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Social Context Moderates the Effects of Quest for Significance on Violent Extremism

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Quest for significance theory (Kruglanski et al., 2013; Kruglanski, Jasko, Chernikova, Dugas, & Webber 2017) states that extreme behavior for an ideological cause is more likely under psychological conditions that induce a search for significance and social recognition. Two forms of motivation for significance have been identified; the quest for individual significance rooted in personal experiences and the quest for collective significance rooted in the perception that one's social group is humiliated and/or disrespected. Whereas past research has demonstrated associations between both forms of quest for significance and political extremism, there is little understanding of the conditions that moderate those effects. In the present study, we tested the moderating role of belonging to radical versus nonradical social context. Four studies were conducted in three different cultural settings: Sri Lanka (Study 1, $n = 335$), Morocco (Study 2, $n = 260$), and Indonesia (Study 3, $n = 379$ and Study 4, $n = 334$). Each study compared the responses from participants residing in social contexts that were more or less radical. Radical social contexts were identified based either on participants' belonging to known extremist organizations (Studies 1, 3, and 4) or residence within a locale that is a known hotbed for recruitment into terrorist organizations (Study 2). Across studies, we found evidence that radical social contexts strengthen the link between quest for significance—particularly collective significance—and support for political violence.

Keywords: quest for significance, social context, violent extremism, political violence

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Within the social sciences, evidence has mounted showing that individuals who perceive themselves as having experienced an

unfair or undeserved deprivation express greater endorsement of and participation in violence for a political cause. In many cases, disadvantage that gives rise to support for violence is shared within a large collectivity (Gurr, 2015; Walker & Pettigrew, 1984). A meta-analysis of studies on relative deprivation confirmed that when people believe that they do not get what they deserve, they become resentful and are more likely to engage in collective action to restore the fair distribution (Smith, Pettigrew, Pippin, & Bialosiewicz, 2012). This mechanism has also been examined specifically in regard to support for political violence. For instance, Piazza (2006, 2011) showed that economic discrimination of minorities was a significant predictor of terrorism at the state level. Likewise, Muslim immigrants who perceived themselves as victims of discrimination (Victoroff, Adelman, & Matthews, 2012) or who felt marginalized within society (Lyons-Padilla, Gelfand, Mirahmadi, Farooq, & van Egmond, 2015) expressed increased support for radical actions and political views. Research on collective narcissism, a construct that captures the belief that one's group has been disrespected and denied recognition it deserves, is also telling in this regard (Golec de Zavala, Cichocka, & Iskra-

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Golec, 2013; Golec de Zavala, Peker, Guerra, & Baran, 2016). For instance, Mexican participants high in collective narcissism were more likely to perceive American border security operations as insulting to Mexicans, thus leading to increased desire to engage in destructive actions against the United States (Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009). Furthermore, the mere perception that one's social groups have been evaluated negatively or dehumanized is linked to endorsement of violent political action (e.g., Kamans, Gordijn, Oldenhuis, & Otten, 2009; Kteily & Bruneau, 2017; Kteily, Hodson, & Bruneau, 2016). Taken together, this body of literature shows that when collective grievances, material or symbolic, are salient people are more likely to support extreme and violent political tactics.

Although it is less widely represented in the literature, support for political extremism can stem from disadvantage experienced at a personal level, and irrelevant to one's group membership. Pedahzur (2005) discusses how individual suicide bombers may have joined the cause in reaction to their experience of stigma within their communities. An analysis of profiles of radicalized individuals in the United States showed that those who had experienced personal failures or relationship problems were more likely to perpetrate violent (vs. nonviolent) politically motivated crimes (Jasko, LaFree, & Kruglanski, 2016). Surveys conducted with former members of a terrorist organization also revealed that higher experiences of personal humiliation and shame were related to greater support for violence to achieve the political goals of the terrorist organization (Webber, Babush, et al., 2018).

Quest for Significance and Violent Extremism

Significance quest theory (Kruglanski et al., 2013) builds upon these findings by identifying a common mechanism that underlies these seemingly disparate events, and explains *why* these negative circumstances might push one toward political extremism. According to significance quest theory, instances of relative deprivation, humiliation, rejection, and unfair treatment—regardless of whether they stem from individual or collective sources—influence the extent to which one feels respected, recognized, and valued. That is, they influence one's need to feel significant. This need bears resemblance to other social psychological accounts of human motivation that were variously labeled as the need for esteem, achievement, status, and meaning (Anderson, Hildreth, & Howland, 2015; Deci & Ryan, 2000; Frankl, 1969; Maslow, 1943). However, the quest for significance is conceptualized as a need of a more inclusive and overarching nature. In other words, each of these situations is a specific case through which one can lose significance. According to the theory, while loss of significance may stem from experiences of failure, loss of social standing, or rejection, any effects of those experiences should be mediated by heightened motivation to restore significance. Moreover, while the motivation to restore significance (i.e., quest for significance) may be induced by a loss of significance, it can also be activated by high ambitions. For instance, a person with high aspirations for status and achievement would be more likely to experience a quest for significance than someone with lower expectations, even holding their current level of significance constant.

