Individual Differences in Empathy towards Terrorism

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Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution. This thesis is submitted in partial fulfilment of the requirements for the Master of Research.

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Abstract

This study (N = 557) explored how empathy towards victims and perpetrators of terrorism were associated with broadband (e.g., HEXACO traits; Dark Triad traits) and narrowband individual differences (e.g., beliefs in a competitive and dangerous world, social dominance orientation, religiousness, and right-wing authoritarianism) in samples drawn from Turkish and Australian undergraduates. Country differences revealed Turkish participants were higher in Dark Triad traits, social dominance orientation, right-wing authoritarianism, and religiousness than Australian participants. Australian participants had more empathy towards both victims and perpetrators of terrorism than Turkish participants. Sex differences in personality traits showed men displayed a "darker" personality, than the "lighter" personality of women. The implications of these findings were discussed in relation to the current threat of terrorism in Australia and Turkey. This study provided one of the first quantitative, cross-cultural assessments of empathy towards terrorism using the methods of personality psychology.

Keywords: terrorism; empathy; personality; individual differences; cross-country

Individual Differences in Empathy towards Terrorism

What could possess someone to commit acts of terrorism? Since the September 11 attacks in 2001, governments have been scrambling to increase the defence of countries (Barros, 2003). The "war on terrorism" has dominated the political arena, and not many answers for how to combat this problem are available (Nacos, 2012). Increasing occurrences of targeted attacks imply that government protection agencies and defence systems are failing to combat these events. Just like any other standard form of intentional crime, in order to combat its occurrence, it should be studied as a mechanism of human behaviour and psychology. Terrorism is a form of human aggression and violence committed by individuals or groups. "Terrorists" are individuals engaging in political or religious violence, derived from varying amounts of external influence and context as opposed to external command (Feldman, 2013). This positions terrorists as rational beings who commit malevolent crime, however, does not also mean that terrorists may also be irrational. With increasing occurrences of terrorist attacks around the world, it is crucial that empirical research surrounding terrorism moves towards offering information useful for prevention (Barros, 2003), and gauging attitudes of empathy towards terrorism may be one way of achieving this.

Studies examining individual personality traits and attitudes towards terrorism are limited. A review of the existing literature reveals studies on terrorism as being inductively atheoretical (Enders & Sandler, 1995), with a focus on the effectiveness of government negotiation strategies to deter terrorism. Reviews of prior work on terrorism offer the opinion that both theoretical and empirical accounts of terrorism fail to consider the heterogeneity of terrorists (Victoroff, 2005). An overview of the progress of terrorism research also summarise that majority of studies use secondary analysis (i.e., analyses based on archival records; Silke, 2001). Instead of treating terrorism as a behaviour that individuals engage in, most research examines terrorism at

a social or group level, rather than an individual level. These collectively fail to take individual differences (i.e., personality traits) into account when arriving at research conclusions about terrorism. Ultimately terrorism is committed by individuals, and thus rather than continue with top-down research (i.e., group to individual) this study is concerned with the individual differences from a bottom-up view on terrorism.

Sociological theories attempt to explain terrorism as a cultural misalignment of socially learned behaviour (Phillips, 2015). However, these do not specifically address the crucial importance of individual differences in relation to human behaviour, and attitudes that form as a result. Psychologically speaking, personality traits are the building blocks that influence who we are, what we do, and how we think. They influence many aspects of the lives of humans. There is an abundance of psychological theories of personality from differing theoretical backgrounds, including humanistic (Rogers, 1959), psychodynamic (Freud, 1923), behaviourist (Skinner, 1953), evolutionary (Buss, 1995), social learning (Bandura, 1969), and dispositional (trait) (Cattell, 1965) perspectives. This study focuses on the latter dispositional (trait) model, which has dominated personality research for the past 15 years. Personality traits have predictive power over general health outcomes including self-reported blood pressure, sick days taken from work, and overall self-rated physical health (Turiano, et al., 2011). Personality traits also interact with goal setting to initiate motivation to strive for achieving work outcomes (Barrick, Mount, & Li, 2013), risk-taking and impulsivity (Zuckerman & Kuhlman, 2000), compassion, sympathy, and altruistic helping behaviours (Eisenberg, et al., 1989), and temperament (Buss & Plomin, 2014) to name a few. Aside from influencing behaviour, they also play a role in humour styles (Veselka, Schermer, Martin, & Vernon, 2010), self-presentation whilst using social media (Lee, Ahn, & Kim, 2014), personal values (Parks-Leduc, Feldman, & Bardi, 2015), and even choice of sexual partner (Jonason, Lyons, & Blanchard, 2015). It is an ever-present part

of every individual. However, there is a severe lack of empirical evidence on the relationship between personality factors and attitudes related to intergroup aggression and violence, which might perpetuate terrorism (Feldman, 2013).

Empirical and theoretical evidence supports the idea that personality traits influence attitudes toward in-groups and out-groups (Hodson & Dhont, 2015). Individual differences (i.e., personality traits) have consistently been associated with prejudice beliefs and racism (Guimond et al., 2013; Hodson & Dhont, 2015; Levin et al., 2016). There also seems to be associations between the domain-general aspects of individual differences, such as Dark Triad traits of psychopathy and Machiavellianism, and domain-specific attitudes that support social dominance of the in-group, right wing authoritarianism, dangerous and competitive perceptions of the world, religiosity, and conservatism. These domain-specific aspects imply that prejudice is an "Us vs. Them" ideologically driven mechanism of attitudes.

If prejudice is a form of biased in-group perception, then this could extend to individual differences associated with intergroup violence, and thus, a bias towards terrorism. Past research demonstrates that prejudice attitudes may manifest into racist violence towards the out-group (McKeever, Reed, Pehrson, Storey, & Cohrs, 2013). Similarly, comparisons of factors influencing support of intergroup violence as a product of attitudes supporting in-group or out-group aggression. Considering these links, the measures and methods used to study prejudice are therefore also useful for the study of attitudes towards terrorism.

Comparisons of Western (i.e., American) and Middle Eastern (i.e., Lebanese) participant attitudes towards terrorism reflect that Westerners have stronger attitudes supporting social dominance, right wing authoritarianism, and support of the American intervention in the Middle East (Henry, Sidanius, Levin, & Pratto, 2005). However, the results are opposite with Lebanese Middle-Eastern participants. Additionally, Australian

Anglo-Saxon's hold stronger racist attitudes to an in-group/out-group bias, although Australian Middle Easterners do not share this; instead, out-group Australian Middle Easterners hold beliefs that the world is a dangerous and competitive place (Jonason, 2015). This suggests that individuals belonging to minority out-groups may hold positive attitudes toward in-group directed terrorism by way of latent biases of intergroup aggression. Considering the close relations this trend has with a longing for social dominance and heavy authoritarian views, it suggests that specific individual factors may predispose people to hold relevant attitudes.

Acts of terrorism are thought to be an expression of "malevolent creativity" (Gill, Horgan, Hunter, & Cushenbery, 2013) associated with distinct personality traits that also predict aggressive behaviours (Hosie, Gilbert, Simpson, & Daffern, 2014), such as agreeableness and conscientiousness. This is a result of researchers questioning whether personality traits may have an association with how creative a terrorist may become with organising and executing an attack that maximises damage and attracts global attention. These broadband personality factors are measured through self-report trait questionnaires such as the HEXACO-60; a broad, validated, self-report measure of personality (Ashton & Lee, 2007). It measures individual factors pertaining to Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O). Low Emotionality has been associated with intergroup disgust (Hodson & Dhont, 2015) towards outgroup members. Extraversion and Openness to Experience has been associated with social dominance, a preference for inequality among social groups, and right-wing authoritarian attitudes (Lee, Ashton, Ogunfowara, Bourdage, & Shin, 2010; Sibley, Harding, Perry, Asbrock, & Duckitt, 2010). Openness to Experience is also closely related to creativity, and secondary-analyses of terrorist profiles have assumed that terrorists using dark creativity would reflect stronger Openness to Experience (Viktoroff, 2005). Dark creativity also

resonates with a specific constellation of dark personality traits, more commonly known as the Dark Triad traits (Jonason et al., 2017).

The Dark Triad is an umbrella term used to describe a cluster of socially undesirable traits of personality, which include narcissism, Machiavellianism and psychopathy (Paulhus & Williams, 2002). Whereas "narcissism" encompasses a sense of grandiosity, egotism, self-orientation, and lack of empathy, "Machiavellianism" is associated with manipulative behaviour, self-interest, exploitation of others, and a ruthless lack of morality. The third aspect – subclinical "psychopathy" – is associated with reckless, cruel and callous behaviour, antisocial selfish behaviour, and a lack of empathic skill and remorse. The Dark Triad traits have since been found as strong predictors of deception in various contexts (Baughman, Jonason, Lyons, & Vernon, 2014) and aggression (Jonason, Duineveld, & Middleton, 2015). Aggressiveness is also a core component to the measurement of the Dark Triad traits, but is expressed in relation to the vanity of the traits which are also correlated with verbal and physical aggression, as well as hostility (for example, items from the Dirty Dozen Dark Triad scale including "I tend to want others to admire me", and "I tend to not be too concerned with morality or the morality of my actions"; Jonason & Webster, 2010).

Certain aspects of the Dark Triad − Machiavellianism and psychopathy in particular – are strong predictors of religious sinning (i.e., the seven deadly sins, such as lust, gluttony, greed; Jonason, Ziegler-Hill, & Okan, 2017). The commissions of sin or vice (i.e., religious sinning), may be understood as a function of behavioural dysregulation, whereby individuals engage in activities that go against religious morals and beliefs (Gioia, Isquith, Guy, & Kenworthy, 2000). If the behavioural dysregulation of sin or vice may be a result of psychological or physical dysfunction, then this could also be the case for other contexts of behavioural dysregulation, such as terrorism. Acts of terrorism catalysed by the desire to harm a mass amount of people instil fear *en*

masse (Enders & Sandler, 1995). This implies a dysregulation of the crucial human emotion that is empathy, which individuals follow as an ethical code to being "good natured" (de Waal, 1996). Suggestions that narcissistic personalities are more adept to join terrorist groups, and have empathic attitudes toward terrorism (Johnson & Feldmann, 1992) are noteworthy. However, no prior research has specifically explored attitudes of empathy towards victims and perpetrators of terrorism, which is what the current study aimed to do.

Empathy is an emotional response (Eisenberg & Lennon, 1983) and the capacity that humans and other species have to resonate with the positive and negative feelings of others (Singer & Klimecki, 2014). It is no surprise then that clinical cases of Narcissistic Personality Disorder are characterised by a dysfunctional lack of empathy, subject to motivational and situational factors (Baskin-Sommers, Krusemark, & Ronningstam, 2014). A lack of empathy is also the core characteristic of psychopathy (White, 2014). Although a defining feature of personality disorders, a lack of empathy is also shared by non-clinical individuals with increased aggressive behaviours (Bartholow, Sestir, & Davis, 2005). As such, aggression is predictable based on low emotional intelligence and a lack of empathy (i.e., disregard for the emotion of others) in non-clinical individuals (Piko & Pinczés, 2014). A lack of empathy also leads to a dehumanisation effect, involving the individual to view other persons in a way that separates them from the ability to feel (Haslem & Stratemeyer, 2016). This dehumanisation phenomenon is also seen in inter-group aggression, whereby the in-group experiences a dehumanisation effect towards outgroup members. This has specifically been studied in the context of terrorism, and is even evident in dehumanising attitudes towards in-group members of western Americans, by outgroup Muslim Americans. So much so does this phenomenon have an effect on empathy, that the more dehumanised a member of the outgroup feels, the stronger the dehumanisation

effect will be in return towards in-group members (Bruneau, 2016). In relation to the context of terrorism, this means that seeing the enemy as an "other" may facilitate individuals killing out-group members without experiencing the feeling of empathy.

If the behavioural dysregulation of inter-group aggression is a result of psychological dysfunction both in empathy and in general, then this could explain why some individuals are attracted to terrorism. The individual factors to predict aggression and violence such as attitudes of prejudice, racism, and a burning desire to harm others, may also then predict positive empathic attitudes toward perpetrators of terrorism. This possible explanation is consistent with past predictions of terrorist individuals as driven by specific internal drives (Feldman, 2013), and implies a relationship between individual differences in empathy towards terrorism, which the current study explores.

Other individual factors (e.g., social dominance orientation, authoritarianist views, beliefs the world is a dangerous and competitive place, religiousness and conservatism) are efficient measures and methods in gaining information about attitudes in relation to intrinsic motivators of prejudice (Hodson & Dhont, 2015) as they provide a broad range of individual differences in personality to consider. These measures may also be utilised to examine intergroup aggression as a further extension of intergroup negativity and prejudice-inspired attitude. Other comparisons of factors influencing support of intergroup violence as a product of in-group or out-group aggression have also used measures of social dominance orientation, right-wing authoritarianism, and support of terrorism (Henry, Sidanius, Levin, & Pratto, 2005). However, the past studies examined attitudes toward terrorism violence with a primary focus on anti-Western and anti-Arab violence concerning the U.S decision to combat the Taliban in Afghanistan. The current study incorporated the methods and measures used to explore prejudice within the study design (Hodson & Dhont, 2015), as well as a terrorism empathy scale to measure the amount of empathy towards victims and perpetrators of terrorism.

This study aimed to explore the association between individual differences (i.e., personality traits) and attitudes of empathy towards victims and perpetrators of terrorism. Empathy towards terrorism were measured alongside the methods and measures used to study prejudice (Hodson & Dhont, 2015) due to the prospective similarities inter-group aggression in the form of terrorism. This study examined the strength of individual perceptions of the competitive and dangerous nature of the world in relation to the attitudes towards terrorism. Additionally, it aimed to explore if these attitudes are also reflected through social dominance orientation, right-wing authoritarian views, and religiousness, because of the associations that these have shared with other forms of inter-group aggression such as prejudice and racism, as discussed above.

