), perceived self-efficacy, and response costs are parts of the coping appraisal, referring to how one proactively responds to the particular situation. Whereas response efficacy is someone's expectancy that the preventive behavior can effectively remove the potential harm, self-efficacy refers to the beliefs in one's ability to successfully carry out the recommended behavior. Besides, response costs referring to the costs of the recommended behavior are of importance in the coping appraisal.

Combined together, the threat and coping appraisal processes result in the intention to engage in either adaptive or maladaptive responses. Maladaptive responses include those behaviors that lead to negative consequences and the absence of preventative behavior (e.g. avoidance of breast and skin screening), thereby increasing health risks. Adaptive responses are those diminishing or reducing health risks and related to protection.

Protection motivation elicits, directs and maintains protective health behavior (Boer & Seydel, 1996). PMT aims at explaining why people persist in unhealthy behavior or actually engage in protective behavior and is therefore applied in health-related issues and interventions.

Extended Parallel Process Model

The Extended Parallel Process Model (Witte, 2002) predicts which combination of the threat-appraisal factors and the coping-appraisal factors would lead to either adaptive or maladaptive behavior. According to EPPM, the process of threat and coping appraisal may result in no response, in fear control or in danger control.

First of all, the perceived susceptibility and perceived severity are assessed in the threat appraisal. If just one of these two threat-related estimates is low or even not existing, EPPM predicts that no response will be given. In turn, when the threat appraisal results in high estimates of susceptibility and severity, the coping appraisal takes place next.

In the coping appraisal, response efficacy and self-efficacy are evaluated. When estimates are low or not existing, the coping appraisal results in a fear control response which may be expressed by avoidance, denial or anger. When estimated as high, the efficacy beliefs are compared to the threat beliefs. When threat beliefs are higher than efficacy beliefs, EPPM predicts the maladaptive response of fear control as in the case when efficacy beliefs do not exist at all. If the perceived efficacy is higher than the threat beliefs, the adaptive response of danger control is assumed to take place by adopting the recommended preventive action to reduce the potential risk one is at.

Summed up, adaptive behavioral responses result from heightened threat perceptions, but only when efficacy-beliefs (self-efficacy and response-efficacy) are high. If these efficacy beliefs are low, people will rather deny the risk thereby controlling their fear.

Compared to each other, PMT and EPPM are quite similar. In both of the theories, the threat appraisal as well as the coping appraisal are crucial parts. Nevertheless, there is also a difference between them. Whereas PMT predicts protective behavioral changes as a result of strong coping beliefs when faced with threat beliefs, EPPM predicts not only danger control, referring to the motivation to engage in protective behavioral changes, but also fear control and no response as a result of varying degrees of threat and coping beliefs.

In this study, it will be investigated whether the correlates of fear of terrorism as identified from the studies reviewed are tapped by the threat and coping beliefs as assumed in PMT and EPPM. Accordingly, high threat beliefs should result in more fear, and stronger coping beliefs should reduce fear and other negative responses to terrorism.

2. Method

2.1. Research design

In order to answer the question how fear as a result of terrorism can be best reduced, the puzzle surrounding this phenomenon has to be clarified. Therefore, scientific literature investigating determinants of and variables contributing to changes in fear of terrorism will be collected and a review conducted on the information found.

In a literature review, the current state of scientific knowledge of a particular field of research is analyzed by means of selecting and evaluating available articles related to the particular topic. The results of a review can be useful in the guidance and development of future research and practical interventions.

In this review, the articles will be summarized with a focus on their results. Additionally, variables influencing fear of terrorism will be synthesized from the articles and listed. To allow replicability, the search procedure will be described precisely.

2.2. Search procedure & inclusion criteria

In general, information and knowledge is gathered in a multitude of sources, such as books, conference paper and scientific articles. For the purpose of this study, it was decided to select articles referring to fear of terrorism published in scientific online journals. The reason therefore is that the huge amount of digitally available articles is easy to access. The database used is PsycINFO, where knowledge from and for psychologists is gathered.

As the research question asks which variables have an influence on fear of terrorism, the concepts 'terrorism' and 'fear' are determined as search terms. From Thesaurus, 'anxiety' is proposed as another term for fear. Because of tapping the overall topic at hand, 'risk perception' is also used.

To be included into the pool of articles to be reviewed, the articles have to meet some criteria. First of all, the studies have to be peer-reviewed. Peer-reviewed articles are rated by scholars from the field to judge the relevance and appropriateness for the given domain and to the journal, thereby ensuring a higher degree of quality.

As terrorism is active in most minds since the 9/11 attacks, a point in time at which many studies began investigating the psychological consequences of terrorism, the second criterion addresses the time window of the information searched which was limited from the year 2000 to 2011. Besides, the articles have to be published in English and a linked full-text should be available.

Most importantly, empirical studies were included only. Thus, experimental studies and surveys were included, whereas descriptive accounts, conference papers and anecdotes were excluded from the pool.

Consequently, three search procedures are executed in which terrorism is entered in combination with one of the other three terms.

The first search using terrorism and fear as search terms resulted in 438 articles. Secondly, terrorism combined with anxiety revealed 653 articles. Finally, another 67 articles were found using terrorism and risk perception.

After digitally excluding non-peer reviewed articles as well as those without a linked full-text, 117 articles remained. The abstracts of these articles are read and the inclusion criteria applied. After reading the abstracts, 101 inappropriate articles were excluded. The remaining sixteen articles are downloaded in order to further analyze them.

2.3. Data extraction

With the aim of extracting all important information, the articles were read conscientiously, with a special focus on the methodology and the outcomes of the studies. During reading, all relevant information concerning objectives, participating samples, the variables assessed, as well as results, strengths and limitations of the studies were extracted and filled into a matrix which can be found in the appendix.

From the result sections of the studies, the variables correlating with fear are synthesized and listed. This collection of correlates is then compared to the threat and coping belief variables as proposed by PMT and EPPM to examine the theories' applicability to fear of terrorism. Additionally, summarizing overviews of each article are written and presented in the result section, organized into their adding evidence of threat or coping beliefs.

3. Results

According to PMT, behavioral intentions are based on two cognitive appraisal processes during which four cognitive factors are evaluated.

In the threat appraisal, the perceived severity of a threatened event and its perceived probability are assessed. Severity refers to the harm resulting from the unhealthy behavior or threat, whereas probability covers someone's vulnerability to the potential harm.

The coping appraisal, referring to how one responds to the threatening event, consists of an evaluation of perceived efficacy of the recommended preventive behavior (response efficacy) and self-efficacy. Whereas self-efficacy refers to the beliefs in one's ability to successfully accomplish the recommended behavior, response efficacy is the belief that the preventive behavior can effectively remove or reduce the potential harm. The outcomes of these two appraisal processes result in a behavioral intention.

Some of the articles reviewed identified the variables from PMT and EPPM, and strongly related concepts known from risk psychology as important correlates of fear of terrorism. It has to be noted that different terms are used to reflect strongly similar concepts in scientific practice.

More precise information on the samples, their characteristics and where the studies took place can be obtained in the appendix which contains a table with all important information of the studies.

3.1. Threat appraisal

The following articles are supportive of the threat appraisal as described in PMT and EPPM. They evidence that fear is a result of terrorism or that no perceived threat leads to no fear, which is in strong accordance with the assumption EPPM has when threat beliefs are low. Some of the articles even point out to other consequences of terrorism such as avoidance behavior, information-seeking, feelings towards the enemy and alcohol consumption.

Terrorism-Related Fear and Avoidance Behavior in a Multiethnic Urban Population.

Eisenman & Glik, 2009.

This survey study investigates the influence of the characteristics of a population on its risk perception on a population-level, worry about terrorism and avoidance behavior.

The results reveal that status and socio-demographic factors are independently related to increases in worry, avoidance behavior and risk perception and that some populations are more vulnerable than others. Non-White individuals, immigrants and those suffering from probable serious mental illness (PSMI) are significantly more likely to overestimate the Home-Security-Alert-System (HSAS) level, which is used as a measure to assess the risk perception on a population-level. Surprisingly and against the general pattern found in this study, Korean Americans reported less worry than Whites. The vulnerable groups share some characteristics; they are more likely to experience fear and worry of terrorism and to engage in avoidance behavior as a result of their fear. These findings are in accordance with PMT and EPPM, higher threat results in more avoidance behavior, accordingly, efficacy beliefs must have been low.

Some limitations in the methodology of this study weaken its overall quality. First of all, one has to note that all the three variables, population-level risk perception, worry about terrorism and avoidance behavior, were assessed by means of single items. Secondly, a vague definition of the term disability allowed participants to self-include them into this group. Finally, the study has no power to identify causations due to its cross-sectional design.

A Multi-Method, Multi-Hazard Approach to Explore the Uniqueness of Terrorism Risk Perceptions and Worry.

Lee, Lemyre & Krewski, 2010.

This survey study examines and compares Canadians' perceptions of terrorism risk and four other hazards using a word-association technique and rating scales reflecting key cognitive dimensions of risk as perceived threat, perceived uncertainty, perceived control and

worry reactions. Worry is expected to be positively associated with perceived threat and perceived uncertainty, and negatively associated with perceived control.

The results reveal that compared to other hazards, terrorism is rated lower on perceived threat and perceived controllability, and higher on perceived uncertainty. Significant correlations between the risk dimensions are also found; higher perceived threat is associated with more worry and perceived uncertainty. Increased perceived uncertainty is related to more worry. Surprisingly, higher perceived control is associated with more worry and increased threat perception.

Content analysis of the word association technique shows that terrorism generates the widest range of themes. A fourth of respondents refer to health risks by an attack, nearly a fifth mention different types of terrorism and weapons used in attacks. Terrorism is more likely associated with sociopolitical factors and less likely with individual behavior. Moreover, only terrorism is related to management issues more often than to individual behavior.

Moreover, correlations between the cognitive dimensions of risk and socio-demographic variables are found. Women report more worry about most hazards and higher threat perceptions as well as less perceived control and perceived uncertainty. Higher educational attainment is related to lower threat perceptions and less worry about terrorism.

Effects of Fear & Anger on perceived Risk of Terrorism: A National Field Experiment.
Lerner, Gonzalez, Small & Fischhoff, 2003.

This experimental study tests the assumptions of Appraisal-Tendency Theory with a focus on age and gender and assesses risk perception, policy preferences and self-reported emotions. According to the authors, Appraisal-tendency theory states that emotions arise from and also elicit cognitive appraisals. Accordingly, fear emerges from and evokes appraisals of uncertainty and control beliefs.

The results of this study reveal strongly similar patterns in teens and adults. Emotion primes, targeting at fear and anger, success in increasing the target emotion. From the self-reported emotions it is further found that anger is the dominant emotion across conditions. Nevertheless, women report less anger and more fear, compared to men. Besides, the experimental priming emotions trigger global effects on risk perceptions. Gender differences are identified, too. Compared to men, women report higher risk for the US, themselves and the average American.

Additionally, fear is found to be associated with higher risk perception. As increases in risk perception correspond to increases in threat, these findings are supportive of PMT and EPPM. In turn, anger is related to lower levels of risk perception. The anger condition is additionally found to support deporting policy. Also, naturally occurring emotions shortly after the attacks reliably predicted risk estimates for diverse events 6 to 10 weeks later.

Anxiety and vengeance have opposite correlations with risk perceptions. Higher levels of anxiety predict higher risk estimates, again tapping the concept of threat beliefs. Contrary, greater desire for vengeance predicts lower risk estimates.

Gender Differences in Fear of Terrorism.

Nellis, 2009.

This survey study investigates gender differences in coping with terrorism related information by measuring behavioral responses to fear.

Fear of terrorism is assessed as a dependent variable asking respondents how worried they are of becoming a victim of a terrorist attack. Avoidance behavior and information-seeking are added as behavioral measures. Besides, perceived risk of terrorism, media exposure, indirect victimization and political conservatism serve as independent variables next to the socio-demographic information commonly used.

Along the assumption that high threat beliefs and fear are related, the study supports PMT and EPPM. First of all, the study reveals women to report significantly higher levels of worry about terrorism and perceived risk as well as more avoidance behavior, media exposure and information seeking from outside sources. For women, higher fear of terrorism is related to increases in risk perception as well as to younger age and minority group membership. Against expectations, media exposure to TV news is not significantly related to increases in fear. Increases in both of the behavioral measures, avoidance behavior and information seeking, are associated with higher risk perception, more media exposure, younger age and minority group membership.

For men, higher fear of terrorism is related to increases in perceived risk, indirect victimization and minority status. More engagement in avoidance behavior is related to higher perceived risk, indirect victimization and media exposure to TV news and more often reported by younger men, minority group members and those having a lower income. Information seeking is associated with heightened perceived risk of terrorism, indirect victimization, media exposure, political conservatism, minority group membership and age.

Overall, avoidance behavior is most likely reported by those perceiving a higher risk, watching more TV news and being more politically conservative, whereas information seeking is only significantly predicted by heightened perceived risk. Perceived risk is found to be a significant predictor in both models, of terrorism fear and of avoidance behavior.

The Drama of Media Coverage of Terrorism: Emotional and Attitudinal Impacts in the Audience.

Shoshani & Slone, 2008.

This laboratory study aims at shedding light on the effects of exposure to TV news of terrorism on viewers' emotional and attitudinal responses. The impact of participation in either a terrorism or non-terrorism media condition on the following emotional and attitudinal measures is examined; state anxiety, state anger, stereotype attributions, perceptions of enemy hostility, trust in the enemy, empathy towards the enemy, and willingness to negotiate with the enemy.

The results reveal a significant effect of the exposure manipulation on all dependent measures; the terrorism clip has an impact on anxiety, anger and the other variables mentioned above. In comparison to the non-terrorism condition, the participants of the terrorism condition report more state anxiety and state anger as well as more stereotype attributes and perceptions of enemy hostility. Moreover, trust in the enemy, empathy towards the enemy, and willingness to negotiate with the enemy are lower after exposure to the terrorism media clip.

