

---

# Investigating antecedents of Islamophobia: The role of perceived control over terrorism, threat, meta-dehumanization, and dehumanization

Melissa Pavetich  | Sofia Stathi 

## 1 | INTRODUCTION

In times of intergroup conflict, people tend to attribute less than human qualities to opponents (Haslam, 2006). With recent conflict in mind, Muslims have been labelled as parasites (Bates, 2018), Trojan horses (Cook, 2016), a disease that needs to be controlled (Darvall, 2017), and classified as terrorists (Baker, Gabrielatos, & McEnery, 2013). The changing global climate involving civil war in the Middle East, the refugee crisis, terrorism, and political tensions in

---

the Global West and Europe have sparked heated social debates in the public domain. Political rhetoric frequently plants Muslims at the centre of these debates, resulting in a negative over-representation of Muslims in the media, and the proliferation of anti-Muslim prejudice (Spruyt & van der Noll, 2017). This becomes dangerous when people in positions of power express prejudice or dehumanizing views of other groups because it normalizes this behaviour to the audience they hold (Allen, 2017).

The phenomenon of Islamophobia, including feelings of fear, disgust, and hatred towards Muslims and Islam (Lee et al., 2013), is considered one of the most dangerous forms of prejudice as it leads to irrational aversion and resentment (Allen, 2007; Iqbal, 2010). In recent political campaigns, politicians have drawn on Islamophobia as a means to frame anti-Muslim policies. Early in Donald Trump's presidency campaign, he publicly declared that "Islam hates Americans", and called for a shutdown of Muslims entering the United States (Schleifer, 2016). This anti-Muslim sentiment has been echoed by politicians in Australia, and across Europe. In an appeal to ban Muslim immigrants from Australia, One Nation Party leader Pauline Harrison declared that "Islam is a disease", and that people need to be "vaccinated against it" (Darvall, 2017). Furthermore, a number of far-right quasi-political parties have emerged in Europe, for example, Britain First, The Czech Defense League, and National Rebirth of Poland (NOP), preaching messages of nationalistic divide and anti-Muslim attitudes.

The growing tension that exists between Muslims and non-Muslims can also be seen in the rise of reported Islamophobic hate crimes in North America and Europe. The Home Office in the United Kingdom recently recorded the largest increase in hate crimes towards Muslims since 2011 (Home Office, 2016). Crime reports have indicated that hate crimes increase exponentially following incidences of public threat (Home Office, 2017). Straight after the Brexit referendum, there was a spike in hate crimes motivated by religion and race (Home Office, 2017). Moreover, hate crimes in England soared 500% compared to the daily average after the June 2017 terrorist attack in Manchester (Dodd & Marsh, 2017). In line with reports from the United States Department of Justice, hate crimes towards Muslims have peaked, and are on par with post 9/11 rates (USDOJ, 2016). These findings are worrying because the population of Muslims is increasing and projected to surpass that of all other religious affiliations by the year 2050 (Pew Global Attitudes Project, 2015).

As the population of Muslims increases, if tensions are not addressed, negative attitudes and conflict are likely to escalate. It is therefore imperative to understand why Muslims have become the target of such blatant prejudice. To do this, we focused on emerging research that explores meta-dehumanization processes, and investigated Islamophobia as an

outcome of the meta-dehumanization model that has been shown to predict reciprocal out-group dehumanization and hostility (Kteily, Hodson, & Bruneau, 2016). In this research, we further aimed to examine if control over terrorism (COT) and threat exacerbate the vicious cycle of meta-dehumanization, dehumanization, and out-group hostility, specifically Islamophobia. This research provides a theoretical extension of the literature by investigating COT and threat as psychological process driving meta-dehumanization, blatant dehumanization towards Muslims and global Islamophobia.

## 2 | INTERGROUP META-DEHUMANIZATION

The theoretical basis for this research is grounded in two theoretical approaches: the model of social inference, that asserts perceived similarity to a target moderates the use of projection (of one's own positive characteristics) or stereotyping a target when forming a meta-perception (Ames, 2004). Secondly, the dual model of dehumanization, whereby people deny others of their human attributes or human nature (Haslam, 2006). The current research essentially merges the theoretical perspectives on meta-perceptions, humanization, and dehumanization to form a composite for meta-(de)humanization.

When social cues are ambiguous or an in-group member has not necessarily had direct contact with a particular out-group, the in-group typically relies on intergroup factors, namely stereotypes, influenced by group membership, to inform meta-perception formation. In ambiguous situations of behaviour or facial affect, stereotypes influenced by prejudice of the meta-perceiver have proven to be a strong determining tool used in meta-perception formation (Ames, 2004; Sagar & Schofield, 1980). Stereotypes play a major role in meta-perception formation because they trigger affective reactions and shape behaviour towards other groups (Yzerbyt, Judd, & Muller, 2009). In the context of the current research, negative stereotypes about Muslims and Islam, representing terrorists, invaders, hostile, and an economic burden, will largely impact non-Muslim's meta-perceptions.

Negative out-group cognitions fortify intergroup boundaries as they lead to the development of negative stereotypes and prejudice. Studies have shown that the over-reporting of negative news in the media may influence the ingroup to perceive that all group members are prototypical of negative stereotypes and perceive increased threat from the entire out-group (Baker et al., 2013). Consistent findings have shown that perceiving an out-group is a threat, which may cause the ingroup to dehumanize out-group members (Esses, Medianu, & Lawson, 2013; Kteily et al., 2016). Related research has also shown that when a Muslim or non-Muslim in-group perceived they had been dehumanized by the other, they reported heightened identity threat and more willingness to reciprocate hostility towards the offending group, namely meta-dehumanization (Kteily et al., 2016).

