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**Comfort in Radicalism?  
Self-affirmation, Personal Characteristics and  
Political Violence**

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## Abstract

Politically motivated violence is a highly controversial policy issue in many societies today. Despite drawing massive attention from the public and academia, the motives underlying such behaviour remain diffuse and have resisted empirical explanations.

A randomised controlled trial was conducted in Iraq to examine readiness to engage in radical activism as a function of two potential contributing factors, self-related uncertainty and personal characteristics. Participants' self-integrity was threatened by mortality salience as the uncertainty induction. In line with self-affirmation theory, they responded by intensifying activism intentions, particularly for violent and illegal forms of political expression. Providing an opportunity to affirm important personal values partly eliminated this effect, however only with marginal statistical significance. A range of personal characteristics — agreeableness, neuroticism and attachment to different social groups — were, by and large, no substantial predictors, confirming existing criticism of 'profile'-based models of political violence.

These findings extend on self-affirmation theory, suggesting that intentions to engage in extreme forms of activism may be a mechanism to fend off self-integrity threats and mask corresponding feelings of uncertainty. Policy implications and relevance to the regional context and beyond are discussed.

# 1 Introduction

Every week, 307 people around the world are killed as a result of terrorist attacks, leaving many more injured (Institute for Economics & Peace, 2019). Yet, terrorism is only an extreme manifestation of the broader concept of political violence. In the pursuit of political goals, people turned to violent means in the form of unrests, protests, and terrorism on at least 19,236 occasions last year (Control Risks, 2019). Beyond immediate physical harm, consequences can include severe detriment to mental health, economic instability and damage to property.

Globally, political violence is on decline after peaking in 2014, corresponding to the winding down of conflicts in the Middle East and Africa (Institute for Economics & Peace, 2019). Despite this overall positive outlook, political violence remains regionally concentrated, most notably in Central Asia<sup>1</sup> and the Middle East. Moreover, the decrease in Islamist violence is accompanied by a rise in attacks motivated by right-wing extremism and white supremacy movements in developed countries (Institute for Economics & Peace, 2019).

Experiencing political violence is undoubtedly negative for its victims. However, engaging in such behaviour also involves serious risks for the perpetrators themselves, for example severe injury, death, criminal prosecution or loss of personal life opportunities. Why is it, then, that so many people are willing to accept these grim prospects and decide to participate in violent campaigns?

A critical shortcoming of existing conceptual approaches is their lack of empirical testing with sufficient validity. Moreover, those populations witnessing the highest presence of political violence are only sparsely represented in behavioural research. The confidence in proposed models is further weakened by the questionable efficacy of policy programmes aiming to prevent violent extremism, which are often distributed based on personal characteristics (Ward, 2019).

More empirically robust findings from psychology and behavioural science may provide novel insights. Self-affirmation theory argues that people maintain a global sense of self-integrity, and that they will become defensive when this concept is threatened by feelings of uncertainty. McGregor et al. (2001) demonstrated that such compensatory responses can take the form of ‘going to extremes’ on political attitudes and exhibiting stronger intergroup bias. These effects are potentially relevant for political violence in that they might form the motivational basis for such behaviour. To date however, self-affirmation theory has not been empirically verified in this context.

This study contributes to the existing body of knowledge primarily in three aspects. First, it builds on McGregor et al. (2001) by testing whether compensatory self-affirmation can extend beyond attitudinal change into actual behavioural preferences — in particular, higher readiness to participate in ‘radical activism’. Hereafter, radical activism refers to extreme forms of political expression such as joining violent protests or actively supporting violent organisations. Second, it addresses empirical gaps by examining whether personal characteristics — personality traits and social attachment — predict readiness to engage in radical activism. Finally,

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<sup>1</sup>Afghanistan accounted for 46% of global terrorism fatalities in 2018 (Institute for Economics & Peace, 2019).

this study implements an artefactual field, randomised controlled trial in Iraq, a country that is highly impacted by political violence yet underrepresented in research so far.

The experimental design closely followed McGregor et al. (2001, studies 1/3). After completing a personal characteristics questionnaire, mortality salience was used to induce uncertainty in two experimental conditions. In a secondary treatment, one group was given the opportunity to affirm important personal values during an ‘integrity-repair’ exercise. Afterwards, readiness to engage in two forms of activism behaviour was measured: radical activism, and legal/non-violent activism for comparison. In line with self-affirmation theory, it was expected that morality salience increases (radical) activism intentions, and that the integrity-repair exercise eliminates this effect. Several stages of regression analysis are conducted for hypothesis testing.

The remainder of this dissertation is organised as follows. In [Section 2](#), previous research and policy context is discussed. [Section 3](#) offers a brief introduction to the regional and societal features of the study population. Hypotheses are formulated in [Section 4](#). [Section 5](#) describes the experimental design, and [Section 6](#) outlines the analytical framework. Results are reported in [Section 7](#) and discussed in [Section 8](#), followed by concluding remarks.

## 2 Background

Violence as an extreme form of political expression is a complex and multifaceted phenomenon. Motivations of such behaviour have been approached through various social science disciplines, while policymakers have focused on searching effective countermeasures. It should be recognised that both fields are interconnected, with public policy often initiating academic research, and selective studies informing legislative efforts — a relationship carrying controversial implications for scientific neutrality (Stampnitzky, 2013).

This section begins with a critical review of previous research and policy approaches to political violence. Then, the conceptual framework of self-affirmation theory will be introduced. Emphasis is put on discussing strengths and limitations throughout.

### 2.1 Motivations for political violence

#### 2.1.1 Social science approaches

Joining violent movements is often assumed to be motivated by a strong belief in ‘the cause’ or an ideology. However, as concluded by Crenshaw (1987), “the popular image of the terrorist as an individual motivated exclusively by deep and intransigent political commitment obscures a more complex reality” (p. 19). That reality is that reasons to commit political violence may vary across forms of engagement, and also within groups — and they may change over time.

A fundamental distinction useful for mapping out the research landscape is by unit of analysis, i.e. focusing on individuals and intrinsic motivations or on social context and external influences. Despite high heterogeneity even within these categories, existing approaches usually follow one of four themes — psychological, sociological, rationalist or sequential.<sup>2</sup>

<sup>2</sup>This structure broadly follows Hughes (2019; J. Hughes, personal communication, April 6, 2020).

### ***Psychological***

Psychology has a history attempting to explain deviant behaviour first as a function of psychopathology such as mental disorders or maladjusted personality syndromes (Borum, 2004). Cooper (1978), Pearce (1977) and Taylor (1988) are three scholars representative of research in this domain from mainly the 1960s to 1980s. Terrorists, the argument goes, lack self-regulating cognitive functions which alienates them from social norms and creates an ‘outlaw identity’ (Cooper, 1978). Underlying this proposition is the assumption that actors of political violence are “in one way or the other not normal and that the insights from psychology and psychiatry are adequate keys to understanding” their behaviour (Jongman, 1988, p. 91). Similar theories include narcissism-driven aggression (Morf, 1970; cf. Crayton, 1983; Post, 1984). Pomerantz (2001) goes even further and postulates a ‘group mental disorder’ among al-Qaeda leaders.

Today, the ‘terrorist syndrome’ hypothesis is widely considered unreliable (Crenshaw, 1992; Kruglanski & Fishman, 2006; Taylor & Horgan, 2006). Such criticism points to the questionable evidence of indirect reports instead of primary psychiatric evaluations.<sup>3</sup> Richardson (2007) diagnoses a general ‘normalcy’ among actors of political violence.

However, individual psychology may still contribute to the field, for instance by identifying vulnerabilities and potential factors contributing to “some people having a greater *openness* to *increased* engagement than others” (Horgan, 2014, p. 98). A prominent model of personality traits, the Big Five — extraversion, agreeableness, conscientiousness, neuroticism and openness — are assumed to be consistent predictors for behaviour across a broad range of situations (McAdams & Pals, 2006). Agreeableness (a marker for compassion and politeness) has been correlated to activism engagement (Curtin et al., 2010). Similarly, neuroticism (a marker for volatility and withdrawal) is by definition a determinant of how a person reacts to emotionally charged stimuli, which are abundant in political conflicts (Jenkins, 1996; Knight et al., 2002).

The role of personality remains controversial, with McCormick (2003) noting that “although latent personality traits can certainly contribute to the decision to turn to violence, there is no single set of psychic attributes that explains terrorist behavior” (p. 491). However, Merari (2010) concludes that further empirical evidence is needed to either confirm or reject this notion.

### ***Rationalist***

A range of scholars (e.g., Enders & Sandler, 2006; Frey, 2004; Gupta, 2008; Krueger, 2008) view engagement in political violence as the outcome of a deliberate cost-benefit-risk assessment. In line with central tenets of (neo-)classical economic theory, perpetrators of political violence are conceptualised as utility-maximising, rational agents (Enders and Sandler, 2006). Weinstein (2006) even labels members of terrorist groups as ‘consumers’ and ‘investors’. According to rationalist models, organisations can provide incentives such as material compensation, status or security to in-group members in order to manage their attractiveness among potential recruits (Olson, 2009). When these benefits outweigh perceived costs such as physical harm or potential punishment, engagement becomes the rational choice in the eye of the individual.

<sup>3</sup>In one case, Pearce examined tattoos on one prison inmate to support his sociopathy claim (Victoroff, 2005).

While conceptually appealing due to their simplicity, rationalist models face criticism for failing to explain behaviour that implies the complete abandoning of self-interests (for instance, suicide attacks). Advocates often respond by loosening the framework to include ideological commitment or altruistic motivation (Azam, 2005). For ‘devoted actors’ or ‘high-commitment members’ (Atran, 2016), rationality is overridden by a belief in “sacred, transcendent values” (p. S192; see also Kruglanski & Fishman, 2006). However, this reduces the rationalist hypothesis to a tautology, since any motive could principally be framed into the cost-benefit-risk model, rendering it meaningless for empirical analysis.

### *Sociological*

Accepting the ‘normality’ of terrorists caused a search for alternative explanations beyond psychological propensities. Social interactions and socio-economic backgrounds were introduced as potential factors. The new understanding was that “in the ‘wrong’ circumstances most people could either come to support a terrorist group or possibly even consider joining one” (Silke, 2003, emphasis added).

Many scholars build on Gurr’s (2010) relative deprivation theory, which posits that a lack of socio-economic resources, particularly in comparison to peer groups, induces stress and can mobilise people into collective action. Similarly, the frustration-aggression hypothesis by Dollard et al. (1939; see also Davies, 1973; Friedland, 1992) is concerned with contextual motivators of activism and violence. However, Krueger and Maleckova (2002) found no causal effect of economic conditions on criminal behaviour and support for terrorism.

Analysing interview transcripts of alleged al-Qaeda members, Sageman (2004) emphasises the importance of social attachment — bonds of friendship, family, religion or educational — in determining participation in violent jihadism. Della Porta (1988) and Snow et al. (1980) also connected ‘interpersonal ties’ with recruitment into organisations carrying out political violence. Sageman’s concept of network-based, ‘leaderless jihad’ has attracted interest from policymakers and academics in recent years, despite concerns over bias in the data.<sup>4</sup>

Ultimately, distilling a composite of (inter-)personal characteristics of politically violent actors is the implicit or explicit objective of sociological approaches. The often cited ‘Russell & Miller profile’ (Russell & Miller, 1983) is one example. However, this neglects that the vast majority of people in the same contexts (e.g., from similar socio-economic backgrounds) will never transition into political violence in their lives. Why not?

### *Sequential*

Finally, sequential approaches are the top-down analog to sociological models. Their key assumption is that people ‘radicalise’ through a causal chain of events that alienates them from value norms and pulls them towards political violence (see also McCauley & Moskalenko, 2008). To illustrate these dynamics, various metaphors have been proposed e.g. a conveyor belt (Baran, 2005), pyramid (McCauley & Moskalenko, 2008), or staircase (Moghaddam, 2005).

Wiktorowicz (2004) studied the UK-based Salafist group Al-Muhajiroun to design a model

<sup>4</sup>For instance, the interviews by US intelligence agencies may have produced biased responses.

of radicalisation in which the belief system of potential recruits is manipulated to adopt more extreme worldviews.<sup>5</sup> Other models (e.g., della Porta, 1995) differ significantly in the time frames involved, which may be indicative of high context-dependency. A general shortcoming is that sequential models disregard the role of individual agency, and instead portray radicalisation as targeted manipulation rather than conscious decisions to violate norms.

### 2.1.2 Public policy initiatives

Turning to policy responses to political violence also does not offer clear answers. The amount of new counterterrorism legislation in countries like the United Kingdom and United States (sparked by terror attacks in the early 2000s) showcases the struggle to reach societal consensus on what exactly the problem is and how to address it (see Neumann, 2013). Meanwhile, programmes to prevent violent extremism generally adopt variants of the academic approaches outlined above.

‘Prevent’, the UK’s core strategy to stop people from joining radical organisations, has drawn controversy for targeting specific social groups and religious communities based on personal characteristics (Ward, 2019). For instance, referrals into the programme significantly overrepresent suspected cases of Islamism compared to right-wing extremism (Warrell, 2019). Perhaps even more alarming, U.S. authorities have implemented a model of radicalisation that is almost congruent to Wiktorowicz (2004) into their law enforcement practices (Silber & Bhatt, 2007). Their report for the New York Police Department identifies a range of ‘signatures’ characteristic of radicalising individuals, which can be described as nebulous at best — for instance giving up cigarettes, growing a beard or meeting in hookah (water pipe) bars (Silber & Bhatt, 2007).

In addition to a stunning lack of empirical support, such practices carry substantial risk of promoting discrimination against citizens into ‘suspect communities’ (Hillyard, 1993). Behavioural psychologists have also raised concerns about their effectiveness in preventing violent extremism (Warrell, 2019). Overall, there remains a need for empirical investigations into the role of personal characteristics as well as other potential mechanisms.

### 2.1.3 General remarks

The debate suffers from broad definitional ambiguity: For instance, what distinguishes political violence from non-political violent crime? Similarly, levels of engagement should be understood as continuous: Are those who provide logistical, material or moral support to the cause different from actual perpetrators? This complexity only increases when it comes to vague concepts like ‘radicalisation’.

Such lack of consensus may come as a surprise given the intuitive moral clarity in evaluating acts of political violence. Instead, it may indicate that motives are heterogeneous across time, regions and cultures, as well as organisations and members (Silke, 2003). Taking a more cynical perspective, Kundnani (2012) suggests that the confusion may be intentional: Emotionally charged terms like ‘terrorism’ and ‘radical’ are easily instrumentalised to frame public perceptions and foster narratives about threats to society.

<sup>5</sup>Such ‘frame alignment’ is grounded in social movement theory (Snow et al., 1986).



Recent studies have addressed the empirical weakness of existing research by increasingly using primary data (Schuurman, 2018). For instance, Sampaio (2020) examined how urbanisation amplified political violence in Mogadishu, Nairobi, Kabul and Karachi, which had been frequently impacted by unrests. Nonetheless, research remains largely theoretical. While the topic presents obvious challenges for field research, the lack of controlled testing reduces the confidence in existing conclusions. The empirical studies that do exist often suffer from small sample sizes or selection bias by ‘sampling on the dependent variable’: For instance, only examining cases of convicted terrorists without adequate control groups likely overestimates the significance of personal characteristics. Other studies (e.g., Hogg & Adelman, 2013) only measure approval of political violence, which does not contribute to whether (and why) people would themselves engage in such behaviour.