Thus, in contrast to theoretical approaches that are predominantly focused on a state of deprivation, according to quest for significance theory any discrepancy between the desired and ex-

perienced level of personal significance creates a motivational state where the need for significance becomes highly salient, and alternative concerns are suppressed (Kruglanski, Jasko, Chernikova, Dugas, & Webber, 2017). Behavior is therefore directed toward means that will enable an individual to restore significance. Behavior is typically constrained by multiple needs, such as safety, personal achievement, and belongingness. An individual will thus, for example, not typically engage in violent political action because doing so might fulfill one of these needs, but puts others at risk (i.e., violence may bring physical harm or lead to an arrest that would impact belonging and keep them away from loved ones). However, when the significance need dominates other concerns, these constraints are released, and people are willing to do whatever it takes to fulfill their need for significance.

There are undoubtedly many means by which one could satisfy the quest for significance. However, fighting for a political cause may offer a uniquely appealing path to significance. This is because extreme actions for an important collective cause affirm one's commitment to cherished social values whose endorsement and/or protection confers a sense of personal significance (Steele & Liu, 1983) and lends an individual a sense of meaning and purpose (Olivola & Shafir, 2013). In some cases, such actions offer a direct way of addressing circumstances (e.g., oppression or discrimination) that caused one's loss of significance. Moreover, extreme political groups, and the confidence-affording and clear-cut ideologies that they espouse (e.g., Hogg, Kruglanski, & van den Bos, 2013), are particularly appealing to individuals questing for significance (Webber, Babush, et al., 2018). Indeed, this research found that the quest for significance was related to an increased need for cognitive closure (Webster & Kruglanski, 1994), which subsequently increased the appeal of extreme views, and decreased the appeal of moderate views.

Still, political or collective violence is not the only path to significance, and the activation of the significance quest will not always lead one to violence. Indeed, research has shown that the same variables that sometimes cause aggressive outcomes can other times lead to benevolent outcomes (e.g., Simon, Trötschel, & Dähne, 2008; Vollhardt, 2009). The quest for significance theory proposes that, although the intensity of the significance motivation should drive the effort invested in striving for significance, the direction in which this effort is applied (i.e., aggressive vs. peaceful means) is dependent upon the social context in which one is embedded, and the ideological narratives that are advanced within this context (Kruglanski et al., 2017). In other words, an individual is more likely to choose a violent route toward significance restoration if he or she resides within a social context that both justifies violence as an appropriate means toward goal attainment, and bestows significance (respect, adulation) on people who act violently on behalf of a cherished cause. We elaborate on this logic next.

Moderating Role of Social Context

When it comes to political extremism social context matters. Simply having a friend already committed to a violent course of action increases personal involvement, whether in the form of adolescents' involvement in illegal political behavior (Dahl & van Zalk, 2014), tribal violence (Glowacki et al., 2016), becoming an ISIS foreign fighter (Holman, 2016), joining Al-Qaeda (Sageman,

2004), or the use of violence among politically radicalized individuals (Jasko et al., 2016). Likewise, Tamils surveyed in Sri Lanka who had personal contacts with their coethnics in the diaspora (a community that has been vocal and supportive of continuing conflict) were significantly more supportive of violent extremism than their counterparts without these connections (Webber, Chernikova, et al., 2018). Finally, a recent study demonstrated that individuals who perceive political issues in moral terms were more supportive of violence at protests when they were convinced that other people agreed with their position than when they saw no such convergence (Mooijman, Hoover, Lin, Ji, & Dehghani, 2018).