Meta-dehumanization is the perception that one's group has been blatantly dehumanized by another group, and has dangerous consequences for intergroup relations. In their seminal research, Kteily et al. (2016) identified an indirect effect from meta-dehumanization to aggressive attitudes and behaviour through out-group dehumanization. They demonstrated the pervasiveness of outcomes influenced by meta-dehumanization in a series of 10 studies, using examples from real-world conflicts between Americans and Muslims, Americans and Mexicans, Palestinians and Israelis, Hutus and Tutsis, and Romas and Hungarians.

Following the rise in blatant dehumanization towards Mexican immigrants and Muslims, witnessed during President Trump's American election campaign, Kteily and Bruneau (2017) extended their prior work to investigate how disadvantaged minority groups are affected by meta-dehumanization. The results paralleled those of the studies from Kteily et al. (2016), showing that perceiving to be dehumanized has a cyclical effect on out-group dehumanization and support for hostile behaviours such as violent collective action.

The research from Kteily et al. (2016) and Kteily and Bruneau (2017) demonstrated that perceiving to be dehumanized by an out-group, whether you are an advantaged or disadvantaged member of society, results in reciprocal out-group dehumanization, and a wide range of hostile attitudes and behaviours. A central aim of the current research is to extend the literature by exploring predictors of meta-dehumanization. This will help identify variables that contribute to the vicious meta-

dehumanization—dehumanization—hostility cycle, and will allow a more thorough understanding of the processes that need to be tackled when seeking to reduce conflict.

### 3 | CONTROL AND THREAT

Issues of immigration, terrorism, and economic uncertainty are especially likely to be perceived as threatening when people feel that they do not have the resources to overcome these issues (Esses et al., 2013; Luders, Jonas, Fritsche, & Agroskin, 2016). In other words, in an environment of global terrorist attacks and economic uncertainty, loss of perceived control over one's environment may be salient. Loss of control has been linked to increased perception of threat as well as out-group prejudice (Greenaway, Louis, Hornsey, & Jones, 2014; Rothschild, Landau, Sullivan, & Keefer, 2012). In a series of three studies, Greenaway et al. (2014) found that threat led to prejudice, only when people felt low in control. Threat specifically due to terrorism has been found to increase desire to establish control and intentions to act in ways to increase perceived control (Fritsche et al., 2013). In line with this, research from Rothschild et al. (2012) indicated that scapegoating functions as a means to punish a target and restore loss of in-group control. For example, the tendency to use scapegoating can be seen in the media with the indiscriminate punishing of Muslims as a whole for the offending actions of ISIS perpetrated terrorist attacks (Lipka, 2017).

The media frequently frame current issues by conflating Muslims and Islam with negative stereotypes associated with terrorism, economic burden, and mass undocumented migration (Bleich, Stonebraker, Nisar, & Abdelhamid, 2015). This is problematic as the more that Muslims and Islam are conflated with issues perceived to be threatening the more likely it is that Muslims as a group will be perceived as a threat. As a consequence of threat, people are likely to engage in defensive and anti-social behaviours in an attempt to re-establish control over their environment and minimize perceived in-group dangers (Luders et al., 2016). Research has shown that when people perceive to be threatened they are more likely to lash out at others with hostility, prejudice, and extreme violence (Obaidi, Kunst, Kteily, Thomsen, & Sidanius, 2018; Riek, Mania, & Gaertner, 2006; Stephan & Stephan, 2000; Stephan & Renfro, 2002).

Following recent events, such as terrorist attacks in Europe and North America, the Syrian civil war and resulting refugee crisis, and growing right-wing political movements, we have witnessed a rising tension between Muslims and non-Muslims. The Syrian refugee crisis involved an influx of asylum seekers to neutral territories from predominantly Muslim majority countries (Blinder, 2016). This came at a time when immigration issues were already a contentious issue throughout the European Union and North America (Eurobarometer, 2015), alongside debates around the banning of religious garments, namely the hijab in public places across Europe (BBC News, 2017). Another coinciding issue were the terrorist attacks being perpetrated by ISIS around the world, claiming the attacks were in the name of the Islamic State. These situations share commonalities, they involve Muslims, may be perceived as highly threatening, and may result in people feeling low in control over their safety.

Global terrorist attacks and economic uncertainty may result in the perception of a chaotic world. There is a general expectation from people that they are able to influence the world around them; therefore, being able to control their environment (Bandura, 1977). The compensatory control theory posits that the perception of personal control can buffer against the anxiety of threat in an uncontrollable and uncertain world (Kay, Whitson, Gaucher, & Galinsky, 2009). If Muslims are perceived as threatening, then the in-group (i.e., non-Muslims) are likely to engage in responses that restore feelings of safety at the group level (Fritsche et al., 2013). For example, United States President Trump stoked fear that Muslims entering the country posed a risk to American safety, claiming that there was no way to know whether Muslims may be ISIS affiliated (Krieg, 2017). Trump used the notion of terrorist threat as a platform for the Muslim travel ban that came into effect in 2017 (Thrush, 2017). Research has shown that Americans supported this travel ban when they perceived to be dehumanized by Muslims (Kteily et al., 2016). Overall, it has been found that threat posed by an out-group increases the likelihood for dehumanization by promoting a more bestial view of the out-group, resulting in lack of admiration, feelings of contempt, and

increased support for authoritarian leadership (Haslam, 2006; Vaes & Paladino, 2010). Perceived threat has also been shown to moderate the effect of dehumanization on endorsement of aggression, such that participants who saw Muslims as a greater threat only showed a proclivity to torture Muslim prisoners of war if they also dehumanized them (Viki, Osgood, & Phillips, 2013).

Intergroup threat theory purports that intergroup threat at the group level exists in two categories: symbolic and realistic (Stephan & Renfro, 2002). Research has shown that both symbolic and realistic threats are salient when considering the perception of Muslims (Pew Global Attitudes Project, 2015). Despite previous research suggesting that symbolic and realistic threat represent distinct categories, recent empirical work has found strong correlations and overlap in effects between symbolic and realistic threat, so much that their unique roles became unclear (Aberson, 2019; Costello & Hodson, 2011; Stephen, Renfro, Esses, Stephen, & Martin, 2005). Given the above-mentioned research demonstrating the overlap in realistic and symbolic threat in intergroup contexts between majority and minority groups, the current research similarly investigated a general measure of intergroup threat composed of a composite of both symbolic and realistic threat.