Prior research demonstrates associations between prejudice and the HEXACO-60 personality domains of Openness to experience, and Agreeableness, and there was the expectation that these traits would also have association with terrorism empathy in this study. As this was the first study of its kind, the research was exploratory, as we did not know what to expect. There also was an expectation to find sex differences consistent with prior findings for the personality measures. Although Turkey was chosen for the cross-country comparison due to a collaboration offer and not for any specific reason, we did expect to find country differences in the personality measures and also the empathy ratings towards terrorism. It was hypothesised that there would be a strong relationship between lower empathy towards perpetrators of terrorism and beliefs that the world is a dangerous and competitive place.

Method

Participants

Participants (N = 557) from the cross-cultural sample consisted of 314 Australian, and 243 Turkish individuals, recruited through university participation portals in Australia (SONA; Western Sydney University) and Turkey (Sakarya University). The total sample consisted of 217 men, 339 women, and 1 participant from the Turkish sample who identified their gender as "Other". This participant was included in the final dataset, however, was not included in sex-specific analyses.

The study was advertised to undergraduate psychology students as "The Role of Personality in the Processing of News Stories". The project design required diversity of ages, ethnicity, and large sample size for the generalizability of results. Course credit was granted to Australian participants upon study completion. Australian and Turkish sample participants were placed in a draw to win a gift voucher of $50 and $100 value. This project used $3,000 funding available to HDR students at Western Sydney University with approval by the Human Research Ethics Committee (See Appendix I).

Measures

Broadband Personality Traits

The HEXACO-60 model of personality structure (Ashton & Lee, 2007; See Appendix B) is a commonly used research tool consisting of six factors; Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O). This validated self-report scale provides broad information on personality factors, and was used in prior research examining the relationship between these individual differences and other forms of inter-group aggression such as prejudice (Hodson & Dhont, 2015). It is a shorter version of the full HEXACO Personality Inventory (Ashton & Lee, 2004), consisting of 10 items for each of the six scale constructs. The HEXACO-60 reports high convergent

correlations between observer reports and self-report, which average above .50, and is recommended to use for personality assessment with limited administration time (Ashton & Lee, 2007).

Internal consistency for each of the subscales was tested via Cronbach's alpha, and grouped frequency distributions for each of the scale domains was also tested.[1] The scale domains were as follows; Honesty-Humility (M = 3.57, α = .69, SE = 0.03) normally distributed, with skewness of -0.25 (SE = 0.10) and kurtosis of -0.04 (SE = 0.21); Emotionality (M = 3.29, α = .73, SE = 0.03) normally distributed with skewness of -0.12 (SE = 0.10) and kurtosis of -0.27 (SE = 0.21); Extraversion (M = 3.28, α = .80, SE = 0.03) normally distributed with skewness of -0.16 (SE = 0.10) and kurtosis of -0.22 (SE = 0.20); Agreeableness (M = 3.20, α = .67, SE = 0.02) normally distributed with skewness of -0.15 (SE = 0.10) and kurtosis of 0.32 (SE = 0.21); Conscientiousness (M = 3.48, α = .71, SE = 0.02) normally distributed with skewness of -0.10 (SE = 0.10) and kurtosis of -0.25 (SE = 0.21); and Openness to Experience (M = 3.41, α = .71, SE = 0.03) normally distributed with skewness of -0.12 (SE = 0.10) and kurtosis of -0.21 (SE = 0.21). All probability distributions were platykurtic. The items from each of the domains were averaged to create an overall score for each of these six respective subscale domains.

The Short Dark Triad scale (SD3; Jones & Paulhus, 2014) provides information on how strongly individuals may reflect traits of narcissism, Machiavellianism, and subclinical psychopathy. The SD3 has previously been used in conjunction with other self-report scales used in this study (Jonason, 2015; Zeigler-Hill, Besser, & Marcus, 2017). Participants were asked to rate their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with statements such as "People see me as a natural leader", and "It's

[1] On average, there was no problematic skew ($S_{average}$ = -1.96), although the scales had overall slightly platykurtic probability distribution ($K_{average}$ = -0.29). Values between -2 and +2 are considered acceptable to prove normal univariate distribution (George & Mallery, 2010). Thus, analysis proceeded with parametric tests.

true that I can be mean to others" (See Appendix C). The grouped frequency distributions for each of the scale domains were platykurtic. Machiavellianism was normally distributed with skewness of -0.17 (*SE* = 0.10) and kurtosis of -0.02 (*SE* = 0.21); narcissism was normally distributed with skewness of -0.04 (*SE* = 0.10) and kurtosis of 0.22 (*SE* = 0.21); and psychopathy was normally distributed with skewness of 0.34 (*SE* = 0.10) and kurtosis of -0.42 (*SE* = 0.21). Internal consistency was calculated through Cronbach's alpha; items were then averaged to create an overall score of narcissism (α = .72), Machiavellianism (α = .76), and psychopathy (α = .74).

Worldviews

Beliefs in the dangerous (BDW; Altemeyer, 1988) and competitive nature of the world (BCW; Altemeyer, 1988) are scales previously used to measure worldviews in relation to contexts such as racism (Jonason, 2015), and prejudice (Hodson & Dhont, 2015). Beliefs that the world is a dangerous place were measured using a 10-item scale (Altemeyer, 1998). Previous studies report an α coefficient of .88 for the belief in a dangerous world scale (Duckitt & Fisher, 2003). Participants were asked to rate their agreement (1 = *strongly disagree*; 5 = *strongly agree*) to statements such as "Any day now chaos and anarchy could erupt around us. All the signs are pointing to it", and "There are many dangerous people in our society who will attack someone out of pure meanness, for no reason at all" (See Appendix F). Higher scores indicate greater beliefs that the world is a dangerous place. The grouped frequency distributions for this scale showed it had platykurtic distribution with skewness of -0.72 (*SE* = 0.10) and kurtosis of 1.07 (*SE* = 0.21). Internal consistency for the scale items was calculated with Cronbach's alpha (α = .78). The items were then averaged to create an overall score of dangerous world beliefs.

Belief in the competitive nature of the world was measured using a 10-item scale (Duckitt & Fischer, 2003), including questions such as "Basically people are objects to

be quietly and coolly manipulated for one's own benefit", and "There is really no such thing as "right" and "wrong". It all boils down to what you can get away with". Participants were asked to rate their agreement (1 = *strongly disagree*; 5 = *strongly agree*); higher scores indicating greater beliefs that the world is a competitive place (See Appendix F). The grouped frequency distributions for the scale showed this scale had platykurtic distribution with skewness of 0.08 (*SE* = 0.10) and kurtosis of -0.24 (*SE* = 0.21). Internal consistency of the scale items was measured with Cronbach's alpha (α = .70). The items were averaged into an overall score of Belief in a Competitive World.

The Right-Wing Authoritarianism scale (RWA; Altemeyer, 1981) is a validated measure of conventionalism, authoritarian submission, and authoritarian aggression. It is powerful in providing information to infer ideological, political, and intergroup phenomena (Altemeyer, 1988). The scale is commonly used in research of attitudes relating to prejudice (Hodson & Dhont, 2015), and even terrorism (Stitka, Bauman, Aramovich, & Morgan, 2010). It has also previously been used in personality research with Australian samples (Jonason, 2015). The 12-item scale included statements such as "Obedience and respect for authority are the most important virtues children should learn", and "What our country really needs instead of more "civil rights", is a good stiff dose of law and order" (See Appendix D). Participants were asked to rate their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with these statements. The grouped frequency distributions for the scale showed platykurtic distribution with skewness of -0.19 (*SE* = 0.10) and kurtosis of -0.15 (*SE* = 0.21). Internal consistency for the items in this scale was calculated with Cronbach's alpha (α = .76). The 12 items were averaged into an overall score of right-wing authoritarianism.

The Social Dominance Orientation scale (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994) is a validated tool measuring attitudes pertaining to the extent of an individual's desire for their in-group to dominate and be superior to outgroup members

(Pratto et al., 1994). The ten items derived from the full scale used in this study included questions such as “Some groups of people are simply inferior to other groups”, and “Inferior groups should stay in their place” (See Appendix E). Participants were asked to rate their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with these statements. The short version of the scale has previously been used in studies measuring its association with perceived threats to participant worldview, which report an α coefficient of .80 (Dickitt & Fisher, 2003). The grouped frequency distributions for the scale showed platykurtic distribution with skewness of -0.17 (*SE* = 0.10) and kurtosis of -0.74 (*SE* = 0.21). Internal consistency for items of this scale was measured with Cronbach’s alpha (α = .82). The ten items were averaged into an overall score of social dominance orientation.

Religiousness was measured using a five item scale which has previously been used in research on discrimination and attitudes (Strosser, Jonason, Lawson, Reid, & Vittum-Jones, 2016). Participants were asked to rate their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with statements such as “I am a religious/spiritual person”, and “I pray very often” (See Appendix A). Higher scores indicate high religiousness and devotion to the individual’s religious practice. Grouped frequency distributions of the scale showed platykurtic distribution with skewness of -0.12 (*SE* = 0.10) and kurtosis of -1.17 (*SE* = 0.21). Internal consistency for the scale items was calculated with Cronbach’s alpha (α = .93). The five items were averaged to create an overall score of Religiousness.

Empathy towards Terrorism

To the best of the researcher’s knowledge, there are no scales to specifically measure attitudes of empathy towards victims or perpetrators of terrorism. However, there are previously used measures of individual empathy towards victims and perpetrators of crimes (Smith & Frieze, 2003). The empathy scale used in this study was

developed in two stages, first by selecting scale items with higher levels of internal consistency Cronbach's alpha among the original scale items (i.e., $\alpha < .60$) from the empathy towards victims and perpetrators of crimes scale (Smith & Frieze, 2003). Next, the question items were further with consideration to conceptual validity for measuring terrorism empathy. The final 10 items assessed self-reported empathy levels towards both victims and perpetrators of terrorism (See Appendix G). Participants rated the degree to which they agree (1 = *disagree strongly*; 5 = *agree strongly*) to statements such as "I can understand how helpless a terrorist attack victim might feel", and "I can empathize with the helplessness and fear a terror victim feels after a terror attack" (i.e., victim empathy); as well as "I can understand how powerful a terrorist might feel", and "I imagine the anger a person would feel at being accused of terrorism" (i.e., perpetrator empathy). Thus, the adapted Terrorism Empathy scales measured the overall tolerance for terrorism through rating empathy that participants express towards perpetrators of terrorism (i.e., perpetrator empathy), and victims of terrorism (i.e., victim empathy). Steps were taken to analyse the internal consistency reliability of the scale items, through within-article as well as between-article testing for Cronbach's alpha. These steps taken have been discussed below.

Turkish Sample

Internal consistency within the five empathy question items for the Turkish sample, within each of the three articles that participants saw was tested, for both victims (Article 1, $\alpha = .89$; Article 2, $\alpha = .90$; Article 3, $\alpha = .89$), and perpetrators (Article 1, $\alpha = .87$; Article 2, $\alpha = .87$; Article 3, $\alpha = .87$) of terrorism. First, these items were averaged into a single score of Victim Empathy and Perpetrator Empathy, for each article respectively. Second, an analysis of variance showed no significant difference between the three empathy responses sampled for both victim empathy, $F(2, 486) = 2.02$, $p > .05$, as well as perpetrator empathy, $F(2, 486) = 0.89$, $p > .05$. Third, internal

consistency between the three averaged scores of each article for both victim (α = .95), and perpetrator empathy (α = .96) was calculated. Fourth, the three averaged scores were then further averaged to create an overall index of *Victim Empathy* and *Perpetrator Empathy* for the Turkish sample.

Australian Sample

To overcome the methodological issue of a randomisation error described below, empathy responses were randomly selected from only one of the stimulus articles collected from the Australian sample. Even if participants provided three full responses to empathy items after presentation of all three articles, only one of these responses was randomly selected for analysis. First, internal consistency tests were run to assess reliability of the five question items from within each of the victim and perpetrator empathy scales by calculating Cronbach's alpha for both victims (α = .86) and perpetrator (α = .85) empathy scores. Second, an analysis of variance showed no significant difference between the three empathy responses (i.e., after reading Article 1, Article 2, and Article 3) for both victim empathy, $F(2, 310) = 2.14$, $p > .05$, as well as perpetrator empathy, $F(2, 310) = 0.02$, $p > .05$ within the Australian sample. Third, the individual question items were averaged into an overall index of *Victim Empathy* and *Perpetrator Empathy*.

The grouped frequency distributions for overall Victim Empathy showed platykurtic distribution with skewness of -1.22 (*SE* = 0.10) and kurtosis of 1.92 (*SE* = 0.21). The grouped frequency distributions for overall Perpetrator Empathy also showed platykurtic distribution with skewness of -0.03 (*SE* = 0.10) and kurtosis of -0.75 (*SE* = 0.21).

Design

This study was exploratory as the objective is to provide information about a relatively unstudied area. It consisted of multiple measures of individual differences and

attitudes. These individual differences and attitudes were derived from self-report scales measuring individual differences of broadband personality traits (i.e., HEXACO-60, SD3), and narrowband personality traits (i.e., worldviews). The study was administered to the Turkish participants in Turkish. The previously validated Turkish translation of the Short Dark Triad (SD3) was used (Özsoy, Rauthmann, Jonason, & Ardıç, 2017), however, the remaining scales needed translation for the Turkish sample.

The native Turkish-speaking researcher and two independent academic research assistants from Turkey completed translations of the survey. The two independent Turkish research assistants were also fluent in English. This was then checked by back-translating to assess conceptual equivalence. This also involved adjusting syntax of the statements to avoid awkward phrases, as direct translations of English to Turkish involved consideration for conceptual equivalence to the original scales (Hilton & Skrutkowski, 2002). For the translations to uphold conceptual and semantic equivalence, colloquial phrasing was used. Minor final adjustments made to the Turkish translations on a few items after translating them back into English encapsulated the fuller semantic equivalence from the original English question items. After this, the researcher and a third independent academic from Turkey (who was also fluent in English) discussed all translations to decide on the fixed translations for each scale items. The current study uses final items for each scale translated after these changes and complete agreement among the translators that the final version were indeed conceptually equivalent to the original English scales. The news articles about terror attacks in Istanbul that participants viewed before answering the empathy questions were obtained from real news sources in Turkey rather than translating real news articles from Australia, in order of also maintaining conceptual equivalence.