While these studies demonstrate the main effect of radical networks on violent behavior and attitudes, we suggest that social context may play a more nuanced role in the radicalization process. Specifically, we propose that belonging to a radical group, as compared to a less radical group, may reinforce one's belief that violence is an appropriate means to address the quest for significance. In other words, a relationship between quest for significance and support for violent political means should be stronger among people embedded in radical (vs. moderate) groups. This approach is in line with recent work showing that social context moderates the relationship between various individual level variables and political beliefs (Federico & Malka, 2018). For instance, security needs were related to right-wing politics in Western Europe, but to left-wing beliefs in Eastern Europe (Thorisdottir, Jost, Liviatan, & Shrout, 2007). Likewise, whereas religiosity is often linked to conservative beliefs among White Protestants, this relationship was found to be reversed among Black Protestants (Layman & Green, 2006; Malka, Lelkes, Srivastava, Cohen, & Miller, 2012). The logic of these findings is that different social contexts create unique links between individual needs, which are presumed to be universal, and political beliefs, depending on how useful those beliefs are for satisfying the underlying needs. In the present analysis, we apply this logic to social contexts that either advance (a) extreme, violent beliefs or (b) moderate, mainstream beliefs. We propose that the ideologies advanced within these contexts differentially channel the quest for collective significance to politically extreme views. Specifically, we suggest that within radical social contexts, collective grievances—real or exaggerated—are a common denominator around which communications likely center. Moreover, in more radical contexts, violent actions may be considered a direct way of coping with collective insignificance. By strengthening the association between feelings of collective insignificance and extreme actions aimed to restore significance, radical networks may increase the accessibility and appeal of violence to their members.

At the same time, feelings of insignificance derived from personal experiences may be either less salient, or likely to be reinterpreted as specific instances of negative inflictions on the entire collective. This sentiment is readily apparent in the following statement from a participant in the feminist movement:

I suddenly understood that I was not alone, that what I had considered personal embarrassment was something that was part of this whole larger experience. Problems that you felt were happening to you alone probably were your fault. But if it's happening to other people, then it's a social problem and not just a personal problem. (Dore & Kennedy, 2014)

In the context of terrorist activities, Sageman (2008) has similarly argued that personal experiences of humiliation are more likely to drive one toward violent extremism when they are interpreted as specific experiences that resonate with the humiliation of the larger collective, a function undoubtedly facilitated by connections to a radical network. For the same reasons, with connections to radical social groups, political extremism, while being more strongly related to quest for collective significance, may be at the same time less strongly motivated by quest for individual significance. On the other hand, past research showed that when individual significance is questioned, aggression, even against innocent victims, may follow (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998; Webber et al., 2018). Moreover, as research on honor cultures demonstrated, this effect can be moderated by the social context (Cohen & Nisbett, 1994, 1997). Thus, an alternative possibility is that exposure to violent networks strengthens not only the link between quest for collective significance and violent extremism, but it also increases the effect of quest for individual significance on support for political violence.

The hypotheses derived from the discussion thus far can be stated as follows: we predict that when one is connected to a radical social context, the link between quest for collective significance and violent extremism should be stronger than without such connections. The hypothesis regarding the effect of quest for individual significance on support for political violence is more exploratory as past research suggests that more radical social context could either suppress this relationship or facilitate it as well.

Ideological Extremism and Violent Extremism

To explore the exact form in which belonging to a radical social context may exert the hypothesized moderating effects, we propose a more nuanced look at political extremism by distinguishing between ideological extremism and violent extremism. We define extremism as any behavior or belief directed at serving a given dominant need while sacrificing other basic needs (e.g., denying oneself personal achievements or relationships in the interest of a political cause, risking physical harm or arrest to engage in violence on behalf of a political cause). Because most people strive to satisfy all their basic needs, such sacrifice is typically rare. Thus, extreme behaviors and beliefs typically deviate from how most people within a given context think or behave. Nonetheless, under some circumstances entire groups or populations may be mobilized to realize a dominant need (e.g., in the notorious case of the Jonestown massacre), in which extremism may be common to the group in question (Kruglanski et al., 2017). Whereas ideological extremism involves commitment to an extreme political goal, violent extremism involves commitment to an extreme behavior—violence—as a means to achieve those political goals. This distinction is important. Beliefs justifying violence tend to be universally extreme, for instance, the justification of suicide bombing as a means toward goal achievement was universally rejected by the majority of those surveyed in 23 Muslim-majority countries (Pew Research Center, 2013). The extremity of political goals, on the other hand, varies considerably across contexts. In that same Pew poll, support for instituting Sharia law ranged from 99% of the population in support (Afghanistan) to only 10% of the population in support (Kazakhstan).