## 4 | OVERVIEW OF THE CURRENT STUDY

There has been limited work on the theoretical underpinnings of meta-dehumanization. The model of metadephumanization proposed by Kteily et al. (2016) theorized an integration of research between outcomes of negative meta-perceptions and dehumanization in order to identify a series of outcomes of perceiving to be blatantly dehumanized. Although the work from Kteily et al. (2016) has been instrumental in beginning to understand metadephumanization processes, it lacks an investigation into predictors of meta-dehumanization.

The current study will bridge the gap in the literature by proposing two novel antecedents of meta-dehumanization: COT and threat. Additionally, these predictors will be tested in their ability to sequentially predict meta-dehumanization, dehumanization, and the novel outcome variable, Islamophobia. That is, if people perceive to be low in COT and Muslims are frequently conflated with issues of terrorism, then it is likely that people will associate Muslims with threat. When people feel threatened they are more likely to dehumanize and act with prejudice towards an out-group to restore control to the in-group (Greenaway et al., 2014; Haslam & Loughnan, 2014). As Islamophobia is a multifaceted form of prejudice comprised of elements of fear, hatred, and disgust, it is anticipated that the study variables will be predictors of Islamophobia (Iqbal, 2010). Given the relationship between threat and dehumanization, and between control and threat, the current study will be investigating COT and threat as antecedents of the metadephumanization pathway to Islamophobia.

It is hypothesized that (a) COT will be negatively correlated, and threat will be positively correlated with meta-dehumanization, dehumanization, and Islamophobia; and (b) COT will sequentially predict threat, metadephumanization, dehumanization, and Islamophobia. That is, lower levels of COT will result in higher perceptions of threat, meta-dehumanization, dehumanization, and Islamophobia.

## 5 | METHOD

### 5.1 | Participants and procedure

The sample consisted of 328 participants before two were removed for identifying as Muslim and 13 were removed for having incomplete data. Listwise data from a total of 313 participants were included. Of them, 217 were females, 93 were males, and 3 did not disclose gender, while ages ranged from 18 to 72 years ( $M = 33.89$ ,  $SD = 13.01$ ). Participants were recruited from the general population in the United Kingdom using snowball sampling and from an online participant pool named Prolific Academic. Participants were required to consider themselves as British, living in the United Kingdom, and to identify

with being Christian, Jewish, Buddhist, Atheist, Agnostic, or non-religious. The following affiliations were reported: 30% Christian, 66.1% Atheist or Agnostic, 2.5% Spiritualist, 1% Buddhist, and 0.1% did not disclose. The study was designed using Qualtrics and was conducted online in one session. Upon completion, participants were thanked and debriefed.

## 5.2 | Measures

All measures, unless otherwise stated, were measured on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree, where higher scores indicated higher agreement with the items. Political orientation and outgroup contact were included as control variables and were presented before the measures as part of the demographic items. The remaining measures were presented in the following order: COT, threat, meta-dehumanization, dehumanization, and Islamophobia.

### 5.2.1 | COT

Participants' degree of perceived COT was assessed using a three-item measure adapted from Greenaway et al. (2014). An example item is, "There are actions the British can take to protect themselves in the event of a terrorist attack" ( $\alpha = .60$ ).

### 5.2.2 | Threat

Two dimensions of threat, symbolic and realistic were adapted from Velasco Gonzáles, Verkuyten, Weesie, and Poppe. (2008) and combined onto a single index as was previously done in their study, to provide a general measure of intergroup threat. We were interested in a general measure of threat as research has shown that both symbolic and realistic threats are salient when considering the perception of Muslims (Pew Global Attitudes Project, 2015). Symbolic threat was measured using three-items, for example, "British identity is being threatened because there are too many Muslims". Realistic threat was measured using three-items, for example, "Because of the presence of Muslims, people have more difficulties finding a job" ( $\alpha = .95$ ).

### 5.2.3 | Meta-dehumanization

The perception that the in-group (i.e., British) is dehumanized by Muslims was assessed using the Ascent of Man measure of blatant dehumanization, adapted from Kteily, Bruneau, Waytz, and Cotterill (2015). Responses were measured on a scale ranging from 0 (highly uncivilized) to 100 (highly civilized). Participants were asked to use a slider to indicate how evolved they believed Muslims perceived their (British) in-group to be. Scores were reversed so that higher ratings indicated a higher perception of being blatantly dehumanized by the out-group.

### 5.2.4 | Dehumanization

To measure participants' blatant dehumanization towards Muslims, the Ascent of Man scale was used (Kteily et al., 2015). Responses were measured on a scale ranging from 0 (highly uncivilized) to 100 (highly civilized). Participants were asked to use a slider to indicate how evolved they believed Muslims to be. Scores were reversed so that higher ratings indicated a higher out-group dehumanization.

### 5.2.5 | Islamophobia scale

The measure was adapted from Lee et al. (2013), and is composed of two facets with 16 items combined to a single index. Eight items measured affective Islamophobia, focusing on avoidance-related emotions and behaviours towards Muslims, for example, “I would avoid going to places where Muslims would be”. The remaining eight items measured cognitive Islamophobia, addressing the belief that Muslims and Islam are dangerous, that is, “The religion of Islam supports acts of violence” ( $\alpha = .98$ ). As the current research was interested in the overarching construct of prejudice specifically towards Muslims, the decision was made to include the sub-scales as a singular outcome variable.