Procedure

Participants completed the online study with a link to Qualtrics. Upon activation of the survey links, the study displayed the following "Warning: this hit may contain confronting content, participant discretion is advised". After clicking the link, the following information was displayed: "This study is investigating individual differences and attitudes in relation to real news articles about terrorism. Several of these images will contain explicit real-news stories on terrorist attacks that have recently occurred in Turkey. If you object to viewing such articles, you should not participate in this study". Participants were then required to view the participant information sheet and complete their consent, reminding them that their submissions will remain anonymous. The study was administered only after participants agreed to continue after giving consent following three warnings informing participants that they may be exposed to confronting material. Participants had ample opportunity to withdraw from the study if they did not wish to be exposed to such articles after all three of these steps.

First, participants were asked to complete demographic questions (i.e., age, sex, working status, marital status, ethnicity, religion) and religiousness (Strosser et al., 2016; See Appendix A). Second, participants completed randomized personality measures of the HEXACO-60 (Ashton & Lee, 2007; See Appendix B), and the Short Dark Triad (Jones & Paulhus, 2014; See Appendix C). Third, participants completed randomized questions probing for attitudes towards right-wing authoritarianism (Altemeyer, 1981; See Appendix D), social dominance orientation (Sidanius & Pratto, 1999; See Appendix E), belief in a competitive world, and belief in a dangerous world (Duckitt & Fisher, 2003; See Appendix F).

Participants then viewed a series of three real news articles taken from Australian news sources (See Appendix H) for the Australian sample, and Turkish news sources for the Turkish sample (See Appendix G). The study software used rotated the

order of presentation of these articles. Participants rated their empathy towards both victims and perpetrators of terrorism directly after viewing each of the three articles (See Appendix H). This was a unique way of gaining access to people's attitudes towards terrorism and terrorists. The question items from both scales of victim and perpetrator empathy were combined and randomly presented to participants.

However, there were issues experienced with the rotation of these articles in the Australian sample. Participants from the Turkish sample viewed all three randomised articles, and thus provided empathy scores for victims and perpetrators three times. Due to a forced response feature in Qualtrics that was not applied to the survey for the Australian sample, the study software did not carry out the rotation of articles for some participants of the Australian sample. All participants from the Australian sample provided scores of empathy after reading at least one article, however, only a small percentage of the Australian sample provided empathy scores twice or three times. Thus, each Turkish sample participant provided three separate responses of empathy towards victims and perpetrators of terrorism using the same items. Each Australian sample participant provided responses to the five question items for empathy towards victims and perpetrators of terrorism, at least once.

The original reason for using three rotated articles with randomised empathy scale questions was to produce three separate (repeated measures) scores, to be able to test between- and within-measure scale reliability. The original intentions were to produce a single overall summed score of empathy towards victims and perpetrators of terrorism, if there was sufficient internal consistency for this to be acceptable. The steps taken to overcome this have been outlined above for each cross-country sample. Internal consistency reliability for within- and between-article scale items were conducted. This still allowed for averaging items into an overall index of Victim Empathy and Perpetrator Empathy after testing for internal consistency.

Results

Sex and Country Effects

Table 1 contains descriptive statistics and sex differences. Men scored higher on the Dark Triad traits than women. Men also scored higher on Right-Wing Authoritarianism, Social Dominance Orientation, Religiousness, and Belief in a Competitive World than women. Women scored higher in Honesty-Humility, Emotionality, and Conscientiousness than men. Women also reported higher scores of Victim Empathy than men. There was no difference between men and women on Perpetrator Empathy, Extraversion, Agreeableness, Openness to Experience, and Belief in a Dangerous World.

Table 2 contains the country level differences in the individual difference measures between Australia and Turkey. Turkish participants were higher on Narcissism, Machiavellianism, Psychopathy, Social Dominance Orientation, Religiousness, Belief in a Dangerous World, and Belief in a Competitive World, than the Australian participants were. Australian participants scored higher in Emotionality, Victim Empathy, and Perpetrator Empathy than Turkish participants. There were no differences between Australian and Turkish participants on Honesty-Humility, Extraversion, Agreeableness, Conscientiousness, Openness to Experience, and Right-Wing Authoritarianism.

A 2 × 2 (Country × Sex) between-groups ANOVA was performed on all the scales to see if there were interaction effects.[2] There was a significant interaction effect for Emotionality $F(1, 552) = 4.48$, $p < .05$, $\eta_p^2 = .01$, between Australian women (M = 3.56, SD = 0.58), and Turkish women (M = 3.36, SD = 0.61), $t(337) = 2.94$, $p < .01$, d = 0.33. There also was a significant interaction effect for Narcissism $F(1, 552) = 8.08$, $p <$ .01, $\eta_p^2 = .01$ between Australian women (M = 2.55, SD = 0.60), and Turkish women (M

[2] The average p-value ($p = .23$) for the Levene's test for homogeneity of variance was greater than .05, thus the assumption of normality for homogeneity of variances was met overall in the data.

= 3.06, *SD* = 0.59), *t*(337) = 7.36, *p* < .001, *d* = -0.86; as well as between Australian men (*M* = 2.86, *SD* = 0.61), and Turkish men (*M* = 3.07, *SD* = 0.51), *t*(215) = 2.74 , *p* < .01, *d* = -0.37.

There was a significant interaction effect for Right-Wing Authoritarianism, *F*(1, 552) = 4.12, *p* < .05, η_p^2 = .00, however this dropped out when sex differences for Right-Wing Authoritarianism was factored by country. The sex differences for Right-Wing Authoritarianism was only significant within the Turkish sample, between Turkish men (*M* = 2.76, *SD* = 0.54) and Turkish women (*M* = 2.49, *SD* = 0.60), *t*(240) = 3.63, *p* < .001, *d* = 0.47. It must be noted, however, that this and the above interactions were small in size, except for the country and sex interaction for Narcissism, suggesting that they account for a minor amount of cross-sex and cross-national differences in personality.

Correlations and Moderations

Table 3 contains correlations between the distal traits and the proximal traits in relation to the empathy scales. Higher Victim Empathy was associated with higher levels of Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience. Lower Victim Empathy was associated with higher levels of Narcissism, Psychopathy, Social Dominance Orientation, and Belief in a Competitive World. Lower Perpetrator Empathy was associated with higher levels of Narcissism, Honesty-Humility, Belief in a Dangerous World, and Religiousness.

Next, moderation by sex and country was assessed using Fisher's *z* test.[3] There were minimal moderation effects overall, with only 10% of the sex, and 14% of the country moderated correlations differing. There seems to be more empathy differences

[3] Fisher's *z* scores were calculated using Preacher, K. J. (2002, May). Calculation for the test of the difference between two independent correlation coefficients [Computer software]. Available from http://quantpsy.org.

on the country level, with the significant ones reported in the spirit of disclosure. First, sex moderations (see Table 4) determined whether these correlations differed in men and women. The correlation between Victim Empathy and Machiavellianism was larger in men than it was in women. The correlation between Victim Empathy and Emotionality was larger in women than it was in men. The correlation between Perpetrator Empathy and Machiavellianism was larger in men than it was in women.

Second, country moderations (see Table 5) determined whether these correlations differed in Australia and Turkey. The correlation between Victim Empathy and Psychopathy was larger in Australian participants than it was in Turkish participants. The correlation between Victim Empathy and Emotionality was larger in Australian participants than it was in Turkish participants. The correlation between Victim Empathy and Social Dominance Orientation was larger in Australian participants than it was in Turkish participants. The correlation between Victim Empathy and Belief in a Competitive World was larger in Australian participants than in Turkish participants.

Mediation of Terrorism Empathy

Given the correlations and sex differences, mediation tests were conducted where (1) the dependent variables and mediator had significant sex differences and (2) the mediators were correlated with the dependent variables (Baron & Kenny, 1986). This allows for tests of how personality traits and worldviews account for sex differences in empathy towards terrorism. The results of the mediation analyses are presented in Table 6.

To understand what is behind the sex differences in Victim Empathy, personality traits were treated as potential mediators (i.e., confounders) in a series of Hierarchical Multiple Regression models where Step 1 contained participant's sex. When examining individual differences in Victim Empathy, sex alone accounted for 4%

($F(1, 554) = 24.86$, $p < .001$) of the total variance. When paired with the personality traits of Narcissism, Honesty-Humility, Conscientiousness, Emotionality, Psychopathy, Social Dominance Orientation, Belief in a Competitive World, the total model accounted for 16% ($F(8, 547) = 13.33$, $p < .001$) of the variance in Victim Empathy. The residuals of Narcissism (β = .08, $t = 1.62$, $p > .05$), Honesty-Humility (β = -.02, $t = -0.43$, $p > .05$), Conscientiousness (β = .05, $t = 1.19$, $p > .05$), and psychopathy (β = -.09, $t = -1.65$, $p > .05$), dropped out of the model in Step 2 after accounting for the shared variance. The residuals of Emotionality (β = .14, $t = 3.10$, $p < .01$), Social Dominance Orientation (β = -.12, $t = -2.41$, $p < .05$), and Belief in a Competitive World (β = -.19, $t = -3.50$, $p < .01$), remained significant after accounting for the shared variance the traits have with sex. This begged the further question of by how much these personality traits individually account for variability in Victim Empathy between men and women.

The sex difference in Victim Empathy (Step 1; β = .21, $t = 4.99$, $p < .001$) was partially mediated (Step 2; β = .14, t = 3.07, $p < .01$) when Emotionality was added in Step 2 ($\Delta R^2 = .03$, $p < .001$), and the residual of Emotionality (β = .18, $t = 3.97$, $p < .001$) remained significant. The sex difference in Victim Empathy (Step 1; β = .21, $t = 4.99$, $p < .001$) was also partially mediated (Step 2; β = .12, $t = 2.87$, $p < .01$) when Social Dominance Orientation was added in Step 2 ($\Delta R^2 = .06$, p < .001), and the residual of Social Dominance Orientation (β = -.26, $t = -5.97$, $p < .001$) remained significant. The sex difference in Victim Empathy (Step 1; β = .21, $t = 4.99$, $p < .001$) was also partially mediated (Step 2; β = .14, $t = 3.54$, $p < .001$) when Belief in a Competitive World was added in Step 2 ($\Delta R^2 = .08$, $p < .001$), and the residual of Belief in a Competitive World (β = -.30, $t = -7.31$, $p < .001$) remained significant.

To understand the nature of the country difference in Victim Empathy, personality traits were treated as potential mediators (i.e., confounders) in a series of

Hierarchical Multiple Regression models where Step 1 contained participant's country. When examining individual differences in Victim Empathy, country alone accounted for 4% ($F(1, 554) = 19.81$, $p < .001$) of the total variance, and when paired the personality traits of Emotionality, Belief in a Competitive World, Narcissism, Psychopathy, and Social Dominance Orientation, the model accounted for 16% ($F(6, 549) = 17.67$, $p < .001$) of the variance in Victim Empathy. All personality traits remained as significant residuals after the shared variance in the traits between countries was accounted for. The predictors remained as Narcissism ($\beta = .10$, $t = 2.21$, $p < .05$), Psychopathy ($\beta = -.10$, $t = -2.08$, $p < .05$), Emotionality ($\beta = .15$, $t = 3.54$, $p < .001$), Social Dominance Orientation ($\beta = -.11$, $t = -2.01$, $p < .05$) and Belief in a Competitive World ($\beta = -.19$, $t = -3.73$, $p < .001$). This begged the further question of by how much these personality traits individually account for variability in Victim Empathy between Turkey and Australia.

The country difference in Victim Empathy (Step 1; $\beta = -.19$, $t = -4.45$, $p < .001$) was partially mediated (Step 2; $\beta = -.15$, $t = -3.49$, $p < .01$) when Emotionality was added in Step 2 ($\Delta R^2 = .04$, $p < .001$), and the residual of Emotionality ($\beta = .20$, $t = 4.85$, $p < .001$) remained significant. The country difference in Victim Empathy was also partially mediated (Step 2; $\beta = -.12$, $t = -2.97$, $p < .01$) when Belief in a Competitive World was added in Step 2 ($\Delta R^2 = .09$, $p < .001$), and the residual of Belief in a Competitive World ($\beta = -.30$, $t = -7.40$, $p < .001$) remained significant.

The country difference in Victim Empathy was not mediated (Step 2; $\beta = -.18$, $t = -3.92$, $p < .001$) when Narcissism was added in Step 2 ($\Delta R^2 = .00$, $p = .47$). The country difference in Victim Empathy was partially mediated (Step 2; $\beta = -.13$, $t = -3.08$, $p < .01$) when Psychopathy was added in Step 2 ($\Delta R^2 = .06$, $p < .001$), and the residual of Psychopathy ($\beta = -.24$, $t = -5.84$, $p < .001$) remained significant. The country difference in Victim Empathy was fully mediated (Step 2; $\beta = -.06$, $t = -1.30$, $p = .19$)

when Social Dominance Orientation was added in Step 2 ($\Delta R^2 = .06$, $p < .001$), and the residual of Social Dominance Orientation ($\beta = -.27$, $t = -5.82$, $p < .001$) remained significant.

To understand the nature of the country difference in Perpetrator Empathy, personality traits were treated as potential mediators (i.e., confounders) in a series of Hierarchical Multiple Regression models where Step 1 contained participant's country. When examining individual differences in Perpetrator Empathy, country alone accounted for 6% ($F(1, 554) = 34.87$, $p < .001$) of the variance in Perpetrator Empathy, and when paired with the personality traits of Narcissism, Religiousness, and Belief in a Dangerous World, the model accounted for 9% ($F(4, 551) = 13.11$, $p < .001$) of the variance in Perpetrator Empathy. The residuals of Narcissism ($\beta = -.01$, $t = -0.28$, $p > .05$) and Religiousness ($\beta = -.02$, $t = -0.40$, $p > .05$) were not significant in Step 2 and thus dropped out of the model, with the residual of Belief in a Dangerous World ($\beta = -.18$, $t = -3.90$, $p < .001$) remaining significant after accounting for the shared variance with Perpetrator Empathy.

Further mediation analysis was then conducted to find by how the personality trait of Belief in a Dangerous World accounted for variability in Perpetrator Empathy between Turkey and Australia. The country difference in Perpetrator Empathy (Step 1; $\beta = -.24$, $t = -5.91$, $p < .001$), was partially mediated (Step 2; $\beta = -.17$, $t = -3.80$, $p < .001$) when Belief in a Dangerous World was added in Step 2 ($\Delta R^2 = .03$, $p < .001$), and the residual of Belief in a Dangerous World ($\beta = -.18$, $t = -4.06$, $p < .001$) remained significant.