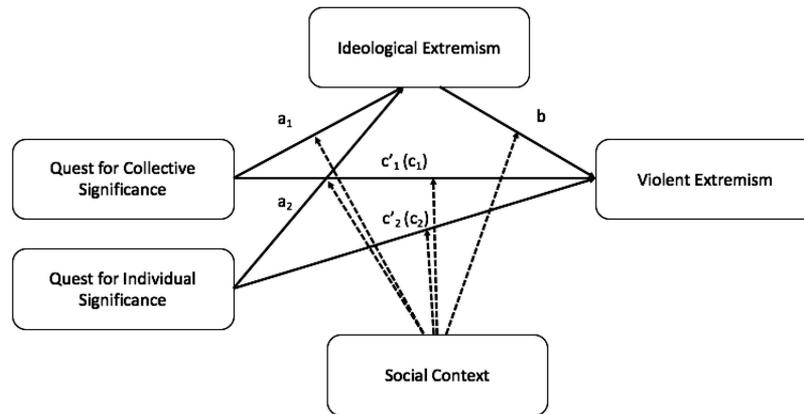


Figure 1. Theoretical model. All paths were allowed to be moderated by the context.

The theoretical model representing the relations between quest for significance, ideological extremism, and violent extremism is depicted in Figure 1. Using this distinction, social context could affect the relationship between quest for significance and violent extremism by influencing one's endorsement of ideological goals, inducing direct support for violent extremism, or both. We examine these possibilities in turn.

First, it is possible that belonging to a radical social context increases the influence of collective quest for significance on ideological extremism. Indeed, the promise of restored significance coming from achieving ideological goals may be what individuals searching for significance find most attractive. Radical social contexts, through processes of group polarization (Isenberg, 1986) and sacralization of collective values (Atran & Ginges, 2012), may increase commitment to an explicit political cause in response to an experienced loss of significance. For example, ISIS foreign fighters may conclude that establishing a caliphate will restore the significance of Muslims worldwide. Once they internalize and commit to that collective goal they are willing to support extreme violence assumed to serve it. If this is the case, radical social context should moderate the pathway between significance quest and ideological extremism (i.e., pathways a_1 and a_2 in Figure 1). Willingness to support and engage in violent extremism would then result from one's intense commitment to the (need serving) ideology.

A second possibility is that radical groups only differ from less radical groups in their willingness to support violence to achieve ideological goals (violent extremism), and not their commitment to those goals (ideological extremism). Consider two movements in the United States. The peaceful followers of Dr. King, and the radical Weather Underground that bombed a series of buildings—were both committed to ending the Vietnam War and addressing racial inequality. It seems implausible to interpret the Weather Underground's use of violence as an indicator that they were more committed to the rights of African Americans than was Dr. King. Indeed, support for extreme political action has been found to be a product of both social interaction and the perception that such action is a legitimate means to pursue the valued cause (Thomas, McGarty, & Louis, 2014), thereby attaining significance. These findings suggest that social context should moderate the pathway

between ideological extremism and violent extremism (i.e., pathway b in Figure 1).

Third, and finally, it is possible that the explicit ideological cause serves only as a justification, and what truly matters is the underlying goal of collective significance. As Gurr (2015) argued in his seminal work on political violence,

Most participants in political violence do not carry complex ideologies around in their heads (. . .). The slogans which suffice to justify violence for most participants in strife may be derived from complex ideologies, but their operative force lies not in the ideology itself but in the relevance of the slogans to the actors' perceptions of their situation and the cues the slogans provide for violent actions (pp. 195–196).

From this perspective, the political goal is simply a convenient way to frame the restoration of significance, and not a mechanism toward endorsing violence. If this were true, social context should moderate the pathway between significance quest and violent extremism (i.e., pathways c_1 and c_2 in Figure 1). Moreover, the interaction between significance quest and social context should remain significant even after controlling for ideological extremism.

Overview of the Studies

To test the relations between (a) quest for individual significance, (b) quest for collective significance, (c) ideological extremism, (d) violent extremism, and (e) social context, we analyzed data from three unique cultures/regions of the world: Sri Lanka (Study 1), Morocco (Study 2), and Indonesia (Studies 3–4).¹ In each location, we recruited participants embedded within social contexts that were more or less radical. In each region, these contexts were operationalized differently. However, what these contexts have in common is that individuals within the radical contexts are embedded within shared social realities (cf. Hardin & Higgins, 1996) where extreme

¹ The data collected in Sri Lanka and Morocco, have been presented in previous publications that test separate hypotheses (see Webber et al., 2018 and Atran, Sheikh, & Gomez, 2014, respectively) and were not collected to test these specific hypotheses.

political attitudes are (or were) held and accepted. In Sri Lanka, we compared former terrorists to individuals that never belonged to an extreme organization. In Morocco, we made this distinction geographically, and compared residents within a region that is a known hotbed for terrorist recruitment to residents of a less radicalized region. In Indonesia, we recruited Muslims who belonged to religious organizations that differed in the extremity of their beliefs.