So far, none of the approaches from academia or politics have successfully narrowed down sufficient or necessary conditions for political violence (Borum, 2011). Existing models should be empirically tested, particularly in regions most impacted by political violence. Furthermore, robust findings from other fields might provide novel insight into this topic.

## **2.2 Defensiveness against uncertainty: Self-affirmation theory**

### **2.2.1 Self-affirmation theory**

Behavioural and psychological effects in response to cognitive states of uncertainty are well documented (e.g., Kahneman et al., 1982; Forstmann & Sagioglou, 2019).

Self-affirmation theory (Steele, 1988) posits that people have a fundamental motivation to preserve self-integrity, a superordinate concept consisting of self-worth and the belief of being a valuable and potent causal agent able to control events (Sherman & Cohen, 2006). Even though individuals maintain specific images of themselves (such as being a good friend or a successful student), a key argument of self-affirmation theory is that this is not their primary objective. Instead, people strive to maintain global self-integrity as the overall perception of their moral goodness and efficacy (Steele, 1988). When feeling good about oneself in one domain, one becomes more willing to tolerate negative feelings in another. Conversely, people may try to fend off threats to their self-integrity by re-affirming another, unrelated aspect of the self. Such ‘fluid compensation’ represents an alternative to more direct psychological reactions like changing one’s worldviews or outright dismissal/avoidance (Sherman & Cohen, 2006).

Various empirical studies have been conducted on the basis of self-affirmation theory (e.g., Norman et al., 2018; Wileman et al., 2015). In a series of lab experiments, McGregor et al. (2001) tested ‘fluid compensation’ in response to different self-integrity threats: Personal dilemma salience (studies 1–2), mortality salience and temporal discontinuity (studies 3–4). Participants compensated the uncertainty by expressing more extreme attitudes on controversial topics such as capital punishment and abortion, and by intensifying intergroup bias (‘going to extremes’). Alternatively, affirming unrelated personal values and life goals salience (‘being oneself’) also restored self-integrity.

Although both attitudinal hardening and intergroup bias do not necessarily imply behavioural effects, ‘going to extremes’ may be conceptually relevant to engagement in political violence. According to Moghadam et al. (2014; Tausch et al., 2011), political violence often occurs in the form of group-based activism in the pursuit of social change. Amplifying one’s convictions about cultural and political values, coupled with favourable views on like-minded people and unfavourable views on opposing people (Hewstone et al., 2002), could create fertile ground for readiness to participate in radical activism. However, the extent to which self-affirmation theory applies in the context of political violence has yet to be investigated empirically.

### 2.2.2 Alternative frameworks

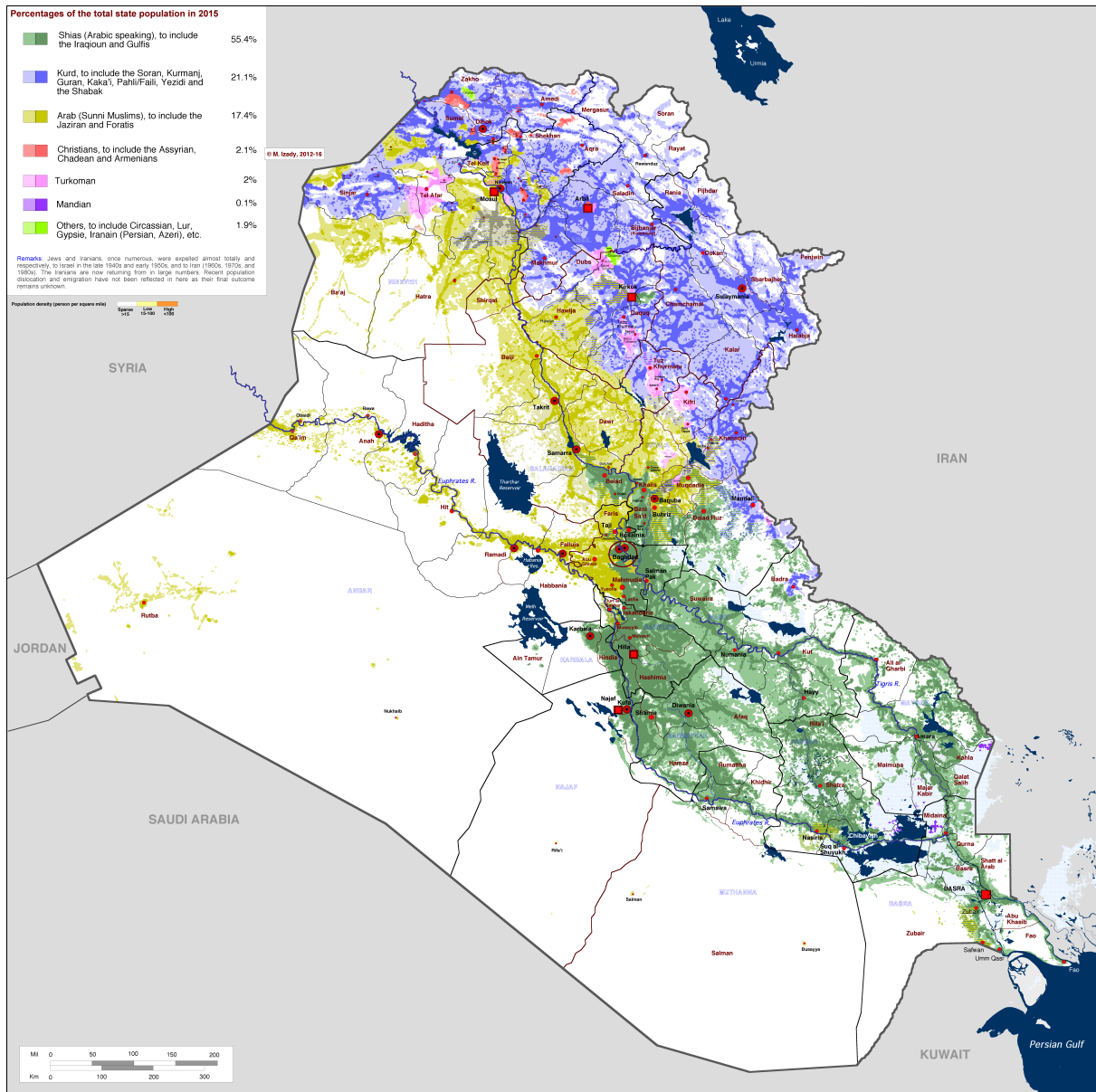
Self-affirmation theory is based on the assumption that feelings of uncertainty and the motive to maintain global self-integrity are the causal mechanisms behind compensatory reactions as observed in McGregor et al. (2001). However, alternative explanations for the observed effects should be considered.

Mortality salience, which was utilised by McGregor et al. (2001) as a self-integrity threat, is originally a concept derived from terror management theory (TMT) and introduced by Greenberg et al. (1986). TMT argues that human behaviour is fundamentally driven by existential anxiety, which is regulated by a “cultural anxiety buffer” consisting of worldviews and self-esteem (Rosenblatt et al., 1989, p. 681). The mortality salience hypothesis holds that reminding people of the inevitability of death increases the potential for existential anxiety, and that emphasising one’s worldviews and self-esteem reduces it. For instance, Pyszczynski et al. (2006) confirmed mortality salience effects on support for martyrdom attacks in Iran. However, this study is again limited to measurements of moral support and student samples rather than the general population. While conceptually compatible with self-affirmation theory, TMT offers the perspective that rather than self-integrity, ‘going to extremes’ may be motivated by the desire to identify with death-transcendent cultural values (‘worldview defense’; Greenberg et al., 2000).

More generally, uncertainty may be a covariate of the true causal link behind the treatment effects rather than their mediator. In this case, although attitudinal hardening and amplified intergroup bias are accompanied by feelings of uncertainty, manipulations exclusively targeting uncertainty could prove ineffective in counteracting these outcomes.

## 3 Social structure and political violence in Iraq

Iraq is one of the countries most severely impacted by political violence. It consistently ranked first on the Global Terrorism Index from 2004 to 2017, recording 66,573 related deaths since 2001 (Institute for Economics & Peace, 2019). Moreover, incidents of unrest occur over three times more often in Iraq than in any other country; violent crime is only more frequent in Mexico (Control Risks, 2020). In order to substantiate the discussion for this study, this section provides a brief introduction to relevant societal and historical aspects.



**Figure 1.** Ethnic composition of Iraq (Izady, 2018).

Iraq’s population of 39 million is concentrated in cities alongside the Euphrates and Tigris rivers (Central Intelligence Agency, 2020). As illustrated in Figure 1, the ethnically diverse society can be broadly split into Kurds in the north, Shias in the south and Sunni Arabs in central regions. Various religious minorities such as Christian sects exist but have decreased significantly in recent years as many have fled the violent conflicts (Oehring, 2017).

Iraq is a federal democracy across 18 provinces, of which three are partially controlled by the autonomous Kurdish Regional Government (KRG; Australian Government, 2020). In 2003 a US-led military invasion caused the collapse of the Ba’athist regime under General Saddam Hussein. Since then, tensions increased drastically between the largely Shia-led central government in Baghdad and Sunni Muslim communities, as well as Kurdish independence efforts.

Prior to 2003, levels of non-state political violence had been low (Institute for Economics & Peace, 2017). The country’s destabilisation brought about a steady increase in violent un-

rest and attacks in the form of bombings and shootings motivated by sectarian clashes, which peaked in 2007 and then decreased with the deployment of US troops. A second, more extreme escalation wave began in 2011 amidst violent protests, spillover from Syria and the rise of the Islamic State of Iraq and the Levant (Institute for Economics & Peace, 2017). By early 2018, the group had lost 95% of its territorial claims, and violent incidents sharply declined to the lowest levels since 2003 (Institute for Economics & Peace, 2017).

In late 2018, protests erupted across central and southern Iraqi cities over economic and political frustrations. A continuation of smaller movements since 2012, these protests were significantly larger in scale and often occurred spontaneously (Pfaff, 2019). Protests escalated in October 2019 following a series of unpopular decisions by Prime Minister Adil Abdul-Mahdi, who was forced to resign several weeks later (Nowacka, 2019). As of August 2020, protests against corruption and unemployment continue and occasionally lead to violent clashes.

Iraq's exposure to political violence has two important implications for studies in this field. First, it illustrates again the paradox that arguably the regions highest in demand for robust empirical findings have so far been underrepresented in research. Second, it is likely that years of prolonged conflict have uniquely influenced perceptions about actors, engagement and forms of political violence. Such circumstances were the primary motivation to conduct this study in this regional context.

## 4 Hypotheses

Extending on previous literature and addressing empirical gaps as identified in [Section 2](#) and [Section 3](#), this study investigates self-affirmation theory and the role of personal characteristics in the context of political violence. Readiness to engage in radical activism is the main outcome of interest. Separately, 'moderate' activism intentions are measured in order to differentiate between illegal/violent forms of political expression and legal/non-violent ones. The following research questions and hypotheses guide the empirical strategy:

### *Do people turn to radical activism in response to uncertainty?*

Research on self-affirmation theory suggests that threats to self-integrity can prompt compensatory responses in the form of attitudinal hardening and intergroup bias (McGregor et al., 2001). Mortality salience was shown to be one such uncertainty-inducing threat. Conversely, providing alternative affirmation opportunities eliminated this effect. This study tested whether the same dynamics of 'going to extremes' apply to related, but more explicit behavioural intentions: higher readiness to engage in (radical) activism.

**H1a:** Mortality salience causes participants to express stronger intentions to engage in (radical) activism.

**H1b:** Affirming personal values during an integrity-repair exercise mitigates the effect of mortality salience on (radical) activism intentions.

### *Is radical activism a function of personal characteristics?*

The role of personality traits and social attachment is controversial among psychological and sociological research on political violence. While policy programmes frequently revolve around such characteristics, empirical support remains sparse. Two Big Five traits, agreeableness and neuroticism, are measured in addition to perceived attachment to one’s family, state, the general population and friends.

**H2:** Individual scores in neuroticism, agreeableness or social attachment significantly predict intentions to engage in (radical) activism.

## 5 Experimental design

The experimental design and data analysis strategy were pre-registered with the OSF network (Mallock, 2020). Moreover, a full LSE research ethics application and data management plan were submitted and approved prior to implementation. Permission to resume fieldwork<sup>6</sup> was granted by the Research Ethics Committee on July 9, 2020.

### 5.1 Overview

An artefactual field<sup>7</sup>, randomised controlled trial (RCT) was conducted in Iraq. Compared to alternative designs, this allows more direct causal inferences due to high controllability. One tradeoff is that the behaviour of interest — radical activism — is not observed in its natural occurrence and might deviate from self-reported intentions. Given obvious practical and ethical challenges for observational or natural field research of political violence, the risk of intention-behaviour discrepancies is deemed defensible. To encourage accurate responses, participant anonymity was maintained at all times, and an explicit honesty check was included at the end of the experiment. Validity will be critically discussed in [Section 8](#).

### 5.2 Participants

#### 5.2.1 Sample size & power analysis

A priori power analysis was conducted using G\*Power to determine required sample sizes for hypothesis testing with sufficiently low error probabilities.

Mortality salience was the primary treatment during the RCT. While existing research offers no direct effects on (radical) activism intentions, studies in other fields generally report moderate mortality salience effects (Burke et al., 2010). More conservatively, effect sizes were estimated as small to moderate at  $f = 0.175$  (see Cohen, 1988). Fixing error probabilities at  $\alpha = 0.05, \beta = 0.20$ , a required total sample of 259 participants was anticipated.<sup>8</sup>

<sup>6</sup>As required per LSE regulations during the Covid-19 pandemic.

<sup>7</sup>Following the Harrison & List (2004) taxonomy.

<sup>8</sup>Power analysis is highly sensitive to parameters and only provides approximate sample estimates.

## 5.2.2 Recruitment

279 participants in Iraq completed the experimental materials in electronic form using Qualtrics survey software. Participation was voluntary and did not involve monetary incentives. All participants were required to be adults in order to be eligible.

Recruitment was facilitated in cooperation with the Lebanon-based field office of Konrad Adenauer Foundation (KAS), a globally operating think tank funded primarily through German federal and state public budgets<sup>9</sup>. In the Middle East, KAS engages in political education, development projects and research with a security policy focus on Iraq and Syria, and operates a network of partner organisations throughout the region. Thereof, 10 non-governmental organisations (NGOs) and universities in Iraq were selected as appropriate distribution channels. Participants accessed the materials via URLs unique to each partner organisation, allowing to distinguish sample groups later. A full list of involved organisations and their activities is included in [Appendix A.1](#).

Great care was taken to recruit a regionally and socially diverse sample in order to enhance external validity. As shown on a map in [Appendix A.1](#), the selected partner organisations are based in all three major ethnic regions and seven cities, including the most populated urban areas Baghdad, Mosul and Basra (City Population, 2018). Moreover, NGO outreach extends to citizens from the general population across regions and social backgrounds. Despite these efforts, selection bias remains a potential threat to generalisability, for instance if recruitment through universities and NGOs resulted in over-representation of certain characteristics (such as education or political values) relative to the general population mean. To the extent possible, this risk is minimised by including observable socio-demographic covariates in the main analysis.

## 5.3 Materials

The complete set of materials (with translation) is included in [Appendix A.6](#).