Changes in emotional and attitudinal measures are expected to be correlated. Indeed, increases of the emotional measures, state anxiety and state anger, are moderately associated with higher levels of the attitudinal measures, stereotype attributions and perceptions of enemy hostility as well as lower levels of trust towards the enemy, empathy towards the enemy and willingness to negotiate.

Summed up, state anxiety and state anger correlated positively with changes in negative attitudes and negatively with changes in positive attitudes.

Confrontational and Preventative Policy Responses to Terrorism: Anger wants a Fight and Fear wants "them" to go away.

Skitka, Bauman, Aramovich & Morgan, 2006.

This study's objectives are to examine differences in anger and fear, support for war and deportation in reaction to the 9/11 terrorist attacks thereby extending intergroup emotion

theory (Smith, 1993) and appraisal tendency theories. Intergroup emotion theory assumes that appraisals of intergroup conflict lead to discrete reactions of anger and fear that in turn form their behavioral intentions toward out-groups. Accordingly, whereas appraisals of in-group strength would lead people to respond with anger and confrontation, those holding appraisals of in-group weakness would respond with fear and avoidance.

The main results of this study reveal that anger is more predictive of support for war than fear, whereas fear is a stronger predictor of support for deportation than anger. Moreover, right-wing authoritarianism (RWA) has direct and indirect effects on support for war and support of deportation. Whereas the direct and indirect effects of RWA on support for war were partially mediated through anger (not fear), the indirect effect of RWA on support for deportation was mediated through fear (not anger).

Examination of profile information together with the other measures assessed in this study reveal that women score higher on fear than males. Further, higher age is associated with more fear, anger and political conservatism in response to the attacks as well as less support for deportation. Education and income are other factors of importance. Lower levels of education are found to correlate with higher levels of fear, anger, RWA, support for war and deportation. Higher levels of fear, RWA and support for war are also associated with lower levels of income. Nevertheless, income doesn't affect anger and support for deportation.

Gender and Fear of Terrorism in Turkey.

Wilcox, Ozer, Gunbeyi & Gundogdu, 2009.

The survey study at hand is conducted to examine possible gender differences in fear of terrorism and to investigate whether these gender differences are mediated by individual and ecological variables as media exposure, pro-terrorism associations, attitudes, demographic and contextual characteristics. Participants of this study are approximately 17000 students from a terrorist-plagued area in Turkey.

The results reveal that more women than men reported fear of terrorism, even after accounting for differences in the correlates media exposure, pro-terrorism associations, attributions about terrorism as well as demographic and contextual variables. Women also report higher levels of exposure to national TV and pro-terrorism associations and score higher on the individual/situational-attributions scale (reflecting conservatism).

Increases in fear are associated with more exposure to national TV and individual/situational attributions. In turn, decreases in fear are related to more non-national TV exposure, pro-terrorism associations and 'external blaming' attributions, reflecting liberalism.

Some of these relations showed significant gender effects. Exposure to non-national TV has a stronger effect on the reduction of fear for men. For females, those scoring higher on liberalism are found to report less fear. For men and women, those reporting more fear score higher on conservatism.

Referring to the socio-demographic information, indigenous students report less fear than those from Western Turkey. More women than men were indigenous or from Western Turkey, whereas men originated more likely from Southeastern districts. Women report higher family income levels than males and the effects of income were found to be curvilinear. Although gender is found to be a predictor of fear of terrorism, it varies across schools, suggesting a dependence on context.

Macro-level Stressors, Terrorism, and Mental Health Outcomes: Broadening the Stress Paradigm.

Richman, Cloninger & Rospenda, 2008.

This longitudinal survey study examines the relation between negative beliefs and fears of terrorism and post-9/11 effects as distress and alcohol use. In the light of evidence indicating that such post-9/11 effects are more often reported by women than men, gender differences are investigated. Measures included in this study are terrorism related stressors, asking for negative beliefs and fears about the world, other people and one-self, and a mental health scale consisting of questions related to symptomatic distress and alcohol consumption.

The results reveal that terrorism has an impact on the perception of the world as being less safe and the government as being less effective. The terrorism related stressors are found to be predictive of all mental health measures, apart from somatization. Negative beliefs and fears are not significantly predictive of the quantity of alcohol consumed or binge drinking, and yet predict a significant increase in escapist motives for drinking.

The significant interaction between gender and terrorism-related negative beliefs and fears predicted drinking to intoxication. For men, an increase in terrorism-related negative beliefs predicts heightened inclination to drink to intoxication. For women, the effect of terrorism related stressors on the likelihood of drinking to intoxication is minimal.

In 2003, respondents still feared future terrorist attacks and believed that the government could not protect them. Two years later, these terrorism related stressors had negative effects on symptomatic distress and escapist motives for drinking among both, men and women as well as negative effects on drinking to intoxication among men. In sum, these results suggest that political terrorism is a macro-level stressor of major public health significance.

Terrorism, Distress, and Drinking Vulnerability and Protective Factors.

Richman, Rospenda & Cloninger, 2009.

This longitudinal survey study depicts protective and vulnerability moderators of terrorism related negative beliefs and fears as they influence mental health outcomes. Mental health measures (depression, anxiety, hostility, and PTSD symptoms), information on alcohol consumption (quantity, escapist motives, binge drinking and drinking to intoxication), terrorism related stressors (negative beliefs and fears) and workplace stressors (sexual harassment, generalized workplace harassment, low decision latitude in one's job and social bonds) were assessed.

The results reveal some vulnerability and some protective factors. First of all, it is noteworthy that nearly a fourth of the respondents report sexual harassment and more than 50% also report general workplace harassment in the last year. Having a look on the protective factors, two third of the respondents are married and nearly three fourth have children.

Moreover, the results reveal the moderating power of some variables. Both, men and women who experienced sexual harassment report higher levels of hostility and PTSD. Further, having terrorism related negative belief in combination with the experience of general workplace harassment results in increased levels of PTSD. For men, hostile feeling arise from the combination of terrorism related negative beliefs and general workplace harassment. Negative beliefs and fears and low decision making latitude together result in increased levels of PTSD, and for men, also in heightened levels of depression.

Further, the study identifies some protective factors which moderate the effects of the terrorism related stressors. In general, negative beliefs and fears are associated with increases in binge drinking for unmarried men and women. For men, being married reduces depression levels and drinking to intoxication in those holding negative beliefs and fears. Increases in hostility seem to be based on negative beliefs and fears in combination with low social support. Parenthood status also has an effect on mental health and alcohol consumption. Men holding negative beliefs and fears and having children report less binge drinking and lower levels of depression than women.

The next three articles are also supportive of PMT and EPPM but have a stronger focus on the impact of the media, which can be seen as the source and reinforcer of threat beliefs.

This experimental study examines the influence of televised news regarding risk of future terrorism on children's and mother's anxiety and threat perception. Participants are randomly allocated to one of three conditions; a) the experimental group of mothers that are trained in coping and media literacy and discussion-skills (CML), b) mothers trained in coping and media-literacy with no discussion-skills (CML-ND), and c) the control group, where mothers are told to discuss or behave as usual (DAU).

In all conditions, training consists of didactics, role-playing and testing to ensure that mothers are sufficiently prepared for their condition. In the CML condition, mothers are additionally instructed to use modeling, social reinforcement, psycho-education and Socratic probing strategies discussing the viewed news clip with their child. Further, mothers are taught to model confidence in their security, praise their child when offering coping statements and help challenge dysfunctional statements. Most importantly, mothers in this condition should not show their own fear and educate their children about the media and the lack of proportion. The CML-ND differs from the CML condition through absence of an explicit discussion about the televised news clip between mother and child. This condition allows investigating the impact of mothers' non-verbal behavior such as confidence, gestures and facial expressions. In the DAU condition, mothers receive no training. In turn, they are instructed to simply behave as they usually do at home. There are three moments of assessment; one prior to exposure to the terrorism news-clip (T1), one after viewing (T2), and the last after discussing the news clip (T3).

The results of this study reveal that exposure to terrorism-related news is related to threat perceptions and anxiety. First of all, levels of child state anxiety, as well as personal and societal child threat perception (PCTP, SCTP) increase after viewing the clip. In both of the CML conditions, child state anxiety increases from T1 to T2, and decreases at T3.

The effects on PCTP and SCTP vary across conditions. Prior to the news clip, no differences in both measures are found between the conditions. At T2, children in the DAU condition report higher PCTP and SCTP compared to both of the CML conditions. At T3, levels of PCTP decrease in all conditions while SCTP remain heightened in children from the DAU condition compared to both of the CML conditions between which no differences in threat perceptions are detected. Moreover, child age adds a significant contribution to the effect of condition on the news clip. Older children report higher levels of SCTP than younger ones. Adversely, child state anxiety is not significantly affected by age.

For mothers, similar patterns are found. In the DAU condition, higher levels of maternal state anxiety as well as personal and societal maternal threat perception (PMTP, SMTP) are reported after exposure to the news clip compared to both of the CML conditions. While there are no differences in SMTP prior to the news clip, DAU-mothers report higher SMTP at T3 although PMTP and maternal state anxiety decrease, comparable to the CML conditions.

In sum, the results of this study strengthen the benefits of training parents in empirically based strategies for addressing terrorism-related news with their children. The CML conditions help mothers and children to cope with the televised news. Training mothers in CML results in lower levels of threat perception and state anxiety following news exposure and a discussion period compared to an approach encouraging mothers to be themselves when reacting to the news (DAU).

No significant differences are found between the CML and CML-ND condition, indicating that the training is effective in helping to cope with the viewed content at hand even if no explicit discussion takes place and that the effect of the training is to a certain degree due to non-verbal, behavioral communication.

Evaluation of Preparatory Measures for Coping with Anxiety raised by Media Coverage of Terrorism.

Slone & Shoshani, 2006.

This experimental study examines the effects of terrorism media exposure as well as possibilities for preparing viewers for this exposure. Post-exposure anxiety levels of groups exposed to either terrorism or non-terrorism media excerpts are compared and the effects of two different primary interventions, cognitive or emotional, on these post-exposure anxiety levels investigated.

The results reveal a significant effect of type of exposure on post-test levels of both explicit and projective anxiety. Both anxiety measures are found to be higher in the terrorism condition compared to the non-terrorism condition.

Secondly, the efficacy of the two interventions on the moderation of anxiety in the terrorism condition is confirmed. Participants in the no-intervention condition express significantly higher post-test anxiety levels compared to the two intervention conditions. However, whereas the cognitive intervention is effective in moderating anxiety on both measures, the emotional intervention is only effective on explicit anxiety.

No differences in post-test anxiety levels across the three intervention conditions in the non-terrorism groups are expected. Indeed, post-test anxiety levels in the emotional

intervention group are higher than in the other two intervention conditions. Thus, although moderating anxiety for the terrorism group, the emotional intervention results in higher post-test anxiety levels for the non-terrorism condition.

Additionally, significant interactions are detected between type of exposure and type of intervention on both anxiety measures. In the terrorism condition, no intervention leads to increased post-test explicit anxiety compared to the intervention conditions. Besides, higher projective anxiety levels are found in the terrorism-no intervention condition compared to the cognitive intervention but not to the emotional intervention.

Efficacy of Clinical Interventions for Indirect Exposure to Terrorism.

Shoshani & Slone, 2008.

This experimental survey study conducts an exploratory investigation on constructing preparatory interventions and tests their efficacy in moderating commonly found emotional and attitudinal effects of media exposure to terrorism. Respondents are randomly assigned to a terrorism or non-terrorism media clip and one of three preparatory intervention sessions; cognitive, emotional, or a control manipulation. Using a repeated measures design, changes in emotional and attitudinal variables are measured in all conditions.

Confirming the first hypothesis, the results reveal a significant effect of type of exposure on posttest levels of state anxiety, state anger, stereotype attributions towards Palestinians, trust in the enemy, empathy towards the enemy as well as on willingness to negotiate with the enemy and on perceptions of enemy hostility. In the terrorism condition, higher levels of anxiety, anger, stereotype attributions and enemy hostility are found. Correspondingly, levels of trust, empathy and willingness to negotiate are lower in this condition.

Furthermore, a significant interaction between type of exposure and type of intervention is found on state anxiety, trust in the enemy, willingness to negotiate and perceptions of enemy hostility, whereas the results for state anger, stereotype attributions and empathy towards the enemy were not significant. In the terrorism condition, both intervention conditions, between which no significant differences are found, are effective in moderating state anxiety, perceptions of enemy hostility increases, trust towards the enemy and willingness to negotiate. The terrorism-control condition reports significantly higher levels of state anxiety and enemy hostility as well as lower levels of trust towards the enemy and willingness to negotiate.

In the non-terrorism condition, there are no significant differences between the post-test measures of the cognitive and emotional intervention. Although affecting some the measures,

the clinical interventions fail moderating state anger, empathy towards the enemy and stereotype attributions.

Public Perception of Terrorism Threats and Related Information Sources in Canada: Implications for the Management of Terrorism Risks.

Lemyre, Turner, Lee & Krewski, 2006.

According to the assumptions of EPPM, no response can be expected when threat beliefs are low. This study aims at improving understanding of Canadians' perceptions of a broad range of terrorism-related issues as a necessary step in identifying ways to effectively implement initiatives aimed at the management of terrorism risks in the Canadian context. Next to other variables, respondents are asked to indicate their perceived threat, worry about terrorism, perceived likelihood of carrying out terrorism in Canada and sources of information.

The results reveal that terrorism poses a low to moderate perceived threat to Canadians and an even lower perceived threat to themselves as individuals, and that there is little worry about terrorism in Canada. Threat perceptions vary by gender, age group, educational attainment, and place of birth. Women and respondents with higher educational attainment report more worry and perceived threat; older respondents also report more perceived threat.

Referring to the perceptions of specific types of terrorism scenarios, respondents most frequently consider the possibility of computer viruses, water contamination, agricultural terrorism, and hostage situations, and least often the possibility of a dirty bomb, nuclear blast, chemical/gas attack, or smallpox. These perceptions vary by gender, age group, level of education, and urban vs. rural residence.

With regard to the perceptions of specific effects of terrorism, respondents most often mention a lowered sense of security and safety, economic losses, and the loss of a loved one. They think least frequently about loss of employment, poorer mental health status, and increased political involvement. Again, these perceptions vary by gender, age group, level of educational attainment, and residence.