### 5.2.6 | Political orientation

This one item measure acted as a control variable in the study as research has shown that there is an association between conservative political attitudes and Islamophobia (Hafez, 2014). The item asked participants to indicate their political beliefs on a spectrum ranging from extremely liberal to extremely conservative, with higher numbers indicating more political conservatism.

### 5.2.7 | Out-group contact

This one item measure controlled for out-group (Muslim) contact. Research indicates that positive out-group contact is associated with a range of desirable outcomes, such as reduced prejudice and dehumanization, increased helping, and improved out-group attitudes (Pettigrew & Tropp, 2008). The question asked participants, “How frequently are you in contact with Muslims?” Higher scores indicated more contact with Muslims.

## 6 | RESULTS

Means, SDs, and correlations for all variables are presented in Table 1. As expected, COT was negatively correlated with the main study variables. Moreover, threat was positively correlated with the main study variables.

To test the predictive roles of COT and threat on meta-dehumanization, a hierarchical multiple regression was conducted. The predicted relationship, that COT, threat, meta-dehumanization, and dehumanization are associated TABLE 1 Descriptive statistics and variable intercorrelations

		1	2	3	4	5	6	7	M (SD)
1	Control	—							2.75 (0.86)
2	Threat	-.22**	—						2.23 (1.23)
3	Dehumanization	-.15**	.48**	—					27.31 (31.35)
4	Meta-dehumanization	-.15**	.49**	.82**	—				30.93 (32.28)
5	Islamophobia	-.26**	.85**	.52**	.51**	—			2.08 (1.19)
6	Political orientation	-.12**	.49**	.22**	.26**	.42**	—		2.56 (0.96)
7	Contact with Muslims	.08	-.18**	-.16**	-.09	-.20**	-.04	—	3.09 (0.93)

\*\*p < .01, \*\*\*p < .001.

TABLE 2 Hierarchical multiple regression predicting Islamophobia from perception of control, threat, metadehumanization, and dehumanization, controlling for political orientation and out-group contact

	Model 1	Model 2	Model 3	Model 4	Model 5
Variable	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
Out-group contact <sup>a</sup>					-0.04
Political orientation <sup>a</sup>	-				0.01
Control over terrorism	0.26***	-.07*	-0.06*	-0.06*	0.06*
Threat		.84***	0.78***	0.77***	0.75***
Meta-dehumanization			0.12***	0.03	0.04
Dehumanization				0.12*	0.11*
R <sub>2</sub>	0.07	0.73	0.74	0.74	0.75
F	41.71***	415.94***	292.78***	224.22***	149.65***
R <sub>2</sub> $\Delta$	0.07	0.66	0.01	0.1	0.1
F $\Delta$	21.78***	757.12***	13.34***	5.56*	4.87*

<sup>a</sup> Out-group contact and political orientation only controlled for in the final model (Model 5).  
\*p ≤ .05, \*\*\*p ≤ .001.

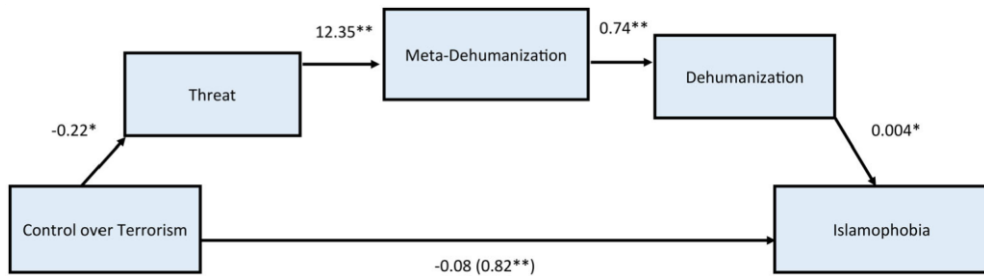


FIGURE 1 Statistical diagram of the indirect effect on Islamophobia through control over terrorism, threat, metadehumanization, and dehumanization.

Note: Statistical diagram of the proposed model, in which the perception of control over terrorism predicts Islamophobia via threat, meta-dehumanization, and out-group dehumanization, controlling for political orientation and out-group contact (not shown). Unstandardized regression coefficients are reported. \*p < .01, \*\*p < .001

Focal predictor	1st level mediator	2nd level mediator	3rd level mediator	Outcome variable	Indirect effect	95% Bootstrapped CI
Control over terrorism	Threat	—	—	Islamophobia	-0.236	-0.385, -0.092
Control over terrorism	Threat	—	—	Islamophobia	-0.005	-0.027, 0.014
Control over terrorism	Threat	—	Dehumanization	Islamophobia	-0.004	-0.014, -0.001

Control over terrorism	Threat	Metadehumanization	Dehumanization	Islamophobia	-0.013	-0.037, -0.008
Control over terrorism	—	Metadehumanization	Dehumanization	Islamophobia	-0.002	-0.024, 0.005
Control over terrorism	—	—	Dehumanization	Islamophobia	-0.003	-0.027, 0.006

with Islamophobia, was statistically significant,  $F(6, 306) = 149.65, p < .001, R^2 = .75$ . The addition of COT, threat, meta-dehumanization, and dehumanization in the final model, controlling for political orientation and out-group contact (Model 5 in Table 2) predicted 75% of the variance on Islamophobia. See Table 2 for full details regarding each regression model.

## 6.1 | Mediation analysis

A bootstrapped serial mediation analysis (10,000 resamples) was conducted, examining the indirect effect of COT on Islamophobia through threat, meta-dehumanization, and dehumanization. This was done using ordinary least squares path analysis with PROCESS macro for SPSS (Model 6; see Hayes, 2017). This is a statistically robust method of testing all possible indirect effects of the predictor on the outcome variable. Mediation results are reported in unstandardized coefficients.