Auxiliary Mediation Analyses of the Dark Triad traits

In addition, auxiliary analyses were also conducted to attempt to understand what might account for sex and country differences in the Dark Triad traits (see Table 7). As these are considered distal personality traits, we opted to understand variance in

them through the lens of the lower-order, proximal traits. That is, we tested whether sex differences in, for example, psychopathy, were a function of individual differences in, for example, social dominance orientation.

Sex Differences in Narcissism

The sex difference in Narcissism (Step 1; β = -.22, t = -5.23, p < .001) was partially mediated (Step 2; β = -.15, t = -3.67, p < .001) when Honesty-Humility was added in Step 2 (ΔR^2 = .09, p < .001), and the residual of Honesty-Humility (β = -.31, t = -7.71, p < .001) remained significant. The sex difference in Narcissism was also partially mediated (Step 2; β = -.14, t = -3.09, p < .01) when Emotionality was added in Step 2 (ΔR^2 = .03, p < .001), with the residual of Emotionality (β = -.20, t = -4.54, p < .001) remaining significant. The sex difference in Narcissism was also partially mediated (Step 2; β = -.11, t = -2.53, p < .05) when Social Dominance Orientation was added in Step 2 (ΔR^2 = .10, p < .001), with the residual of Social Dominance (β = .34, t = 8.10, p < .001) remaining significant.

The sex difference in Narcissism was also partially mediated (Step 2; β = -.17, t = -4.11, p < .001) when Belief in a Competitive World was added in Step 2 (ΔR^2 = .05, p < .001), with the residual of Belief in a Competitive World (β = .22, t = 5.26, p < .001) remaining significant. The sex difference in Narcissism was also partially mediated (Step 2; β = -.19, t = -4.65, p < .001) when Religiousness was added to Step 2 (ΔR^2 = .07, p < .001), with the residual of Religiousness (β = .15, t = 3.71, p < .001) remaining significant.

Sex Differences in Machiavellianism

The sex difference in Machiavellianism (Step 1; β = -.24, t = -5.79, p < .001) was partially mediated (Step 2; β = -.16, t = -4.12, p < .001) when Honesty-Humility was added in Step 2 (ΔR^2 = .11, p < .001), with the residual of Honesty-Humility (β = -.34, t = -8.56, p < .001) remaining significant. The sex difference in Machiavellianism

was also partially mediated (Step 2; β = -.20, t = -4.47, p < .001) when Emotionality was added in Step 2 (ΔR^2 = .00, p < .05), with the residual of Emotionality (β = -.10, t = -2.19, p < .05) remaining significant. The sex difference in Machiavellianism was also partially mediated (Step 2; β = -.22, t = -5.42, p < .001) when Right-Wing Authoritarianism was added in Step 2 (ΔR^2 = .01, p < .01), with the residual of Right-Wing Authoritarianism (β = .12, t = 2.89, p < .01) remaining significant.

The sex difference in Machiavellianism was also partially mediated (Step 2; β = -.10, t = -2.53, p < .05) when Social Dominance Orientation was added in Step 2 (ΔR^2 = .15, p < .001), with the residual of Social Dominance Orientation (β = .42, t = 10.38, p < .001) remaining significant. The sex difference in Machiavellianism was also partially mediated (Step 2; β = -.14, t = -3.75, p < .001) when Belief in a Competitive World was added in Step 2 (ΔR^2 = .20, p < .001), with the residual of Belief in a Competitive World (β = .46, t = 12.34, p < .001) remaining significant. The sex difference in Machiavellianism was also partially mediated (Step 2; β = -.21, t = -5.20, p < .001) when Religiousness was added in Step 2 (ΔR^2 = .03, p < .001), with the residual of Religiousness (β = .16, t = 3.84, p < .001) remaining significant.

Sex Differences in Psychopathy

The sex difference in Psychopathy (Step 1; β = -.30, t = -7.30, p < .001) was partially mediated (Step 2; β = -.21, t = -5.56, p < .001) when Honesty-Humility was added in Step 2 (ΔR^2 = .13, p < .001), with the residual of Honesty-Humility (β = -.38, t = -9.74, p < .001) remaining significant. The sex difference in Psychopathy was also partially mediated (Step 2; β = -.21, t = -4.95, p < .001) when Emotionality was added in Step 2 (ΔR^2 = .04, p < .001), with the residual of Emotionality (β = -.21, t = -4.77, p < .001) remaining significant. The sex difference in Psychopathy was also partially mediated (Step 2; β = -.28, t = -6.94, p < .001) when Right-Wing Authoritarianism was added in Step 2 (ΔR^2 = .01, p < .01), with the residual of Right-Wing Authoritarianism

(β = .11, t = 2.73, p < .01) remaining significant. The sex difference in Psychopathy was also partially mediated (Step 2; β = -.17, t = -4.25, p < .001) when Social Dominance Orientation was added in Step 2 (ΔR^2 = .13, p < .001), with the residual of Social Dominance Orientation (β = .38, t = 9.66, p < .001) remaining significant.

The sex difference in Psychopathy was also partially mediated (Step 2; β = -.19, t = -5.34, p < .001) when Belief in a Competitive World was added in Step 2 (ΔR^2 = .23, p < .001), with the residual of Belief in a Competitive World (β = .49, t = 13.46, p < .001) remaining significant. The sex difference in Psychopathy was not mediated (Step 2; β = -.29, t = -6.98, p < .001) when Religiousness was added in Step 2 (ΔR^2 = .00, p = .12), and thus Religiousness dropped out as a mediator (β = .06, t = 1.55, p = .12) for sex differences in Psychopathy.

Country Differences in Narcissism

The country difference in Narcissism (Step 1; β = .35, t = 8.69, p < .001) was partially mediated (Step 2; β = .31, t = 7.72, p < .001) when Emotionality was added in Step 2 (ΔR^2 = .04, p < .001), with the residual of Emotionality (β = -.20, t = -4.88, p < .001) remaining significant. The country difference in Narcissism was also partially mediated (Step 2; β = .22, t = 5.02, p < .001) when Social Dominance Orientation was added in Step 2 (ΔR^2 = .06, p < .001), with the residual of Social Dominance Orientation (β = .27, t = 6.13, p < .001) remaining significant. The country difference in Narcissism was partially mediated (Step 2; β = .31, t = 7.64, p < .001) when Belief in a Competitive World was added in Step 2 (ΔR^2 = .03, p < .001), with the residual of Belief in a Competitive World (β = .19, t = 4.72, p < .001) remaining significant.

The country difference in Narcissism was not significantly mediated (Step 2; β = .36, t = 8.18, p < .001) when Belief in a Dangerous World was added in Step 2 (ΔR^2 = .00, p = .53), and thus Belief in a Dangerous World dropped out as a mediator of country differences in Narcissism. The country difference in Narcissism also was not

significantly mediated (Step 2; β = .32, t = 7.48, p < .001) when Religiousness was added in Step 2 (ΔR^2 = .00, p = .21), and thus Religiousness also dropped out as a mediator of country differences in Narcissism.

Country Differences in Machiavellianism

The country difference in Machiavellianism (Step 1; β = .36, t = 9.05, p < .001) was partially mediated (Step 2; β = .34, t = 8.38, p < .001) when Emotionality was added in Step 2 (ΔR^2 = .01, p < .01), with the residual of Emotionality (β = -.11, t = -2.74, p < .01) remaining significant. The country difference in Machiavellianism was partially mediated (Step 2; β = .19, t = 4.47, p < .001) when Social Dominance Orientation was added in Step 2 (ΔR^2 = .10, p < .001), with the residual of Social Dominance Orientation (β = .36, t = 8.51, p < .001) remaining significant. The country difference in Machiavellianism was partially mediated (Step 2; β = .27, t = 7.35, p < .001) when Belief in a Competitive World was added in Step 2 (ΔR^2 = .18, p < .001), with the residual of Belief in a Competitive World (β = .44, t = 12.02, p < .001) remaining significant.

The country difference in Machiavellianism was not significantly mediated (Step 2; β = .34, t = 7.74, p < .001) when Belief in a Dangerous World was added in Step 2 (ΔR^2 = .00, p = .20), and thus Belief in a Dangerous World dropped out as a mediator of country differences in Machiavellianism. The country difference in Machiavellianism also was not significantly mediated (Step 2; β = .34, t = 7.77, p < .001) when Religiousness was added in Step 2 (ΔR^2 = .00, p = .18), and thus Religiousness dropped out as a mediator of country differences in Machiavellianism.

Country Differences in Psychopathy

The country difference in Psychopathy (Step 1; β = .24, t = 5.71, p < .001) was partially mediated (Step 2; β = .19, t = 4.55, p < .001) when Emotionality was added in Step 2 (ΔR^2 = .06, p < .001), with the residual of Emotionality (β = -.26, t = -6.26, p <

.001) remaining significant. The country difference in Psychopathy was partially mediated (Step 2; β = .13, t = 3.53, p < .001) when Belief in a Competitive World was added in Step 2 (ΔR^2 = .24, p = .001), with the residual of Belief in a Competitive World (β = .50, t = 13.64, p < .001) remaining significant. The country difference in Psychopathy was fully mediated (Step 2; β = .04, t = 0.84, p = .40) when Social Dominance Orientation was added in Step 2 (ΔR^2 = .14, p < .001), with the residual of Social Dominance Orientation (β = .42, t = 9.78, p < .001) remaining significant.

The country difference in Psychopathy was not significantly mediated (Step 2; β = .22, t = 4.87, p < .001) when Belief in a Dangerous World was added in Step 2 (ΔR^2 = .00, p = .40), and thus Belief in a Dangerous World dropped out as a mediator of country differences in Psychopathy. The country difference in Psychopathy also was not significantly mediated (Step 2; β = .23, t = 5.09, p < .001) when Religiousness was added in Step 2 (ΔR^2 = .00, p = .71), and thus Religiousness dropped out as a mediator of country differences in Psychopathy.

Discussion

Even with billions of dollars spent funding the "war on terrorism", the problem of terrorism is not ceasing. Whilst in the final stages of writing this study, Las Vegas suffered, what has been dubbed, the "worst mass-shooting in U.S history" (Heffer, 2017), and it was committed by a middle-aged, white, American man with no apparent motive. Although the traditional definition of "terrorists" is individuals who engage in political or religious violence, derived from varying amounts of external influence and context as opposed to external command (Feldman, 2013), it remains unclear how this seemingly quiet, retired accountant could become the "worst mass-shooter" of America as there still is no clear motive identified by police. Prior to conducting this study there seemed a severe lack of empirical evidence on the relationship between personality factors and attitudes related to intergroup aggression and violence which might perpetuate terrorism (Feldman, 2013), and recent events accentuate the need for this shift because of the relevance of the mass-shooter's personality. The most recent mass-shooting also brings the heterogeneity of terrorists to attention and is consistent with the aims of this study towards considering the individual differences in terrorism empathy.

The definition of terrorists also describes their state of mind as rational or irrational in their cognitive process of committing malevolent crime. Other theoretical frameworks have attempted to explain why individuals may develop such behaviours, including sociological theories, that attempt to explain terrorism as a cultural misalignment of socially learned behaviour (Phillips, 2015). Theoretical and empirical accounts of terrorism overall seem to fail to consider the heterogeneity of terrorists (Victoroff, 2005), and the most recent Las Vegas mass-shooting is consistent with this view of the broad definition of "terrorists" including unexpected persons who are part of unexpected social groups. A majority of terrorism-related studies use secondary analysis (i.e., analyses based on archival records; Silke, 2001) which attempt to find possible

clues of what made an individual commit their crimes *ex post facto*. Although the current literature offers varied accounts on possible influencing factors in the rise of terrorism, these do not specifically address the crucial importance of individual differences in relation to human behaviour, and attitudes that form as a result. Studies examining personality traits and attitudes towards terrorism are limited, thus, it seems crucial that empirical research about terrorism move towards offering information useful for prevention (Barros, 2003). Gauging attitudes of empathy towards terrorism might be one way to achieve this. Using the methods of personality psychology, this study assessed empathy towards both victims and perpetrators of terrorism, and then the associations with personality traits and worldviews in Australian and Turkish undergraduates.

Overall, the results reflect a relationship between more empathy towards terrorism victims in individuals high in personality traits such as honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience, as well as less empathy towards terrorism victims in individuals high in personality traits such as narcissism, psychopathy, social dominance orientation, and belief in a competitive world. This implies that the "darker" traits are associated with less empathy towards terrorism victims, and the "lighter" traits are associated with more empathy towards terrorism victims. The results also reflect a relationship between more empathy towards perpetrators of terrorism in individuals low in personality traits such as narcissism, honesty-humility, dangerous world beliefs, and religiousness. This also implies that individuals low in "darker" traits are more likely to empathise with perpetrators of terrorism. Thus, the hypotheses that there would be a relationship between lower empathy towards perpetrators of terrorism in individuals with higher beliefs that the world is a dangerous place, was also supported. There also were sex and country differences in the personality traits and worldviews, which are discussed below.

The results from this study are consistent with the idea of those who empathise with terrorists as being diverse, giving further support to the theoretical description of the heterogeneous terrorist personality (Victoroff, 2005).

Sex Differences

As was expected, sex differences in the Dark Triad traits whereby men scored higher than women on the Dark Triad traits replicated prior research (Jonason, Li, & Czarna, 2013; Jonason, Li, Webster, & Schmitt, 2009). That is, men were more narcissistic, Machiavellian and psychopathic than women were. The sex differences indicate men are "darker" in personality than women in other aspects of personality as well; men were more right-wing authoritarian, social dominance orientated, religious, and believed in a competitive world, compared to women. Women were higher in Honesty-Humility, Emotionality, and Conscientiousness than men were. This is consistent with prior research from other countries as well, whereby women are higher in neuroticism, agreeableness, and conscientiousness than men (Schmitt, Realo, Voracek, & Allik, 2008). Thus, men seemed to display a "darker" personality, than the "lighter" personality of women in this study, and this is consistent with the past literature. Unsurprisingly, women reported having more empathy towards victims of terrorism than men, which is most likely related to their "lighter" personality traits of Emotionality and Conscientiousness. There was no difference between men and women on perpetrator empathy, Extraversion, Agreeableness, Openness to Experience, and dangerous world beliefs, suggesting that these may be individualistic and thus heterogeneous traits.