### 5.3.1 Translation & pre-tests

To avoid contamination of results by insufficient language literacy, all materials were presented in Modern Standard Arabic. An initial translation was prepared by the researcher and given to an Arabic native speaker<sup>10</sup> for verification and back-translation into English, where it was checked against the original texts.

Pre-tests were conducted with approximately 20 graduate students at LSE (English version) and two KAS researchers (English-Arabic versions) independently to ensure materials were intelligible and unambiguous from a participant perspective. Relevant feedback was incorporated prior to launch.

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<sup>9</sup>99% funded by the Federal Ministry for Economic Cooperation and Development (BMZ; KAS, 2017).

<sup>10</sup>The translator is an Iraqi national and experienced project manager at KAS Lebanon.

### 5.3.2 Informed consent & debriefing

In full compliance with university regulations (LSE, 2019), all participants were required to express informed consent at the beginning of the experiment. The form provided broad information about the study, data usage and privacy, as well as contact details in case of questions or complaints.

An immediate debriefing was not included due to concerns that critical details might be shared with other eligible participants within sample groups (recruited through the same partner organisation), potentially influencing results. Instead, contact details were provided and supplementary information sent to interested participants on request after closing the study.

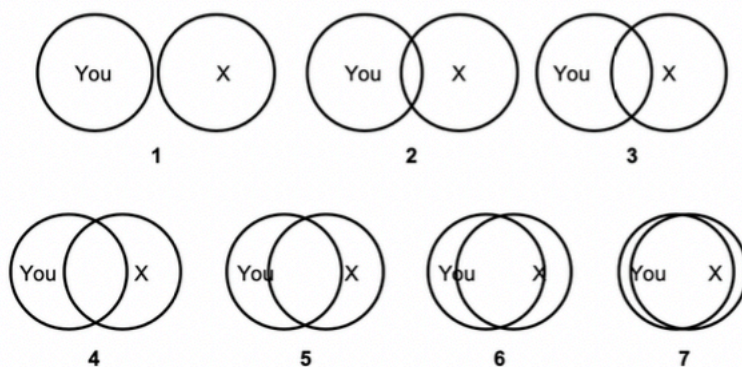
### 5.3.3 Personal characteristics

#### *Personality traits*

Participants first completed a 16-item questionnaire of agreeableness and neuroticism. Items were acquired from the International Personality Item Pool (IPIP-50), a prominent inventory for testing Big Five markers as identified by Goldberg (1992), and answered on a 7-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’. An Arabic translation of IPIP-50 has been developed and empirically verified by Almaghbashy (2017), and was used for the relevant items. For each neuroticism and agreeableness, two items were dropped due to missing translations. The remaining 8 items per trait were presented in alternating order and, to the extent possible, alternating directionality (positive/reverse scoring) in order to encourage participants to pay attention instead of rushing through similarly worded items.

#### *Social attachment*

Next, participants rated their perceived attachment to different social entities from 1 (lowest) to 7 (highest) using the ‘Inclusion of Other in the Self’ scale (Aron et al., 1992). This is a visual measure of perceived closeness between oneself and a placeholder ‘X’ as shown in [Figure 2](#). Based on suggestions from literature (e.g., Sageman, 2004), ‘X’ is replaced respectively with ‘family’, ‘the state’, ‘the people’ and ‘friends’.



**Figure 2.** ‘Inclusion of Other in the Self’ scale visualisation (Gächter, 2016).

### 5.3.4 Treatment I: Mortality salience

This study is concerned with the effect of self-affirmation mechanisms on readiness to engage in (radical) activism behaviour. McGregor et al. (2001, study 3) demonstrated that mortality salience constitutes an adequate uncertainty induction and threat to self-integrity. The choice for mortality salience was also motivated by practical considerations, since it represents a less complex and time-consuming treatment compared to alternatives such as personal dilemma salience (see McGregor et al., 2001, studies 1–2).

Participants in the treatment condition answered two open-ended questions traditionally used as mortality salience inductions (Greenberg et al., 1997):

1. *Please write down, as specifically as you can, what you think will happen to your body as you physically die and once you are physically dead.*
2. *Describe the emotions that the thought of your own death arouses in you.*

Untreated participants completed a structurally equivalent placebo action on the unrelated topic of watching a movie (Greenberg et al., 1997):

1. *Please write down, as specifically as you can, what you think happens to you physically as you watch a movie.*
2. *Describe the emotions that the thought of watching a movie arouses in you.*

Literature (e.g., Greenberg et al., 1994, studies 2–3) has demonstrated that mortality salience should be followed by a distraction before measuring the dependent variable.<sup>11</sup> The secondary treatment in this study served as the distraction task for mortality salience.

### 5.3.5 Treatment II: Integrity-repair

It has been hypothesised that providing an alternative affirmation opportunity eliminates the mortality salience effect on (radical) activism intentions. This is because by the time of measurement, self-integrity would have already been restored through affirmation in another aspect of the self.

To test this mechanism, an integrity-repair exercise adapted from McGregor et al. (2001, study 1) was administered to half of the participants who previously received the mortality salience induction. The exercise first presented a list of six personal value clusters: ‘business, economics and money-making’; ‘art, music and theater’; ‘science and the pursuit of knowledge’; ‘social life and relationships’; ‘social action and helping others’; and ‘religion and spirituality’. The task for the treatment group was to select the cluster they rate most important, then write a paragraph about why this value is important to them personally and a time where it has been particularly useful in their lives. In the untreated condition, participants completed a placebo action by selecting their least important value and writing about how it could be important to other people.

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<sup>11</sup>The dual-process theory reasoning is to let death-related thoughts fade from focal attention into lower consciousness (Pyszczynski et al., 1999). Removing distractions eliminates treatment effects (Greenberg et al., 2000)



### 5.3.6 Activism and radical activism intentions

The Activism and Radicalism Intentions Scales (ARIS; Moskalenko & McCauley, 2009) measure individual readiness to engage in activism and radical activism, as defined in [Section 1](#). Interestingly, scale validation has confirmed the two-factor structure. Statistically speaking, moderate and radical activism are two distinct dimensions, challenging sequential notions of radicalisation as a ‘conveyor belt’ transition from activism into political violence (Moskalenko & McCauley, 2009).

Following treatments, participants answered the ARIS across eight items on a 7-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’. The items loading into activism intentions (AIS) are:

1. I would join/belong to an organization that fights for my group’s political and legal rights.
2. I would donate money to an organization that fights for my group’s political and legal rights.
3. I would volunteer my time working (i.e. write petitions, distribute flyers, recruit people, etc.) for an organization that fights for my group’s political and legal rights.
4. I would travel for one hour to join in a public rally, protest, or demonstration in support of my group.

The items loading into radical activism intentions (RIS) are:

5. I would continue to support an organization that fights for my group’s political and legal rights even if the organization sometimes breaks the law.
6. I would continue to support an organization that fights for my group’s political and legal rights even if the organization sometimes resorts to violence.
7. I would participate in a public protest against oppression of my group even if I thought the protest might turn violent.
8. I would attack police or security forces if I saw them beating members of my group.

The displaying order was randomised for each participant to eliminate potential ordering effects. Item responses were aggregated into individual scores for activism intentions (AIS) and radical activism intentions (RIS).

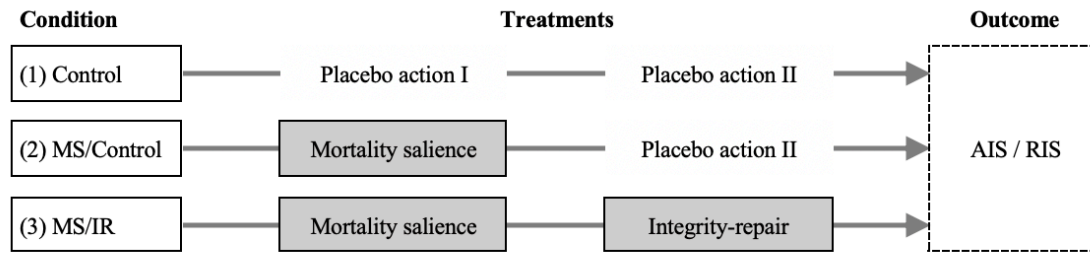
### 5.3.7 Socio-demographic background

Finally, a short questionnaire measured socio-demographic characteristics, to be included as covariates in the main analysis. The variables are gender, age group, nationality, displacement status<sup>12</sup>, occupation, education level, and monthly income.

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<sup>12</sup>Experiences either as an internally displaced person (IDP) or refugee abroad.

## 5.4 Conditions and randomisation



**Figure 3.** Between-subjects conditions.

### *Between-subjects conditions*

The mortality salience and integrity-repair treatments were administered across three between-subject conditions as illustrated in Figure 3. In the Control condition, participants completed the placebo tasks on movie-watching and least important personal values, respectively; AIS and RIS scores in this group served as the baseline readiness to engage in activism and radical activism behaviour. In the MS/Control condition, participants received the mortality salience induction and completed the secondary placebo action (least important values); subsequently measured scores (particularly RIS) were expected to increase compared to Control as participants would respond to the self-integrity threat by ‘going to extremes’ on radical activism intentions. Participants in the MS/IR condition also received mortality salience, but were given the opportunity to affirm important personal values afterwards; this was expected to defuse the threat and lead to substantially lower scores compared to MS/Control.

### *Randomisation process*

Assignment to the three experimental conditions was conducted at random, maintaining equal sizes and representativeness of sample groups (recruitment organisations). This was facilitated by exploiting that access to the materials had been provided through URLs unique to each partner organisation. The Qualtrics-integrated randomisation tool was used to evenly allocate conditions on sample group level, resulting in conditions of approximately 93 participants.

## 6 Analytical framework

### 6.1 Data structure

Out of 279 observations collected during the experiment, 5 had to be excluded due to implausibility as per one of the following criteria: Missing data points (especially texts for the treatment tasks); uniform answers across scales; or explicitly signalling dishonest answers. The dataset available for analysis thus consists of 274 observations.

### *Sample characteristics*

Table 1 summarises descriptive statistics overall and by treatment conditions. Chi-square tests of independence were used to assess balance of socio-demographic characteristics across conditions, and results reported in Appendix A.2. Deviations significant at the 5% level were found for occupation status and education level. In the absence of quota sampling, these cases are attributed to randomness and driven by single variable levels with few observations, where small absolute differences caused statistically significant variance in the overall distributions.

### *Independent variables*

For experimental hypothesis testing, the primary independent variables are binary treatment condition indicators. Personality traits agreeableness and neuroticism are encoded as the sum of individual items, thus ranging between 8–56. Measures of social attachment to ‘family’, ‘the state’, ‘the people’ and ‘friends’ are directly included as the respective 7-point scale responses. Socio-demographic background — gender, age, nationality, displacement status, occupation, education level and monthly income — are included as categorical covariates.

### *Dependent variables and probit-adapted OLS (POLS)*

The two dependent variables are participant scores for activism intentions (AIS) and radical activism intentions (RIS), defined as the sum of respective items and ranging between 4–28.

Analysing coarse scale data using OLS often violates the cardinality assumption of continuously distributed response categories, particularly when featuring text labels such as in Likert scales. Probit-adapted OLS (POLS; van Praag & Ferrer-i-Carbonell, 2008) is a combination of ordered probit and OLS methods and has been used in (e.g., Luechinger, 2009; Geishecker, 2012; Stevenson and Wolfers, 2008). The data is transformed into a pseudo-continuous, unbounded variable by calculating the relative frequencies of response categories and putting them into a standard normal distribution function.

Compared to ordered probit/logit as the usual candidate estimator, POLS requires the assumption that the dependent variable is related to a standard normally distributed latent construct — in this case, activism and radical activism intentions (van Praag & Ferrer-i-Carbonell, 2008). In return, OLS regression may be applied on the transformed variables, allowing for direct interpretation of (standardised) coefficients without sacrificing on results accuracy (e.g., Origo & Pagani, 2009; see also van Praag & Ferrer-i-Carbonell, 2008). The technical transformation process is described in Appendix A.3.

## **6.2 Methodology**

### *Manipulation check*

This experiment is based on the assumption that mortality salience and integrity-repair respectively increase and decrease feelings of uncertainty. A manipulation check was conducted in a separate pilot experiment to confirm replicability of treatment effects as found in McGregor et al. (2001).

90 participants were recruited online via Prolific<sup>13</sup> and block-randomised into the three con-

<sup>13</sup>Note that users are restricted to OECD countries (Moodie, 2020) and findings might not replicate in Iraq.