The sources of information about terrorism most often used are the Canadian media, first responders, and health professionals, whereas elected politicians and government officials are reported least often. Distinguishing between media sources, television ranks highest, followed by newspapers/magazines, radio, the internet, and public information brochures. Canadian media is reported most often, followed by the American and European media.

3.2. Coping appraisal

In general, coping refers to how an individual deals with a given situation. A strongly related concept is control belief referring to the degree to which one has control over a situation and belief in one's own coping abilities.

Indeed, evidence is found for a relation between coping and control beliefs and fear of terrorism and other emotional and behavioral responses to the risk of terrorism. As with the concepts from threat appraisal, the terms used to assess coping and control beliefs are strongly related to each other but not identical.

A Social-Cognitive Perspective of Terrorism Risk Perception and Individual Response in Canada.

Lee & Lemyre, 2009.

This study evaluates a social-cognitive model of individual response to terrorism using data collected as part of a national survey on perceived chemical, biological, radiological, nuclear, and explosives (CBRNE) terrorism threat and preparedness. In addition, the study investigates whether worry, as an affective response, mediates the relationships of cognitive and social-contextual factors with various behavioral responses to terrorism.

Perceptions of terrorism are assessed on the cognitive factors perceived probability (assessing perceived likelihood & perceived uncertainty), perceived seriousness, perceived personal impact and perceived coping efficacy. Moreover, social-contextual factors as well as affective and behavioral responses to terrorism are investigated.

Analysis of the data reveals a multitude of outcomes. First of all, worry about terrorism is significantly predicted by the cognitive and social-cognitive factors. More worry is reported by those scoring higher on perceived probability and perceived personal impact, and those scoring lower on perceived seriousness and perceived coping efficacy. These findings are in accordance with PMT and EPPM; as worry as a maladaptive response is based on high threat beliefs and low coping beliefs.

Secondly, the (social-) cognitive factors predicted behavioral responses to terrorism. Increases in avoidance behavior are associated with higher perceived probability, perceived personal impact and perceived frontline-preparedness. More information seeking is related to less perceived seriousness and higher levels of perceived probability, perceived personal impact and perceived coping-efficacy. Assuming information seeking to be an adaptive response, evidence for PMT and EPPM would be found; proactive behavior is based on

moderate to high threat and high coping beliefs. Individual preparedness is related to perceived probability, perceived coping-efficacy and perceived frontline-preparedness.

Furthermore, cognitive and social-cognitive factors significantly predict worry about terrorism. Worry is related to avoidance behavior, information-seeking and individual preparedness. Additionally, a positive correlation between worry and perceived frontline-preparedness is detected. Summed up, worry about terrorism is related to cognitive evaluations of terrorism on various dimensions and there is some evidence of a relationship between worry and social-cognitive factors. An examination of its relationship with perceptions of institutional preparedness (perceived governmental preparedness & perceived frontline-preparedness) suggests that these may play a role by establishing specific behavioral responses as a social norm.

All cognitive factors significantly predict worry about terrorism. Those who report higher perceived probability and perceived personal impact worry more about terrorism. Those reporting higher perceived seriousness as well as stronger perceived coping-efficacy worry less about terrorism, thereby confirming the assumptions of PMT and EPPM.

Behavioral responses to terrorism appear to be associated with many of the same factors as worry about terrorism. Perceived probability and perceived personal impact of terrorism are associated with increased engagement in most, if not all, behavioral responses. Perceived seriousness of terrorism is associated with decreased information-seeking. Perceived coping-efficacy is related to individual preparedness and information-seeking, not to avoidance behavior. This finding supports the protective function of control-related beliefs, which foster health protective and preventive behavior. The social-cognitive factor perceived frontline-preparedness correlates positively with individual preparedness and avoidance behavior.

Finally, adding worry into the equations predicting behavioral responses to terrorism significantly improves the prediction of each type of response, suggesting that worry contributes independently from cognitive and social-cognitive factors to these responses.

Comparing British and Australian Fear of Terrorism pre and post the Iraqi War.

Todd, Wilson & Casey, 2005.

This survey study examines whether fear of terrorism is influenced by self-efficacy, locus of control, media consumption, belief in a just world and war opinions. Analysis on data of British and Australian participants reveals the following results.

Firstly, the authors detect a significant interaction between nationality and time. At war onset, British participants were more fearful than Australians. Nevertheless, British fear decreased post-war while Australian participants' level of fear remained unchanged.

Another significant interaction is found between nationality and self-efficacy on fear of terrorism. In accordance with EPPM, British participants scoring high on self-efficacy report lower levels of fear, whereas low self-efficacy Britons experience higher levels of fear. Among the Australian participants, there are no significant differences in self-efficacy.

Additionally, correlations between several variables are identified. In the British sample, those reporting more fear score higher on media consumption and lower on war opinions. Internal locus of control correlates positively with external locus of control and fear of terrorism and negatively with self-efficacy.

In the Australian sample, internal locus of control correlates negatively with war opinions. Besides, self-efficacy and media consumption are significant predictors of fear of terrorism at war-onset.

Terror Management Theory and Identity: The Effects of the 9/11 Terrorist Attacks on Anxiety and Identity Change.

Dunkel, 2009.

In this study, terror management theory (TMT) is applied to test the hypothesis that those who have a well-formed identity express more fear when faced with the prospect of their own death. The second aim is to investigate possible effects of the 9/11 terrorist attacks on identity, and the role identity plays in coping with the attacks.

The variables assessed in this study are measured at three points of time (T1, T2, and T3). At T1, identity commitment, identity exploration and global self-esteem are assessed. At T2, participants are randomly assigned to one of two conditions, a) the mortality salience in which they have to read the Kubler-Ross Theory on the stages of dealing with one's death or b) the non-mortality salience condition in which a description of the central nervous system has to be read. At this point, identity commitment and exploration are measured, again.

At T3, addressing the second aim of this study, the scores in global self-esteem, identity exploration and identity commitment from T1 are used. Participants are assigned to either the experimental or the control condition. The experimental condition is designed to follow the mortality salience procedure and consists of a vignette about the terrorist attacks followed by a distractor task. The control condition receives the same procedure except that an unrelated topic, basketball, is chosen.

The results of the first part of the study reveal two significant main effects, one of identity commitment and one of identity exploration; the high commitment group as assessed at T1 has higher commitment scores at T2, too. The same was true for those with high exploration scores, who also score higher at T2 compared to the low-exploration groups. Nevertheless, there are significant differences between the high exploration groups. In the mortality salience condition, the high exploring group has higher exploring scores than high explorers in the non-mortality condition, supporting the mortality salience hypothesis. Further, no significant differences between the mortality and non-mortality salience condition are found on scores of identity commitment, a finding against initial predictions. The effect of the mortality salience approach is not moderated by self-esteem.

The study's second part reveals significant effects on anxiety scores from an interaction between exploration and reading condition.

In the terrorism salience condition, those with high exploration scores express more anxiety compared to high explorers in the control condition as well as low explorers in the terrorism condition. In the control reading condition, those scoring low on exploration report more anxiety than low explorers in the terrorism salience condition. Self-esteem is found to be negatively associated with anxiety. Assuming that self-esteem is similar to self-efficacy, this would be supportive of PMT and EPPM. Moreover, a main effect of exploration is found, those exploring more at T1 also have higher identity exploration scores at T3.

Finally, a significant interaction is detected between exploration and reading condition on commitment. In the terrorism condition, those having high exploration scores express higher levels of identity commitment than those in the control condition. In the control condition, high explorers score lower on commitment than those with low exploration scores. Self-esteem is negatively associated to identity commitment.

In line with expectations, those with high identity exploring scores, as assessed at T1, express more anxiety in the terrorism salience condition. Surprisingly, low explorers identified at T1 express more anxiety in the control condition.

4. Conclusion

From the studies reviewed, many concepts referring to threat beliefs as well as to efficacy beliefs are identified as related to fear of terrorism. The accumulated results may be interpreted in the way that high threat beliefs lead to fear of terrorism and that coping beliefs reduce fear and other maladaptive responses. On first sight, these results are in accordance with the assumptions of PMT and EPPM. Indeed, one can say that, to a certain degree, both of the theories have the power to explain fear of terrorism as well as other adaptive or maladaptive responses to terrorism.

First of all, there are some studies which identified fear to be higher when threat beliefs are high. Hereby, concepts as risk perception, perceived probability, and perceived impact among others are interpreted as being strongly related to threat beliefs.

Adding evidence to the theories' threat belief assumptions, Lee et al. (2009) identify higher perceived probability and perceived personal impact to be associated with more worry about terrorism. Further, those with higher perceived probability report more individual preparedness (Lee et al., 2009), indicating the willingness to engage in appraisal of efficacy beliefs, which is in accordance with EPPM. Moreover, according to Eisenman et al. (2009), increased risk perception is associated to more worry and avoidance behavior which can be interpreted as maladaptive responses to the perceived threat of terrorism. Lerner et al. (2003) reveal higher risk perception to be associated with more fear and anxiety. As increases in risk perception correspond to increases in threat to a certain degree, these findings are supportive of PMT and EPPM. Adding further evidence, Nellis (2009) identifies heightened risk perceptions to be related to more fear, avoidance behavior and information seeking. For men, indirect victimization results in more fear, avoidance behavior, and information seeking (Nellis, 2009). Assuming that experiences of indirect victimization increase threat beliefs, these findings would also be supportive of EPPM. Also, Lee et al. (2010) identify perceived threat to be positively related to worry and perceived uncertainty. Accordingly, these finding are supportive of the threat belief assumptions of EPPM. Unfortunately, efficacy beliefs are not assessed in this study. According to the theory's assumptions, when high threat beliefs lead to fear and avoidance behavior, efficacy beliefs must be low.

Shoshani et al. (2008) find out that there are relations between the emotional measures, state anxiety and state anger, and attitudinal measures. Increases in emotional measures are accompanied by heightened negative attitudes, stereotype attributions and perceptions of enemy hostility, as well as to lower levels of trust towards the enemy, empathy towards the

enemy and willingness to negotiate. As there are two measurement moments in between which the experimental manipulation takes place, changes in emotional and attitudinal measures must be elicited by the manipulation in the terrorism condition. According to Comer et al. (2008), exposure to terrorism-related news is associated to increases in personal and societal threat perceptions and anxiety. These results point out to the impact terrorism media content has on viewer's cognitions, which will be further discussed later in this section.

Nevertheless, there is not only confirming evidence found for the threat belief assumptions. Strangely, lower perceived seriousness is associated to more worry about terrorism (Lee et al., 2009). The effect of perceived seriousness is surprising as one would expect lower seriousness of a possibly harming event to be related to decreases in threat beliefs rather than to increases, thus this finding would advocate against the threat belief assumptions of PMT and EPPM.

As some of the studies reviewed conclude, stronger efficacy and control beliefs are related to more adaptive behavioral response and decreases in fear of terrorism.

According to Lee & Lemyre (2009), higher perceived coping-efficacy is related to less worry as well as to more information seeking and individual preparedness. This is in accordance with the protective function of coping beliefs as assumed in PMT and EPPM. Adding further evidence to the importance of efficacy beliefs as assumed in PMT and EPPM, Todd et al. (2005) identify those scoring higher on self-efficacy to report less fear. According to Dunkel (2009), higher self-esteem is associated with less anxiety. Assuming that self-esteem is a concept related to self-efficacy, this would be supportive of the PMT and EPPM.

Internal locus of control, the degree to which one attributes control to oneself, is related to more fear and higher external locus of control, referring to the degree to which others have control about a given situation or threat (Todd et al., 2005). Strangely, stronger internal locus of control is associated to less self-efficacy. The association between internal locus of control and more fear as well as less self-efficacy may be due to very low perceived controllability of terrorism. If one thinks to be personally responsible for the control of a danger but sees no possibilities to reduce the threatening harm, coping beliefs are low and consequently, fear increases.

Unfortunately, only few of the studies assess efficacy and control beliefs and their impact on fear of terrorism. Also, some results cannot be interpreted clearly as their relations' direction is not defined. For example, increased perceived controllability was related to more worry and perceived threat (Lee et al., 2010). This would be in accordance with EPPM if

worry and perceived threat constitute to threat beliefs and perceived controllability reflects well developed efficacy beliefs. There is also another interpretation. Assuming worry to be a maladaptive response and control beliefs to reflect efficacy beliefs, this results would violate the coping belief assumptions of EPPM which predict more adaptive behavioral responses when efficacy or control beliefs are high.

To put it in a nutshell and to answer the research question, one can say that threat beliefs as well as efficacy beliefs as assumed in PMT and EPPM are identified as being related to increases and decreases in fear of terrorism, respectively. Accordingly, to reduce fear of terrorism threat beliefs have to be present at least to a moderate degree so that one engages in evaluating coping beliefs, which have to be strong in order to engage in protection motivation or danger control.

Nevertheless, there are a variety of other variables identified in the review as playing a role in the puzzle and threat and coping beliefs are tapped by more constructs than in the theory. It is of crucial importance to take these variables and their impact into consideration, otherwise, the whole picture would not be complete. The additional variables identified and their relation to fear of terrorism, as well as the role of the media and the government, and limitations will be further addressed in the discussion section.

5. Discussion

5.1. Implications for research

The above described conclusions referring to the theories' value in explaining fear of terrorism lead directly to the implications of this review study. PMT and EPPM don't tap all the variables found in the review, therefore, more research is needed to further enlighten and clarify the variables constituting to the fear of terrorism puzzle.

As PMT and EPPM and their assumptions are not in accordance with all the results identified in this study, their explanatory power is incomplete. Therefore, it should be investigated whether these theories have to be adjusted or expanded to be applicable to fear of terrorism. None of the studies reviewed mentions PMT or EPPM as theoretical or methodological foundation of it. Consequently, future research should examine the theories applicability to fear of terrorism explicitly by either assessing the threat and coping beliefs in a survey or manipulating them in an experimental design.