Even with a plethora of research on sex differences in personality traits, it is important to consider if these traits are agentic (i.e., promoting self-advancement a social hierarchy) or communal (i.e., the partner concept associated with friendliness and positive relationship maintenance) metaconcepts (Trapnell & Paulhus, 2012). As such,

traits such as low Agreeableness, low Openness to Experience, and the Dark Triad traits are predictors of prejudice (Hodson, Hogg, & MacInnis, 2009) and out-group aggression (Hodson & Dhont, 2015), meaning that they are agentic traits. With the expression of these prejudice out-group attitudes also comes a sense of belonging with an in-group, and this in itself is associated with high levels of social dominance orientation (Henry et al., 2005). The relationship between right-wing authoritarianism and social dominance orientation was strong within this study, as well as other research (Henry, Sidanius, Levin, & Pratto, 2005) and both traits are agentic in nature. Thus, past personality research into prejudice show these traits enable individuals to seek acceptance within the in-group majority and express negativity towards out-group members. However, this inter-group aggression archetype of the traits social dominance orientation and right-wing authoritarianism may also be extended to terrorism. Social dominance theory explains terrorism as a paradigm of social dominance struggles amongst minority and majority groups (Sidanius & Pratto, 1999). If we consider the role of agentic traits as promoting self-advancement a social hierarchy, then it may explain the role of the traits in terrorism empathy, and also be considered an example of fast-life strategy.

Life History theory is an evolutionary theory postulating that fast-life strategy develops in harsh and unpredictable ecologies because of an uncertain future, and that individuals may not live long enough to reproduce if they delay (White et al., 2013). Though originally making predictions about species, Life History theory has recently been applied to explain the manifestation of certain personality traits, including the Dark Triad traits (Jonason et al., 2012; McDonald, Donnellan & Navarrete, 2012). Specifically, the fast strategy has been closely associated with the facet of impulsive antisocialism in psychopathy, entitlement and exploitativeness in narcissism and Machiavellianism, and even aggression (McDonald et al., 2012). The Dark Triad traits

may, therefore, be considered agentic traits because they offer adaptive qualities in an evolutionary sense (Jonason et al., 2012). Considering the study results, the sex difference in the Dark Triad traits could therefore be a demonstration of fast life-history strategy in men, as it is an adaptive quality to maximise reproductive success. This is exemplified by research where men with higher levels of the Dark Triad traits have short-term relationship preferences (Jonason et al., 2009) and lower standards for these short-term mates which is predictive of one-night stands (Jonason et al., 2011).

The sex differences in this study may be understood through the Life History theory paradigm which means that individuals with traits such as the Dark Triad traits, social dominance orientation, and right-wing authoritarianism, are more agentic. However, it could also be that the sociocultural paradigm may explain how individuals are a product of their environment offer an explanation as to why they display communal traits. Both are reasonable hypotheses, however given the cross-country invariance of the effects, the evolutionary psychology argument of the Life History theory paradigm may have more weight in this context.

Country Differences

The country differences revealed Turkish participants were higher in Dark Triad trait personalities than Australian participants, as well as lower in Emotionality. Turkish participants were also more social dominance orientated, religious, and believed that the world was both a competitive and dangerous place, than Australian participants. Considering the current political and socioeconomic climate in Turkey (Karpat, 2015) this is not surprising. Although traditionally considered undesirable, the Dark Triad traits of narcissism, Machiavellianism, and psychopathy offer agentic qualities for individuals to be able to extract as many resources as possible from a constrained environment (Jonason et al., 2010). This again may be a reflection of a fast-life strategy; unpredictable and harsh social environments account for life history development in

both adolescence and young adulthood (Brumbach, Figueredo, & Ellis, 2009). Mortality risk and stochasticity (i.e., random pattern) environments are particular predictors of this. This is consistent with the current social and political environment of Turkey. Therefore, the results may be a reflection of an adaptive fast-life strategy in Turkish young adults as a product of their environment. Fast-life strategy has been closely associated with the Dark Triad trait of psychopathy (Jonason, Koenig, & Tost, 2010), which is also traditionally deemed as the most undesirable trait. However, psychopathy does offer advantageous qualities in some contexts.

A lack of empathy and an unwavering drive of vengeance is a quality associated with success at work; so much so in fact, that self-reported higher income earners are higher in psychopathy than low-income earners (Howe, Falkenbach, & Massey, 2014; Jonason, Koehn, Okan, & O'Connor, 2018). This trait is also associated with individuals in leadership and managerial roles as well as high-risk positions (Lilienfield et al., 2014), where they are successful because of the fearless dominance these individuals possess. Psychopathy is also an agentic quality for short-term relationships and a positive predictor of reproductive success, where they are engage in risky sexual behaviour (Fulton, Marcus, & Payne, 2010), sexual coercion tactics (Gladden, Sisco & Figueredo, 2008), and mate poaching (Jonason, Li, & Buss, 2010). Although psychopathy is also associated with negative qualities such as aggression (Jonason et al., 2010) and manipulation as a means of increasing sexual access (Jones & Olderbak, 2014), this actually is a good adaptive tactic. From an evolutionary perspective, this adaptive behaviour is consistent with the fast-life strategy these individuals function within. Thus, the psychopath is still a functioning member of society, effectively a successful person in different contexts such as work and sex. They are just functioning differently to everyone else as most individuals tend to function within the slow-life

strategy end of the continuum. Thus, the country difference in Dark Triad traits being more predominant in Turkish participants could be an adaptive, agentic advantage.

Although evolutionary psychological theory offers explanation for the results, the sociocultural elements to this type of research cannot be ignored. For example, some facets of the personality traits of right-wing authoritarianism may be a societal construct, where men may learn to be this way through society (i.e., as a product of their environment). When comparing the political situation, it is clear that one type of political party is gaining momentum in all countries, across cultures and countries – the far right, previously dubbed as "fascism" (Rydgren, 2007). With the increase in terrorism instilling fear into civilisations in the West, and the East, across Europe, and Australia, it seems that this has had a direct impact on the rise of right-wing authoritarian views (Rydgren, 2007). In Europe, ethnic competition (i.e., feeling threatened by ethnic minorities), and social disintegration due to nationalistic pride seems to have role in the rise of right-wing authoritarian worldview (Werts, Scheepers, & Lubbers, 2012). In Britain, the increased terrorism threat has seen an acceptance in limitations of civil rights on minority groups in individuals with right-wing authoritarian worldviews (Kossowska et al., 2011). In Australia, right-wing authoritarianism has predicted support of the military aggression against Iraq (Crowson, 2009), and has entered the political arena in the form of a One-Nation political party who openly support the banning of Islamic immigration (i.e., Muslim immigrants). Although examining the rise of right-wing authoritarianism in different countries provides insight into why they may develop, this does not explain why we see this trend in both samples from this study.

Australia and Turkey are two vastly different countries. The history of Turkey and the Turkish people stems back from the Ottoman times founded in the year 1299AD, which then became the Republic of Turkey in 1922; Australia is a relatively

young country, formed as the Commonwealth of Australia in 1901 after British colonisation. The religion of the two countries are also quite different; Australia is a multicultural, multi-faith country with the most popular faith of Christianity (Australian Bureau of Statistics, 2016), whereas Turkey is a predominantly Muslim country, although not governed by Islamic rule. Other things that differ among the two countries include culture, economy, currency, geographical location to the East/West, and industry. Thus, it may be said that Australia and Turkey are drastically different countries. So why is right-wing authoritarianism also a prominent trait in the Turkish participants? Perhaps as sociological theories state, it may be a product of the environment. These such theoretical frameworks also define terrorism as bottom-up processes to contradict hegemonic social configurations, carried out by marginalised and disenfranchised individuals or groups (Boyns & Ballard, 2004).

Although this study did not have the means to make prediction on who will commit acts of terrorism, it does offer insight into the personality traits associated with perpetrator empathy. The auxiliary analyses conducted to see if these worldviews may mediate Dark Triad personality traits was conducted for this reason. The trend of specific traits being seen across both countries sampled in this study, it may, instead, be that this trend is associated with fast-life strategy as a direct product of agentic personality traits. This is because empathy is an emotion that is associated with a slow life-history strategy and is also a communal trait as it predicts support of others and secure attachment (Glenn, Kurzban, & Raine, 2011). Thus, the country differences in personality traits and worldviews associated with fast life-history strategy may have developed for these individuals to have adaptive advantage over others in their environments, as opposed to being a sociocultural construct.

Individual Differences in Terrorism Empathy

Victim empathy was exacerbated by certain personality traits. In men, victim empathy had a polarised relationship with psychopathy, social dominance orientation, and competitive world beliefs. Thus, men higher on psychopathy, who believed the world is a competitive place and were social dominance oriented had less empathy towards victims of terrorism. Further, men who were more narcissistic, right-wing authoritarian, believed in a dangerous world nature, and more religious, had less empathy towards perpetrators. In women, victim empathy was also exacerbated by higher levels of Machiavellianism, psychopathy, social dominance orientation, and competitive world beliefs. Women who were more religious and believed in a dangerous world also had less empathy towards terrorists. These traits are also seen in association with stronger prejudiced attitudes (Hodson & Dhont, 2015), and racism (Jonason, 2015), and, thus, may be traits that influence the dehumanisation effect of outgroup members as a way of psychological distancing. A surprising finding was the non-significant link between psychopathy and perpetrator empathy, as this relationship was an expected outcome. However, further analyses did reveal that psychopathy actually accounts for a considerable percentage of social dominance orientation, which in turn influences empathy biases towards perpetrators of terrorism. Hence, although individuals may not fit the measurements for sub-clinical psychopathy, this still serves as a tangent for being able to relate to a terrorist.

The country difference in the empathy ratings towards terrorism was interesting. Australian participants rated more empathy towards both victims and perpetrators of terrorism than Turkish participants. This was an unexpected result, as we hypothesised that psychological and physical proximity to terrorism would have the opposite effect – to increase empathy to victims of terrorism at the very least. The results may suggest a desensitisation effect could possibly have occurred in the Turkish

responders. Sakarya University (where the responders are situated) is south-west of Istanbul, the Turkish city where majority of the terrorist attacks between 2015 and 2017 occurred.

Dehumanisation is a psychological protective mechanism, whereby a person may lose their own sense of individuality as the painful or overwhelming emotions related to the humane treatment of others also decrease (Bernard, Ottenberg, & Redl, 1965). This effect may also be mistaken for desensitisation, which involves a steadily reduced emotional reaction of empathy to terrorism after repeated exposures (Gidron, Gal, & Zahavi, 1999). When both occur together, it may facilitate a myriad expression of certain personality traits. Personality is fluid – and although most research points to its stable nature, certain contexts increase or decrease the presentation of certain traits. Combine this with a dangerous competitive nature of the surrounding environment of an individual, and it may well facilitate the expression of different agentic personality traits such as the Dark Triad. Evolutionary psychology postulates that the Dark Triad traits are condition-dependent adaptations, that may develop as a result of environment (Jonason, Icho, & Ireland, 2016). An example of this would be long-term dehumanisation in terms of torture (i.e., a dangerous environment). This occurs when individuals repeatedly exposed to dangerous environment feel both helpless and hopeless, which results in their dehumanisation (Haslam, 2006). There is a long solid history of such trauma having long-term effect on an individual's personality (Fink, 2003; Nickerson, Bryant, Rosebrock, & Litz, 2014; Sommier, 2002). Thus, a combination of dehumanisation and desensitisation could be a recipe for personality adaptation to the environment. In terms of the results from this study, this theological framework provides a distal explanation for why there was a terrorism non-bias in Turkish participants. Repeat exposure to terrorism incidents, and perhaps being direct or indirect victims themselves, could have facilitated the combined dehumanisation and

desensitisation effect whereby Australian participants reported significantly higher empathy towards both victims and perpetrators of terrorism.

On the other hand, Australia is yet to be directly affected by a major terrorism incident. Even though the country remains on "high alert" for an imminent attack, this follows two distinct lone-wolf terrorism incidents in 2015 at the Sydney Lindt Café, and the Parramatta police shooting. Both incidents involved "Islamic extremism", the first a controversial Muslim figure, and the second a young radicalised 15 years old boy. The geographical location of Australia as its own continent means it is physically distant from the current epicentre of terrorism incident – Europe. The results from this study could possibly mean that because of the isolated geographical location, and increasing threat of a terrorist attack, Australians have actually become more sensitised. Thus, empathy ratings for victims of terrorism could be higher in Australians because of their over sensitisation to the issue. This is one other explanation of a possible social desirability effect in the results. This effect is typically present in W.E.I.R.D. (i.e., Western, Educated, Industrialised, Rich, and Democratic; Henrich, Heine, & Norenzayan, 2010) samples, which is a limitation of the Australian sample and will be further discussed below with suggestions on further research direction. However, the empathy results could very well not be a reflection of a social desirability effect at all, but a representation of the sensitivity to the expectation that Australians are, proverbially, next in line of fire. Additionally, prior work on racism has shown a prevalent theme of Australians believing ethnic diversity is a threat to Australia, and that Muslims, Middle Easterners and Asians did not belong in Australia (Dunn et al., 2004). If racism were to be an issue in this study, then there should have been lower victim empathy ratings by Australians considering the stimuli contained information about terrorism incidences occurring in Turkey, a country who many consider as Middle

Eastern. As this was not evident in the results, it can safely be said that racism was not a confounding factor in the study results.

Considering a possible limitation to the victim empathy results may be a social desirability bias in the Australian sample, this is not present in the perpetrator empathy. There were negative association between perpetrator empathy and Honesty-Humility, dangerous world beliefs, and religiousness. These narrowband traits (as a product of environment) become a lot more important when considering the sociogenomic model of personality and how environment may influence the behaviours of an individual. Although these have been explained with the sociogenomic and fast-life strategy paradigms, to understand the role of individual differences in terrorism biases, it could also be examined through another perspective of collectivism. Although individuals may be drawn to enact certain behaviours for individual, heterogeneous reasons, with terrorism there is also the collective element of the group to consider. The theory of collective action (Olson, 1965) has been applied to the context of terrorism as an explanation for the group dynamic in terrorist cells. This is also a communal, not agentic trait, which means that individuals are involved with the group ideology because they believe they are contributing to a purpose.