**Table 1.** Descriptive statistics by treatment conditions.

|                                   | <i>Overall</i> |      |     | <i>Control</i> |      |     | <i>MS/Control</i> |      |     | <i>MS/IR</i> |      |     |
|-----------------------------------|----------------|------|-----|----------------|------|-----|-------------------|------|-----|--------------|------|-----|
|                                   | Mean           | SD   | Obs | Mean           | SD   | Obs | Mean              | SD   | Obs | Mean         | SD   | Obs |
| <b><i>Personality traits</i></b>  |                |      |     |                |      |     |                   |      |     |              |      |     |
| Agreeableness                     | 42.35          | 8.49 | 274 | 42.47          | 8.35 | 95  | 42.28             | 9.40 | 90  | 42.30        | 7.73 | 89  |
| Neuroticism                       | 31.82          | 8.24 | 274 | 32.36          | 8.38 | 95  | 32.54             | 8.50 | 90  | 30.52        | 7.74 | 89  |
| <b><i>Social attachment</i></b>   |                |      |     |                |      |     |                   |      |     |              |      |     |
| Family                            | 5.12           | 2.05 | 274 | 4.91           | 2.12 | 95  | 5.12              | 1.99 | 90  | 5.34         | 2.01 | 89  |
| State                             | 3.16           | 1.99 | 274 | 3.15           | 2.05 | 95  | 3.20              | 2.09 | 90  | 3.15         | 1.86 | 89  |
| People                            | 4.36           | 1.91 | 274 | 4.25           | 1.81 | 95  | 4.69              | 1.80 | 90  | 4.16         | 2.10 | 89  |
| Friends                           | 4.75           | 1.96 | 274 | 4.96           | 1.91 | 95  | 4.72              | 1.96 | 90  | 4.56         | 2.01 | 89  |
| <b><i>Gender</i></b>              |                |      |     |                |      |     |                   |      |     |              |      |     |
| Male                              | 0.69           | 0.46 | 188 | 0.63           | 0.48 | 60  | 0.70              | 0.46 | 63  | 0.73         | 0.45 | 65  |
| Female                            | 0.30           | 0.46 | 83  | 0.34           | 0.48 | 32  | 0.30              | 0.46 | 27  | 0.27         | 0.45 | 24  |
| Non-binary                        | 0.00           | 0.00 | 0   | 0.00           | 0.00 | 0   | 0.00              | 0.00 | 0   | 0.00         | 0.00 | 0   |
| Prefer not to say                 | 0.01           | 0.10 | 3   | 0.03           | 0.18 | 3   | 0.00              | 0.00 | 0   | 0.00         | 0.00 | 0   |
| <b><i>Age group</i></b>           |                |      |     |                |      |     |                   |      |     |              |      |     |
| 18-24                             | 0.09           | 0.29 | 26  | 0.11           | 0.31 | 10  | 0.07              | 0.25 | 6   | 0.11         | 0.32 | 10  |
| 25-34                             | 0.50           | 0.50 | 136 | 0.44           | 0.50 | 42  | 0.50              | 0.50 | 45  | 0.55         | 0.50 | 49  |
| 35-44                             | 0.19           | 0.39 | 51  | 0.17           | 0.38 | 16  | 0.22              | 0.42 | 20  | 0.17         | 0.38 | 15  |
| 45-54                             | 0.19           | 0.39 | 51  | 0.23           | 0.42 | 22  | 0.20              | 0.40 | 18  | 0.12         | 0.33 | 11  |
| 55-64                             | 0.03           | 0.17 | 8   | 0.03           | 0.18 | 3   | 0.01              | 0.11 | 1   | 0.04         | 0.21 | 4   |
| 65+                               | 0.01           | 0.09 | 2   | 0.02           | 0.14 | 2   | 0.00              | 0.00 | 0   | 0.00         | 0.00 | 0   |
| <b><i>Nationality</i></b>         |                |      |     |                |      |     |                   |      |     |              |      |     |
| Iraqi                             | 0.93           | 0.26 | 254 | 0.94           | 0.24 | 89  | 0.90              | 0.30 | 81  | 0.94         | 0.23 | 84  |
| Iraqi-Kurdish                     | 0.03           | 0.18 | 9   | 0.03           | 0.18 | 3   | 0.06              | 0.23 | 5   | 0.01         | 0.11 | 1   |
| Egyptian                          | 0.01           | 0.09 | 2   | 0.00           | 0.00 | 0   | 0.02              | 0.15 | 2   | 0.00         | 0.00 | 0   |
| Palestinian                       | 0.01           | 0.09 | 2   | 0.02           | 0.14 | 2   | 0.00              | 0.00 | 0   | 0.00         | 0.00 | 0   |
| Arabic                            | 0.01           | 0.09 | 2   | 0.00           | 0.00 | 0   | 0.00              | 0.00 | 0   | 0.02         | 0.15 | 2   |
| Will not answer                   | 0.02           | 0.13 | 5   | 0.01           | 0.10 | 1   | 0.02              | 0.15 | 2   | 0.02         | 0.15 | 2   |
| <b><i>Displacement status</i></b> |                |      |     |                |      |     |                   |      |     |              |      |     |
| No                                | 0.39           | 0.49 | 108 | 0.46           | 0.50 | 44  | 0.34              | 0.48 | 31  | 0.37         | 0.49 | 33  |
| Yes - internal                    | 0.54           | 0.50 | 148 | 0.47           | 0.50 | 45  | 0.59              | 0.49 | 53  | 0.56         | 0.50 | 50  |
| Yes - external                    | 0.07           | 0.25 | 18  | 0.06           | 0.24 | 6   | 0.07              | 0.25 | 6   | 0.07         | 0.25 | 6   |
| <b><i>Occupation</i></b>          |                |      |     |                |      |     |                   |      |     |              |      |     |
| Unemployed                        | 0.17           | 0.38 | 47  | 0.07           | 0.26 | 7   | 0.24              | 0.43 | 22  | 0.20         | 0.40 | 18  |
| Paid employment                   | 0.30           | 0.46 | 82  | 0.32           | 0.47 | 30  | 0.22              | 0.42 | 20  | 0.36         | 0.48 | 32  |
| Self-employed                     | 0.15           | 0.36 | 42  | 0.16           | 0.37 | 15  | 0.23              | 0.43 | 21  | 0.07         | 0.25 | 6   |
| Full-time student                 | 0.08           | 0.28 | 23  | 0.09           | 0.29 | 9   | 0.07              | 0.25 | 6   | 0.09         | 0.29 | 8   |
| Retired                           | 0.02           | 0.15 | 6   | 0.04           | 0.20 | 4   | 0.02              | 0.15 | 2   | 0.00         | 0.00 | 0   |
| Doing something else              | 0.27           | 0.44 | 74  | 0.32           | 0.47 | 30  | 0.21              | 0.41 | 19  | 0.28         | 0.45 | 25  |
| <b><i>Education level</i></b>     |                |      |     |                |      |     |                   |      |     |              |      |     |
| Less than high school             | 0.03           | 0.17 | 8   | 0.04           | 0.20 | 4   | 0.04              | 0.21 | 4   | 0.00         | 0.00 | 0   |
| High school or equivalent         | 0.04           | 0.19 | 10  | 0.04           | 0.20 | 4   | 0.02              | 0.15 | 2   | 0.04         | 0.21 | 4   |
| Vocational training               | 0.09           | 0.29 | 26  | 0.07           | 0.26 | 7   | 0.09              | 0.29 | 8   | 0.12         | 0.33 | 11  |
| Bachelor's                        | 0.60           | 0.49 | 164 | 0.51           | 0.50 | 48  | 0.60              | 0.49 | 54  | 0.70         | 0.46 | 62  |
| Master's                          | 0.16           | 0.37 | 45  | 0.27           | 0.45 | 26  | 0.14              | 0.35 | 13  | 0.07         | 0.25 | 6   |
| Phd/Doctorate                     | 0.08           | 0.27 | 21  | 0.06           | 0.24 | 6   | 0.10              | 0.30 | 9   | 0.07         | 0.25 | 6   |
| <b><i>Monthly income</i></b>      |                |      |     |                |      |     |                   |      |     |              |      |     |
| < 0.8m IRQ                        | 0.52           | 0.50 | 143 | 0.41           | 0.49 | 39  | 0.58              | 0.50 | 52  | 0.58         | 0.50 | 52  |
| 0.8m - 1.6m IRQ                   | 0.26           | 0.44 | 70  | 0.36           | 0.48 | 34  | 0.19              | 0.39 | 17  | 0.21         | 0.41 | 19  |
| 1.6m - 2.4m IRQ                   | 0.15           | 0.36 | 42  | 0.18           | 0.39 | 17  | 0.17              | 0.37 | 15  | 0.11         | 0.32 | 10  |
| 2.4m - 3.2m IRQ                   | 0.05           | 0.23 | 15  | 0.03           | 0.18 | 3   | 0.07              | 0.25 | 6   | 0.07         | 0.25 | 6   |
| 3.2m - 4.0m IRQ                   | 0.00           | 0.00 | 0   | 0.00           | 0.00 | 0   | 0.00              | 0.00 | 0   | 0.00         | 0.00 | 0   |
| > 4.0m IRQ                        | 0.01           | 0.12 | 4   | 0.02           | 0.14 | 2   | 0.00              | 0.00 | 0   | 0.02         | 0.15 | 2   |

ditions, resulting in 30 participants each (adequate pilot sample sizes; Whitehead et al., 2016). Following treatments, a six-item measurement of felt uncertainty was adapted from the self-concept clarity scale (Campbell et al., 1996; see also Hohman & Hogg, 2015) and answered on a 9-point Likert scale from ‘strongly disagree’ to ‘strongly agree’. The items were ‘I am uncertain about what my future holds.’; ‘I have a clear sense of who I am’; ‘I am unsure about the opinion I have for myself’; ‘I have a clear understanding of my personality’; ‘I know my place in the world’; and ‘If I were asked to describe who I am, I could easily’. Items 2 and 4–6 were reverse coded.

### **Main analysis**

Hierarchical linear regression is used in three specifications, separately using POLS-transformed activism and radical activism intentions as the dependent variables. In a first step, treatment effects are examined by specifying

$$Y_i = \alpha + \beta_1 MS_i + \beta_2 IR_i + \tau + \varepsilon_i \quad (1)$$

where  $Y_i$  denotes either activism intentions (AIS) or radical activism intentions (RIS) scores;  $\alpha$  is the intercept;  $MS_i$  is a binary indicator equal to 1 if participant  $i$  was in the MS/Control condition, and 0 otherwise;  $IR_i$  is a binary indicator equal to 1 if participant  $i$  was in the MS/IR condition<sup>14</sup>, and 0 otherwise;  $\tau$  are sample group controls; and  $\varepsilon_i$  is the normally distributed error term. The marginal treatment effects  $\beta_1$  and  $\beta_2$  are the coefficients of interest.

Next, the role of personal characteristics is analysed by extending (1) to

$$Y_i = \alpha + \beta_1 MS_i + \beta_2 IR_i + \widehat{\delta} \widehat{Pers}_i + \tau + \varepsilon_i \quad (2)$$

where  $\widehat{Pers}_i$  is a vector of measured personal characteristics: agreeableness, neuroticism and social attachment to ‘family’, ‘the state’, ‘the people’ and ‘friends’.  $\widehat{\delta}$  is a vector of corresponding coefficients.

Finally, a set of socio-demographic covariates is included to reduce potential endogeneity. The full specification is therefore

$$Y_i = \alpha + \beta_1 MS_i + \beta_2 IR_i + \widehat{\delta} \widehat{Pers}_i + \widehat{\gamma} \widehat{Dem}_i + \tau + \varepsilon_i \quad (3)$$

where  $\widehat{Dem}_i$  is a vector of socio-demographic covariates, and  $\widehat{\gamma}$  is a vector of corresponding coefficients.

### **Robustness**

Several steps are taken to verify results. All models include sample group controls to account for potential effects between recruitment channels. Robust standard errors are used to account for potential heteroscedasticity in the data. Additionally, ordered logit estimations and marginal effects at every level of the dependent variables are calculated as robustness checks analogous to the POLS specifications above (see [Appendix A.5](#)).

<sup>14</sup>Note that  $IR = 1$  is conditional on also having received the mortality salience first.

## 7 Results

### 7.1 Preliminary findings

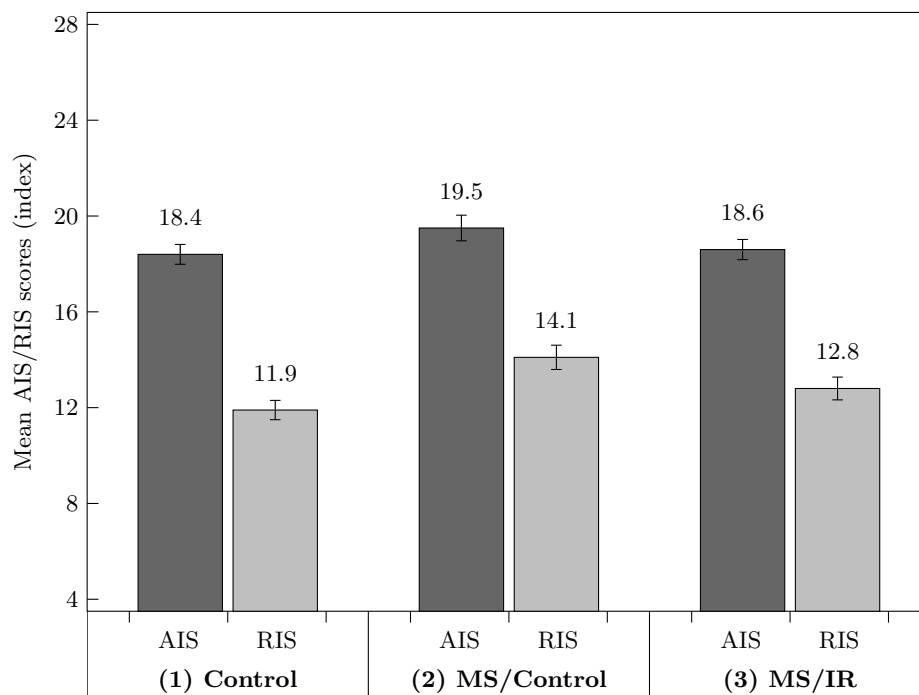
#### *Manipulation check*

The felt uncertainty scale had sufficient internal consistency at Cronbach's  $\alpha = 0.79$ . The online pilot confirmed that both treatments successfully manipulated uncertainty in the expected directions. Felt uncertainty was higher ( $M = 35.07$ ) after the mortality salience induction compared to Control ( $M = 31.88$ ),  $t(58) = 2.38, p < .05$ , and lower if followed up with the integrity-repair exercise ( $M = 32.60$ ) although only with marginal statistical significance,  $t(55) = 1.59, p < .10$ .

#### *Qualitative review*

As expected, participants emphasised uncertainty and negative emotions such as anxiety, fear and sadness in their text responses to the mortality salience task. Most answers mentioned concerns about leaving close relatives and friends; the second most frequent topic was religious beliefs in an afterlife. In the integrity-repair exercise, 42% chose 'social action and helping others' as the most important value. Conversely, 'religion and spirituality' and 'art, music and literature' were rated as least important by 38% and 34%, respectively.

### 7.2 Main analysis



**Figure 4.** Activism-radicalism intentions by treatment group. Error bars represent *SEM*.

#### *Experimental results*

Figure 4 shows average readiness to engage in activism and radical activism behaviour (AIS and RIS scores) in the possible value range of 4–28. For both dependent variables, intentions

are lowest in the Control condition and highest in the MS/Control condition, with MS/IR condition scores located in between. AIS scores are strictly higher compared to RIS, which appears plausible given that radical activism by definition represents a more extreme form of political expression. The differences between activism and radical activism intentions range from 5.4 points in the MS/Control condition to 6.5 points in the Control condition.

It has been hypothesised in H1a that reminders of mortality cause people to report stronger intentions to engage in (radical) activism behaviour in an attempt to compensate feelings of uncertainty. Further, H1b holds that this effect is mitigated when an alternative self-affirmation opportunity is provided. The above findings provide initial support for both claims.

**Table 2.** Regression results for probit-adapted OLS (POLS).

| Dependent variable    | AIS                |                      |                      | RIS                 |                     |                     |
|-----------------------|--------------------|----------------------|----------------------|---------------------|---------------------|---------------------|
|                       | (I)                | (II)                 | (III)                | (IV)                | (V)                 | (VI)                |
| Mortality salience    | 0.314**<br>(0.153) | 0.286*<br>(0.154)    | 0.355**<br>(0.173)   | 0.473***<br>(0.142) | 0.458***<br>(0.138) | 0.592***<br>(0.145) |
| Integrity-repair      | -0.283*<br>(0.153) | -0.243<br>(0.154)    | -0.247<br>(0.165)    | -0.279*<br>(0.156)  | -0.234<br>(0.151)   | -0.294*<br>(0.154)  |
| Agreeableness         |                    | 0.013*<br>(0.008)    | 0.009<br>(0.008)     |                     | -0.016**<br>(0.007) | -0.017**<br>(0.007) |
| Neuroticism           |                    | 0.010<br>(0.008)     | 0.011<br>(0.009)     |                     | 0.014*<br>(0.007)   | 0.017**<br>(0.008)  |
| ATT - Family          |                    | 0.002<br>(0.034)     | 0.016<br>(0.033)     |                     | -0.061*<br>(0.031)  | -0.046<br>(0.033)   |
| ATT - State           |                    | 0.081***<br>(0.031)  | 0.088***<br>(0.032)  |                     | 0.006<br>(0.029)    | 0.016<br>(0.030)    |
| ATT - People          |                    | 0.040<br>(0.031)     | 0.031<br>(0.032)     |                     | 0.023<br>(0.033)    | 0.007<br>(0.032)    |
| ATT - Friends         |                    | -0.029<br>(0.032)    | 0.011<br>(0.033)     |                     | -0.053*<br>(0.032)  | -0.032<br>(0.032)   |
| Gender                |                    |                      | Yes                  |                     |                     | Yes                 |
| Age                   |                    |                      | Yes                  |                     |                     | Yes                 |
| Nationality           |                    |                      | Yes                  |                     |                     | Yes                 |
| Displacement status   |                    |                      | Yes                  |                     |                     | Yes                 |
| Occupation            |                    |                      | Yes                  |                     |                     | Yes                 |
| Education level       |                    |                      | Yes                  |                     |                     | Yes                 |
| Monthly income        |                    |                      | Yes                  |                     |                     | Yes                 |
| Sample group controls | Yes                | Yes                  | Yes                  | Yes                 | Yes                 | Yes                 |
| Constant              | -0.212<br>(0.132)  | -1.383***<br>(0.430) | -1.917***<br>(0.687) | -0.089<br>(0.124)   | 0.567<br>(0.424)    | 0.281<br>(0.643)    |
| Observations          | 274                | 274                  | 274                  | 274                 | 274                 | 274                 |
| $R^2$                 | 0.023              | 0.068                | 0.196                | 0.045               | 0.119               | 0.276               |

Notes: Robust standard errors in parentheses and \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ . ATT = social attachment. Dependent variables standardised using Probit-adapted OLS (POLS) transformation.