Some studies made use of other theories as Appraisal-Tendency, Intergroup-Emotion and Terror Management Theory. Again more scientific research is needed to investigate whether these or still other theories are powerful in explaining fear and other emotional, cognitive and behavioral responses to terrorism.

Possibly, other theories of behavioral change as the Theory of Planned Behavior (TPB; Ajzen, 1985) are effective in explaining fear of terrorism. According to TPB, attitudes towards a behavior, subjective norm, and perceived behavioral control together form the intention to engage in a given behavior. The control and efficacy beliefs identified in the studies reviewed would tap perceived behavioral control. Moreover, the finding that increased frontline-preparedness was related to more worry, avoidance behavior and individual preparedness (Lee & Lemyre, 2009) indicates that people rely on government and officials' behavior. This may be interpreted as subjective norm and would also be tapped by TPB. From the results of the review, no precise information was detected on attitudes towards a responsive behavior. Accordingly, it is worth to examine the applicability of TPB to fear of terrorism in future research.

As already mentioned, information seeking is related to fear of terrorism. Whether seeking information results from fear, constitutes to it, or both, cannot be stated precisely and has to be investigated in future research.

Overall, information seeking is a proactive behavior as those who seek information do not deny the risk but rather seek information in order to gain knowledge on the risk and possible preventive methods. Adding evidence, Lee et al. (2009) reveal higher perceived probability and personal impact to be related to more information seeking. Also, information seeking is related to less perceived seriousness (Lee et al., 2009), possibly giving an indication of the positive effects of seeking information. Unfortunately, sources of information and their framing of content differ substantially and have varying effects. Therefore, increased information seeking also has the potential to backfire and may result in more negative emotional and behavioral responses.

Evidence referring to the impact of terrorism related media exposure on fear of terrorism is not pointing into one direction exclusively. In general, most studies underline the more negative effect of media exposure on terrorism fear.

Whereas one study finds those reporting more media exposure to have more fear (Todd et al., 2005), another study identifies no significant relation between media exposure and fear of terrorism (Nellis, 2009). According to Wilcox et al. (2006), increases in fear are related to

more exposure to national (Turkish) TV and less non-national TV exposure. Shoshani et al. (2006) reveal exposure to terrorism media content to raise levels of explicit and projective anxiety. Further, terrorism related media exposure is related to more avoidance behavior and information seeking (Nellis, 2009), and to more anxiety, anger, stereotype attributions and enemy hostility, as well as less trust, empathy and willingness to negotiate with the enemy (Shoshani et al., 2008a; Shoshani et al., 2008b). These findings suggest that exposure to terrorism related media content doesn't heighten fear per se. Rather, it seems that different media sources have varying impacts on fear and other responses to terrorism. Consequently, it should be examined whether differences in framing, referring to the way one presents information, explain the varying effects found in the studies. Media psychology may contribute to this question by examining the effects of diverse framing methods on emotional, cognitive and behavioral responses.

The perceived controllability of terrorism is rated as low (Lee et al., 2010). Further, Lee et al. (2010) reveal terrorism to be more likely associated with sociopolitical factors and management issues and less likely with individual behavior, indicating that people expect governmental and political responsables to have more control and power and to engage in preventive activities. Nevertheless, as Richman et al. (2008) point out, the world is perceived as more unsafe and the government as less effective as a reaction to terrorism. Also, fear is still widespread two years after 9/11 in the US and people believe that the government cannot protect them (Richman et al., 2008), suggesting that activities to reduce fear of terrorism are either absent or ineffective.

Additionally, increased frontline-preparedness is related to more worry, avoidance behavior and individual preparedness (Lee et al., 2009). This suspects perceptions of institutional preparedness to constitute to social norms and individual behavioral responses. Accordingly, governmental institutions would be best advised to demonstrate or model the kind of behavior they want the population to engage in.

Some of the studies reviewed identify a relation between political attitudes and fear and other responses to terrorism. Political conservatism is associated with increased fear (Wilcox et al., 2006), as well as with more avoidance behavior and information seeking (Nellis, 2009). According to Todd et al. (2005), Britons were more fearful than Australians at war onset. Whereas British fear decreased post war, Australians' remained unchanged. Whether this is due to terrorist attacks in Britain, stronger participation in the war on terror or others aspects remains unclear.

Overall, these results underline the importance of the government to demonstrate engagement in protective actions against the threat of terrorism and of the development of effective interventions aimed at reducing negative responses to terrorism.

5.2. Practical implications

Practical implications may also be derived from this study. For those developing interventions aimed at reducing fear of terrorism applying PMT and EPPM may result in more effective outcomes.

In general, health practitioners and interventionists use fear appeals to underline the risk from an unhealthy or harming behavior. With reference to terrorism, roles are changed and fear is already spread through some horrible terrorist attacks. Interventionists then have to reduce fear and worry reactions instead of decreasing them. Knowledge of fear appeals through PMT and EPPM may be applied to counteract.

Terrorist can only attain their goals when gaining control over governmental responsables, that's why they want threat beliefs to be high. According to EPPM, threat beliefs are necessary to engage in the evaluation of coping beliefs, and no action is expected as a response to no threat.

Interventionists are best advised by strengthening self-efficacy as well as response efficacy and other related coping and control beliefs, as the review points out that stronger coping beliefs result in less fear and worry reactions.

Accordingly, interventions should be designed to elicit at least moderate threat beliefs in order to engage in the coping appraisal. Further, coping beliefs as response- and self-efficacy should be strengthened to allow for adaptive responses. Without strong coping beliefs, threat beliefs alone would result in maladaptive responses.

In addition, the impact of the media has to be considered in interventions. According to Lemyre et al. (2006), the sources of information about terrorism most often used by a Canadian population are the media, first responders and health professionals, whereas politicians and government officials are mentioned least often. To be more precise, most people turn on their TV to get information, followed by newspapers/magazines, radio, the internet and public information brochures. This knowledge should be applied and the most often used sources of information should be chosen as channels to deliver interventions to targeted populations.

As the results referring to the impact of terrorism related media exposure on fear are ambiguous, the media should be used cautiously. Information has to be framed in a manner that supports the assumptions of PMT and EPPM, moderately eliciting threat beliefs and strongly intensifying coping beliefs.

Some studies investigate the effect of cognitive or emotional interventions, or training in coping and media literacy on fear and related concepts and confirm their overall effectiveness on fear reduction. These findings may be further useful in the development of interventions as they already point out to effective ways of reducing fear elicited by terrorism related media content. Training in coping and media literacy proves effective in reducing levels of child and maternal state anxiety and threat perceptions (Comer et al., 2008). State anxiety decreases even before the discussion took place in which learned methods should be applied to discuss the topic with the child. This means that not the actual discussion per se, but rather gestures, mimics and non-verbal behavioral communication have an impact on anxiety and threat perceptions. As all conditions receive didactics and role-playing, these methods seem to have little, if no, impact. In addition, the coping-media-literacy conditions are instructed not to show their own fear, to educate their child about the media and the lack of proportion, as well as to use modeling, social reinforcement, psycho-education and Socratic probing strategies. Further, they are taught to model confidence in their security and to praise their child when offering coping statements and help challenge dysfunctional statements. As the experimental and control conditions differ on many variables, the methods taught to the experimental conditions must explain some of these differences. The study points out the beneficial effects of training parents in coping and media literacy when faced with terrorism-related media.

According to Shoshani et al. (2006), a cognitive intervention proves effective in moderating explicit and projective anxiety, whereas an emotional intervention has effects on explicit anxiety only, thereby confirming the overall efficacy of the interventions. Surprisingly, the emotional intervention results in higher anxiety in the non-terrorism condition, compared to the cognitive or no intervention. This raises the question whether emotional interventions are effective in reducing fear across domains or even have the potential to backfire. According to Shoshani et al. (2008a; 2008b), both a cognitive and an emotional intervention prove effective in reducing state anxiety and perceptions of enemy hostility, and in strengthening trust and willingness to negotiate with the enemy. Nevertheless, they fail moderating state anger, empathy towards the enemy and stereotype attributions. As

the interventions are effective to different degrees, they have to be further developed and tested to find out what precisely makes them work.

In addition, many of the studies reviewed identify socio-demographic variables as being related to fear of terrorism. Although not being of strong importance for the more cognitive perspective as assumed in PMT and EPPM, these findings give indications referring to populations at heightened risk for fear of terrorism and other maladaptive emotional and behavioral responses which negatively impact quality of life. This knowledge suggests at which populations interventions should target most, and is therefore useful for the development and implementation of interventions aimed at the reduction of fear of terrorism. In communication studies, evidence is found for the interplay between source, channel and receiver of information. Consequently, different populations may vary in their degree to which interventions are effective in reducing their fear of terrorism and effective interventions should be designed accordingly.

First of all, many of the studies identify gender to be a crucial factor in fear of terrorism, which is in accordance with findings from crime science. Women are found to report more fear of terrorism than men (Skitka et al., 2006; Wilcox et al., 2009). Also, women report more worry and higher threat perceptions (Lee et al., 2010; Lemyre et al., 2006). Explicitly investigating gender differences, Nellis (2009) finds women to report significantly higher levels of worry, perceived risk and avoidance behavior, as well as more media exposure and information seeking from outside sources. It remains unclear whether media exposure and information seeking are sources or reinforcer of worry, risk perception and avoidance behavior, or responses to them intended to gather information to reduce fear. Using emotion primes, Lerner et al. (2003) point out that women report more fear and less anger, as well as higher risk perceptions for themselves and others.

All the finding referring to gender underline that women report more negative emotional, cognitive and behavioral responses to terrorism. On the one hand, it may be that women are simply more fearful than man. Nevertheless, none of the studies reviewed identifies where this gender differences originate from. Therefore, it may also be the case that men's lower fear may be explained by more realistic estimates of the risk, by the tendency not to admit to have fear, by denial of the risk, or even by still other factors. Future research should enlighten the source of gender differences in fear of terrorism to answer the above mentioned possible explanations.

The findings referring to age are not as clear. According to Skitka et al. (2006), older age is associated with more fear, anger, political conservatism and less deportation support. Also, older respondents report higher threat perceptions (Lemyre et al., 2006). In turn, Nellis (2009) identifies younger women to report more fear, avoidance behavior and information seeking. Comer et al. (2008) states that older children report higher societal threat perceptions. As the results referring to the relation between age and fear of terrorism are inconclusive, further research is needed to investigate whether there are significant differences in age groups and if so, where they depend on.

Investigating protective and vulnerability moderators of terrorism related negative beliefs and fears and their influence on mental health outcomes, Richman et al. (2009) reveal marital and parenthood status to play an important role. In general, negative beliefs and fears are associated with increases in binge drinking for unmarried individuals. In turn, parents report less binge drinking and depression. Those holding negative beliefs and fears and lacking social support report more hostility.

Additionally, some studies identify ethnic, cultural or otherwise differing populations to be at heightened risk for terrorism related negative responses. The study by Eisenman et al. (2009), conducted in the US, reveals some groups as more vulnerable than others for heightened risk perceptions, worry and avoidance behavior, namely non-White individuals, immigrant and those suffering from probable serious mental illness (PSMI). Moreover, Nellis (2009) finds minority group members to be at heightened risk for fear of terrorism, as well as to report more avoidance behavior and information seeking. This heightened risk may be possibly based on insufficient social unity and lack of social bonds, or on language deficits. These findings and those referring to marital and parenthood status underline the importance of social bonds in general and point out to those without social or familiar bonds to be at heightened risk. Surprisingly and against the general pattern found in their study, Korean Americans reported less worry than Whites (Eisenman et al., 2009). One can suspect collectivism, for which social bonds are more characteristic than fulfillment of individual needs, as having an impact on fear and worry reactions.

According to Wilcox et al. (2006), indigenous students from a terrorist-plagued area in Turkey report less fear than those from Western Turkey. This finding may point out to the impact of habituation to the threatening occurrences, to the development of stronger efficacy beliefs and coping skills, or conversely, to denial of the risk caused by high threat and low efficacy beliefs.

The next point of importance in fear of terrorism is education. According to Lee et al. (2010), higher educational attainment is related to lower threat perceptions and less worry about terrorism. Accordingly, lower levels of education are found to correlate with more fear, anger, right-wing authoritarianism, support for war and deportation (Skitka et al., 2006).

In strong contrast, Lemyre et al. (2006) identify those with higher educational attainment to report more worry and perceived threat. Again, research has to enlighten the relationship between education and fear of terrorism. One can suspect education to have an impact on more realistic estimates of risk and threat perceptions, differences in information seeking and processing, and/or better coping skills and efficacy beliefs in general. The surprising results of Lemyre et al. (2006) remain unclear; it may be that those with lower educational attainment engaged in more denial of the risk, thereby decreasing worry and threat perceptions.

School education opens the door to career success and higher paid jobs, leading to income as the next correlate of fear of terrorism. Those with lower income report more avoidance behavior (Nellis, 2009), as well as more fear, support for war and right-wing authoritarianism (Skitka et al., 2006). Whether income has a direct effect or an indirect through education remains unclear and has to be further investigated as it may be that education is the key to success.

5.3. Limitations

Limitations referring to the study at hand as well as to the studies reviewed should be taken into consideration in future research to enhance the overall quality of the studies as well as their validity and reliability.

The study at hand also has some limitations. First of all, only PSYCINFO is used as database to collect articles related to fear of terrorism. Whereas this seems obvious as the topic is investigated from a psychological viewpoint, it may be that research from other domains can also contribute to the fear of terrorism puzzle or that contributing articles are not present on the database used. Therefore, one can examine whether reviewing articles from other database as Web of Science or Scopus would lead to the same results.

Secondly, this study has a more qualitative character. A meta-analysis on statistical findings referring to the topic at hand might reveal how much of the variance in fear of terrorism is explained by threat and coping beliefs. To further validate or disprove the findings of this study, experimental designs as well as surveys may be used to assess the impact of threat and efficacy beliefs quantitatively.