Although this does not align with the traditional definitions of agentic vs communal trait representation, it is an example of non-normative collective action. The two distinct pathways of collective action advise that either (a) individuals respond to injustices through an emotional pathway, characterised by anger, and (b) individuals believe they may solve issues collectively through the efficacy pathway (Tausch et al., 2011). By applying the theoretical basis of this model to the research findings of the current study, the personality traits and empathy associations become more important to the question of what personality traits to screen for when interpreting if an individual is agentic, and empathises with perpetrators of terrorism, or whether they are communal in

their traits, and empathise with victims of terrorism. Suggestions for further research direction extending this line of thought are discussed in the below limitations section.

The low correlation between Victim and Perpetrator Empathy shows that these two traits may act as orthogonal biases, meaning that although they work in similar ways as empathy measures they differ in their nature. Victim empathy is closely associated with communal traits such as honesty-humility, emotionality, agreeableness, and openness to experience, whereas perpetrator empathy is closely associated with agentic traits such as narcissism, dangerous world beliefs, and low honesty-humility. By taking this approach to the two types of empathy as orthogonal biases related to specific types of traits, this enables an understanding akin to knowing what drives empathy biases towards terrorism. Being agentic, however, does not mean that an individual will necessarily favour a perpetrator of terrorism over a victim in terms of their empathy. However, what it may mean is that they share an attitude of indifference towards them both. Thus, there seems no particular bias towards victims or perpetrators of terrorism in individuals with agentic traits. Rather, there is a neutral, cool indifference in empathy, and this is possibly associated with the trait of Narcissism and Psychopathy in particularly, within the Dark Triad traits.

Relationship between Personality Traits and Worldviews

Another noteworthy finding was the relationship between competitive and dangerous world beliefs, and personality traits. This was particularly strong within the Turkish sample. When considering the socioeconomic and political climate of Turkey, it could be that these worldviews have in turn influenced the presentation of more adaptive personality traits, such as the Dark Triad traits. In line with the exploitive nature of the Dark Triad traits and Machiavellianism in particular, this marks them less likely to help others unless there is the promise of a self-interest advantage (Wilson, Near, & Miller, 1996). An environment that is both dangerous and competitive in nature

can also be thought of as a dystopian society, which catalyses the necessity for agentic traits so that individuals may "get ahead". However, just because the environment facilitates prominence of adaptive personality traits, this does not mean it is a causal relationship. Rather, it is a reflection of how fast-life strategy may suit individuals in order to have an advantage over others.

Life History Theory addresses the allocation of time and energy in the face of trade-offs, to maximise their fitness; thus, minimum input for maximum output. This framework is also applied in an Evolutionary Psychology context, as it is concerned with things affecting individuals across the lifespan (Kaplan & Gangestad, 2005). In the context of this study, it is more difficult for an individual to take advantage of others if they care about them. In other words, having empathy towards a certain individual or group is not an advantageous trait in a competitive, dangerous world environment, where more agentic traits such as the Dark Triad traits offer advantageous qualities for maximising fitness. When we examine the pathology of Narcissists, for example, a lack of emotional empathy and dysfunction of cognitive empathy is its primary distinguishing feature in clinical populations (Baskin-Sommers, Krusemark, & Ronningstam, 2014). Although this quality is costly to have in long-term romantic relationships (Smith et al., 2014), this is advantageous in the context of empathy towards victims and perpetrators of crime. This is because the narcissist feels they do not need to behave any differently towards these individuals. Thus, minimising their emotional involvement maximises their fitness in the cut-throat world. Although the measures of the Dark Triad traits used within this study do not imply a pathology, they do reveal distinct implications of what possessing these traits means. Simply put, if individuals high on the Dark Triad traits care about people then it is harder to take advantage of them, and would not suit their preferred fast-life strategy.

This is also evident when we look at other contexts. When humans are able to remove the inhibition that empathy is on maximising their evolutionary fitness, we see a startling shift in behaviour. The most famous example of this is Zimbardo's Sanford Prison Experiment (Haney, Banks, & Zimbardo, 1973), which he later spoke about as the Lucifer Effect (Zimbardo, 2007). What seemed like a good idea at the time – to place non-clinical, normal people (i.e., undergraduate college students) together and allow them to roleplay being the authoritative figure in a prison – became an, albeit, shocking milestone in social psychology (Zimbardo, 1973). This has become a well-known example of how good people can become "evil". Even though Zimbardo challenges the efficacy of personality psychology as an overestimation of an individual's abilities and underestimation of their environment, it still raises the question of what a person is actually capable of. Zimbardo (2007) argues that the Stanford Prison Experiment is evidence of how an individual's environment influences their actions, and overrides their personality characteristics. Fast forward 50 years until now where the world is faced with the "war on terrorism", and we may ask the same question. Is it the individual themselves who are to blame for immersing themselves with terrorism, or are they a product of their environment? It seems that it may actually be both.

With the emergence of new biological and evolutionary research came a new model which integrated personality psychology and sociogenomic biology, called sociogenomic personality psychology (Roberts & Jackson, 2008). The model outlines that biological hereditary factors, and environmental factor have implications on states, and states have direct influence on traits. The model outlines biological factors as also influencing traits directly. Therefore, personality is a feature of an individual's biology and significant life outcomes. If we consider the role that states have as a person's thoughts, feelings, and behaviours, it may then be understood as having a dependent

association with both biological and environmental factors. Considering the results from this study, there is reason to believe that narrowband personality traits related to environmental factors must be taken into consideration when interpreting the role of broadband personality traits in terrorism.

Although the mediation analyses revealed mostly partial mediation effects, the Dark Triad personality traits did explain sex differences in competitive world beliefs and social dominance orientation. What this could mean is that even though the Dark Triad traits are thought to be closely associated with the terrorist psychological profile, other narrowband traits such as competitive world beliefs, and social dominance orientation are also factors to consider. These may form because of the social environment surrounding the individual and hence, should be considered when interpreting the empathy biases towards terrorism. The full mediation that social dominance orientation had on psychopathy is an example of this, with country differences removed. Social dominance orientation alone accounted for 14% of the variance in the trait, between Australia and Turkey with shared country variance removed. Considering the sociogenomic model, this means that when country differences are bypassed, the longing for social dominance must have a direct effect on the states of an individual, before it may account for that amount of variance in the trait of psychopathy. So, the thoughts, behaviours, and feelings of that individual would be firstly influenced. This is evident in the associations between perpetrator empathy, and dangerous world beliefs, for example, as well as the significant association between social dominance orientation and right-wing authoritarianism, and social dominance orientation and religiousness.

Further, although religion and religiousness is popularly referred to as influencing factors on terrorism in mainstream media (Nacos, 2007), the results of this study do not support this idea. In fact, the mediation analyses revealed that religiousness

was insignificant in accounting for variance in the Dark Triad traits such as Psychopathy with both country and sex differences removed. Religiousness had no influence on individual differences in the Dark Triad traits, when sex and country differences were removed from the equation. Therefore, a person's religiousness is not reason enough to believe that they will involve themselves with terrorism. However, there was a significant negative correlation between religiousness and perpetrator empathy, meaning that the more religious a person is, the less empathy they will have towards perpetrators of terrorism. The contrary is also true; the less religious a person is the more empathy they will have towards perpetrators of terrorism. There also were positive correlations between religiousness and right-wing authoritarianism, social dominance orientation, and dangerous world beliefs. Taking into account the sociogenomic model of personality traits (Roberts, 2009) the empathy biases may be understood as a reflection of how states of an individual are influenced by narrowband traits as a product of environmental factors, which then in turn project into the presentation of their personality traits. Thus, it still comes down to their broadband personality traits. Similarly, dark personality traits have accounted for as much as six times more variance in religious sinning behaviour than moral foundation (Jonason, Zeigler-Hill, & Okan, 2017), even more than spitefulness and sadism. This implies that the dark personality traits play an important role in contexts of behavioural dysregulation more than previously suggested by Zimbardo (2007).

Limitations and Future Directions

Although the results of this study offered first insight into the individual differences associated with terrorism empathy on a cross-country level, the study did not come without limitations. As is common with research focusing on a controversial topic such as terrorism, the data could possibly reflect a social desirability effect. This could possibly be present in the empathy ratings towards victims of terrorism, not

towards perpetrators. This is suggested by the skew in mean empathy ratings toward victims of terrorism, and, thus, a social desirability bias towards victims. However, because of this effect not being present in the perpetrator empathy ratings, it could offer potential insight into why some people might be involved in terrorism when considering the personality factors that were associated with this. For example, individuals who are dishonest, less religious, narcissistic, and hold beliefs that the world is not a dangerous place, are more likely to empathise with terrorists. This offers a unique view into how people from a "normal population" may relate to terrorists, and what personality traits may incline them to do so. This idea supports the modern view of terrorists to be religiously driven as an outcome of being concerned with the dangerous and competitive nature of the world (Jonas & Fischer, 2006), and the results were discussed in this manner above.

Considering the implications of the dehumanisation and desensitisation effect in Turkish participants discussed above, the next question arising is if the results would be different had we sampled empathy ratings from participants after presenting them with examples of terrorism incidents from countries other than Turkey. For example, presenting participants with stimuli relating to the September 11 terror attacks in the USA might have resulted in different findings. It could very well be the case that using stimuli portraying terrorism incidents from Turkey to sample empathy ratings simply served as a reminder for how dehumanised the Turkish victims have become. This may have then inadvertently accelerated the desensitisation effect in these participants. To overcome this possible issue, it is suggested that future research use culturally diverse stimuli examples of terrorism incidents that have occurred around major cities of the world. This change would address the issue of a possible desensitisation-increasing stimuli as a potential confounding factor of the empathy results, and if a replication occurs then it would support the research conclusions drawn from this study.

As mentioned in the general discussion above, social desirability effects are typically present in W.E.I.R.D. samples (Henrich et al., 2010), which is a limitation of using university undergraduate student samples even if participants are from diverse ethnic/cultural/socioeconomic backgrounds. As a suggestion for further study, measuring implicit attitudes would be one way to address the social desirability effect, such as use of an Implicit Association Task (Nosek, Greenwald, & Banaji, 2005). These are commonly used in experimental studies investigating individual differences in racism (Oswald et al., 2013). In conjunction with explicit attitude measures, this could offer a broader and stronger reflection of true attitudes towards terrorism be perhaps asking responders to sort words that are associated with terrorism. These could include categorising words such as “hurt”, “bomb”, “suicide bomber”, “attack”, “agony”, “fear”, and so on, relating to an evaluation of “Good” or “Bad”. Rather than a reading task to prime the participants for questions relating to terrorism, presenting them with this type of implicit attitude task may be a more advanced method for gaining insight into terrorism biases. However, time would then be of further constraint as a longer participation study would also mean higher attrition rates amongst participants, or a lack of concentration due to participation fatigue for those who complete it.

Methodological differences in the empathy ratings provided by participants was also a limitation of this study. Although it is not believed to have tainted the results when considering the robust sample size and steps taken to assess the reliability of the data, it does pose other issues. For example, if all Australian participants had seen all three articles and then rated their empathy three times, as the Turkish participants did, would the results be different? Upon further investigation, it became clear that the issue was the application of a forced response in Qualtrics used in conjunction with the Randomization function for the Turkish study. A forced response was not applied to the Australian study, and was an oversight of the researcher that was missed during the

practice runs before data collection began. Thus, Turkish participants were forced to respond to each empathy rating question before proceeding to the next randomly presented news story stimuli, whereas the Australian participants had the opportunity to leave responses blank.

Each country also saw different news story stimuli, in order to minimise possible effects on semantic validity had the Australian news articles been translated into Turkish and were presented to participants in the translated form. While we attempted to create a uniformness, there is the slim possibility that we may, instead, have created a methodological artefact because of the articles presented to participants were not identical and, instead, were sample articles. However, the internal consistency analyses conducted between empathy ratings collected from each article presented, as well as within each sample, does not point to this differential effect having taken place. Generalised stimuli provide for better scientific methodology, however, the averages were created from all of the empathy responses provided, in the hope that the idiosyncrasies would also average out across the articles, and samples. Logarithmic transformation was also applied to the terrorism empathy ratings in consideration of the skew of empathy ratings reflecting a possible social desirability bias. However, this did not change the results and thus analyses were conducted using the average scores of total victim and perpetrator empathy questions across articles. Considering that there is no prior research into this research question, future research could provide valuable information if a replication is conducted without the methodological differences that affect this study and perhaps inclusive of an implicit attitudes test as mentioned above.

As for the statistical analyses of the results, bootstrapping (Efron, 1979) was not used as it did not seem necessary given that the large sample size surpassed the $N \geq 377$ recommended minimum sample size to conduct analysis with sufficient power. Bootstrapping is a statistical resampling method recommended for non-normal,

asymptotic and small sample sizes (Efron, 1979). It may be considered a (pseudo-) random simulation because if repeated, it may produce different results (Cumming, 2014). The use of traditional parametric analysis methods was employed because of the sample data's symmetric, homoscedastic nature (Sharpe, 2004), and also as precaution for keeping parsimony of the data samples. The use of the short versions of the scales for measuring social dominance orientation, right wing authoritarianism, belief in a dangerous world, and belief in a competitive world, is also a limitation of this study. Full scale versions are preferred in personality psychology studies as the short versions do not quite capture the full extent of the trait intending on being measured, as these traits are also made up of factors, or "sub-traits". For example, the Machiavellianism trait as measured by the Short Dark Triad used in this study consists of the two facets "Cynical worldview" and "Manipulative traits" (Jones & Paulhus, 2014).