Table 2 reports the results of the three POLS estimations, separately using AIS and RIS as the dependent variable. In the simplest specification (I), mortality salience had a moderate positive effect on activism intentions of about one third of a standard deviation, significant at 5%. The integrity-repair exercise brought activism intentions back down to baseline levels by a similar effect size, but was only marginally statistically significant,  $p = .07$ .

The mortality salience effect was stronger for radical activism intentions at 0.473, a medium size according to Cohen (1988). With standard errors similar to the AIS specification, this effect was highly significant at 1%. Again, the integrity-repair treatment lowered radical activism intentions, but the effect was smaller ( $-0.279$  standard deviations) and only marginally significant,  $p = .08$ . Affirming personal values did not fully compensate the mortality salience effect on readiness to engage in radical activism behaviour.

The two extended regression models include personal characteristics (II, V) and socio-demographic background covariates (III, VI). Treatment effect sizes remained largely unchanged except for an increase for mortality salience in the full specification to 0.355 and 0.592 standard deviations, respectively. However, the integrity-repair effect loses statistical significance when including personal characteristics, suggesting that enough variation in AIS/RIS scores is explained by those characteristics to move significance beyond the 10% threshold. For radical activism intentions as the dependent variable, the integrity-repair effect regains marginal statistical significance in the full specification.

### *Personal characteristics*

Hypothesis H2 states that personal characteristics are predictive of intentions to engage in (radical) activism behaviour. Within the scope of this study, the Big Five personality traits agreeableness and neuroticism were measured alongside four indicators of perceived attachment to different social groups.

Models (II) and (V) regress AIS and RIS scores on each of the above personal characteristics while holding treatment conditions constant. The relationships of personality traits with activism intentions were not substantial both in magnitude and statistical significance, especially when including socio-demographic covariates in the full specifications. Meanwhile, both agreeableness and neuroticism were statistically significant predictors of RIS scores, with agreeableness (a marker for compassion and politeness) predicting lower readiness to engage in radical activism, and neuroticism (a marker for withdrawal and volatility) having a positive association. However, coefficient sizes are negligible at only 1–2 percent of standard deviations.

Perceived social attachment to ‘family’, ‘the people’ and ‘friends’ did not predict either outcome by a noticeable amount and is statistically insignificant across specifications except for small, marginally significant negative associations of attachment to ‘family’ and ‘friends’ with RIS scores; however, these relationships are rendered insignificant when including socio-demographic covariates, indicating that slight group imbalances (see Appendix A.2) likely explain the variation along these characteristics.

By contrast, social attachment to ‘the state’ had a small but highly significant, positive relationship with readiness to engage in activism behaviour that is unaffected by controlling for



socio-demographic background. To the extent of its coefficient size (8.8% standard deviation in the full model), feeling closer to one’s state predicts higher readiness to become a peaceful/legal activist, but not a radical activist.

### ***Exploratory findings: Heterogeneous effects***

In an exploratory step, interactions of both treatments with the observed personal characteristics indicated that mortality salience and integrity-repair may affect specific subgroups more than others. In particular, treatment effects on RIS scores were significantly moderated by high neuroticism, indicating that volatile-withdrawn personalities are more responsive to the hypothesised self-affirmation mechanisms. Meanwhile, effects on AIS scores were slightly moderated by attachment to one’s family. The treatments themselves lose statistical significance — however, these conclusions should be interpreted very cautiously since introducing 12 interaction terms into the model likely diminishes statistical power. See [Appendix A.4](#) for results.

### ***Summary and robustness***

The null hypothesis of no effect is rejected for H1a and more cautiously for H1b (given only marginal statistical significance), indicating that (radical) activism intentions were caused by defensiveness against self-integrity threats and corresponding feelings of uncertainty. Affirming important personal values partially mitigated this mechanism.

The null hypothesis is retained for H2 across all measured personal characteristics with the exception of attachment to the state, which positively predicted activism intentions to a small degree. Personal characteristics, by and large, did not predict readiness to engage in (radical) activism behaviour, although signs of a moderating role of neuroticism (for RIS treatment effects) and attachment to one’s family (for AIS) were found.

Of the socio-demographic covariates, none were statistically significant for either dependent variable. [Appendix A.5](#) reports ordered logit estimations analogous to the POLS-based specifications above. Results are in line both by effects and significance. Marginal effects at every level of the dependent variables (see [Figure A.5](#)) confirm that both treatments had the expected effects, particularly for radical activism.

## **8 Discussion**

### **8.1 Implications and limitations**

#### ***Comfort in radicalism? Self-affirmation responses to uncertainty***

When people’s self-integrity is threatened, they follow different strategies in order to try and compensate the corresponding feelings of uncertainty. Self-affirmation theory holds that in addition to direct reactions (e.g., denial), affirming unrelated aspects of the self can restore self-integrity. Such compensation can manifest in ‘going to extremes’ by hardening political views and exhibiting intergroup bias (McGregor et al., 2001).

This study contributes to self-affirmation research by finding that beyond attitudinal change,

self-integrity threats may cause people to intensify behavioural intentions in the context of political violence. When being reminded of their mortality, participants expressed higher readiness to participate in radical activism behaviour such as joining a violent protest or attacking security forces. Affirming personal values partially defused this effect. Moreover, these findings provide empirical support in Iraq, which has been highly exposed to activism and violence yet underrepresented in previous research.

Several limitations should be noted in interpreting these findings. Fundamentally, other mechanisms than self-affirmation may be the true causal antecedent of the observed effects. The marginal to insufficient statistical significance of the integrity-repair treatment (affirming personal values) points to this possibility. Terror management theory (TMT), from which the mortality salience hypothesis originated, would be the obvious alternative framework in this scenario (see [Section 2](#)). Reminders of the finitude of life may have caused participants to strengthen cultural beliefs, and signal an increased readiness to take action in their support. While offering slightly different perspectives on the causal relationships above, TMT can be reconciled with self-affirmation theory as proposed by McGregor et al. (2001).

Another possibility arises from using the ARIS scale (Moskalenko & McCauley, 2009), which explicitly captures group-related activism and radical activism intentions. Drawing on cognitive dissonance and uncertainty-avoidance paradigms, uncertainty-identity theory (Hogg, 2007) argues that feelings of uncertainty create a desire for group identification. Organisations engaged in political violence are often characterised by strong in-group cohesion or ‘entitativity’ (Hogg & Adelman, 2013), which may hold a (perhaps unconscious) appeal when facing mortality salience induced uncertainty. Interestingly, Hogg and Adelman (2013) demonstrated interaction effects of self-reported uncertainty with nationalist identity on support for violent extremism in Israel and Palestinian territories.

### *The role of personal characteristics*

In the search for ‘root causes’ of terrorism, psychological and sociological approaches have repeatedly discussed propensities and vulnerability based on personal characteristics, either as psychological features or social relationships (e.g., della Porta, 1988; Sageman, 2004; Pomerantz, 2001).

Although the notion of distinct ‘profiles’ has intuitive appeal, results herein provided little support. By and large, neither personality traits nor social attachment were predictive of activism or radical activism intentions both in magnitude and statistical significance. This can be interpreted in two ways. One is to suspect measurement error or that the wrong characteristics were measured. The other explanation is that while the motives underlying political violence may be influenced by a complex mix of circumstantial and individual influences, personal characteristics alone do not serve as accurate differentiators. However, exploratory findings vaguely suggested that they might play a role in moderating treatment efficacy.

### *Limitations*

While the presented results are robust, they are limited in several aspects. The dependent

variables were self-reported hypothetical activism and radical activism intentions. Consequentially, there is considerable risk of intentions-behaviour gaps where the true likelihood to become a (radical) activist is lower than what has been stated in the experiment — for example, because the risks involved in such behaviour only become salient when facing the decision to actually engage or not. Alternatively, participants may not be able to accurately predict how they would act in the scenarios featured in ARIS scale items, or intentionally report lower intentions in order to hide their true attitudes.

Another concern is that the placebo actions used as treatment controls may have influenced results, particularly in the integrity-repair exercise. Although it has been used before in McGregor et al. (2001), writing about one’s least important personal values might itself restore self-integrity by sharpening people’s sense of what is important to them and what is not. In this case, results for the integrity-repair treatment should be considered lower bound estimates, which may explain its relatively weak statistical strength in the analysis.

More generally, the cross-sectional RCT design offers no insight into the time frame in which the observed effects persist. Previous research (e.g., Klackl & Jonas, 2019; Pyszczynski et al., 1999) demonstrated that mortality salience effects are relatively long-lasting, and more pronounced after a delay of several minutes. Still, compensatory increases in (radical) activism intentions may only hold during the immediate experiment, and then fade as the self-integrity threat eventually dissolves. However, even in the case of short-term effects, uncertainty can be relevant — for instance by inciting spur-of-the-moment decisions to join violent protests, or if potential participants are frequently exposed to uncertainty-inducing life circumstances that put their global self-integrity under constant threat.

On a related note, this study was conducted at a time when public life in many societies was restricted in response to the Covid-19 pandemic, likely elevating general levels of uncertainty (Freeston et al., 2020; Roy et al., 2020). Since experimental conditions would be equally impacted, this would leave results unbiased unless treatments interact significantly with baseline uncertainty. Also, AIS and RIS scores in the Control condition ( $M_{AIS} = 18.4$ ,  $M_{RIS} = 11.9$ ) are comparable to previous empirical tests of the ARIS scales ( $M_{AIS} = 21.2$ ,  $M_{RIS} = 11.6$ ; Moskalenko & McCauley, 2009). Of course, this comparison completely ignores regional effects of Iraq, for which no ‘normal’ ARIS values have been reported so far.

### ***Policy suggestions***

The mortality salience effect on readiness to engage in radical activism signals an opportunity for policymakers to design effective interventions against political violence potential. Especially in the immediate geographical context, relevant authorities (such as NGOs, think tanks, or political leaders) should explore uncertainty and self-affirmation as potential behavioural mechanisms.

However, this conclusion needs to be interpreted critically. Both mortality salience and integrity-repair effects were not exclusive to radical activism but also affected readiness to engage in legal and non-violent activism, although to a lesser degree. Interventions aiming to mitigate uncertainty-driven radicalism would likely also influence behaviour that can be seen as a core element of democratic civil societies — for instance, joining peaceful protests or advocating

for social change. To the extent that one accepts the premise that feelings of uncertainty are generally undesirable, this complaint could be dismissed. But then another, more practical problem emerges: Protecting people from all threats to their self-integrity is clearly impossible, and affirming personal values did not prove to be an equally strong countermeasure during this study. Alternative treatments should be tested before considering such strategies as viable.

More immediate policy implications can be drawn regarding the role of personal characteristics. Neither personality traits nor social attachment (and socio-demographic background) were substantially associated with readiness to engage in radical activism behaviour. Directing programmes at people with specific ‘profiles’ therefore appears paradoxical. Although policies are likely driven by more than scientific validity (for instance, organisational feasibility), they should be critically re-evaluated in light of weak empirical support, especially given their risk of marginalising communities.

## 8.2 External validity and further research

Finally, a key concern is external validity. Participants were recruited through 10 NGOs and universities distributed across cities and regions and with broad access to the general public in Iraq (see [Appendix A.1](#)). As highlighted earlier, selection bias could arise from overrepresentation of certain characteristics in this process. While a high share of participants (60%) had undergraduate education, this risk is difficult to evaluate in the absence of reliable national statistics. Overall, measured socio-demographic backgrounds were widely distributed and also accounted for in the main analysis. Therefore, the sample is considered sufficiently diverse and representative of the Iraqi population to allow careful generalisations to the national level.

More caution is required beyond the immediate regional scope. As described in [Section 3](#), Iraq looks back on an extraordinary exposure to different forms of political violence in the recent past. While the distinct characteristics of this population were the primary motivation for conducting this study there, this also implies uncertain replicability in other cultural or regional contexts.

### *Future research suggestions*

Several questions remain unanswered by this research, such as potential time and within-subjects effects of compensatory self-affirmation behaviour and the role of other personal characteristics. Further controlled testing is required to reach a more comprehensive understanding of uncertainty effects in the context of political violence. Research should extend on these findings and validate the efficacy of alternative self-integrity threats, for example personal life dilemma salience or temporal discontinuity (McGregor et al., 2001). Similarly, researchers may explore whether self-affirmation effects lowering (radical) activism intentions also occur without a previous self-integrity threat.

Another possibility for future studies is examining context-dependency of the self-affirmation mechanisms, for instance between ideologies or other forms of political violence than radical activism.

Finally, the somewhat exploratory nature of conducting research in Iraq highlights opportunities for testing similar experiments in other regional contexts in the Middle East and beyond.

## 9 Conclusion

One question that has been intentionally avoided in this research is whether violence as a political means can ever be justified, and under which circumstances. The debate around legitimacy has a long tradition dating back to Aquinas' 'doctrine of double effect' (McIntyre, 2019) and just war theory thinkers (e.g., Walzer, 1977). Indeed, one could argue that many societal achievements today have been the result of revolutionary movements, often involving the use of violence. Similarly, the reality of regimes which actively suppress non-violent opposition should be taken into account in moral evaluations.

Whatever one's stance on these arguments is, a consensus can likely be reached that political violence is generally an undesirable phenomenon, particularly in democratic civil societies. In acknowledging this premise, there is inherent value in utilising social science methods to try and explain the motives underlying such behaviour.

Building on self-affirmation theory and sociological approaches to political violence, two potential contributing factors were tested during a randomised controlled trial in Iraq. Mortality salience caused participants to express higher readiness to engage in radical activism, although there was a similar (but smaller) effect on legal, non-violent activism intentions as well. This mechanism was partially eliminated when given the opportunity to affirm important personal values, however only with marginal statistical significance. A range of personal characteristics (personality traits agreeableness and neuroticism, as well as social attachment to one's family, state, people and friends) had, by and large, no substantial relationship with radical activism.

These findings suggest that 'going to extremes' on behavioural intentions may provide psychological comfort in the face of self-related uncertainty. Against this background, the challenge for society remains to prevent this mechanism from promoting harmful behaviour, and instead to find ways of exploiting it for the common good.