For the studies reviewed, some limitations in measurement are detected. First of all, some of the studies (Eisenman et al., 2009, Lee et al., 2010; Skitka et al., 2006; Wilcox et al., 2009) used single items to assess the variables. Psychological methodology points out that the use of multiple items to assess a given variable has advantages in that it cross-checks responses. Also, relying on single items is problematic when questions are not formulated in someone's native language. Further, some studies applied quite vague definitions of their variables so that participants could for example self-include them into different groups (Eisenman et al., 2009; Nellis, 2009).

Future research should address these measurement limitations; valid scales would result in more reliable outcomes than single items, and constructs and questions have to be clearly defined and formulated. More precise information on the limitations of the studies may be derived from the table in the appendix.

Also, one has to note that most studies were conducted in the US, Israel or Turkey. It remains unclear whether their results apply to other populations as well. European science seems to be scarcely involved into the topic at hand. As preventive measures are always better than aftercare, this lack of involvement may result in ineffective reactions and risk communication strategies in cases of emergency.

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Appendix

Appendix 1: Table of articles reviewed

Objectives Study Design & Sample	Variables	Results	Strengths Limitations
<p>1. Comer, Furr, Beidas, Weiner & Kendall, 2008. Children and Terrorism-Related News: Training Parents in Coping and Media Literacy. Journal of Consulting and Clinical Psychology</p>			
<p>To examine associations between televised news regarding risk for future terrorism and children's anxiety and threat perceptions, and to investigate the effects of training mothers in an empirically based approach, coping and media literacy (CML), to address such news content with their children. CML is compared to undirected discussion as usual (DAU).</p> <p>Survey with experimental design;</p> <p><u>Conditions:</u> <u>CML (N= 60):</u> Mothers instructed to use a combination of modeling, social reinforcement, psycho-education, and Socratic probing strategies to address the news clip. They should model confidence in their security, offer praise when their child offered coping statements, help their child challenge dysfunctional statements, educate their child about the media and the lack of proportion and should not express their own</p>	<p><u>Child state anxiety (CSA):</u> State–Trait Anxiety Inventory for Children (20 items, at T1, T2, and T3)</p> <p><u>Maternal state anxiety (MSA):</u> State–Trait Anxiety Inventory (20items, at T1, T2 and T3)</p> <p><u>Child threat perception (CTP):</u> Rate the likelihood of future terrorist attacks with visual aid to assist comprehension. 2 measures: Societal and personal child threat perception (SCTP & PCTP).</p> <p><u>Maternal threat perception (MTP):</u> Subjective estimation of the likelihood of future terrorist attacks; societal & personal maternal threat perception (SMTP & PMTP).</p>	<p><u>Child outcomes:</u> Evidence of an association between terrorism-related news and CSA and CTP: Higher post-clip levels of CSA, SCTP & PCTP.</p> <p>For all conditions: levels of CSA were higher at T2 compared to T1, at T3 lower CSA compared to T2.</p> <p>The effect of time on SCTP varied across conditions; no differences at T1, differed across groups at T2 and T3: T2: DAU youth significantly higher SCTP than both CML and CML-ND (CML training but no discussion after viewing the clip) youth, no difference between CML-ND youth and CML youth. T3: DAU youth still greater SCTP than CML youth.</p> <p>The effect of time on PCTP varied across conditions; no difference across groups at T1 and T3, but differed at T2: T2: DAU youth reported higher PCTP than CML youth, no difference between CML-ND youth and CML youth.</p> <p><u>Child Age:</u> Effect of news clip on SCTP: - Group condition and child age provided sign. contributions. Age predicted post-clip elevations in SCTP: Older children responded with higher SCTP than did younger children. Effect of news clip on PCTP: - Group condition provided a sign. contribution, child age did not. Effect of news clip on CSA: - Neither group condition nor child age provided a significant</p>	<p>Internal consistency of measures of CSA and MSA were strong to excellent.</p> <p>Study's experimental design</p> <p>Socio- economic & racially diverse sample</p> <p>Internal validity.</p> <p>No structured behavioral observations taken to determine the non-verbal communication while watching the news clip.</p> <p>Use of self-reports.</p> <p>Generalizability to natural settings cannot be assured.</p> <p>Other factors than child age might explain: Child trait anxiety and prior experiences with terrorism and other traumatic events</p>

<p>terrorism fears to their children. <u>DAU (N=30)</u>: DAU mothers had no training in CML; they were instructed to react to the news clip as they typically would at home.</p> <p>Both conditions had 3 phases: a) didactics b) role-playing c) testing to ensure that mothers were sufficiently prepared for their condition.</p> <p>90 youth (7–13 years old; Mean age=10.8, 47,8% girls) from the Philadelphia area (US) and their mothers.</p> <p>48% Caucasian 48% African- American 4% “other”</p>		<p>contribution.</p> <p><u>Mother outcomes:</u> The effect of time on SMTP varied across conditions; no differences at T1, differences at T2 and T3: DAU mothers reported higher SMTP than both CML and CML-ND mothers.</p> <p>The effect of time on PMTP varied across conditions; no difference at T1, differences at T2 and at T3: T2: DAU mothers higher PMTP, no difference between CML-ND and CML mothers. T3: DAU still higher PMTP than CML mothers, but not CML-ND mothers. The effect of time on MSA varied across conditions, no difference at T1, differences at T2 and at T3; T2: DAU mothers higher MSA than both CML and CML-ND mothers (Again, no differences between CML-ND and CML mothers at T2) T3: DAU mothers still higher MSA than CML and CML-ND; (CML-ND and CML differences were non-significant)</p> <p>The CML condition helped mothers themselves to cope with the news, and training mothers in CML resulted in lower MTP and MSA following news exposure and a discussion period than did encouraging mothers to be themselves when reacting to the news (DAU condition). No significant differences were found between CML mothers and CML-ND mothers, thus the training effectively helped mothers cope, even if no discussion takes place.</p>	<p>may affect the impact of threat-related news as well as the efficacy of different parenting approaches.</p> <p>A limited time frame was studied, long-term follow-up assessments were not included, and the study did not examine the cumulative effects of repeated news exposure.</p>
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2. Dunkel, 2009.

Terror Management Theory and Identity: The Effect of the 9/11 Terrorist Attacks on Anxiety and Identity Change.

Identity: An international Journal of Theory and Research

<p>Study 1: Terror management theory (TMT) methodology was applied to test the hypothesis that those who have a well-formed identity express more fear when faced with the prospect of their own death.</p> <p>Study 2: To examine possible effects of the 9/11 terrorist attacks on identity and the role identity plays in dealing with the attacks by using TMT methodology.</p>	<p><i>T1: two measures:</i></p> <p><u>Ego Identity Process Questionnaire (EIPQ):</u> 32-item, Likert scale. Half of the scale measures identity commitment (IC); the other half assesses identity exploration (IE), (Questions concerning occupation, values, family, friends, dating, gender roles, religion, and politics).</p>	<p>Study 1:</p> <p>Sign. main effect of Identity Commitment: The high comm. group from T1 had higher comm. scores at T2.</p> <p>Sign. main effect of Identity Exploration: Both of the high exploration groups scored higher on exploration at T2 than the low exploration groups.</p> <p>Significant Exploration × Reading interaction: Post hoc analyses support the exploration–mortality salience hypothesis:</p> <p>The high exploration group under mortality salience had greater exploration scores than the high exploration group, which did not experience mortality salience.</p>	<p>To ensure that the participants actually read the descriptions from the two conditions, those in the mortality salience condition were asked to list the Kubler–Ross stages (all answered correctly); and those in the non-mortality salience condition had to list three changes that occur in the central nervous system.</p>
<p>Survey</p> <p>Study 1: 151 students from a Midwestern community college (US); Mean age = 19.11; 61,6% Women; 84,0% Whites, 7,0% Blacks, 1,3% Hispanics, 2,6% Asian Americans, 2% “other or mixed race”</p> <p>Study 2: The same population as in Study 1 was approached. A total of 109 of the 151 original participants took</p>	<p><u>Rosenberg Self-Esteem Scale (RSE):</u> 10-item scale to measure global self-esteem.</p> <p><i>T2: EIPQ, 2 conditions :</i> <u>Mortality salience (MS):</u> Participants read a description of the Kubler–Ross theory on the stages on dealing with one’s own death.</p> <p><u>Non-mortality salience (NMS):</u> Participants’ reading addresses changes that occur in the central</p>	<p>It was predicted that the mortality salience condition should also result in greater commitment for those who are committed.</p> <p>No significant differences on commitment scores were found between the mortality salience and control groups.</p> <p>Self-esteem had no influence on the effect of the mortality salience condition.</p>	<p>Study 1: The initial wave of data was collected in late August 2001, the second wave in October 2001. The 9/11 attacks, lying between those two points of assessment, might have had an impact on the results of the second assessment which was not further measures in this study.</p>

<p>part at T3 were they were assigned according to levels of identity commitment and identity exploration as assessed in the prior measurement moments.</p> <p>High Commitment N = 49 Low Commitment N= 60</p> <p>High Exploration N = 31 Low Exploration N = 78</p>	<p>nervous system as a child develops. <i>T3, Study 2:</i></p> <p>EIPQ and RSE scores from T1 were utilized again.</p> <p>A modified version of the Affect Adjective Check List (AACL) was utilized consisting of 21 adjectives with either anxious or calm connotations, Likert-scale).</p> <p><i>2 Conditions:</i> <u>Experimental condition:</u> designed to follow the MS procedure: packet including vignette about the terrorist attacks, filler/distractor consisting of opinion questions about a sculpture on campus, AACL, and EIPQ.</p> <p><u>Control condition:</u> same packet as in the experimental condition except for other topic (basketball).</p>	<p>Study 2:</p> <p>Sign. exploration × reading interaction on anxiety, sign. differences for the anxious, but not the calm subscale: For those high in Identity Exploration, the terrorism salience condition produced more anxiety in comparison to both the low IE group in the terrorism salience condition and the high IE group in the control condition.</p> <p>For the low IE group, the control condition was actually associated with greater anxiety in comparison to the low IE group in the terrorism salience condition.</p> <p>Self-esteem was negatively associated with anxiety.</p> <p>Main effect of identity exploration: Those in the high IE group had higher exploration scores at T3.</p> <p>Sign. exploration × reading interaction on identity commitment: For the high IE group, commitment was higher under terrorism salience compared to the high IE group in the control condition. High IE group had lower commitment scores than the low IE group in the control condition.</p> <p>Sign. differences in commitment at T3 between the terrorism salience and control condition, for the high IE groups: Those who scored high in identity exploration at T1 reported more anxiety in the terrorism salience condition. Unexpectedly, those who scored low in identity exploration at T1 exhibited more anxiety in the control condition.</p>	
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3. Eisenman & Glik, 2009.

Terrorism-Related Fear and Avoidance Behavior in a Multiethnic Urban Population.

American Journal of Public Health

<p>To examine how the characteristics of a population influence its overall and population- level risk perceptions, worry about terrorism, and avoidance behavior (AB).</p> <p><u>3 Hypotheses:</u></p> <p>1. Vulnerable pop's. would be most likely to perceive population-level risk as high.</p> <p>2. Vulnerable groups would be most likely to fear terrorism and engage in AB.</p> <p>Those who overestimated the HSAS level, would report more AB and worry about terrorism.</p> <hr/> <p>(Telephone-) Survey</p> <p>Non-institutionalized population in California, US. Adults, 18+</p> <p>Phase 1: N=6426; Phase 2: N = 3838.</p> <p>78.6% US citizens, 64.3% college education or above, fairly evenly distributed across the income groups.</p> <p>6.9% of the respondents had a probable serious mental illness (PSMI, consistent with the national prevalence of serious mental illness)</p> <p>4 vulnerable groups of interest: persons with mental illness, with disabilities, non-White racial/ ethnic groups, and immigrants.</p>	<p><u>Single-item assessment:</u></p> <p>Perceived population-level risk</p> <p>Terrorism worries</p> <p>Avoidance behavior</p> <p>PSMI (last 30 days & long term impairment)</p> <p>Socio-demographic information: gender, race/ ethnicity, citizenship (US vs. non-US), marital status, education level, annual household income.</p>	<p>The results reveal that population characteristics were associated with reported HSAS level.</p> <p>Except for the physically disabled, vulnerable populations (non-White individuals, those with PSMI and immigrants) were significantly less likely to estimate the HSAS correctly and more likely to overestimate it.</p> <p>(Exception: Korean Americans, they stated lack of knowledge of the HSAS level).</p> <p>Vulnerable groups were more likely to fear terrorism and avoid activities because of terrorism fears.</p> <p><u>Worry (very) often:</u></p> <ul style="list-style-type: none"> - More Latinos than Whites (26,1% to 14,1%), - Those who overestimates the HSAS level compared to those estimating it correctly (23,4% to 15,9%), - Those with PSMI compared to those without, - More non-citizen compared to US citizen, - Koreans less than Whites <p><u>Avoidance Behavior (very) often:</u></p> <ul style="list-style-type: none"> - More of those with PSMI compared to those without (17% to 4.2%), - More Latinos than Whites (7,9% to 1,1%), - More noncitizen compared to US citizen (10,1% to 3,7%), - Those with a disability compared to those without, - Most non-White racial/ ethnic groups more than Whites, - African Americans and Koreans more than Whites, - Those who overestimates the HSAS level compared to those estimating it correctly. 	<p>First analysis of fear and avoidance behavior in a population-based sample that included multiple language groups and contained a large enough sample for sub-group analyses.</p> <p>Survey in many languages to adopt to participants possibilities (English, Spanish, Mandarin, Cantonese, Korean, or Vietnamese, professionally translated and pretested); this allowed including 98% of Los Angeles adults in the sampling frame.</p> <hr/> <p>Variables measured by single items.</p> <p>Broad definition of the term disability.</p> <p>No causation due to cross-sectional design.</p>
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4. Lee & Lemyre, 2009.

A Social-Cognitive Perspective of Terrorism Risk Perception and Individual Response in Canada.

Risk Analysis

To evaluate a social-cognitive model of individual response to terrorism using data collected as part of a national survey on perceived chemical, biological, radiological, nuclear, and explosives (CBRNE) terrorism threat and preparedness.