Recent studies (Kajonius, Persson, Rosenberg, & Garcia, 2016; Persson, Kajonius, & Garcia, 2017) suggest that the factor structure of the SD3 is two dimensional, with a combined Machiavellianism and psychopathy factor contributing more to a general factor than narcissism. Uncertainty of factor structure makes one dubious of their utility. Though the SD3 has been criticised for how it may or may not capture the underlying facets of each trait (McLarnon & Tarraf, 2017; Muris et al., 2017) given that they shrink larger inventories of heterogenous content to smaller, even homogenous (potentially bloated-specific) inventories, these criticisms are still problematic. For example, although traits like Machiavellianism and psychopathy may be highly correlated, they are not both linked to impulsivity (Jones & Paulhus, 2011). Although the factor structure debate for Machiavellianism has been used as an example, this is ongoing for the other traits as well. For example, the factor structure of subclinical psychopathy is argued to consist of four factors (i.e., manipulation, callous affect, erratic lifestyle, and antisocial behaviour) in the psychopathy measure of the

SRP-III (Mahmut et al., 2011; Neal & Sellbom, 2012), and the psychopathy measurement of the Comprehensive Assessment of Psychopathic Personality – Institutional Rating Scale (Cooke et al., 2004) is also argued to possibly consist of two facets (Sandvik et al., 2012).

Although important for researchers to take note of these criticisms, it is also important to remember that no matter how many "factors" may be identified or de-identified, the measures are used with the purpose of understanding the trait itself. Even though it is suggested that the "gold standard" for measurement of the Dark Triad traits are the Self-Report Psychopathy Scale, NPI, and the MACH-IV (Muris et al., 2017), combining such assessments alongside the other measures of worldviews, and empathy, would have resulted in participant fatigue and higher attrition rates. Even with use of the short measures, a total of $N = 147$ participants were removed from the total sample for attrition (i.e., closing the survey in the middle-end stages). The low order facets may reveal something new if further research is conducted using the full-scale versions. However, as this was an exploratory study into a relatively unstudied field, the short versions of the scales were used instead to not impend further on participant fatigue. Thus, although the results of this study may be criticised for not having used the "golden standard" measurement tools of personality traits, it made use of the shorter scales to minimise the amount of participants ceasing their participation due to fatigue, and the short versions of all the personality scales have been validated and used in similar studies.

Conclusions

With a deficit in personality research on terrorism, this study aimed to examine the relationships between personality traits and terrorism empathy. This cross-country comparison provided an exploratory first on individual differences in empathy towards terrorism. The results reflected a relationship between empathy towards victims of

terrorism, and traditionally communal personality traits such as honesty-humility, emotionality, agreeableness, conscientiousness, and openness to experience. The results also reflected a relationship between empathy towards perpetrators of terrorism, and traditionally agentic personality traits such as narcissism, and dangerous world beliefs, and religiousness. There also was a relationship between lower empathy towards perpetrators of terrorism and higher beliefs that the world is a dangerous place.

Country differences revealed Turkish participants are higher in Dark Triad traits than Australians, as well as higher in social dominance orientation, right-wing authoritarianism, and religiousness. Australian participants had more empathy towards both victims and perpetrators of terrorism than Turkish participants. Sex differences in personality traits replicated previous findings of men being higher in Dark Triad traits than women, as well as being more right-wing authoritarian, social dominance orientated, religious, and believed in a competitive world, compared to women. Women were higher in Honesty-Humility, Emotionality, and Conscientiousness than men were. Thus, men seemed to display a "darker" personality, than the "lighter" personality of women. The implications of these findings were discussed in relation to the current threat of terrorism in Australia and Turkey.

This study provided a first insight of the individual differences in terrorism empathy between two countries with different risks of terrorism incidents, and how worldviews and broadband personality traits interact with these terrorism empathy biases. The results imply that there are individual differences in personality traits associated with perpetrator empathy, and provides support for the idea of the heterogeneity of terrorists. The findings also indicate that the Dark Triad traits may be adaptive, agentic qualities in dangerous and unpredictable environments, and this may then facilitate terrorism biases of having less empathy towards victims of terrorism, and more empathy towards perpetrators of terrorism. The findings may be used to inform

policy development on a governmental level and might eventually be utilised when screening individuals for terrorism-related suspicions.

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Tables

Table 1. Descriptive statistics and sex differences.

	M (SD)			*t*	*d*
Dark Triad	Overall	Men	Women		
Narcissism	2.82 (0.62)	2.99 (0.56)	2.71 (0.64)	5.23**	0.47
Machiavellianism	3.18 (0.68)	3.38 (0.63)	3.05 (0.67)	5.79**	0.51
Psychopathy	2.08 (0.63)	2.31 (0.62)	1.93 (0.59)	7.30**	0.63
HEXACO					
Honesty-Humility	3.57 (0.62)	3.40 (0.65)	3.68 (0.58)	-5.30**	-0.45
Emotionality	3.29 (0.63)	2.98 (0.56)	3.50 (0.59)	-10.15**	-0.90
Extraversion	3.28 (0.67)	3.27 (0.66)	3.28 (0.67)	-0.08	-0.02
Agreeableness	3.20 (0.56)	3.20 (0.53)	3.20 (0.58)	0.12	0.00
Conscientiousness	3.48 (0.57)	3.40 (0.53)	3.53 (0.59)	-2.71**	-0.23
Openness to Experience	3.41 (0.62)	3.36 (0.62)	3.45 (0.62)	-1.59	-0.15
Worldviews					
Right Wing Authoritarianism	2.60 (0.62)	2.70 (0.62)	2.54 (0.61)	2.96**	0.26
Social Dominance Orientation	2.31 (0.72)	2.61 (0.66)	2.12 (0.69)	8.25**	0.73
Belief in Dangerous World	3.24 (0.64)	3.21 (0.66)	3.26 (0.63)	-0.89	-0.08
Belief in Competitive World	2.34 (0.59)	2.50 (0.56)	2.24 (0.59)	5.15**	0.45
Religiousness	2.86 (1.20)	3.10 (1.22)	2.72 (1.17)	3.67**	0.32
Terrorism Biases					
Victim Empathy	4.11 (0.81)	3.90 (0.88)	4.24 (0.74)	-4.99**	-0.42
Perpetrator Empathy	2.69 (1.02)	2.75 (1.04)	2.65 (1.01)	1.15	0.10

* $p < .05$, ** $p < .01$

Notes. *d* is Cohen's *d* for effect size

Table 2. Descriptive statistics and country differences.

	M (SD)		*t*	*d*
Dark Triad	Australia	Turkey		
Narcissism	2.63 (0.61)	3.06 (0.55)	-8.66**	-0.74
Machiavellianism	2.97 (0.67)	3.45 (0.58)	-8.99**	-0.77
Psychopathy	1.95 (0.64)	2.25 (0.58)	-5.74**	-0.49
HEXACO				
Honesty-Humility	3.55 (0.63)	3.58 (0.61)	-0.55	-0.05
Emotionality	3.40 (0.63)	3.15 (0.60)	4.82**	0.41
Extraversion	3.28 (0.67)	3.27 (0.67)	0.23	0.01
Agreeableness	3.22 (0.59)	3.18 (0.53)	0.90	0.07
Conscientiousness	3.51 (0.59)	3.44 (0.53)	1.37	0.12
Openness to Experience	3.40 (0.62)	3.43 (0.62)	-0.53	-0.05
Worldviews				
Right Wing Authoritarianism	2.57 (0.64)	2.64 (0.58)	-1.16	-0.11
Social Dominance Orientation	2.01 (0.71)	2.69 (0.52)	-12.59**	-1.09
Belief in Dangerous World	3.01 (0.67)	3.54 (0.45)	-10.59**	-0.93
Belief in Competitive World	2.23 (0.63)	2.48 (0.51)	-5.16**	-0.44
Religiousness	2.45 (1.23)	3.40 (0.92)	-10.18**	-0.87
Terrorism Biases				
Victim Empathy	4.24 (0.73)	3.94 (0.88)	4.39**	0.37
Perpetrator Empathy	2.90 (0.99)	2.41 (0.99)	5.89**	0.49

* $p < .05$, ** $p < .01$

Notes. *d* is Cohen's *d* for effect size

Table 3. How broadband and narrowband personality traits and worldviews correlate with empathy towards Terrorism

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	--															
2	.40**	--														
3	.38**	.47**	--													
4	-.34**	-.38**	-.42**	--												
5	-.26**	-.18**	-.29**	.09*	--											
6	-.48**	-.08	-.11*	-.03	-.18**	--										
7	.14**	-.22**	-.39**	.28**	-.01	.11**	--									
8	.01	-.06	-.29**	.22**	-.04	.21**	.05	--								
9	.13**	-.00	-.13**	.00	-.07	.19**	.05	.20**	--							
10	.08	.15**	.15**	.07	.00	.00	.04	-.02	-.39**	--						
11	.37**	.45**	.44**	-.27**	-.24**	-.05	-.16**	-.17**	-.16**	.34**	--					
12	.12**	.19**	.13**	.12**	.06	-.10*	-.08	-.06	-.03	.19**	.17**	--				
13	.25**	.49**	.53**	-.42**	-.20**	-.17**	-.30**	-.25**	-.16**	.13**	.57**	.12**	--			
14	.18**	.19**	.11*	.17**	-.03	.06	.11*	-.04	-.10*	.49**	.27**	.33**	-.03	--		
15	-.09*	-.08	-.27**	.14**	.23**	.14**	.11*	.14**	.19**	-.08	-.30**	.02	-.33**	-.44	--	
16	-.09*	.01	.04	-.14**	.00	-.05	-.05	-.05	.04	-.08	-.07	-.25**	.04	-.14**	.20**	--

* $p < .05$, ** $p < .01$

Note: 1 = Narcissism, 2 = Machiavellianism, 3 = Psychopathy, 4 = Honesty-Humility, 5 = Emotionality, 6 = Extraversion, 7 = Agreeableness, 8 = Conscientiousness, 9 = Openness to Experience, 10 = Right-Wing Authoritarianism, 11 = Social Dominance Orientation. 12 = Belief in a Dangerous World, 13 = Belief in a Competitive World, 14 = Religiousness, 15 = Victim Empathy, 16 = Perpetrator Empathy

Table 4. How broadband and narrowband personality traits, and worldviews correlate with empathy towards Terrorism in men and women.

	Perpetrator Empathy			Victim Empathy		
Dark Personality	Men	Women	*z*	Men	Women	*z*
Narcissism	-.14*	-.09	-0.58	-.01	-.08	0.80
Machiavellianism	.13	-.08	2.41*	.19**	-.19**	4.40**
Psychopathy	.06	.00	0.69	-.20**	-.25**	0.60
HEXACO						
Honesty-Humility	-.14*	-.12*	-0.23	.04	.15**	-1.27
Emotionality	-.05	.07	-1.37	.07	.24**	-2.00*
Extraversion	-.08	-.03	-0.57	.23**	.08	1.76
Agreeableness	-.05	.10	-1.72	.08	.14*	-0.70
Conscientiousness	-.07	-.02	-0.57	.12	.13*	-0.12
Openness to Experience	.04	.04	0.00	.21**	.16**	0.59
Worldviews						
Right Wing Authoritarianism	-.17*	-.03	-1.62	-.11	.00	-1.26
Social Dominance Orientation	-.08	-.10	0.23	-.20**	-.29**	1.10
Belief in Dangerous World	-.25**	-.25**	0.00	-.01	.03	-0.46
Belief in Competitive World	.06	.00	0.69	-.28**	-.31**	0.38
Religiousness	-.14*	-.16**	0.23	.05	-.06	1.26

* $p < .05$, ** $p < .01$

Notes. *z* is Fisher's *z* to compare independent correlations

Table 5. How broadband and narrowband personality traits, and worldviews correlate with empathy towards Terrorism in Australia and Turkey.

	Perpetrator Empathy			Victim Empathy		
Dark Personality	Australia	Turkey	*z*	Australia	Turkey	*z*
Narcissism	-.00	-.02	0.23	.14*	.10	0.47
Machiavellianism	.09	.14*	-0.59	-.18*	.19**	0.12
Psychopathy	.08	.12	-0.47	-.34**	-.12	-2.72**
HEXACO						
Honesty-Humility	-.16**	-.11	-0.59	.20**	.09	1.31
Emotionality	-.04	-.07	0.35	.31**	.07	2.92**
Extraversion	-.01	-.11	1.17	.17**	.11	0.71
Agreeableness	.01	.08	-0.82	.15**	.05	1.18
Conscientiousness	-.05	-.08	0.35	.18**	.07	1.30
Openness to Experience	.02	.08	-0.70	.14*	.26**	-1.46
Worldviews						
Right Wing Authoritarianism	-.10	-.03	-0.82	-.03	-.12	1.05
Social Dominance Orientation	.03	.10	-0.82	-.32**	-.14*	-2.22*
Belief in Dangerous World	-.17**	-.19**	0.24	.06	.20**	-1.66
Belief in Competitive World	.07	.13*	-0.71	-.40**	-.18**	-2.81**
Religiousness	-.05	-.06	0.12	.04	.03	0.12

* $p < .05$, ** $p < .01$

Notes. *z* is Fisher's *z* to compare independent correlations

Table 6. Mediation analyses of sex and country differences on Victim Empathy and Perpetrator Empathy

	ΔR^2		
Mediators	Sex[A]	Country[A]	Country[B]
Narcissism		.00	.00
Psychopathy		.06**	
Emotionality	.03**	.04**	
Social Dominance Orientation	.06**	.06**	
Belief in a Dangerous World			.03**
Belief in a Competitive World	.08**	.09**	
Religiousness			.00

* $p < .05$, ** $p < .001$

Note. A = Victim Empathy, B = Perpetrator Empathy; ΔR^2 at Step 2.

Table 7. Auxiliary mediation analyses of sex and country differences in the Dark Triad traits

	ΔR^2					
Mediators	Sex[A]	Country[A]	Sex[B]	Country[B]	Sex[C]	Country[C]
Honesty-Humility	.09**		.11**		.13**	
Emotionality	.03**	.04**	.01*	.01*	.04**	.06**
Right-Wing Authoritarianism			.01*		.01*	
Social Dominance Orientation	.10**	.06**	.15**	.10**		.14**
Belief in a Dangerous World		.00		.00		.00
Belief in a Competitive World	.05**	.03**	.20**	.18**	.23**	.24**
Religiousness	.02**	.00	.03**	.00	.00	.00

* $p < .05$, ** $p < .001$

Note. A = Narcissism; B = Machiavellianism; C = Psychopathy; ΔR^2 at Step 2.