Consistent with the hypothesis, the indirect effect between COT and Islamophobia was statistically significant ( $-0.01, SE = 0.01, 95\% CI -0.04, -0.01$ ). Lower COT was associated with higher threat ( $a = -0.22$ ), higher meta-  
 TABLE 4 Reverse order indirect effects of main study variables on Islamophobia

Focal predictor	1st level mediator	2nd level mediator	3rd level mediator	Outcome variable	Indirect effect	95% Bootstrapped CI
Threat	COT	—	—	Islamophobia	0.014	-0.001, 0.036
Threat	COT	Meta-D	—	Islamophobia	0.001	-0.001, 0.005
Threat	COT	—	Dehumanization	Islamophobia	0.001	-0.001, 0.005
Threat	COT	Meta-D	Dehumanization	Islamophobia	0.015	-0.050, 0.069
Threat	—	Meta-D	Dehumanization	Islamophobia	0.042	0.006, 0.098
Threat	—	—	Dehumanization	Islamophobia	0.012	0.002, 0.037

Abbreviations: Meta-D, Meta-dehumanization.

dehumanization by Muslims ( $d_{21} = 12.35$ ), greater likelihood to reciprocate with dehumanization ( $d_{32} = 0.74$ ), and expressed Islamophobia ( $b_3 = 0.004$ ). There was no evidence that COT associated with Islamophobia independent of its effect on threat, meta-dehumanization, and dehumanization ( $c^0 = -0.09, SE = 0.05, 95\% CI -0.19, 0.01$ ), see Figure 1 and Table 3.

### 6.1.1 | Alternative models

1 Second-order effects were tested by reversing the order of control and threat, in the sequential mediation between meta-dehumanization, dehumanization, and Islamophobia. There was no significant indirect effect between threat and



Islamophobia (0.02, SE = 0.001, 95% CI -0.05, 0.07) when reversing the order of threat and control in the model. The direct effect between threat and Islamophobia was statistically significant ( $c^0 = 0.74$ , SE = 0.04, 95% CI 0.67, 0.83). When completely removing COT from the proposed model, there was still a significant indirect effect on Islamophobia (0.04, SE = 0.02, 95% CI 0.01, 0.10). Although the point estimate was rather weak, it is comparable to the indirect effect that was evidenced when including COT as the focal predictor. See Table 4 for a full summary of indirect effects.

## 7 | DISCUSSION

Previous research has demonstrated a relationship between control, prejudice, and threat (Greenaway et al., 2014), threat and dehumanization (Haslam & Loughana, 2014), and meta-dehumanization, dehumanization, and hostility (Kteily & Bruneau, 2017; Pavetich & Stathi, 2020). The current research drew from these topics to theoretically extend the limited literature investigating antecedents and outcomes of meta-dehumanization. Islamophobia was chosen as a novel outcome to this path as it is comprised of elements of fear, disgust, and hatred towards Muslims (Iqbal, 2010), therefore representing a key variable in understanding current intergroup conflict. This is the first study that tested the effects of the COT and threat on meta-dehumanization. In line with our predictions, the results demonstrated that participants feeling low in COT sequentially reported greater feelings of threat, meta-dehumanization, dehumanization, and Islamophobia. Importantly, the results reveal the negative process that the current climate of uncertainty over terrorism and perceived threat from Muslims may have on prejudice and hostility.

The present research theoretically extended previous work by Kteily et al. (2016) by proposing a complementary model of meta-dehumanization. The model proposed in the current study differed from Kteily et al., as it investigated two novel antecedents of meta-dehumanization (COT and threat), and a novel outcome measure (Islamophobia). Islamophobia provided an attitudinal measure that tapped conceptually on similar anti-Muslim behavioural measures previously used in Kteily et al.'s studies between Muslims and Americans. Most importantly due to the multifaceted emotions of fear, disgust, and hatred that comprise Islamophobia, it opens up a path for fruitful future research that can investigate emotions and cognitions involved in Islamophobia. The decision was made to include both the Islamoprejudice and secular Islam critique sub-scales (Imhoff & Recker, 2012) as a singular Islamophobia variable. The advantage of doing this was that it reduced the type 1 family-wise error that could have been present with testing the model many times with the same sample on different outcome measures. Treating Islamophobia as a single dimension also allowed for the focus of this study to be on testing the novel model and not on the effects of meta(de)humanization on the different facets of Islamophobia. This was an advantage as it provided a clearer analysis and interpretation of the findings.

The results were in line with past research, suggesting that the perception of control and threat are related to prejudice (Greenaway et al., 2014). The variable of COT in the present research was quite specific as it was aiming to target a precise dimension of control that relates to terrorism. The ability of COT to produce an indirect effect on the main study variables is a noteworthy finding. Although research exists linking the loss of perceived control with heightened out-group prejudice, threat, and hostility, there has not been any published research on the effects of control on meta-dehumanization or Islamophobia (Agroskin & Jonas, 2010; Greenaway et al., 2014; Rothschild et al., 2012). Research has currently only established a relationship between general trait control and mechanistic dehumanization (Moller & Deci, 2010; Testé, 2017). The current study extends these findings, indicating that a similar relationship exists between the state of feeling in COT and blatant animalistic dehumanization.

Haslam and Loughnan (2014) indicated that the perception of threat was a transient variable associated with an increased likelihood to dehumanize the out-group. The results of this study are in line with Haslam and Loughnan's suggestion, demonstrating that the perception of intergroup threat is associated with heightened dehumanization towards Muslims. When reversing the order of COT and threat in the model, there was no indirect effect on the outcome. Interestingly, a significant indirect effect of threat on the main study variables absent of COT in the model was observed. Although the indirect

effect in the proposed model was statistically significant when both including and excluding COT, the point estimates were weak in both models. These relationships need to be further investigated to ensure generalizability and to detect any alpha error that may be present.