Hypotheses:

1. Perception of terrorism as more threatening would be associated with more worry about terrorism.
2. Perception of oneself as better able to control/cope with terrorism would be associated with less worry about terrorism.
3. More favorable perceptions of institutional preparedness for terrorism would be associated with less worry about terrorism.
4. Perception of terrorism as more threatening would be associated with more favorable and unfavorable behavioral responses.
5. Perception of oneself as better able to control/ cope with terrorism would be associated

Based on results of a factor analysis, perceptions of terrorism were assessed on 4 cognitive factors using a 5-point Likert scale:

Perceived probability (PP):
- Perc. likelihood (PL) &
- Perc. uncertainty (PU).
Perceived seriousness(PS)
Perc. personal impact (PPI)
Perc. coping efficacy (PCE)

Social-Contextual Factors:
Perceived governmental preparedness (PGP), &
Perc. front-line preparedness (PFP)

Affective Response to Terrorism:
Worry about terrorism, single item.

Behavioral Response to Terrorism: Individual beh. responses to the threat of terrorism; list of 13 behaviors:
- Individual preparedness:

Predictors of Worry about Terrorism - Hypotheses 1-3:

Cognitive and social-cognitive factors significantly predicted sex- and education-adjusted worry about terrorism;
Sex- and education-adjusted worry about terrorism was positively associated with PP and PPI, and neg. associated with PS and PCE.

Predictors of Behavioral Responses to Terrorism - Hypotheses 4-6:

Cognitive & social-cogn. factors significantly predicted sex & education adjusted

IP: relationship was largely attributable to PP, PCE, and PFP,
IS: all 4 cogn. factors emerged as sign. unique predictors;
pos. associated with PP, PPI, and PCE, and neg. with PS.
AB: only PP, PPI, and PFP emerged as sign. unique predictors.

Hypothesis 7 and Mediation:

Cognitive and social-cogn. factors significantly predicted worry about terrorism; additional sign. positive associations of PFP with worry.
Worry sign. predicted sex- and education-adjusted IP, IS and AB.
Worry only sign. mediated the effects of PP and of PPI.

The relationships of PP, PPI, and PFP to AB were sign. reduced when worry was added to the equation.
Worry about terrorism was related to cogn. evaluations of terrorism on various dimensions; some evidence of a relationship between worry and social-cogn. factors.

Behavioral responses to terrorism appeared to be associated with many of the same factors as worry about terrorism.
An examination of its relationship with perceptions of institutional preparedness (PGP & PFP) suggested that these may play a role by establishing specific behavioral responses as a social norm.

Survey questionnaire based on general findings from previous interviews and surveys.

Originally developed in English, translated into French by a professional translator, verified by two fluently bilingual content experts.

Lists of items within sections were sequenced randomly to balance for possible order effects.

Sample included Canadians from a wide range of socio-demographic backgrounds, providing clues about the nature of social-cognitive factors involved in terrorism risk perception and individual response across Canada.

Cognitive variables had good to excellent alpha's.

Social-contextual variables had acceptable to good

<p>with more favorable behavioral responses and fewer unfavorable behavioral responses.</p> <p>6. No hypotheses about the relationship of perception of institutional preparedness for terrorism with behavioral responses to terrorism.</p> <p>7. More worry about terrorism would be associated with more unfavorable and favorable responses to terrorism.</p> <p>In addition, the study investigates whether worry, as an affective response, mediates the relationships of cognitive and social-contextual factors with various behavioral responses to terrorism.</p> <hr/> <p>Survey</p> <p>1,502 Canadians (18+, 731 men and 771 women, stratified by region and age group (18–34 years, 35–54 years, and 55 years or over) and sex within region according to 2001 Census data.</p>	<p>(IP; consulting others for preparedness advice, set up an emergency plan, putting together an emergency supply kit, receiving emergency first aid training, obtaining info about potential shelters in the community, establishing a meeting area of contact with loved ones, learning about evacuation plans of buildings occupied frequently, and seeking social support).</p> <p>- <u>Information seeking</u>: (IS; learning about differences and similarities between different types of terrorism, reading about the topic of terrorism).</p> <p>- <u>Avoidance behavior</u> (AB; avoiding public places, refraining from watching the news to avoid coverage on terrorism issues, being nervous around certain people).</p> <p><u>Demographic Variables</u>: Age, education, gender, and household income.</p>	<p>Worry independently contributed to the prediction of behavioral responses of terrorism above & beyond cognitive and social-cogn. factors and partially mediated the relationship of some of these factors with behavioral responses to terrorism.</p> <p>All cognitive factors sign. predicted worry about terrorism, PP was the strongest predictor. Those with higher PP and PPI worried more about terrorism. Those with higher PS and PCE worried less about terrorism.</p> <p><u>Predicting Behavioral Responses to T</u>: Many of the same factors associated with worry were also associated with behavioral responses to terrorism. PP and PPI of terrorism were associated with increased engagement in most, if not all, behavioral responses (supporting that PT can motivate individuals to protect themselves).</p> <p>PS of terrorism was associated with decreased IS (paradoxical role of PT, excessively high PT may lead to the perception that one's resources to cope with the threat are exceeded, resulting in apathy or AB).</p> <p>PCE was associated with IP and IS (support for the protective function of control-related beliefs, which foster health protective and preventative behavior), not associated with AB.</p> <p>Social-cogn. factors were also associated with some behavioral responses to terrorism (to a lesser extent than cognitive factors): higher PFP sign. predicted increased engagement in IP and AB.</p> <p>Finally, adding worry into the equations predicting behavioral responses to terrorism sign. improved the prediction of each type of response, suggesting that worry contributed independently from cognitive and social-cognitive factors to these responses.</p>	<p>consistency.</p> <hr/> <p>Low response rate raises questions about the generalizability of findings to the overall Canadian population, respondents tended to have a slightly higher level of education and income than the general population.</p> <p>Use of self-reports: raises concerns about reporting biases.</p> <p>No causality: Cross-sectional nature of the study design limits the potential to make solid conclusions regarding the mediating role of worry in these relationships, as well as the directionality of any of the relationships examined.</p> <p>Information seeking and avoidance behavior scales didn't reach adequate internal consistency.</p>
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5. Lee, Lemyre & Krewski, 2010.

A Multi-Method, Multi-Hazard Approach to Explore the Uniqueness of Terrorism Risk Perceptions and Worry.

Journal of Applied Social Psychology

<p>Investigates Canadians' perceptions of terrorism risk and four other hazards using a word-association technique and rating scales reflecting key cognitive dimensions of risk (perceived threat, perc. uncertainty, perc. control) and worry reactions to determine how cognitive dimensions that characterize terrorism risk perceptions might differ from those characterizing other hazards.</p> <p>Hypothesis: Worry will be positively related to perceptions of threat and uncertainty, and negatively related to perceptions of control above and beyond any existing socio-demographic differences, although to varying degrees.</p> <hr/> <p>(Telephone-) Survey</p> <p>1,503 Canadians (721 men, 782 women), stratified to resemble the Canadian adult population in terms of province of residence, as well as age group and gender within province.</p>	<p>1. Word-association task was employed to assess participants' general, unsolicited representations of each of the hazards.</p> <p>2. Participants were asked to rate the five hazards on a number of dimensions, including the cognitive dimensions of: perceived threat (PT), perceived uncertainty (PU), perceived control (PC) and d) worry.</p> <p>Information on education and household income, allowing for the control of background variables in the analyses.</p>	<p><u>Content analysis Word-Association-Technique:</u> The different risks were associated with different concepts as health risks, individual behavior and impacts.</p> <p><u>Terrorism (widest range of themes):</u> - Health risks: specific attack/ attack in general terms (25.2%). - Different types of terrorism/ weapons that might be used (19.5%). distinguishing feature: <u>prominence of sociopolitical factors</u> (pol. groups/ leaders (7.2%), conflict (4.6%), countries/ regions, information dissemination issues (1%), current state and structure of society (0.7%), government (0.6%), or peace (0.2%) and a relatively much lower number of word associations reflecting individual behavior. Only terrorism was related to management issues (1.7% counter-terrorism policy) more frequently than individual behavior (0.8% preparedness and response) suggesting that Canadians may primarily consider control over this hazard to be the responsibility of institutions. Potential impacts were mentioned less frequently, but many were more severe (death or intense emotion (6.7% human health impact, 6.3% level of emotional impact). PP's described health risks associated with terrorism in terms of level of perceived risk (4.5%), debate surrounding them (2.3%), as well as uncontrollable (0.9%) or uncertain (0.7%) nature & specific populations (2.6% perpetrator characteristics, 1.7% non-political groups, 0.4% family and children).</p> <p>Compared to other hazards, terrorism posed a lower threat, was more uncertain and less controllable. The PT, PU and PC of terrorism each differed substantially from those of the other hazards.</p> <p>Worry about terrorism was positively related to PT, PU and unexpectedly to PC.</p>	<p>Questionnaire translated from English into French by a professional translator; then verified by two bilingual individuals and a second professional translator.</p> <p>Data collected using computer-assisted telephone interviewing (CATI), which improves flow of survey administration and reduces errors in data entry.</p> <p>Questions and hazards were sequenced randomly in order to control for order effects.</p> <p>Use of word association technique: can provide insight into individuals' representations of a given object by shedding light on those concepts that are most readily accessible in memory when they think about the given object.</p>
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		<p><u>Terrorism on dimensions:</u> PT: low, PU: highest, PC: lowest, worry: moderate.</p> <p><u>Terrorism (sign. Spearman correlates):</u> PT: negative with education, positive with gender PU: negative with age PC: negative with gender worry: negative with education , positive with gender.</p> <p><u>Risk dimensions (sign. Pearson correlates):</u> PT: positively with PU, PC & worry PU: positively with worry PC: positively with worry</p> <p>Older age was associated with sign. less worry about motor vehicles (MV), climate change (CC), and recreational physical activity (RPA) and significantly more worry about CP.</p> <p>Female gender was associated with sign. more worry about all hazards (except for CC).</p> <p>PT and PU were consistently and sign. positively associated with worry about all the hazards.</p> <p>PC and worry varied according the type of hazard: PC neg. predicted worry about CP, PC Pos. predicted worry about CC and terrorism, and failed to emerge as predictors of worry about MV or RPA.</p> <p>Those with greater PC over CC and terrorism were sign. more likely to be worried about these hazards.</p>	<p><u>Measurement; W-A-T:</u> Only the first word was coded, even when more ideas were provided</p> <p>Single items assessing PT, PU, PC, and worry.</p> <p>Actual exposure to the hazards was not assessed.</p> <p>Low response rate may have introduced bias; PP's with a higher education and income were slightly overrepresented in the final sample.</p> <p>The items used to measure PC likely tapped into individuals' perceived ability to manage the probability that each hazard would incur its consequences, rather than their perceived ability to manage the consequences.</p> <p>Limited clarity regarding the nature of the hazards might explain inconsistencies in the relation between PC and worry.</p>
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6. Lemyre, Turner, Lee & Krewski, 2006

Public Perception of Terrorism Threats and Related Information Sources in Canada: Implications for the Management of Terrorism Risks.

Journal of Risk Research

<p>To improve understanding of Canadians' perceptions of a broad range of terrorism-related issues as a necessary step in identifying ways to effectively implement initiatives aimed at the management of terrorism risks in the Canadian context.</p> <hr/> <p>Survey N=1502</p> <p>Men (48.7%), women (51.3%), living in urban (76.1%) and rural areas (22.8%).</p> <p>28.4% between 18–34 years of age, 42.1% between 35–54 years of age, 29.2% over 55 years of age.</p> <p>29.0% at most high school education, 70.4% greater than a high school education;</p> <p>Born in Canada (85.2%) and did not consider themselves a member of a visible minority group (91.8%).</p> <p>A total of 77.2% of respondents completed the survey in English and 22.8% completed the survey in French.</p>	<p>Opinions about the general threat of terrorism in Canada:</p> <p>Perceived threat (PT), PT of terrorism to themselves and their family, Worry about terrorism, Perceived likelihood of carrying out terrorism in Canada.</p> <p>Respondents were also asked to indicate how much they have thought about:</p> <p>The possibility of specific terrorism scenarios occurring in their community & the occurrence of specific effects of terrorism in their community.</p> <p>Rate the extent to which they turn to different info sources when seeking credible info about terrorism.</p> <p>All responses provided on</p>	<p>Terrorism was a low to moderate PT to Canadians and an even lower PT to themselves as individuals; and there was little worry about terrorism in Canada. <u>General TP of terrorism varied by gender, age group, educational attainment, and place of birth:</u></p> <p>Women rated terrorism as having higher TP to themselves, and to Canadians, and were more worried about terrorism. Older participants had higher TP of terrorism to Canadians, and to themselves. Pp's with a higher level of educational attainment had higher TP of terrorism to Canadians and worried more about terrorism than did respondents with lower education. Those born in Canada had higher TP's of terrorism to Canadians. No differences in TP and worry between urban and rural residents. Pp's believed that terrorism is more likely to be carried out in Canada by a group from another country than an individual without any group involvement, or a group of Canadian origin.</p> <p><u>Perceptions of Specific Types of Terrorism Scenarios:</u></p> <p>Pp's thought most frequently about the possibility of computer viruses, water contamination, agricultural terrorism, and hostage situations; and least often about the possibility of a dirty bomb, nuclear blast, chemical/gas attack, or smallpox (CBRNE treats). <u>These perceptions varied by gender, age group, level of education, and urban vs. rural residence:</u></p> <p>Women thought more frequently about all terrorism scenarios (except of hostage situations, bombings, and dirty bombs). Younger pp's thought more frequently about computer viruses and hostage situations whereas older pp's thought more frequently about dirty bombs. Those with lower educational attainment thought more often about the possibility of most scenarios relative to those with</p>	<p>No major terrorist attack occurred prior or during the survey, reducing the potential of response bias due to an attack.</p> <p>Emphasizes on how those involved in management and risk communication can learn from the results referring to public perceptions of terrorism.</p> <hr/>
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	<p>5-point Likert scale. Information on demographic background; permitting an examination of differences in perceptions of terrorism risks among population subgroups.</p>	<p>higher educational attainment (except hostage situations & bombings); but thought less often about the possibility of computer viruses. Urban residents reported having thought more frequently about computer viruses, only.</p> <p><u>Perceptions of Specific Effects of Terrorism:</u> Pp's thought most often about a lowered sense of security and safety, economic losses, and the loss of a loved one; thought least frequently about loss of employment, poorer mental health status, and increased political involvement; <u>varied by gender, age group, level of educational attainment, and urban vs. rural residence.</u> Women thought more often about the majority of specific effects of terrorism considered. Younger pp's and those living in urban areas more often thought about discrimination. Pp's with a lower level of educational attainment thought more often about the loss of a loved one and the loss of employment.</p> <p><u>Sources of Information about Terrorism:</u> Most often used sources: the Canadian media, first responders, and health professionals. Least often: Elected politicians and government officials.</p> <p><u>Demographic differences were observed for age group, level of educational attainment and place of birth:</u> Older pp's: First responders and health professionals. Pp's with a higher level of educational attainment: university scientists, less often to friends and relatives. Pp's born outside of Canada: government officials, university scientists, the Canadian military and first responders.</p> <p><u>Forms of media:</u> Television ranked the highest, followed by newspapers/magazines, radio, the internet, and public information brochures/pamphlets.</p> <p><u>Media from different areas:</u> Canadian media ranking highest followed by the American and European media.</p>	
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7. Lerner, Gonzalez, Small & Fischhoff, 2003.