Appendix A

Religiousness Scale

Please answer the following questions about your religious/spiritual beliefs and practices, on a scale from 1-5 (1 = Strongly Disagree; 5 = Strongly Agree):

1. I am a religious/spiritual person.

2. I pray very often.

3. I attend religious services often.

4. I do strictly adhere to the teachings of my faith.

5. My religious beliefs are very strong.

Appendix B

HEXACO-60

On the following pages you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

5 = strongly agree
4 = agree
3 = neutral (neither agree nor disagree)
2 = disagree
1 = strongly disagree

Please answer every statement, even if you are not completely sure of your response.

I would be quite bored by a visit to an art gallery.

I plan ahead and organize things, to avoid scrambling at the last minute.

I rarely hold a grudge, even against people who have badly wronged me.

I feel reasonably satisfied with myself overall.

I would feel afraid if I had to travel in bad weather conditions.

I wouldn't use flattery to get a raise or promotion at work, even if I thought it would

I'm interested in learning about the history and politics of other countries.

I often push myself very hard when trying to achieve a goal.

People sometimes tell me that I am too critical of others.

I rarely express my opinions in group meetings.

I sometimes can't help worrying about little things.

If I knew that I could never get caught, I would be willing to steal a million dollars.

I would enjoy creating a work of art, such as a novel, a song, or a painting.

When working on something, I don't pay much attention to small details.

People sometimes tell me that I'm too stubborn.

I prefer jobs that involve active social interaction to those that involve working alone.

When I suffer from a painful experience, I need someone to make me feel comfortable.

Having a lot of money is not especially important to me.

I think that paying attention to radical ideas is a waste of time.

I make decisions based on the feeling of the moment rather than on careful thought.

People think of me as someone who has a quick temper.

On most days, I feel cheerful and optimistic.

I feel like crying when I see other people crying.

I think that I am entitled to more respect than the average person is.

If I had the opportunity, I would like to attend a classical music concert.
When working, I sometimes have difficulties due to being disorganized.
My attitude toward people who have treated me badly is “forgive and forget”.
I feel that I am an unpopular person.
When it comes to physical danger, I am very fearful.
If I want something from someone, I will laugh at that person's worst jokes.
I’ve never really enjoyed looking through an encyclopaedia.
I do only the minimum amount of work needed to get by.
I tend to be lenient in judging other people.
In social situations, I’m usually the one who makes the first move.
I worry a lot less than most people do.
I would never accept a bribe, even if it were very large.
People have often told me that I have a good imagination.
I always try to be accurate in my work, even at the expense of time.
I am usually quite flexible in my opinions when people disagree with me.
The first thing that I always do in a new place is to make friends.
I can handle difficult situations without needing emotional support from anyone else.
I would get a lot of pleasure from owning expensive luxury goods.
I like people who have unconventional views.
I make a lot of mistakes because I don’t think before I act.
Most people tend to get angry more quickly than I do.
Most people are more upbeat and dynamic than I generally am.
I feel strong emotions when someone close to me is going away for a long time.
I want people to know that I am an important person of high status.
I don’t think of myself as the artistic or creative type.
People often call me a perfectionist.
Even when people make a lot of mistakes, I rarely say anything negative.
I sometimes feel that I am a worthless person.
Even in an emergency I wouldn’t feel like panicking.
I wouldn’t pretend to like someone just to get that person to do favors for me.
I find it boring to discuss philosophy.
I prefer to do whatever comes to mind, rather than stick to a plan.
When people tell me that I’m wrong, my first reaction is to argue with them.

When I’m in a group of people, I’m often the one who speaks on behalf of the group.
I remain unemotional even in situations where most people get very sentimental.
I’d be tempted to use counterfeit money, if I were sure I could get away with it.

Appendix C

Short Dark Triad (SD3)

Please rate the degree to which you agree with the following statements.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

1. It's not wise to tell your secrets.
2. I like to use clever manipulation to get my way.
3. Whatever it takes, you must get the important people on your side.
4. Avoid direct conflict with others because they may be useful in the future.
5. It’s wise to keep track of information that you can use against people later.
6. You should wait for the right time to get back at people.
7. There are things you should hide from other people to preserve your reputation.
8. Make sure your plans benefit yourself, not others.
9. Most people can be manipulated.
10. People see me as a natural leader.
11. I hate being the centre of attention. (R)
12. Many group activities tend to be dull without me.
13. I know that I am special because everyone keeps telling me so.
14. I like to get acquainted with important people.
15. I feel embarrassed if someone compliments me.(R)
16. I have been compared to famous people.
17. I am an average person.(R)

18. I insist on getting the respect I deserve.
19. I like to get revenge on authorities.
20. I avoid dangerous situations. (R)
21. Payback needs to be quick and nasty.
22. People often say I'm out of control.
23. It's true that I can be mean to others.
24. People who mess with me always regret it.
25. I have never gotten into trouble with the law. (R).
26. I enjoy having sex with people I hardly know.
27. I'll say anything to get what I want.

Appendix D

Right-Wing Authoritarianism (RWA) Scale

Please rate the degree to which you agree with the following statements.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

1) Obedience and respect for authority are the most important virtues children should learn
2) Nobody should stick to the "straight and narrow". Instead people should break loose and try out lots of different ideas and experiences
3) We should treat protestors and radicals with open arms and open minds, since new ideas are the lifeblood of progressive change
4) The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers, if we are going to make the world a better place.
5) Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly
6) People should pay less attention to the bible and the other old-fashioned forms of religious guidance, and instead develop their own personal standards of what is moral and immoral
7) The real keys to the "good life" are obedience, discipline, and sticking to the straight and narrow
8) What our country really needs instead of more "civil rights", is a good stiff dose of law and order
9) Our country will be great if we honour the ways of our forefathers, do what the authorities tell

us to do, and get rid of the "rotten apples" who are ruining everything

10) Our country needs free thinkers who have the courage to defy traditional ways, even if this upsets many people
11) The only way our country can get through the crisis ahead, is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas
12) Gays and lesbians are just as healthy and moral as anyone else

Appendix E

Social Dominance Orientation (SDO) Scale

Please rate the degree to which you agree with the following statements.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

1) It's OK if some groups have more of a chance in life than others
2) To get ahead in life, it is sometimes necessary to step on other groups
3) No one group should dominate in society
4) Some groups of people are simply inferior to other groups
5) All groups should be given an equal chance in life
6) We would have fewer problems if we treated people equally
7) We should strive to make incomes as equal as possible
8) Sometimes other groups must be kept in their place
9) We should do what we can to equalize conditions for different groups
10) Inferior groups should stay in their place

Appendix F

Belief in a Competitive World (BCW) and Belief in a Dangerous World (BDW) Scale

Please rate the degree to which you agree with the following statements.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

Belief in a Competitive World

1. It's a dog-eat-dog world where you have to be ruthless at times.
2. There is really no such thing as "right" and "wrong". It all boils down to what you can get away with.
3. One of the most useful skills a person should develop is how to look someone straight in the eye and lie convincingly.
4. My knowledge and experience tells me that the social world we live in is basically a competitive "jungle" in which the fittest survive and succeed, in which power, wealth, and winning are everything, and might is right.
5. Basically people are objects to be quietly and coolly manipulated for one's own benefit.
6. Life is not governed by the "survival of the fittest". We should let compassion and moral laws be our guide.
7. It is better to be loved than to be feared.
8. Do unto others as you would have them do unto you, and never do anything unfair to someone else.
9. Honesty is the best policy in all cases.

10. One should give others the benefit of the doubt. Most people are trustworthy if you have faith in them.

Belief in a Dangerous World

1. My knowledge and experience tell me that the social world we live in is basically a safe, stable and secure place in which most people are fundamentally good.
2. It seems that every year there are fewer and fewer truly respectable people, and more and more persons with no morals at all who threaten everyone else.
3. Although it may appear that things are constantly getting more dangerous and chaotic, it really isn't so. Every era has its problems, and a person's chances of living a safe, untroubled life are better today than ever before.
4. Any day now chaos and anarchy could erupt around us. All the signs are pointing to it.
5. There are many dangerous people in our society who will attack someone out of pure meanness, for no reason at all.
6. The "end" is not near. People who think that earthquakes, wars, and famines mean God might be about to destroy the world are being foolish.
7. My knowledge and experience tells me that the social world we live in is basically a dangerous and unpredictable place, in which good, decent and moral people's values and way of life are threatened and disrupted by bad people.
8. Despite what one hears about "crime in the street", there probably isn't any more now than there ever has been.
9. If a person takes a few sensible precautions, nothing bad is likely to happen to him or her; we do not live in a dangerous world.
10. Every day as society become more lawless and bestial, a person's chances of being robbed, assaulted, and even murdered go up and up.

Appendix G

Terrorism Empathy Scales

Please rate the degree to which you agree with the following statements.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

Empathy towards Perpetrators of Terrorism

1. I can understand how powerful a terrorist might feel.
2. I can empathize with the shame and humiliation an accused terrorist feels during a trial to prove terrorism.
3. I imagine the anger a person would feel at being accused of terrorism.
4. I can feel the emotional trauma that a person accused of terrorism would feel if the terrorism trial were publicized in the press.
5. I imagine the courage it takes to defend oneself in court against the charges of terrorism.

Empathy towards Victims of Terrorism

1. I can understand how helpless a terrorist attack victim might feel.
2. I can feel a person's helplessness at being forced into living under a terrorist regime.
3. Hearing about someone who has been through a terror attack makes me feel that person's fear.
4. I can empathize with the helplessness and fear a terror victim feels after a terror attack.
5. I can understand why a terror victim feels scared for a long time.

Appendix H

Real-News Article Stimuli Example

Please read the following article carefully before proceeding to the next set of questions:

Explosions, gun shots hit Istanbul's Ataturk airport: report

Staff writers and wires, News Corp Australia Network

June 29, 2016 10:38pm

- Suicide bombers attacked Istanbul's Ataturk airport
- Explosions and gunfire left at least 41 dead, 239 injured
- Witnesses tell of horrific moments the attackers opened fire
- Islamic State is reportedly behind the attacks
- PM Malcolm Turnbull condemns ISIS, Aussies urged not to travel to Istanbul

WARNING: Graphic

The first departures took off from Istanbul's Ataturk international airport, as the major international transit hub partially resumed operations following a deadly attack that killed 41 people and wounded 239 others.

Planes had already begun landing just before dawn on Wednesday, after the airport - one of the largest in the region - had been totally shut for several hours following the attack the previous evening which was focused on the arrivals terminal.

Delays remained widespread after hundreds of flights were cancelled or postponed immediately after the attack.

Turkish Airlines, which had to cancel more than 340 flights, was offering refunds or alternative tickets, but there still was chaos for many travellers.

The building's exterior and interior had suffered some damage in the multiple explosions and gunfights between police and the assailants. Workers were still cleaning up blood and people could still see bullet holes left behind from the terror attack.

The triple suicide bombing killed 13 foreign nationals.

Passengers check the board shows status of flights at the country's largest airport, Istanbul Ataturk, following yesterday's blast. Picture: Getty

A Turkish official, speaking on condition of anonymity, said five of the dead were from Saudi Arabia, two were from Iraq, and one from Tunisia, Uzbekistan, China, Iran, Ukraine and Jordan.

109 of the 239 wounded have been discharged from hospital.

No one has claimed Tuesday's attack yet but Turkish authorities said they suspect Islamic State jihadists.

Turkey remains on high security alert after a series of attacks on its soil blamed not only on the IS group but also Kurdish militants.

Iranian Foreign Minister Javed Zarif tweeted on Tuesday night: "Terror rears its ugly head yet again in our friend & neighbour's airport. "Extremist violence is a global threat; we must confront it together."

Greece, Russia, Albania, France and other countries around the world have offered their condolences and condemned the attacks suspected to have been carried out by Islamic State.

As Turkey counts the cost of its latest terror atrocity, the country's president has vowed to continue the campaign against Islamic militants.

Suicide bombers opened fire before blowing themselves up at the entrance to Ataturk International Airport.

Turkish President Recep Tayyip Erdogan condemned the attack, which took place during the Muslim holy month of Ramadan. He said the attack "shows that terrorism strikes with no regard to faith and values" and called on the international community to take a firm stand against terrorism

"Turkey has the power, determination and capacity to continue the fight against terrorism until the end," Erdogan said.

A person touches the bullet hole left on the window at the country's largest airport, Istanbul Ataturk. Picture: Getty

WITNESSES TELL OF TERROR

An AFP photographer saw bodies covered with sheets at the terminal, which suffered considerable damage but was being repaired on Wednesday.

Bullet holes peppered the windows and shattered glass lay on the floor, while abandoned luggage was scattered everywhere. Hundreds of police and firefighters including forensic officers were at the scene.

"Somebody came and shot at us and then my sister ran," Otfah Mohamed Abdullah told AFP.

"I don't know which way she ran and after that I fell down. I was on the ground till he (the gunman) stopped... I can't find my sister."

Another witness told of the terrifying moment he and his wife came "face to face with one of the attackers", as the gunman opened fire with AK-47s in the Brussels-style attack.

Appendix I

Human Research Ethics Committee Approval

Locked Bag 1797
Penrith NSW 2751 Australia
Research Engagement, Development and Innovation (REDI)

WESTERN SYDNEY UNIVERSITY

REDI Reference: H10449
Expiry Date: 31 December 2018

HUMAN RESEARCH ETHICS COMMITTEE

8 December 2016

Doctor Peter Jonason
School of Social Sciences and Psychology

Dear Peter,

RE: Amendment Request to H10449

Research Engagement, Development and Innovation (REDI) has received a request to amend your approved research protocol H10449 "Towards a better understanding of being bad".

The amendment has been reviewed and I am pleased to advise that it has been approved, as follows:

Addition of MRes student Ceylan Okan.

Change to study design as listed in the amendment response received 7/12/2016 and 8/12/2016. Approval condition: that the Turkish documents also contain the information about support for participants if they experience distress.

Please do not hesitate to contact the Human Ethics Officer at humanethics@westernsydney.edu.au, if you require any further information.

Regards

Professor Elizabeth Deane

Presiding Member,
Human Researcher Ethics Committee
Western Sydney University