Previous research demonstrated that those who dehumanize are more likely to support aggressive policies, and those who are dehumanized are in turn more likely to act in aggressive ways that perpetuate the existing dehumanizing views (Kteily et al., 2016; Pavetich & Stathi, 2020). In line with this, the rise of uncertainty, aggressive political discourse, and negative stereotypes revolving around Muslims creates an atmosphere of hostility for intergroup relations. The findings from the current research extend this notion and suggest that the tension between Muslims and non-Muslims may only become worse or more vicious if Muslims continue to be associated with threat.

COT and threat were included as predictors in the proposed model as previous research highlighted them as relevant indicators of prejudice, hostility, and dehumanization. It would be beneficial for future research to investigate other relevant predictors of meta-dehumanization and hostility. For example, Haslam and Loughnan (2014) identified five influential factors of dehumanization: threat, power, cognitions, motives, and negative emotions. Exploring whether these factors also predict meta-dehumanization and perpetuate the cycle of intergroup hostility could provide important knowledge in the field.

Although understanding negative consequences of these variables is vitally important, future work should aim to focus on meta-humanization as it is equally important to identify ways to break the cycle of prejudice and intergroup hostility. Pavetich and Stathi (2020) demonstrated that priming meta-humanization resulted in decreased out-group dehumanization and prejudice between Muslims and non-Muslims. This is a noteworthy finding that would benefit from future research. Based on the results from the current study, future work should also investigate whether priming meta-humanization would extend to reducing Islamophobia and increasing prosocial behaviour between Muslims and non-Muslims. Future research should also investigate whether the reciprocal nature of dehumanization and hostility, as identified by Kteily and Bruneau (2017), can be attenuated by priming meta-humanization to evoke positive reciprocal intentions.

We need to also highlight some limitations regarding our study, as well as future research directions. As causality cannot directly be inferred from a model with correlational data, future work should aim to experimentally manipulate COT, threat, and meta-dehumanization to investigate whether the effect on predicting Islamophobia is causal.

The nature of COT as used in the current study was quite specific, as it measured participants' perceived COT. Traditionally, research has measured locus of control or manipulated state control (Agroskin & Jonas, 2010; Greenaway et al., 2014; Testé, 2017). The measure used in the current study was adapted from Greenaway et al. (2014) research. Both in the current study and in Greenaway et al.'s research, the Cronbach's alpha level for the control measure was rather low, at  $\alpha = 0.60$ . The alpha did not become stronger when removing individual items from the full measure. Future work needs to revise and retest this measure to formulate a more reliable measure for COT. It is worthwhile to explore other forms of control in the context of meta-dehumanization and Islamophobia. For example, different variations of general state control, such as perceived control over realistic or symbolic threat, or manipulating perceived control (see Agroskin & Jonas, 2010; Testé, 2017) would provide stronger evidence regarding causality.

Our work provides novel evidence that the perception of COT and out-group threat can predict a detrimental pathway through meta-dehumanization, dehumanization, and Islamophobia. Given the climate of uncertainty and threat following terrorist attacks, the rise in hostility between Muslims and non-Muslims documented in the literature, and the reciprocal nature of dehumanization, it is likely that Muslims will continue to be a target of prejudice. This research clearly demonstrates the need to further investigate the predictors of meta-dehumanization in order to understand and attenuate the effects of intergroup hostility.

#### CONFLICT OF INTEREST

The authors declare that there are no potential sources for conflicts of interest in this research.

ENDNOTE 1 Contact was not a main variable in the study, rather it was assessed in relation to the growing literature on contact and dehumanization; however, as an exploratory piece to the analysis, we tested the indirect effect of contact post hoc as a focal predictor on the mediating variables and Islamophobia. We found a weak significant indirect effect of contact on Islamophobia through threat, meta-dehumanization, and dehumanization ( $-0.01$ ,  $SE = 0.01$ ,  $95\% CI -0.03, <-0.001$ ). There was a significant total ( $-0.21$ ,  $SE = 0.06$ ,  $95\% CI -0.32, -0.09$ ) and non-significant direct effect ( $-0.05$ ,  $SE = 0.04$ ,  $95\% CI -0.13, 0.02$ ) of contact on Islamophobia.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