Effects of Fear & Anger on perceived Risk of Terrorism: A National Field Experiment.

Psychological Science

<p>To test the assumptions of Appraisal-Tendency Theory with a nationally representative sample with a focus on age and gender.</p> <hr/> <p>Two-part field experiment; 2 Conditions: Fear & Anger.</p> <p>143 adolescents, 830 adults. Random sample from KNs' nationally representative panel. N=1786 (ages 13-88; 49% male).</p>	<p>Risk perception</p> <p>Policy preferences</p> <p>Self-reported emotions.</p> <p>Time 1: questions about the attacks and psycho-social scales: The five- item Anxiety Subscale & four-item face-valid Desire for Vengeance Scale.</p>	<p>The same patterns were found in teens and adults.</p> <p><u>Self-Reported-Emotions:</u> Emotion primes increased the target emotions, for males and females. Anger = dominant emotion across conditions Females: less anger, more fear.</p> <p><u>Risk Perception:</u> Experimental priming emotions triggered global effects on risk perceptions.</p> <p><u>Gender Differences:</u> Women reported a higher risk for the US, themselves and the average American.</p> <p><u>Mediators:</u> Self-reported emotions mediate: Fear associated with higher risk perception, anger with lower.</p> <p>Naturally occurring emotions shortly after the attacks reliably predicted risk estimates for diverse events 6 to 10 weeks later. Anxiety and vengeance had opposite correlations with risk perceptions.</p> <p>Higher levels of anxiety predicted higher risk estimates; greater desire for vengeance predicted lower risk estimates.</p> <p>Anger condition supports deporting policy; the emotion primes shifted views on terrorism policies, naturally occurring emotions had a similar effect.</p>	<p>Generalizability of the results strengthened: Manipulation through terrorism media exposure similar to real-life news.</p> <hr/>
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8. Nellis, 2009.

Gender Differences in Fear of Terrorism.

Journal of Contemporary Criminal Justice

To measure possible behavioral responses to fear in order to better understand the fear victimization puzzle by specifying a perpetrator, and to examine responses to a form of violent victimization in a context that does not include the opportunity of sexual assault.

The study is designed to test the impact of media consumption on perceived risk and fear of terrorism thereby investigating possible gender differences in the ways that individuals cope with terrorism-related information.

(Telephone-) Survey

N= 527 (18 +) living in the metropolitan statistical areas of New York City and Washington, D.C., US. This area was chosen to achieve adequate resonance of terrorism-related events.

Response rate 41%
Women (56%), men (43%),
Mean age=50,
73% White.

Fear of Terrorism (FoT):
Asks respondents to report how worried they are of becoming a victim in a terrorist attack.

Behavioral measures:
Avoidance behavior scale (AB, 8 items)

Information-seeking scale (IS, 3 items)

Respondents are asked to limit reported activities to these periods just following changes in the TAS (Terror Advisory System).

Perceived risk of Terrorism (PR, 5 items)

Media exposure (ME)

Indirect victimization (IV)

Political conservatism (PC, single item)

Control variables:
Age, race, and income

In comparison to men, women had sign. higher levels of:
Worry, perceived risk, information seeking from outside sources (local government, news, friends & family), avoidance behavior and media exposure to TV news.

Bivariate correlations:

MEN:

FoT was sign. predicted by minority status, IV, and PR.
AB was sign associated with indirect victimization, TV news exposure, and personal perceived risk.
AB more likely in younger age, minority group membership, and lower income than older, White, and higher-income men.
AB associated to PC, TV news exposure and higher PR.
IS influenced by age (younger men) and minority status (PR unassociated with IS)

WOMEN:

Most FoT: young women & those with higher PR.
Younger aged women & minority group members reported more fear, AB and IS.
AB sign. associated to PC, TV news, and PR.
Higher PR is strongly associated with more fear, AB & IS.
More TV news was pos. related to AB & IS, but not to fear. (unexpected, considering that terrorism often dominate the news).
Those higher in PC were more likely to engage in AB and IS.
IS significantly predicted by PR.

-> Perceived risk emerged as a significant predictor in the model of terrorism fear and the model of avoidance behavior for both, men and women.

Random sample & within-household randomization through the "last birthday method" (helps to reduce the age and gender bias).

Generalizability cannot be assumed.

Possibly biases in sample (Differences in the assessments of fear, engagement in AB or IS, ME, or other variables).

The study does not determine the temporal order of relationship; rather, it seeks to identify associations among theoretically relevant variables.

Cross-sectional data - no causal model examining the strength of fear as a predictor of actions taken!

Vague definition of indirect victimization.
44% of sample reported IV (due to location & vague definition).

9. Richman, Cloninger & Rospenda, 2008.

Macro-level Stressors, Terrorism, and Mental Health Outcomes: Broadening the Stress Paradigm.

American Journal of Public Health

To examine the extent to which fears and beliefs predict a range of distress and alcohol use outcomes two years later after controlling for previous distress and alcohol use, and to examine gender differences, given evidence indicating that post-9/11 effects are more pronounced among women than among men.

Longitudinal (mail-) survey of employees.

Wave-1 sample N=2492 (52% RR).

Wave-6 N=1517.

Mean age= 51,
56% female,

disproportionately White (58%),
and skewed toward higher
educational attainment (67,8%).

Terrorism related stressors:

Terrorism-related negative beliefs & fears about the world, other people, and one- self (12 items).

Mental health measures:

1. Symptomatic distress:

Depression (7 items),
Anxiety (9 items),
Hostility (6 items),
Somatization (12 items),
PTSD symptoms (17 items)
linked to 9/11 and threats
of future terrorist attacks

2. Alcohol consumption:

Quantity (1 open question),
Escapist motives for
drinking (5 items),
Binge drinking (1 item),
Drinking to intoxication
(1 item).

Terrorism's effects primarily involved perceptions of the world as being a less safe place and as the government being less effective.

Negative beliefs and fears were predictive of significantly increased levels of depression, anxiety, hostility, and PTSD but not somatization.

Negative beliefs and fears (at wave 5) were significantly predictive of an increase in escapist motives for drinking (at wave 6).

Significant interaction between gender and terrorism-related negative beliefs and fears (wave 5) predicted drinking to intoxication at wave 6:

As men's terrorism-related negative beliefs increased, their propensity to drink to intoxication increased.

Among women, increases in terrorism-related negative beliefs only minimally altered their propensity to drink to intoxication.

By contrast, negative beliefs and fears were not significantly predictive of quantity of alcohol consumption or binge drinking.

In 2003, participants continued to fear future terrorist attacks and to believe that the government could not protect them.

In 2005, these fears and beliefs had negative effects on symptomatic distress and escapist motives for drinking among both, men and women, as well as negative effects on drinking to intoxication among men (after controlling for previous distress and drinking).

→ The results of this study suggest that political terrorism is a macro-level Stressor of major public health significance.

The study has the ability to address the mental health consequences of exposure to the terrorist attacks of 9/11 within the context of an ongoing longitudinal study that included pre-9/11 assessments of mental health status.

Response rate and differing rates of attrition typically associated with long-term longitudinal research.

In Wave6:
Socio-demographic biases.

Measure assessing negative terrorism-related beliefs and fears may have tapped other period effects.

10. Richman, Rospenda & Cloninger, 2009.

Terrorism, Distress, and Drinking Vulnerability and protective Factors.

The Journal of Nervous and Mental Disease

<p>To depict protective and vulnerability moderators of terrorism-related fears.</p> <hr/> <p>Longitudinal mail survey of employees.</p> <p>Wave-1 sample N=2492 (52% RR).</p> <p>Wave-6 N=1517.</p> <p>Mean age= 51, 56% female, disproportionately White and skewed toward higher educational attainment.</p>	<p><u>Terrorism-related stressors</u> Terrorism-related neg. beliefs & fears (TRNBF) about the world, other people and oneself.</p> <p><u>Workplace stressors</u> Sexual harassment (SH; gender harassment, unwanted sexual attention, sexual coercion), Generalized workplace harassment (GWA; verbal aggression, disrespectful behavior, isolation/exclusion, threats/bribes, physical aggression), Low decision latitude in one's job (decision authority, skill discretion), Social bonds</p> <p><u>Mental health, symptomatic distress</u> Depression, anxiety, hostility, PTSD symptoms linked with 9/11</p> <p><u>Alcohol consumption</u> Quantity, escapist motives, binge drinking, drinking to intoxication.</p>	<p><u>Vulnerability factors</u> 23% reported SH (more than once), 54% GWA (more than once) during the past 12 months. Mean= 38 on the decision- making latitude scale (range 12 to 48).</p> <p><u>Protective factors:</u> 66% married, 73% had children. Mean of 5.0 on the measure of social support (range 1 to 7).</p> <p><u>Vulnerability moderators:</u> For men and women who reported SH, high TRNBF result in higher in levels of hostility and PTSD. TRNBF + men + GWA = hostile feelings, women not differentially affected by GWA. GWA+ TRNBF = increased PTSD (man & women) Men+ TRNBF + low decision- making latitude = higher level of depression compared with women. TRNBF +low decision-making latitude = higher levels of PTSD (for men & women).</p> <p><u>Protective moderators:</u> TRNBF + married = lower levels of depression (for men). TRNBF + married = less drink to intoxication (for men); women not differentially affected by marital status. TRNBF + not married =increased binge drinking (men & women).</p> <p><u>Parenthood Status</u> TRNBF + children = Less binge drinking and less depression symptoms (for men).</p> <p><u>Social Support</u> TRNBF + low social support = higher levels of hostility.</p>	<p>The study addresses the mental health consequences of exposure to 9/11 and perceived subsequent terrorist threats (along with vulnerability & protective moderators) within the context of an ongoing longitudinal study that included pre-9/11 assessments of mental health status and follow-ups for several years.</p> <hr/> <p>Missing data. Less than ideal initial response rate and;</p> <p>Wave 6 sample: disproportionately white, middle aged and highly educated. Workers reflective of one type of workplace, a university setting.</p> <p>Measure assessing TRNBF may have also tapped other period effects or fears in general that are not unique to fears of terrorism per se.</p>
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11. Shoshani & Slone, 2006.

Evaluation of Preparatory Measures for Coping with Anxiety raised by Media Coverage of Terrorism.

Journal of Counseling Psychology

<p>To study the effects of media exposure to terrorism and to examine possibilities for preparing viewers for this exposure; the study compares post-exposure anxiety levels of groups exposed to either excerpts of terrorist attacks or to a matched non-terrorist broadcast and examines the effects of two different primary intervention sessions, cognitive or emotional.</p> <hr/> <p>Experimental laboratory study; repeated measures design.</p> <p>120 young adults ages 19–26 years (mean age=22.7), approximately evenly divided by gender. PP's reporting positively to personal and terrorist trauma were excluded from analysis, ensuring only indirect exposure to terrorism.</p> <p>Relatively homogeneous sample of Jewish participants: 86% were Israeli born, 98% were secular, 93% met middle to upper middle class SES indicators, 95% were residents in urban areas, and 95% were unmarried.</p>	<p><u>Demographic info:</u> age, gender, marital status, socioeconomic indicators, nationality, ethnic group, and religion.</p> <p>Personal trauma and terrorism-related questions.</p> <p><u>Anxiety:</u> prior and subsequent to the exposure with 2 measures; <u>explicit anxiety measure:</u> State anxiety section of the State-Trait Anxiety Inventory, 20 items. <u>Projective (covert) anxiety measure:</u> sentence completion task.</p> <p>Exposure manipulation: based on two 7-min movie clips (terrorism & non-terrorism condition), both clips were equivalent on parameters of length, male and female reporters, and channels on which broadcasts had been aired.</p>	<p><u>1. Hypothesis</u> (higher post-test anxiety levels in the terrorism condition) was confirmed; higher post-test levels of explicit and projective anxiety in the terrorist exposure group.</p> <p>Sign. interaction between intervention and exposure on both measures. <u>Terrorism exposure group:</u> No-intervention condition had sign. higher post-test levels of explicit anxiety than those in the cogn. or emotional intervention & higher post-test levels of projective anxiety than the cognitive intervention group (no differences between no-intervention and emotional intervention).</p> <p><u>Non-terrorism exposure group:</u> Emotional intervention led to higher post-test levels of explicit anxiety than the cogn. intervention and no intervention (No differences between the cognitive and the no-intervention). No sign. post-test differences on the projective anxiety measure among the intervention conditions.</p> <p><u>2. Hypothesis</u> (efficacy of two primary interventions on moderation of anxiety resulting from the terrorist media exposure) was confirmed, although a complex combination of findings emerged. Pp's with no intervention prior to exposure showed sign. higher post-test anxiety levels than those from the therapeutic interventions. The cogn. intervention moderated anxiety on both measures, the emotional intervention was effective only on the explicit measure.</p> <p><u>3. Hypothesis</u> (no differences in post-test anxiety levels between the intervention conditions in the non-terrorist group) not confirmed:</p> <p><u>Emotional intervention:</u> higher post-test levels on both measures in non-terrorist exposure group; but effective in moderating anxiety for the terrorist exposure (slightly less than the cognitive intervention).</p>	<p>Use of projective techniques for anxiety measurement which are less open to social desirability and defenses than self-report inventories.</p> <hr/> <p>Because of the nature of the no-intervention group, there was a different time lag between pre- and posttest measures for this group and the therapeutic intervention groups.</p>
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12. Shoshani & Slone, 2008.