## References

- Almaghbashy, M. (2017). Translation and adaptation of Goldbergs IPIP-BFM-50 scale of personality and Its psychometric properties among Sanaa University students (MD thesis). Faculty of Education, Sanaa University.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*(4), 596-612.
- Atran, S. (2016). The devoted actor: Unconditional commitment and intractable conflict across cultures. *Current Anthropology*, *57*(S13), S192-S203.
- Australian Government (2020). *Iraq country brief*. Department of Foreign Affairs. <https://www.dfat.gov.au/geo/iraq/Pages/iraq-country-brief> (accessed 19 August 2020).
- Azam, J. (2005). Suicide-bombing as inter-generational investment. *Public Choice*, *122*(1-2), 177-198.
- Baran, Z. (2005). Fighting the war of ideas. *Foreign Affairs*, *84*(6), 79.
- Borum, R. (2004). *Psychology of terrorism*. University of South Florida. <https://www.ncjrs.gov/pdffiles1/nij/grants/208552.pdf> (accessed 19 August 2020).
- Borum, R. (2011). Radicalization into violent extremism I: A review of social science theories. *Journal of Strategic Security*, *4*(4), 7-36.
- Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of terror management theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review*, *14*(2), 155-195.
- Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology*, *70*, 141-156.
- Central Intelligence Agency. (2020). *The world factbook: Iraq*. <https://www.cia.gov/library/publications/the-world-factbook/geos/br.html> (accessed 19 August 2020).
- City Population. (2018). *Iraq: Governorates, major cities & urban centers*. <http://citypopulation.de/Iraq-Cities.html> (accessed 19 August 2020).
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Routledge.

- Control Risks. (2019). *CORE political violence and violent organised crime report Q1 2019*.  
<https://www.controlrisks.com/our-thinking/insights/reports/core-incident-report-q1-2019>  
 (accessed 19 August 2020).
- Control Risks. (2020). *CORE political violence and violent organised crime report Q1 2020*.  
<https://www.controlrisks.com/our-thinking/insights/reports/core-incident-report-q1-2020>  
 (accessed 19 August 2020).
- Cooper, H. H. A. (1978). Psychopath as terrorist: A psychological perspective. *Legal Medical Quarterly* 2(4), 253-262.
- Crayton, J. W. (1983). Terrorism and psychology of the self. In L. Z. Freedman & Y. Alexander (Eds.), *Perspectives on terrorism* (pp. 33-41). Scholarly Resources.
- Crenshaw, M. (1987) Theories of terrorism: Instrumental and organizational approaches. *The Journal of Strategic Studies*, 10(4), 13-31.
- Crenshaw, M. (1992). Decisions to use terrorism: Psychological constraints on instrumental reasoning. *International Social Movements Research*, 4, 29-42.
- Curtin, N., Stewart, A. J., & Duncan, L. E. (2010). What makes the political personal? Openness, personal political salience, and activism. *Journal of Personality* 78(3), 943-968.
- Davies, J. C. (1973). Aggression, violence, revolution and war. In J. N. Knutsen (Ed.), *Handbook of political psychology* (pp. 234-260). Jossey-Bass.
- della Porta, D. (1988). Recruitment processes in clandestine political organizations: Italian left-wing terrorism. *International Social Movement Research*, 1, 155-169.
- della Porta, D. (1995). *Social movements, political violence, and the state*. Cambridge University Press.
- Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). *Frustration and aggression*. Yale University Press.
- Enders, W., & Sandler, T. (2006). *The political economy of terrorism*. Cambridge University Press.
- Forstmann, M., & Sagioglou, C. (2019). Religious concept activation attenuates cognitive dissonance reduction in free-choice and induced compliance paradigms. *The Journal of Social Psychology*, 160(1), 75-91.

- Freeston, M., Tiplady, A., Mawn, L., Bottesi, G., & Thwaites, S. (2020). Towards a model of uncertainty distress in the context of Coronavirus (COVID-19). *Cognitive Behaviour Therapist, 13*.
- Frey, B. (2004). *Dealing with terrorism: Stick or carrot?* Edward Elgar.
- Friedland, N. (1992). Becoming a terrorist: Social and individual antecedents. In L. Howard (Ed.), *Terrorism: Roots, impact, responses* (pp. pp. 81-93). Praeger.
- Gächter, S., Starmer, C., & Tufano, F. (2015). Measuring the closeness of relationships: A comprehensive evaluation of the 'inclusion of the Other in the self' scale. *PloS One, 10*(6), E0129478.
- Geishecker, I. (2012). Simultaneity bias in the analysis of perceived job insecurity and subjective well-being. *Economics Letters, 116*(3), 319-321.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment, 4*(1), 26-42.
- Greenberg, J., Arndt, J., Simon, L., Pyszczynski, T., & Solomon, S. (2000). Proximal and distal defenses in response to reminders of ones mortality: Evidence of a temporal sequence. *Personality and Social Psychology Bulletin, 26*(1), 91-99.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189-212). Springer.
- Greenberg, J., Pyszczynski, T., Solomon, S., Simon, L., & Breus, M. (1994). Role of consciousness and accessibility of death-related thoughts in mortality salience effects. *Journal of Personality and Social Psychology, 67*(4), 627-637.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. *Advances in Experimental Social Psychology, 29*, 61-139
- Gupta, D. K. (2008). *Understanding terrorism and political violence: The life cycle of birth, growth, transformation, and demise*. Routledge.
- Gurr, T. (2010). *Why men rebel* (40th anniversary ed.). Paradigm.
- Harrison, G. W., & List, J. A. (2004). Field experiments. *Journal of Economic Literature, 42*(4), 1009-1055.



- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, *53*, 575-604.
- Hillyard, P. (1993). *Suspect community: People's experience of the Prevention of Terrorism Acts in Britain*. Pluto Press.
- Hogg, M. A. (2007). Uncertainty-identity theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 39, pp. 69-126). Academic Press.
- Hogg, M. A., & Adelman, J. (2013). Uncertainty-identity theory: Extreme groups, radical behavior, and authoritarian leadership. *Journal of Social Issues*, *69*(3), 436-454.
- Hohman, Z. P., & Hogg, M. A. (2015). Fearing the uncertain: Self-uncertainty plays a role in mortality salience. *Journal of Experimental Social Psychology*, *57*, 31-42.
- Horgan, J. (2014). *The psychology of terrorism* (Revised and updated second ed.). Routledge.
- Hughes, J. (2019). Lecture 3: Radicalisation and recruitment [PowerPoint slides]. Retrieved from <https://moodle.lse.ac.uk/mod/resource/view.php?id=815546>
- Institute for Economics & Peace. (2017). *Global Terrorism Index 2017: Measuring and understanding the impact of terrorism*. <http://visionofhumanity.org/app/uploads/2017/11/Global-Terrorism-Index-2017.pdf> (accessed 19 August 2020).
- Institute for Economics & Peace. (2019). *Global Terrorism Index 2019: Measuring the impact of terrorism*. <http://visionofhumanity.org/app/uploads/2019/11/GTI-2019web.pdf> (accessed 19 August 2020).
- Izady, M. (2018). Infographs, maps and statistics collection. The Gulf/2000 project. <https://gulf2000.columbia.edu/maps.shtml> (accessed 19 August 2020).
- Jenkins, J. (1996). The impress of extremity: Women's experience of trauma and political violence. In C. F. Sargent & C. Brettell (Eds.), *Gender and health: An international perspective*. Prentice Hall.
- Jongman, A. J. (1988). *Political terrorism: A new guide to actors, authors, concepts, data bases, theories, and literature*. Transaction Books.
- Kahneman, D., Slovic, P., & Tversky, A. (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge University Press.

- (KAS) Konrad Adenauer Foundation (2017). *Funding*. <https://www.kas.de/en/finanzierung> (accessed 19 August 2020).
- (KAS) Konrad Adenauer Foundation (2020). *Partner*. <https://www.kas.de/en/web/syrien-irak/partner> (accessed 19 August 2020).
- Klackl, J., & Jonas, E. (2019). Effects of mortality salience on physiological arousal. *Frontiers in Psychology, 10*, 1893.
- Knight, G. P., Guthrie, I. K., Page, M. C., & Fabes, R. A. (2002). Emotional arousal and gender differences in aggression: A meta-analysis. *Aggressive Behavior, 28*(5), 366-393.
- Krueger, A. B. (2008). *What makes a terrorist*. Princeton University Press.
- Krueger, A. B., & Maleckova, J. (2002). Education, poverty, political violence, and terrorism: Is there a causal connection? (NBER Working Paper No. 9074). National Bureau of Economic Research.
- Kruglanski, A. W., & Fishman, S. (2006). Terrorism between "syndrome" and "tool". *Current Directions in Psychological Science, 15*(1), 45-48.
- Kundnani, A. (2012). Radicalisation: The journey of a concept. *Race & Class, 54*(2), 3-25.
- (LSE) London School of Economics and Political Science. (2019). *Informed consent*. <https://info.lse.ac.uk/staff/services/Policies-and-procedures/Assets/Documents/infCon.pdf> (accessed 19 August 2020).
- Luechinger, S. (2009). Valuing air quality using the life satisfaction approach. *The Economic Journal, 119*(536), 482-515.
- Mallock, N. U. (2020, July 15). Comfort in radicalism? Self-affirmation, personal characteristics and political violence. <http://osf.io/ru4tw>
- McAdams, D. P., & Pals, J. L. (2006). A new Big Five. *American Psychologist, 61*(3), 204-217.
- McCauley, C., & Moskaleiko, S. (2008). Mechanisms of political radicalization: Pathways toward terrorism. *Terrorism and Political Violence, 20*(3), 415-433.
- McCormick, G. H. (2003). Terrorist decision making. *Annual Review of Political Science, 6*, 473-507.

- McGregor, I., Zanna, M. P., Holmes, J. G., & Spencer, S. J. (2001). Compensatory conviction in the face of personal uncertainty: Going to extremes and being oneself. *Journal of Personality and Social Psychology*, *80*(3), 472-488.
- McIntyre, A. (2019). *Doctrine of Double Effect*. The Stanford Encyclopedia of Philosophy (Spring 2019 Ed.). <https://plato.stanford.edu/archives/spr2019/entries/double-effect/> (accessed August 24, 2020).
- Merari, A. (2010). *Driven to Death*. Oxford University Press.
- Moghadam, A., Berger, R., & Beliakova, P. (2014). Say terrorist, think insurgent. *Perspectives on terrorism*, *8*(5), 2-17.
- Moghaddam, F. M. (2005). The staircase to terrorism. *American Psychologist*, *60*(2), 161-169.
- Moodie, J. (2020). *Who are the people in your participant pool?* Prolific Researcher Help Centre. <https://researcher-help.prolific.co/hc/en-gb/articles/360009220833-Who-are-the-people-in-your-participant-pool->
- Morf, G. (1970). *Terror in Quebec – case studies of the FLQ*. Clark, Irwin.
- Moskalenko, S., & McCauley, C. (2009). Measuring political mobilization: The distinction between activism and radicalism. *Terrorism and Political Violence*, *21*(2), 239-260.
- Neumann, P. R. (2013). The trouble with radicalization. *International Affairs*, *89*(4), 873-893.
- Norman, P., Cameron, D., Epton, T., Webb, T. L., Harris, P. R., Millings, A., & Sheeran, P. (2018). A randomized controlled trial of a brief online intervention to reduce alcohol consumption in new university students: Combining selfaffirmation, theory of planned behaviour messages, and implementation intentions. *British Journal of Health Psychology*, *23*(1), 108-127.
- Nowacka, S. (2019). The political situation in Iraq in light of mass protests. *Polski Instytut Spraw Miedzynarodowych*, *381*(1417).
- Oehring, O. (2017). Christians and Yazidis in Iraq: Current situation and prospects. *Konrad-Adenauer-Stiftung*. <https://d-nb.info/1141052792/34> (accessed 19 August 2020).
- Olson, M. (2009). *Logic of collective action: Public goods and the theory of groups*. Harvard University Press.

- Origo, F., & Pagani, L. (2009). Flexicurity and job satisfaction in Europe: The importance of perceived and actual job stability for well-being at work. *Labour Economics*, 16(5), 547-555.
- Pearce, K. I. (1977). Police negotiations: A new role for the community psychiatrist. *Canadian Psychiatric Association Journal*, 22(4), 171-175.
- Pfaff, C. A. (2019, October 3). Iraq protests: How should the government and the US respond? *Atlantic Council*. <https://www.atlanticcouncil.org/blogs/menasource/iraq-protests-how-should-iraq-and-the-us-respond/>
- Pomerantz, J. M. (2001). *Analyzing the terrorist mind*. *Drug Benefit Trends*, 13(12), 2-3.
- Post, J. M. (1984). Notes on a psychodynamic theory of terrorist behaviour. *Terrorism*, 7(2), 241-256.
- Pyszczynski, T., Abdollahi, A., Solomon, S., Greenberg, J., Cohen, F., & Weise, D. (2006). Mortality salience, martyrdom, and military might: The great Satan versus the axis of evil. *Personality & Social Psychology Bulletin*, 32(4), 525-537.
- Pyszczynski, T., Greenberg, J., & Solomon, S. (1999). A dual-process model of defense against conscious and unconscious death-related thoughts. *Psychological Review*, 106(4), 835-845.
- Richardson, L. (2007). *What terrorists want: Understanding the terrorist threat*. John Murray.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence For Terror Management Theory. *Journal of Personality and Social Psychology*, 57(4), 681-690.
- Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 51, 102083.
- Russell, C. A., & Miller, B. H. (1983). Profile of a terrorist. In L. Z. Freedman & Y. Alexander (Eds.), *Perspectives on terrorism* (pp. 33-41). Scholarly Resources.
- Sageman, M. (2004). *Understanding terror networks*. University of Pennsylvania Press.

- Sampaio, A. (2020). Urban drivers of political violence: Declining state authority and armed groups in Mogadishu, Nairobi, Kabul and Karachi. *The International Institute for Strategic Studies*. <https://www.iiss.org/blogs/research-paper/2020/05/urban-drivers-of-political-violence> (accessed 19 August 2020).
- Schuurman, B. (2018). Research on terrorism, 2007–2016: A review of data, methods, and authorship. *Terrorism and Political Violence*, *32*(5), 1-16.
- Sherman, D. K., & Cohen, G. L. (2006). The psychology of self-defense: Self-affirmation theory. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 38, pp. 183-242). Academic Press.
- Silber, M. D., & Bhatt, A. (2007). *Radicalization in the West: The Homegrown Threat*. NYPD Intelligence Unit. [https://seths.blog/wp-content/uploads/2007/09/NYPD\\_Report-Radicalization\\_in\\_the\\_West.pdf](https://seths.blog/wp-content/uploads/2007/09/NYPD_Report-Radicalization_in_the_West.pdf)
- Silke, A. (2003). Becoming a terrorist. In A. Silke (Ed.), *Terrorist, victims, and society: Psychological perspectives on terrorism and its consequence* (pp. 29-53). John Wiley.
- Snow, D. A., Rochford, E. B., Worden, S. K., & Benford, R. D. (1986). Frame alignment processes, micromobilization, and movement participation. *American Sociological Review*, *51*(4), 464.
- Snow, D. A., Zurcher, L. A. Jr., & Eklund-Olson, S. (1980). Social networks and social movements: A microstructural approach to differential recruitment. *American Sociological Review*, *45*(5), 787-801.
- Stampnitzky, L. (2013). *Disciplining terror: How experts invented 'terrorism'*. Cambridge University Press.
- Steele, C. M. (1988). The psychology of selfaffirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261-302). Academic Press.
- Stevenson, B., & Wolfers, J. (2008). Economic growth and subjective well-being: Reassessing the Easterlin paradox. *Brookings Papers on Economic Activity*, *2008*(1), 1-87.
- Tausch, N., Becker, J. C., Spears, R., Christ, O., Saab, R., Singh, P., & Siddiqui, R. N. (2011). Explaining radical group behavior: Developing emotion and efficacy routes to normative and nonnormative collective action. *Journal of Personality and Social Psychology*, *101*(1), 129-148.