#### ORCID

Melissa Pavetich  <https://orcid.org/0000-0002-6840-4760>

Sofia Stathi  <https://orcid.org/0000-0002-1218-5239>

#### REFERENCES

- Abersson, C. L. (2019). Indirect Effects of Threat on the Contact–Prejudice Relationship. *Social Psychology*, 50(2), 105–126. <http://dx.doi.org/10.1027/1864-9335/a000364>
- Agroskin, D., & Jonas, E. (2010). Out of control: How and why does perceived lack of control lead to ethnocentrism? *Review of Psychology*, 17(2), 79–90.
- Allen, C. (2007). Islamophobia and its consequences. In S. Amghar, A. Boubekeur, & M. Emerson (Eds.), *European Islam— Challenges for public policy and society* (pp. 144–167). Brussels, Belgium: Center for European Policy Studies.
- Allen, C. (2017). Towards a working definition of Islamophobia (Briefing paper). University of Birmingham. Retrieved from <https://wallscometumblingdown.files.wordpress.com/2017/07/chrisallen-defining-islamophobia-briefing-paper-july2017.pdf>
- Ames, D. R. (2004). Inside the Mind Reader's Tool Kit: Projection and Stereotyping in Mental State Inference. *Journal of Personality and Social Psychology*, 87(3), 340–353. <http://dx.doi.org/10.1037/0022-3514.87.3.340>
- Baker, P., Gabriellatos, C., & McEnery, T. (2013). Sketching Muslims: A corpus driven analysis of representations around the word 'Muslim' in the British press 1998–2009. *Applied Linguistics*, 34(3), 255–278. <https://doi.org/10.1093/applin/ams048>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <http://dx.doi.org/10.1037/0033-295x.84.2.191>
- Bates, A., (2018). EXCL Tory councillor suspended after sharing 'Muslim parasites' article. *Politics Home*. Retrieved from <https://www.politicshome.com/news/uk/political-parties/conservative-party/theresa-may/news/94120/excl-torycouncillor-suspended>
- BBC News. (2017, October 17). Rise in Hate Crime in England and Wales. Retrieved from <http://www.bbc.co.uk/news/uk41648865>
- Bleich, E., Stonebraker, H., Nisar, H., & Abdelhamid, R. (2015). Media portrayals of minorities: Muslims in British Newspaper Headlines, 2001–2012. *Journal of Ethnic and Migration Studies*, 41(6), 942–962. <https://doi.org/10.1080/1369183X.2014.1002200>
- Blinder, S. (2016). Migration to the UK: Asylum. The Migration Observatory at the University of Oxford, <https://www.migrationobservatory.ox.ac.uk>
- Cook, J. (2016, October 20). 7 lies Donald Trump has spread about Syrian refugees entering the U.S. *The Huffington Post*. Retrieved from [https://www.huffingtonpost.com/entry/donald-trump-refugee-crisis\\_us\\_5807809ae4b0180a36e7ac14](https://www.huffingtonpost.com/entry/donald-trump-refugee-crisis_us_5807809ae4b0180a36e7ac14)
- Costello, K., & Hodson, G. (2011). Social dominance-based threat reactions to immigrants in need of assistance. *European Journal of Social Psychology*, 41(2), 220–231. <http://dx.doi.org/10.1002/ejsp.769>
- Darvall, K. (2017, March 24). 'Islam is a disease': Pauline Hanson stands by her call to ban Muslim immigrants from Australia after Liberal and Labor outcry. *Daily Mail Australia*. Retrieved from <http://www.dailymail.co.uk/news/article-4344882/Pauline-Hanson-says-Islam-disease-vaccinate-against.html>
- Dodd, V., & Marsh, S. (2017, June 7). Anti-Muslim hate crimes increased fivefold since London Bridge attack. *The Guardian*. Retrieved from <https://www.theguardian.com/uk-news/2017/jun/07/anti-muslim-hate-crimes-increase-fivefold-since-london-bridge-attacks>
- Esses, V. M., Medianu, S., & Lawson, A. S. (2013). Uncertainty, threat, and the role of the media in promoting the dehumanization of immigrants and refugees. *Journal of Social Issues*, 69(3), 518–536.

- Eurobarometer Spring. (2015, July 31). Citizens see immigration as top challenge for EU to tackle. European Commission. Retrieved from [http://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb83/eb83first\\_en.pdf](http://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb83/eb83first_en.pdf)
- Fritsche, I., Jonas, E., Ablasser, C., Beyer, M., Kuban, J., Manger, A., & Schultz, M. (2013). The power of we: Evidence for group-based control. *Journal of Experimental Social Psychology*, 49(1), 19–32. <https://doi.org/10.1016/j.jesp.2012.07.014>
- Greenaway, K. H., Louis, W. R., Hornsey, M. J., & Jones, J. M. (2014). Perceived control qualifies the effects of threat on prejudice. *British Journal of Social Psychology*, 53(3), 422–442.
- Hafez, F. (2014). Shifting borders: Islamophobia as common ground for building pan-European right-wing unity. *Patterns of Prejudice*, 48(5), 479–499. <https://doi.org/10.1080/0031322X.2014.965877>
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, 10(3), 252–264. [https://doi.org/10.1207/s15327957pspr1003\\_4](https://doi.org/10.1207/s15327957pspr1003_4)
- Haslam, N., & Loughnan, S. (2014). Dehumanization and inhumanization. *Annual Review of Psychology*, 65, 399–423. <https://doi.org/10.1146/annurev-psych-010213-115045>
- Hayes, A. F. (2013). *Methodology in the social sciences. Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, Guilford Press.
- Hayes, A. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression based approach (2nd ed.)*. New York, NY: The Guilford Press.
- Home Office. (2016). Immigration statistics, January to March 2016. <https://www.gov.uk/government/statistics/immigration-statistics-january-to-march-2016>
- Home Office. (2017). Hate crime, England and Wales, 2016 to 2017. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/652136/hate-crime-1617-hosb1717.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/652136/hate-crime-1617-hosb1717.pdf)
- Imhoff, R., & Recker, J. (2012). Differentiating Islamophobia: Introducing a New Scale to Measure Islamoprejudice and Secular Islam Critique. *Political Psychology*, 33(6), 811–824. <http://dx.doi.org/10.1111/j.1467-9221.2012.00911.x>
- Iqbal, Z. (2010). Islamophobia or Islamophobias: Towards developing a process model. *Islamic Studies*, 49(1), 81–108. <https://doi.org/10.2307/41429246>
- Kay, A., Whitson, J., Gaucher, D., & Galinsky, A. (2009). Compensatory control achieving order through the mind, our institutions, and the heavens. *Current Directions in Psychological Science*, 18(5), 264–268.
- Krieg, G. (2017, November 30). Trump's history of anti-Muslim rhetoric hits dangerous new low. CNN. Retrieved from <https://edition.cnn.com/2017/11/29/politics/donald-trump-muslim-attacks/index.html>
- Kteily, N., & Bruneau, E. (2017). Backlash: The politics and real-world consequences of minority group dehumanization. *Personality and Social Psychology Bulletin*, 43(1), 87–104.
- Kteily, N., Bruneau, E., Waytz, A., & Cotterill, S. (2015). The ascent of man: Theoretical and empirical evidence for blatant dehumanization. *Journal of Personality and Social Psychology*, 109(5), 901–931.
- Kteily, N., Hodson, G., & Bruneau, E. (2016). They see us as less than human: Meta-dehumanization predicts intergroup conflict via reciprocal dehumanization. *Journal of Personality and Social Psychology*, 110(3), 343–370.
- Lee, S. A., Reid, C. A., Short, S. D., Gibbons, J. A., Yeh, R., & Campbell, M. L. (2013). Fear of Muslims: Psychometric evaluation of the Islamophobia scale. *Psychology of Religion and Spirituality*, 5(3), 157–171. <https://doi.org/10.1037/a0032117>
- Lipka, M. (2017, August 9). Muslims and Islam – Key findings in the U.S and around the world. Pew Research Center. Retrieved from <http://www.pewresearch.org/fact-tank/2017/08/09/muslims-and-islam-key-findings-in-the-u-s-and-around-the-world/>
- Luders, A., Jonas, E., Fritsche, I., & Agroskin, D. (2016). Between the lines of us and them: Identity threat, anxious uncertainty, and reactive in-group affirmation: How can antisocial outcomes be prevented? In *Understanding peace and conflict through social identity theory*. (33–53). Cham, Switzerland: Springer. [https://doi.org/10.1007/978-3-319-29869-6\\_3](https://doi.org/10.1007/978-3-319-29869-6_3)
- Moller, A. C., & Deci, E. L. (2010). Interpersonal control, dehumanization, and violence: A self-determination theory perspective. *Group Processes & Intergroup Relations*, 13(1), 41–53. <https://doi.org/10.1177/1368430209350318>
- Obaidi, M., Kunst, J. R., Kteily, N., Thomsen, L., & Sidanius, J. (2018). Living under threat: Mutual threat perception drives anti-Muslim and anti-western hostility in the age of terrorism. *European Journal of Social Psychology*, 48, 567–584. <https://doi.org/10.1002/ejsp.2362>
- Pavetich, M., & Stathi, S. (2020). Meta-humanization reduces prejudice, even under high intergroup threat. *Journal of Personality and Social Psychology*. 120(3), 651–671. <https://doi.org/10.1037/pspi0000259>. Manuscript accepted, advance online publication.
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, 38(6), 922–934. <https://doi.org/10.1002/ejsp.504>