Efficacy of Clinical Interventions for Indirect Exposure to Terrorism.

International Journal of Stress Management

<p>The study aims to a) conduct an exploratory study in constructing preparatory interventions and (b) test their efficacy in moderating commonly found emotional and attitudinal effects of media exposure to terrorism.</p> <p>Pp's were exposed to either a terrorism or non-terrorism media clip; for each type of exposure, a cognitive or emotional preparatory intervention session or control manipulation was provided. Using a repeated measures design, changes in emotional and attitudinal variables were measured prior and subsequent to the media exposure.</p> <hr/> <p>Experimental design 300 young adults aged 21–30 years (mean age=22.65), approximately evenly divided by gender. 50 pp's per group, randomly allocated into six groups. 85% were Israeli born, 86% being secular, 92% met middle to upper-middle class socio-economic status indicators, 90% were resident in urban areas, and 97% were unmarried. Pp's affirming to personal trauma questions were excluded.</p>	<p>State Anxiety (SAX): SAX section of the State–Trait Anxiety Inventory; 20 descriptions of anxiety-related emotional states.</p> <p>State Anger (SA): SA section of the State–Trait Anger Expression Inventory; 10 items assessing the intensity of anger as an emotional state at a particular time.</p> <p>Perception of enemy hostility (PEH): 38 items representing attitudes Israelis can hold toward the Palestinians, rated for agreement on a Likert-scale.</p> <p>Stereotype attributions towards Palestinians (STA)</p> <p>Trust in Enemy (TE)</p> <p>Empathy towards the enemy (EE)</p> <p>Willingness to negotiate with the enemy (WN).</p>	<p>1. Hypothesis confirmed: Significant effect of type of exposure on posttest levels of SAX, SA, STA, TE, EE, WN and EH.</p> <p>In terrorism cond.: higher SAX, SA STA, EH; lower TE, EE & WN.</p> <p>2. Hypothesis partially confirmed: Significant interaction between type of intervention and type of exposure on SAX, TE, WN & EH; not sign. for SA, STA & EE.</p> <p><u>Terrorism-control cond.:</u> -Significantly higher levels of SAX & EH than cogn. or emo. intervention, - Significantly lower levels of TE and WN. - No significant differences between emotional & cognitive intervention.</p> <p><u>Terrorism exposure group:</u> Cognitive & emotional intervention were effective in moderating increases in SAX and EH and in strengthening TE and WN.</p> <p><u>Non-terrorism exposure group:</u> No significant differences in the posttest levels of the emotional and attitudinal measures between the emotional, cognitive, and control intervention cond.</p> <p>The clinical interventions did not succeed in moderating SA, EE & STA.</p>	<p>Internal consistency of the scales was moderate to excellent.</p> <hr/> <p>Counterbalanced order of questionnaires.</p> <hr/> <p>Generalization to other context limited.</p>
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13. Shoshani & Slone, 2008.

The Drama of Media Coverage of Terrorism: Emotional and Attitudinal Impact on the Audience.

Studies in Conflict & Terrorism

<p>To examine the effects of exposure to TV broadcasts of terrorism on viewers' emotional & attitudinal reactions.</p> <p>Modifications in immediate emotional & attitudinal reactions of viewers prior and subsequent to exposure to a broadcast of terrorist attacks were assessed</p>	<p><u>State anxiety (SAX):</u> State-Trait Anxiety Inventory, STAI, 20 descriptions of anxiety-related emotional states.</p> <p><u>Anger (SA):</u> State anger section of the State-Trait Anger Expression Inventory, 10 items.</p> <p><u>Enemy Perception:</u> 38 items representing attitudes that Israelis can hold toward the Palestinians, Likert scale. 4 subscales: - Trust in the enemy (TE), - Empathy toward the enemy (EE), - Willingness to negotiate (WN), - Perceptions of enemy hostility (PEH).</p> <p><u>Stereotype Attribution:</u> differential semantic technique.</p>	<p>1. Hypothesis confirmed, for all the dependent measures together, the analysis revealed a sign. effect of the exposure manipulation on post-test levels of SAX, SA, STA and TE, EE, WN and PEH.</p> <p><u>Terrorism condition:</u> Sign. higher post-test levels of SAX, SA, STA, and PEH as well as lower post-test levels of TE, EE, and WN (compared to the non-terrorism cond.)</p> <p>2. Hypothesis (emotional and attitudinal changes will be correlated) was tested by Pearson correlation coefficients between the emotional and attitudinal post- test measures.</p> <p>Results showed moderately sign. positive correlations between post-test levels of the emotional measures of SAX and SA with post-test levels of the attitudinal measures of STA and PEH.</p> <p>In addition, sign. moderate neg. correlations emerged between post-test levels of the emotional measures of SAX and SA and post-test levels of the attitudinal measures of TE, EE and WN.</p> <p>An interesting correlation between specific emotions and attitudes:</p> <p>Anxiety and anger were positively associated with changes in negative attitudes and negatively related to positive attitudes. Changes in anxiety and anger were accompanied by radicalization in STA and PEH.</p> <p>Increases in SAX and SA were related to decreases in TE, EE, and WN.</p>	<p>Measurement: Cronbach's alpha of all scales acceptable to excellent.</p> <p>In both pre- and post-test batteries, questionnaires were presented in a randomly counterbalanced order to limit response set.</p> <p>Videos were equivalent on parameters of length, same male and female reporters, proportion of editorial and verbal presentation to visual and background sound material; prepared for the study by a team of computer and media experts and evaluated by independent judges in pilot studies.</p> <p>Due to the context of the study (area of chronic conflict), generalization to other contexts is limited.</p>
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14. Skitka, Bauman, Aramovich & Morgan, 2006.

Confrontational and Preventative Policy Responses to Terrorism: Anger Wants a Fight and Fear Wants “Them” to Go Away.

Basic and Applied Social Psychology

To test factors that predict support for a confrontational (an expanded War on Terror) and a defensive public policy (deporting various groups symbolically associated with the attackers) shortly after the 9/11 terrorist attacks.

To extend intergroup emotion and appraisal tendency theories to explain support for an increased military response, deportation, or both in reaction to the 9/11 terrorist attacks;

To explore whether differences in anger and fear help to explain why those on the political left and right were relatively divided about military confrontation or bolstering safety of the home front.

Survey

nationally representative sample (N = 550), characteristics of the panel closely match those of U. S. Census.

Anger:
asks pp’s the degree to which they currently feel anger, outrage, and hatred in response to the terrorist attacks.

Fear:
asks pp’s the degree that they currently felt frightened, vulnerable, and confused in response to the attacks.

Right-Wing-Authoritarianism (RWA):
4 items from a RWA scale.

Political orientation (PO):
1 item; extends of liberal or conservative orientation.

Support for war (SW):
1 item; agreement with SW beyond Afghanistan.

Support for deportation (SD): Arab Americans/Muslims/ first generation immigrants

Profile information:
age, education, income

Results reveal that anger is more predictive of SW than fear; Fear was a stronger predictor of SD than anger post 9/11.

PO and RWA appear to be more different than similar constructs; the effects of RWA were stronger and more consistent than effects of PO on SW and SD.

The effects of RWA (not PO) were partially mediated through anger and fear.

RWA had direct and indirect effects on SW, with a portion of the effects mediated through anger but not through fear.

RWA also had direct and indirect effects on SD, indirect effect mediated through fear (not anger).

Females higher in fear than males;

Greater age associated with greater political conservatism, anger, and fear in response to the attacks & less SD;

Lower levels of education associated with higher levels of RWA, anger, fear, SW, and SD.

Lower levels of income associated with higher levels of RWA, greater fear (not anger), and stronger SW, not SD.

Measures:

All multiple item scales showed good reliability, (Cronbach’s alpha ranging from .84 to .89)

Assessment of background profile information to allow generalizability of findings across different demographic groups.

Correlational study; results do not reveal causations.

Half of the variables were assessed using single item measures.

15. Todd, Wilson & Casey, 2005.

Comparing British and Australian Fear of Terrorism Pre and Post the Iraqi War.

Psychiatry, Psychology and Law

<p>To compare British and Australian's fear of terrorism (FoT) and to examine if FoT is influenced by locus of control (LoC), self-efficacy (SE), war opinions (WO) and media consumption (MC) and to examine the relationship between belief in a just world (BJW) and WO.</p>	<p><u>War-Onset-Questionnaire:</u></p> <p>Fear-of-Terrorism-Scale (FoT)</p> <p>Locus-of-Control-Scale (LoC)</p> <p>Media-Consumption scale (MC)</p>	<p>Significant <u>nationality x time interaction (IA):</u></p> <p>British pp's were significantly more fearful at war onset than Australians.</p> <p>Post-war, British participants fear decreased while Australian pp's fear remained at similar levels.</p> <p>British WO increased in pro-war attitude after the event; Australians were more anti-war than the British, and became more so after war.</p>	<p><u>Measures:</u></p> <p>All scales had acceptable to good reliability, (Cronbach's alpha ranging from .73 to .88)</p>
<p>Survey, questionnaires at the onset of the Iraqi war and post war. Within-subjects design, repeated measures.</p>	<p>Belief-in-a-Just-World scale (BJW)</p> <p>Self-Efficacy for Terrorism scale (SE).</p>	<p>Significant <u>IA of nationality and self-efficacy on the FoT scores:</u></p> <p>Highly SE British participants had low fear, while low SE British participants had high fear. (no sign. SE differences in Australians)</p>	<p>Lack of distinction between fear and risk perception.</p> <p>Results cannot be generalized to victims.</p>
<p>89 participants (pp's): 64% female, 36% male;</p> <p>53% British (mean age M = 30.87, 77% university students, 13% professionals, 4% skilled laborers, 6% semi-skilled lab.)</p>	<p>War Opinion (WO)</p>	<p><u>UK:</u></p> <ul style="list-style-type: none"> - Internal LoC correlated positively with external LoC and FoT, & negatively with SE. - External LoC correlated negatively with SE. - MC correlated positively with FoT. - WO correlated negatively with FoT, & positively with BJW. 	<p>Assumptions about causality cannot be made.</p>
<p>47% Australian (mean age = 27.57, 100% university students.)</p> <p>No statistically sign. differences in age, gender or number of children.</p>	<p><u>Post-War-Questionnaire:</u></p> <p>FoT scale + WO</p>	<p><u>Australia:</u></p> <ul style="list-style-type: none"> - WO correlated negatively with internal LoC. - SE sign. predictor of FoT at war-onset - MC sign. predicted FoT at war-onset. - BJW did not predict WO. <p><u>Main effect of nationality:</u></p> <p>British participants were significantly more pro-war than Australians.</p> <p><u>No main effect of time</u>, as overall opinions did not alter sign. post war.</p>	<p>Separating the impact of the media from the impact of the event itself may be impossible.</p>

16. Wilcox, Ozer, Gunbeyi, & Gundogdu, 2009.
Gender and Fear of Terrorism in Turkey.
Journal of Contemporary Criminal Justice

<p>To explore gender differences in fear of terrorism.</p> <p>The study examines whether gender differences in fear of terrorism are mediated by individual & ecological variables as media exposure, pro-terrorism associations, attitudes about terrorism and demographic and contextual background characteristics</p> <hr/> <p>Survey In Diyarbakir; terrorist-plagued southeastern section in Turkey.</p> <p>Convenience sample of Turkish senior high school students;</p> <p>Data from 17,699 students across 68 schools.</p>	<p>FoT (single item)</p> <p>Gender</p> <p>Media exposure (ME)</p> <p>Pro-terrorism Associations (PTA; exposure to PTA by friends, neighbors, family)</p> <p>Attributions of terrorism; “external” and “individual/situational”)</p> <p>Origin; from (South) Eastern Turkey, Western Turkey, or indigenous)</p> <p>SES</p> <p>To explore the effects of social context of fear, school-level independent variables were assessed:</p> <p>School poverty level, School-level exposure to pro-terrorist media, School-level of external blaming.</p>	<p>More women than men reported fear of terrorism (72% to 54%), Even after accounting for diff’s. in the measured correlates of ME, PTA, attributions about terrorism, and demographic and contextual variables.</p> <p><u>Female students:</u> Higher levels of ME to national TV and PTA, scored higher on the “individual/situational” attributions scale (conservatism); more indigenous or from Western Turkey, and higher family income levels than males.</p> <p>Gender was a sign. predictor of FoT but varied across schools -> Gender differences in fear appeared contextual. National TV ME and “individual/ situational” attributions were positively related to fear. Non-national TV exposure, PTA, and “external blaming” (liberal) attributions were negatively related to fear. Student from Western Turkey more fearful than indigenous students. Effects of income were curvilinear.</p> <p><u>Gender-specific analysis:</u> Watching non-national TV had a more substantial effect on male student’s fear (21% reduction in the odds of fear for male students; female 5%).</p> <p>“External blaming” was negatively related to FoT for female students only, and the difference in the effect was sign. different from that for the male sample.</p> <p>The “individual/situational” attributions factor was pos. associated with fear for both male and female samples but the effect was stronger for females.</p>	<p>Big sample size.</p> <hr/> <p><u>Measures:</u> Use of single items, no reliability assessment.</p> <p>ME & PTA assessed without amount.</p> <p>Do not measure perceived risk of terrorism.</p> <p>Measures were constructed from a survey that was administered after a conference on terrorism. Reactions to the conference rather than everyday attitudes and perceptions might have shaped responses.</p> <p>Non-generalizability, due to nonresponse potential biases in sample.</p>
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