- Taylor, M. (1988). *The terrorist*. Brassey's.
- Taylor, M. & Horgan, J. (2006). A conceptual framework for addressing psychological process in the development of the terrorist. *Terrorism and Political Violence*, 18(4), 585-601.
- van Praag, B., & Ferrer-i-Carbonell, A. (2008). *Happiness quantified: A satisfaction calculus approach* (Rev. ed.). Oxford University Press.
- Victoroff, J. (2005). The mind of the terrorist: A review and critique of psychological approaches. *The Journal of Conflict Resolution*, 49(1), 3-42.
- Walzer, M. (1977). *Just and unjust wars: A moral argument with historical illustrations*. Basic Books.
- Ward, A. (2019 March 4). *To Ensure Deradicalisation Programmes Are Effective, Better Evaluation Practices Must First Be Implemented*. RAND Corporation. <https://www.rand.org/blog/2019/03/to-ensure-deradicalisation-programmes-are-effective.html> (accessed 19 August 2020).
- Warrell, H. (2019, January 24). Inside Prevent, the UK's controversial anti-terrorism programme. *Financial Times*. <https://www.ft.com/content/a82e18b4-1ea3-11e9-b126-46fc3ad87c65>
- Weinstein, J. M. (2006). Recruitment. In J. M. Weinstein (Ed.) *Inside rebellion: The politics of insurgent violence* (pp. 96-126). Cambridge University Press.
- Whitehead, A. L., Julious, S. A., Cooper, C. L., & Campbell, M. J. (2016). Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Statistical Methods in Medical Research*, 25(3), 1057-1073.
- Wiktorowicz, Q. (2004, May 8-9). Joining the cause: Al-Muhajiroun and radical Islam. Paper presented at the Roots of Islamic Radicalism conference, Cambridge, MA.
- Wileman, V., Chilcot, J., Armitage, C. J., Farrington, K., Wellsted, D. M., Norton, S., Davenport, A., Franklin, G., Da Silva Gane, M., Horne, R., & Almond, M. (2015). Evidence of improved fluid management in patients receiving haemodialysis following a self-affirmation theory-based intervention: A randomised controlled trial. *Psychology & Health*, 31(1), 100-114.

## A Appendix

### A.1 List of involved partner organisations

[removed due to data protection requirements]

### A.2 Between-subject conditions: Balance tests

Experimental conditions were tested for balance across categorical socio-demographic characteristics using chi-squared tests of independence. Distributional differences with statistical significance are due to random allocation.

**Table A.2.** Group balance test.

|                 | <i>Observations</i> | <i>Chi-square tests of independence</i> |          |          |
|-----------------|---------------------|---|----------|----------|
|                 |                     | df                                      | $\chi^2$ | <i>p</i> |
| Gender          | 274                 | 4                                       | 7.032    | 0.134    |
| Age             | 274                 | 10                                      | 11.748   | 0.302    |
| Nationality     | 274                 | 10                                      | 15.280   | 0.122    |
| Displacement    | 274                 | 4                                       | 3.100    | 0.541    |
| Occupation      | 274                 | 10                                      | 25.733   | 0.004*** |
| Education level | 274                 | 10                                      | 21.8735  | 0.016**  |
| Income          | 274                 | 8                                       | 14.411   | 0.072*   |
| Sample group    | 274                 | 18                                      | 11.439   | 0.875    |

Notes: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

### A.3 Technical appendix: Probit-adapted OLS transformation

Probit-adapted OLS (POLS) has been developed by van Praag & Ferrer-i-Carbonell (2008) as a method to circumvent the equal-spacing assumption in linear estimations of ordinal dependent variables (e.g., Likert scale values). It transforms data into a pseudo-continuous form by assuming a standard normally distributed latent construct and calculating conditional means for each observed category. Regressions using POLS-standardised outcomes are consistent with ordered probit/logit but preserve simplicity in interpreting coefficients (Origo & Pagani, 2009).

The starting point is a dependent variable  $Y_i$  measured in  $k$  ordered categories. Assume that  $Y_i$  is related to a **standard normally distributed** latent construct  $Y_i^*$  so that

$$Y_i = j \quad \text{if} \quad \mu_{j-1} < Y_i^* < \mu_j \quad \text{for} \quad j = 1, 2, \dots, k$$

meaning that if the  $j$ th response category is observed, the ‘true’ value of the latent variable  $Y_i^*$  lies somewhere between the boundaries  $[\mu_{j-1}; \mu_j]$ . Exploiting the theoretical frequencies of the standard normal distribution  $N$ , the  $\mu_j$ s can be calculated by solving

$$\begin{aligned} N(\mu_1) &= p_1 \\ N(\mu_2) &= p_1 + p_2 \\ &\dots \end{aligned}$$

where  $p_1, \dots, p_k$  are the observed relative frequencies of the response categories. Define  $\mu_0 = -\infty$  and  $\mu_k = +\infty$ . Finally, for each interval calculate the conditional means

$$E(Y_i^* \mid \mu_{j-1} < Y_i^* < \mu_j) = \frac{n(\mu_{j-1}) - n(\mu_j)}{p_j} = \bar{Y}_i$$

where  $n$  denotes the standard normal density. Regress  $\bar{Y}_i$  on the exploratory variables of interest using OLS.

## A.4 Exploratory analysis: Heterogeneous treatment effects

**Table A.4.** Heterogeneous treatment effects in probit-adapted OLS (POLS) regression.

| Dependent variable                   | AIS                 | RIS                |
|--------------------------------------|---------------------|--------------------|
| Mortality salience                   | 0.927<br>(1.114)    | 0.036<br>(1.015)   |
| Integrity-repair                     | -1.700<br>(1.072)   | -0.234<br>(0.993)  |
| Neuroticism                          | 0.009<br>(0.013)    | -0.008<br>(0.013)  |
| Agreeableness                        | 0.019*<br>(0.011)   | -0.006<br>(0.010)  |
| ATT - Family                         | -0.045<br>(0.052)   | -0.082*<br>(0.043) |
| ATT - State                          | 0.033<br>(0.049)    | -0.058<br>(0.041)  |
| ATT - People                         | 0.064<br>(0.045)    | 0.054<br>(0.052)   |
| ATT - Friends                        | 0.005<br>(0.050)    | 0.011<br>(0.044)   |
| Sample group controls                | Yes                 | Yes                |
| Constant                             | -1.539**<br>(0.751) | 0.680<br>(0.744)   |
| Mortality salience × Neuroticism     | -0.005<br>(0.022)   | 0.047**<br>(0.018) |
| Mortality salience × Agreeableness   | -0.020<br>(0.018)   | -0.018<br>(0.015)  |
| Mortality salience × (ATT - Family)  | 0.171*<br>(0.089)   | 0.081<br>(0.070)   |
| Mortality salience × (ATT - State)   | 0.097<br>(0.080)    | 0.102<br>(0.064)   |
| Mortality salience × (ATT - People)  | -0.074<br>(0.078)   | -0.087<br>(0.076)  |
| Mortality salience × (ATT - Friends) | -0.099<br>(0.085)   | -0.135*<br>(0.081) |
| Integrity-repair × Neuroticism       | 0.013<br>(0.020)    | -0.029*<br>(0.017) |
| Integrity-repair × Agreeableness     | 0.030<br>(0.019)    | 0.013<br>(0.019)   |
| Integrity-repair × (ATT - Family)    | -0.144*<br>(0.087)  | -0.050<br>(0.089)  |
| Integrity-repair × (ATT - State)     | -0.016<br>(0.080)   | 0.014<br>(0.081)   |
| Integrity-repair × (ATT - People)    | 0.047<br>(0.079)    | 0.056<br>(0.083)   |
| Integrity-repair × (ATT - Friends)   | 0.076<br>(0.082)    | 0.071<br>(0.088)   |
| Observations                         | 274                 | 274                |
| $R^2$                                | 0.113               | 0.184              |

Notes: Robust standard errors in parentheses and \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ . ATT = social attachment. Dependent variables standardised using Probit-adapted OLS (POLS) transformation.



## A.5 Robustness checks: Ordinal estimation and marginal effects

To confirm findings from the main analysis (see Section 7), ordinal logistic regressions are specified analogous to the POLS-based models and results reported below. Marginal effects of both treatments according to the full specifications (III) and (VI) are shown on the following page.

**Table A.5.** Regression results for ordinal logistic regressions.

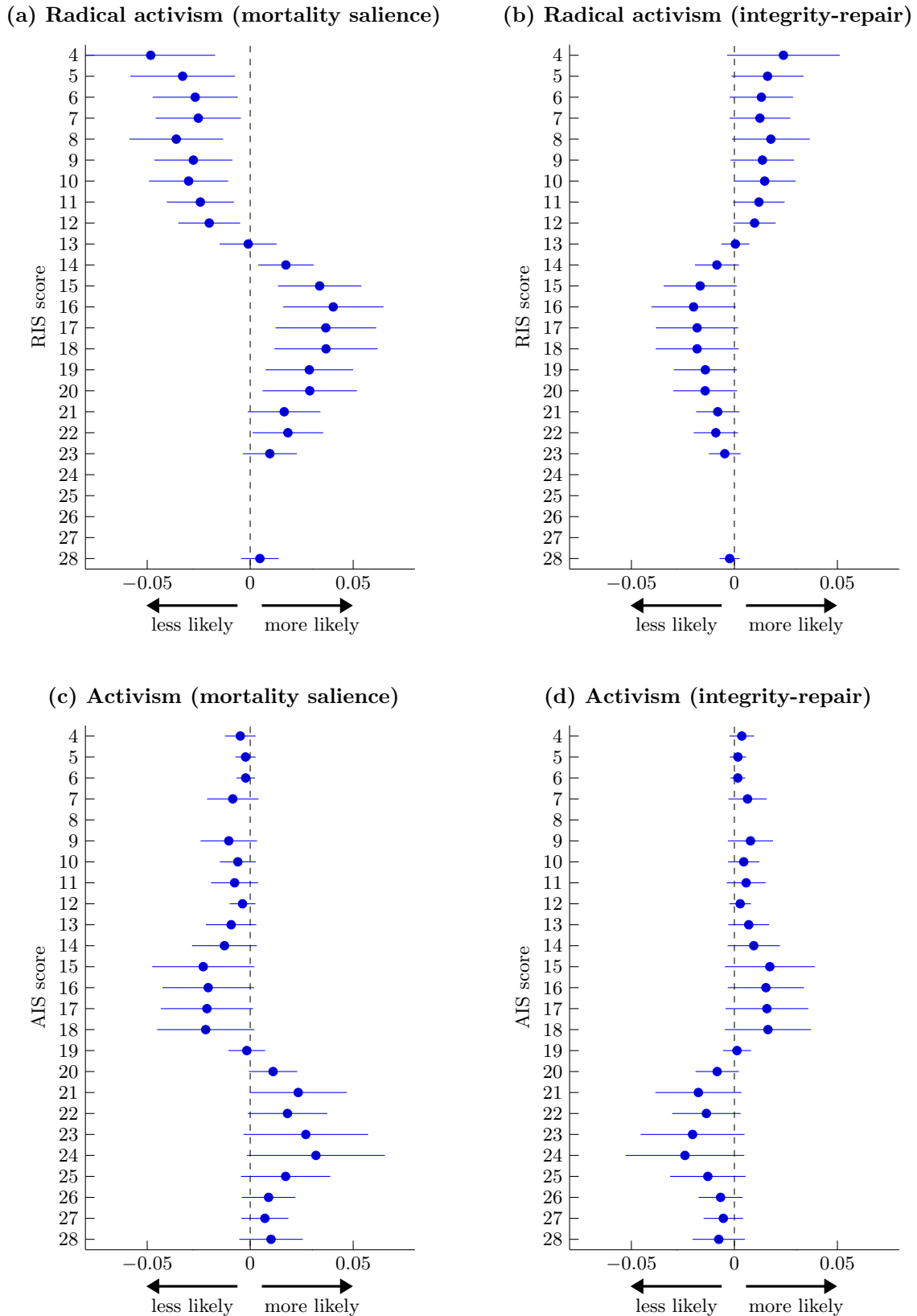
| Dependent variable<br>Model # | AIS                 |                    |                     | RIS                 |                     |                     |
|-------------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
|                               | (I)                 | (II)               | (III)               | (IV)                | (V)                 | (VI)                |
| Mortality salience            | 0.648**<br>(0.271)  | 0.608**<br>(0.282) | 0.710*<br>(0.366)   | 0.937***<br>(0.264) | 0.930***<br>(0.261) | 1.334***<br>(0.307) |
| Integrity-repair              | -0.552**<br>(0.277) | -0.524*<br>(0.283) | -0.534*<br>(0.325)  | -0.468*<br>(0.284)  | -0.395<br>(0.285)   | -0.656**<br>(0.320) |
| Neuroticism                   |                     | 0.018<br>(0.014)   | 0.022<br>(0.017)    |                     | 0.022<br>(0.014)    | 0.029*<br>(0.017)   |
| Agreeableness                 |                     | 0.026*<br>(0.014)  | 0.018<br>(0.016)    |                     | -0.030**<br>(0.013) | -0.033**<br>(0.015) |
| ATT - Family                  |                     | -0.003<br>(0.056)  | 0.012<br>(0.062)    |                     | -0.121**<br>(0.057) | -0.111*<br>(0.067)  |
| ATT - State                   |                     | 0.131**<br>(0.057) | 0.168***<br>(0.063) |                     | 0.004<br>(0.052)    | 0.006<br>(0.060)    |
| ATT - People                  |                     | 0.082<br>(0.055)   | 0.074<br>(0.061)    |                     | 0.039<br>(0.061)    | -0.000<br>(0.066)   |
| ATT - Friends                 |                     | -0.052<br>(0.054)  | 0.019<br>(0.062)    |                     | -0.081<br>(0.058)   | -0.069<br>(0.065)   |
| Gender                        |                     |                    | Yes                 |                     |                     | Yes                 |
| Age                           |                     |                    | Yes                 |                     |                     | Yes                 |
| Nationality                   |                     |                    | Yes                 |                     |                     | Yes                 |
| Displacement                  |                     |                    | Yes                 |                     |                     | Yes                 |
| Occupation                    |                     |                    | Yes                 |                     |                     | Yes                 |
| Education                     |                     |                    | Yes                 |                     |                     | Yes                 |
| Income                        |                     |                    | Yes                 |                     |                     | Yes                 |
| Sample group                  | Yes                 | Yes                | Yes                 | Yes*                | Yes                 | Yes                 |
| Observations                  | 274                 | 274                | 274                 | 274                 | 274                 | 274                 |
| Wald $\chi^2$                 | 7.67*               | 21.35**            | 219.17***           | 14.20***            | 43.39****           | 179.91***           |

Notes: Robust standard errors in parentheses and \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1. ATT = social attachment. Coefficients represent changes in the respective ordered log-odds scale in response to a one-unit increase in predictors, holding everything else constant.

### A.5 Robustness checks: Ordinal estimation and marginal effects (cont.)

**Figure A.5.** Treatment effects on RIS and AIS: Ordered logistic regression with covariates.

The figures present average marginal treatment effects (AME) and estimated confidence intervals at the 95% level. Coefficients represent changes in the ordered log-odds scale at every level of the dependent variable conditional on the respective treatment (mortality salience and integrity-repair).