- Pew Global Attitudes Project. (2015, July). Extremism concerns growing in West and predominantly Muslim countries. Retrieved from <http://www.pewglobal.org/2015/07/16/extremism-concerns-growing-in-west-and-predominantly-muslim-countries/>
- Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and outgroup attitudes: A meta-analytic review. *Personality and Social Psychology Review*, 10(4), 336–353.
- Rothschild, Z. K., Landau, M. J., Sullivan, D., & Keefer, L. A. (2012). A dual-motive model of scapegoating: Displacing blame to reduce guilt or increase control. *Journal of Personality and Social Psychology*, 102(6), 1148–1163. <http://dx.doi.org/10.1037/a0027413>
- Sagar, H., & Schofield, J. (1980). Racial and behavioral cues in Black and White children's perceptions of ambiguously aggressive acts. *Journal of Personality & Social Psychology*, 39, 590–598. <https://static1.squarespace.com/static/54722818e4b0b3ef26cdc085/t/5478b9f5e4b07cb49aaaf5da/1417198069241/racialandbehavior.pdf>
- Schleifer, T. (2016, March 10). Donald Trump: 'I think Islam hates us'. CNN. Retrieved from <http://edition.cnn.com/2016/03/09/politics/donald-trump-islam-hates-us/index.html>
- Spruyt, B., & van der Noll, J. (2017). The 'Islamized stranger': On 'chronic' versus 'contextual' salience in the measurement of anti-Muslim prejudice. *Political Psychology*, 38(6), 977–989. <https://doi.org/10.1111/pops.12383>
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Claremont symposium on applied social psychology* (pp. 23–46). Hillsdale, NJ: Erlbaum.
- Stephan, W. G., & Renfro, L. (2002). The role of threat in intergroup relations. D. M. Mackie & E. R. Smith *From prejudice to intergroup emotions: Differential reactions to social groups*, (191–204). New York, NY: Psychology Press.
- Stephan, W. G., Lausanne Renfro, C., Esses, V. M., White Stephan, C., & Martin, T. (2005). The effects of feeling threatened on attitudes toward immigrants. *International Journal of Intercultural Relations*, 29(1), 1–19. <http://dx.doi.org/10.1016/j.ijintrel.2005.04.011>
- Testé, B. (2017). Control beliefs and dehumanization: Targets with an internal locus of control are perceived as being more human than external targets. *Swiss Journal of Psychology*, 76(2), 81–86. <https://doi.org/10.1024/1421-0185/a000194>
- Thrush, G. (2017). Trump's new travel ban blocks migrants from six nations, sparing Iraq. <https://www.nytimes.com/2017/03/06/us/politics/travel-ban-muslim-trump.html>
- United States Department of Justice. (2016). Hate crime statistics. Retrieved from <https://ucr.fbi.gov/hate-crime/2015/tables-and-data-declarations/1tabledatadecpdf>
- Vaes, J., & Paladino, M. P. (2010). The uniquely human content of stereotypes. *Group Processes & Intergroup Relations*, 13(1), 23–39. <https://doi.org/10.1177/1368430209347331>
- Velasco González, K., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in The Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, 47(4), 667–685. <http://dx.doi.org/10.1348/014466608x284443>
- Viki, G. T., Osgood, D., & Phillips, S. (2013). Dehumanization and self-reported proclivity to torture prisoners of war. *Journal of Experimental Social Psychology*, 49(3), 325–328. <https://doi.org/10.1016/j.jesp.2012.11.006>
- Yzerbyt, V. Y., Judd, C. M., & Muller, D. (2009). How do they see us? The vicissitudes of metaperception in intergroup relations. In S. Demoulin, J. Leyens, & J. F. Dovidio (Eds.), *Intergroup misunderstandings: Impact of divergent social realities* (pp. 63–83). New York: Psychology Press, chap. xvii, pages 347.

## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

How to cite this article: Pavetich M, Stathi S. Investigating antecedents of Islamophobia: The role of perceived control over terrorism, threat, meta-dehumanization, and dehumanization. *J Community Appl Soc Psychol*. 2021;1–14. <https://doi.org/10.1002/casp.2512>