## A.6 Full experimental materials

Introduction and informed consent.

**Thank you for taking the time to participate!**

نشكرك على تخصيص بعض الوقت للتعاون !

### What is this study about?

In this study, you will be asked to answer a set of questions about your personality and attitudes towards political activism and complete short text-writing tasks. It should take no more than 10 minutes to complete. In order to participate in this study, you need to be 18 years old or above. Participation is voluntary and you can withdraw from the study at any stage without explanation.

### Your privacy

Your privacy is very important. No personally identifiable information will be collected, and all provided data is stored anonymously without any possibility or intention to identify individual participants. Aggregate results from this study will be summarized and published by the Konrad Adenauer Foundation. They will also be written up in the researcher's Master's dissertation at the London School of Economics and Political Science (LSE). They may later be presented at conferences and published in academic journals.

### Further questions

If you have any questions about the study you would like to ask, please feel free to contact

Nils Mallock [n.u.mallock@lse.ac.uk](mailto:n.u.mallock@lse.ac.uk)

If you have any concerns or complaints regarding the conduct of this research, please contact the LSE Research Governance Manager [research.ethics@lse.ac.uk](mailto:research.ethics@lse.ac.uk)

**If you have read all of the above, and are happy to participate, please select 'Yes, I want to take part'.**

- No, I do not want to take part  
 Yes, I want to take part

### ما هي طبيعة هذه الدراسة؟

في هذه الدراسة ، سيطلب منك الإجابة عن مجموعة من الأسئلة حول شخصيتك ومواقفك تجاه النشاط السياسي وإكمال مهام كتابة النصوص القصيرة. يجب ألا يستغرق إكمالها أكثر من ١٠ دقائق. للمشاركة في هذه الدراسة ، يجب أن يكون عمرك 18 عامًا أو أكثر. المشاركة طوعية ويمكنك الانسحاب من الدراسة في أي مرحلة دون تفسير.

### خصوصيتك

خصوصيتك مهمة جدا. لن يتم جمع معلومات تحديد الهوية الشخصية، ويتم تخزين جميع البيانات المقدمة بشكل مجهول دون أي إمكانية أو نية لتحديد المشاركين الأفراد. سيتم تلخيص النتائج الإجمالية لهذه الدراسة ونشرها من قبل مؤسسة كونراد أديناور. كما سيتم كتابتها في أطروحة الماجستير للباحث في كلية لندن للاقتصاد والعلوم السياسية. ويمكن تقديمها لاحقًا في المؤتمرات ونشرها في المجلات الأكاديمية.

### الاستفسارات

إذا كنت ترغب بطرح أي أسئلة حول الدراسة، لا تتردد بالاتصال [n.u.mallock@lse.ac.uk](mailto:n.u.mallock@lse.ac.uk)  
 إذا كان لديك أي مخاوف أو شكوى بشأن إجراء هذا البحث، يرجى الاتصال [research.ethics@lse.ac.uk](mailto:research.ethics@lse.ac.uk)

**إذا كنت قد قرأت كل ما سبق ، ويسعدك المشاركة ، يرجى تحديد "نعم ، أريد المشاركة".**

- لا ، لا أريد المشاركة  
 نعم ، أريد المشاركة

## A6. Full experimental materials (cont.)

Personality questionnaire: Agreeableness and neuroticism.

**Question 1.** Please indicate how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know.

السؤال رقم 1. يرجى توضيح مدى دقة كل بيان يصفك. صف نفسك كما أنت الآن بشكل عام ، وليس كما تريد أن تكون في المستقبل. صف نفسك كما ترى بصدق ، فيما يتعلق بالأشخاص الآخرين الذين تعرفهم.

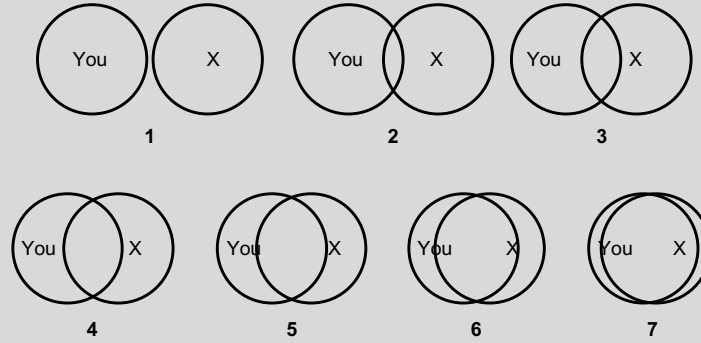
| I...   | أنا...                            | Strongly Disagree<br>غير موافق بشدة | Disagree<br>غير موافق | Somewhat Disagree<br>غير موافق إلى حد ما | Neutral<br>محايد      | Somewhat Agree<br>موافق إلى حد ما | Agree<br>موافق        | Strongly Agree<br>موافق بشدة |
|--|-----------------------------------|-------------------------------------|-----------------------|--|-----------------------|-----------------------------------|-----------------------|------------------------------|
| Get stressed out easily                      | أصاب بالضغوط النفسية بسهولة       | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Feel others' emotions                        | أشعر بعواطف الآخرين               | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Worry about things                           | يتتابني القلق على الأشياء         | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Am not interested in other people's problems | لست مهتم بمشكلات الآخرين          | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Am easily disturbed                          | أضطرب بسهولة                      | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Sympathize with others' feelings             | أتعاطف مع مشاعر الآخرين           | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Get upset easily                             | أزعج بسهولة                       | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Feel little concern for others               | أشعر بأني قليل الاهتمام بالآخرين  | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Change my mood a lot                         | أغير مزاجي كثيرا                  | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Love to help others                          | أحب مساعدة الآخرين                | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Get irritated easily                         | أستثار بسهولة                     | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Am not really interested in others           | أنا في الحقيقة لست مهتما بالآخرين | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Often feel blue                              | أشعر غالبا بالحزن                 | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Am interested in people                      | أنا مهتم بالناس                   | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Have frequent mood swings                    | لدي نوبات مزاجية متكررة           | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |
| Insult people                                | أهين الناس                        | <input type="radio"/>               | <input type="radio"/> | <input type="radio"/>                    | <input type="radio"/> | <input type="radio"/>             | <input type="radio"/> | <input type="radio"/>        |

## A6. Full experimental materials (cont.)

Social attachment: 'Inclusion of Other in the Self' scale.

**Question 2.** Below are seven pairs of circles with different overlap.

السؤال رقم 2. فيما يلي سبعة أزواج من الدوائر ذات تداخلات مختلفة.



For each of the options below, please indicate the pair of circles that best describes your relationship with X:

يرجى الإشارة إلى زوج من الدوائر التي تصف علاقتك بـ "X" على أفضل وجه لكل خيار من الخيارات أدناه:

| X          | X      | (1-7) |
|------------|--------|-------|
| Family     | أسرة   |       |
| The State  | الدولة |       |
| The people | الشعب  |       |
| Friends    | أصدقاء |       |

## A6. Full experimental materials (cont.)

Treatment I: Mortality salience.

**Question 3.** In the following section, you will be asked to write short texts on a pre-defined topic. Please take your time to think carefully about the topic and then write your answers as detailed as possible, using the space below.

السؤال رقم 3. في القسم التالي ، سيطلب منك كتابة نصوص قصيرة حول موضوع محدد مسبقاً. يرجى تخصيص الوقت الكافي للتفكير بعناية في الموضوع ثم كتابة إجاباتك بأكبر قدر ممكن من التفاصيل ، باستخدام المساحة أدناه.

-----

Please write down, as specifically as you can, what you think will happen to your body as you physically die.

يرجى الكتابة، على قدر الإمكان بشكل دقيق، ما تعتقد أنه سيحدث لجسمك عندما تموت.

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Briefly describe the emotions that the thought of your own death arouses in you.

صف بإيجاز المشاعر التي يثيرها التفكير في موتك.

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**Note: In the placebo condition, the above tasks are replaced with:**

*"...what happens to you physically while watching a movie."*

*"...emotions that the thought of watching a movie arouses in you."*

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## A6. Full experimental materials (cont.)

Treatment II: Integrity-repair exercise.

**Question 4.** Please select the group of values that is most important to you personally in your life.

السؤال رقم 4. يرجى تحديد مجموعة القيم الأكثر أهمية بالنسبة لك شخصيًا في حياتك.

- |                       |                                      |                                 |
|-----------------------|--------------------------------------|---------------------------------|
| <input type="radio"/> | Business, economics and money making | الاعمال والاقتصاد وكسب المال    |
| <input type="radio"/> | Art, music and theater               | الفن والموسيقى والمسرح          |
| <input type="radio"/> | Science and the pursuit of knowledge | العلم والسعي وراء المعرفة       |
| <input type="radio"/> | Social life and relationships        | الحياة الاجتماعية والعلاقات     |
| <input type="radio"/> | Social action and helping others     | العمل الاجتماعي ومساعدة الآخرين |
| <input type="radio"/> | Religion and spirituality            | الدين والروحانيات               |

Describe, as specifically as possible, why this value is important to you. Has there been a time in your life where it has been particularly important or useful?

صف ، على قدر الإمكان بشكل دقيق ، سبب أهمية هذه القيمة لك . هل كان هناك وقت في حياتك كانت فيه هذه القيمة مهمة أو مفيدة بشكل خاص؟

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**Note: In the placebo condition, the above tasks are replaced with:**

"...select the group of values that is the least important to you personally."

"...describe how this value could be important for other people."

## A6. Full experimental materials (cont.)

Activism and radical activism intentions scales.

**Question 5.** People are part of many different groups, for example religious, political or social. In the following questions, "group" refers to any community that you care about or that you feel part of. Please indicate how much you agree with each statement below.

السؤال رقم 5. الناس جزء من العديد من المجموعات المختلفة ، على سبيل المثال مجموعات دينية أو سياسية أو اجتماعية. مصطلح "مجموعة" في الأسئلة التالية يعني أي مجتمع تهتم به أو تشعر أنك جزء منه. يرجى توضيح مدى موافقتك على كل بيان أدناه.

|  |  | Strongly Disagree     | Disagree              | Somewhat Disagree     | Neutral               | Somewhat Agree        | Agree                 | Strongly Agree        |
|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  |  | غير موافق بشدة        | غير موافق             | غير موافق إلى حد ما   | محايد                 | موافق إلى حد ما       | موافق                 | موافق بشدة            |
| I would join/belong to an organization that fights for my group's political and legal rights.  | أود الانضمام إلى منظمة تناضل من أجل الحقوق السياسية والقانونية لمجموعتي  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would donate money to an organization that fights for my group's political and legal rights.   | أود أن أتبرع بالمال لمنظمة تناضل من أجل الحقوق السياسية والقانونية لمجموعتي  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would volunteer my time working (i.e. write petitions, distribute flyers, recruit people, etc.) for an organization that fights for my group's political and legal rights. | أود أن أتطوع بوقتي في العمل (أي كتابة العرائض وتوزيع المنشورات وتجنيد الأشخاص وما إلى ذلك) في منظمة تناضل من أجل الحقوق السياسية والقانونية لمجموعتي | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would travel for one hour to join in a public rally, protest, or demonstration in support of my group.   | أود أن أسافر لمدة ساعة للانضمام إلى تجمع عام أو احتجاج أو مظاهرة دعم لمجموعتي  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would continue to support an organization that fights for my group's political and legal rights even if the organization sometimes breaks the law.                         | سأستمر في دعم منظمة تناضل من أجل الحقوق السياسية والقانونية لمجموعتي حتى لو كانت المنظمة تخرق القانون في بعض الأحيان                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would continue to support organization that fights for my group's political and legal rights even if the organization sometimes resorts to violence.                       | سأستمر في دعم المنظمة التي تناضل من أجل الحقوق السياسية والقانونية لمجموعتي حتى لو لجأت المنظمة أحياناً إلى العنف                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would participate in a public protest against oppression of my group even if I thought the protest might turn violent.   | سأشارك في احتجاج عام ضد اضطهاد مجموعتي حتى لو اعتقدت أن الاحتجاج قد يتحول إلى عنف  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would attack police of security forces if I saw them beating members of my group.  | سوف أهاجم قوات الأمن إذا رأيتهم يضربون أعضاء مجموعتي   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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## A6. Full experimental materials (cont.)

Socio-demographic questionnaire and honesty check.

**Question 6.** Please answer a few questions about your background:

السؤال رقم 6. يرجى الإجابة على بعض الأسئلة حول خلفيتك:

Gender: الجنس

Male ذكر       Non-binary نظام ثنائي غير جنسري  
 Female أنثى       Prefer not to say أفضل عدم القول

Age: عمر

18-24       25-34       35-44       45-54       55-64       65+

Nationality: الجنسية \_\_\_\_\_

Have you been displaced inside/outside Iraq in the past? هل نزحت داخل او خارج العراق في الماضي؟

Yes, within Iraq نعم داخل العراق       Yes, outside of Iraq نعم خارج العراق       No لا

Occupation: المهنة

Unemployed عاطل عن العمل ع       Full-time student طالب بدوام كامل  
 Paid employment عمل مأجور       Retired متقاعد  
 Self-employed أعمل لحسابي الخاص       Doing something else أفعل شيء آخر

Highest education obtained: تعليم أعلى

Less than High School degree أقل من شهادة الثانوية العامة       Bachelor degree شهادة البكالوريوس  
 High School degree or equivalent شهادة الثانوية العامة أو ما يعادلها       Graduate degree شهادة ماجستير  
 Vocational / technical training تدريب فني / مهني       Doctorate / PhD دكتوراه

Monthly income: الدخل الشهري

Less than or equal to 0.8m IQD أقل أو ما يعادل 0.8 مليون د.ع.  
 More than 0.8m and less than or equal to 1.6m IQD أكثر من 0.8 مليون د.ع. أو ما يعادل 1.6 مليون د.ع.  
 More than 1.6m and less than or equal to 2.4m IQD أكثر من 1.6 مليون د.ع. وأقل أو ما يعادل 2.4 مليون د.ع.  
 More than 2.4m and less than or equal to 3.2m IQD أكثر من 2.4 مليون د.ع. و أقل أو ما يعادل 3.2 مليون د.ع.  
 More than 3.2m and less than or equal to 4m IQD أكثر من 3.2 مليون د.ع. وأقل أو ما يعادل 4 مليون د.ع.  
 More than 4m IQD أكثر من 4 مليون د.ع.

|   |                              | Not at all<br>على الإطلاق | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     | 9                     | Extremely<br>إلى أبعد حد | 10                    |
|---|------------------------------|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|-----------------------|
| How happy are you right now?            | ما مدى سعادتك الآن؟          | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> |
| How much purpose do you feel right now? | ما مقدار احساسك بالعزم الآن؟ | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    | <input type="radio"/> |

Please help us improve this research by telling us below whether you have participated honestly in this survey. Your answer here will not affect you in any way.

الرجاء مساعدتنا في تحسين هذا البحث بإخبارنا أناه ما إذا كنت قد شاركت بصدق في هذا الاستطلاع. إجابتك هنا لن تؤثر عليك بأي شكل من الأشكال.

I have answered honestly أجب بصدق       I have not answered honestly لم اجب بصدق

**Thank you for taking part today – it is greatly appreciated!**      شكرا لك على المشاركة اليوم - هذا محل تقدير كبير!