The theoretical variables examined in each of the studies were the same, but constraints within each of the study environments caused their measurement to vary slightly across contexts. For example, the extremism variables differed based on context (i.e., nationalist-driven extremism vs. religious-driven extremism). The number of items used to measure the quest for individual significance also varied across studies. Partially, this resulted from attempts to improve or expand the scale used for this purpose in subsequent studies. Although this measure used varying items, the construct being measured—the emotional experience of insignificance, assumed to prompt the quest for significance restoration—was consistent. The specific quest for collective significance was measured using items from the collective narcissism scale (Golec de Zavala et al., 2009). These items capture the extent to which one believes that an important social group is not being treated in a manner that it merits. Thus, although our measures differed to some degree, we assume that they captured the same motivational state—that is, feelings of disappointment that one (or one's group) is not being respected in the manner deserved, which should induce a motivation (the quest for significance) whose fulfillment should remedy these feelings.

Both forms of significance quest, individually and socially based, were entered as predictors of violent extremism, which was treated as our outcome variable. Ideological extremism was entered as a mediator, to examine the extent to which the relationship between quest for significance and support for violence is mediated by increased goal commitment. Because it was theoretically possible for social context to moderate all pathways in the model, and because we did not have a specific prediction as to which pathway would be most likely moderated, we allowed all paths to be moderated in our analyses. Across all four studies, we included as covariates demographic variables, such as age, gender, education status, and socioeconomic status. The primary effects of interest did not change when these variables were included (vs. not) in the analyses. Because in some cases inclusion of those covariates reduced the sample size, next, we report analyses without those variables.

Study 1

Study 1 used the ethnonationalist conflict in Sri Lanka, and targeted former members of the Liberation Tigers of Tamil Eelam (LTTE). The LTTE was founded after political efforts failed to address inequalities between the Sinhalese and Tamil ethnic groups. From 1983 until 2009, the LTTE waged a violent campaign that saw the death of nearly 70,000 Sri Lankans (Federal Bureau of Investigation, 2008), and employed violent means, such as high-profile assassinations, suicide bombings, and the use of civilians as human shields (International Crisis Group, 2010). The political goal of the LTTE campaign was to usurp control of the

country from the Sinhalese majority and create an independent Tamil state.

We operationalized ideological extremism in reference to the overriding commitment to the goal of establishing a separate Tamil state. We operationalized violent extremism as support for armed struggle to achieve this goal. Former members of the LTTE thus comprised our radical group. After the LTTE's defeat in May 2009, these individuals were detained in government-run rehabilitation facilities, but had been released and reintegrated within communities across the country during our data collection. For our nonradical group, we recruited Tamils from within the same communities, but who never belonged to the LTTE.

We hypothesized that the quest for collective significance would be more strongly related to violent extremism for former members of the LTTE relative to their community counterparts. We specifically examined three possible forms of moderation: context could moderate (a) the path from quest for significance to ideological extremism, (b) the path from ideological extremism to violent extremism, or (c) the path from the quest for significance to violent extremism.

Method

Participants. A survey was conducted with former members of the LTTE and Tamil community members that never belonged to this organization. Data from 34 participants were excluded due to missing data on the variables of interest. Data from the remaining 335 participants were included in the final analyses (LTTE: $n = 178$; community members: $n = 157$; 153 males, 178 females, four unreported, $M_{\text{age}} = 30.28$, $SD = 9.00$).

Procedure. Participants were recruited via a form of snowball sampling. Socioeconomic welfare teams contacted key members (both former LTTE and non-LTTE Tamils) within communities across Sri Lanka. These individuals were informed of a survey being done at the local community center, and were asked to both participate in the survey and spread the message about the survey throughout the community. Potential participants were not informed about the nature of the survey until their arrival at the center. Everyone who arrived at the centers agreed to participate. All participants provided informed consent. Materials were translated (and back-translated) into Tamil and completed as paper and pencil surveys.

Measures. In this study and in all subsequent studies measures were administered in a fixed order. In all four studies, the variables analyzed were part of a larger survey that included a series of psychological scales. Full surveys, datasets, and analysis scripts are available at <https://osf.io/e4bux/>.

Quest for collective significance (Col-Quest). We used five items ($\alpha = .72$) from the short version of the collective narcissism scale (Golec de Zavala et al., 2009). The items were "Tamils deserve special treatment," "I will never be satisfied until Tamils get the recognition they deserve," "It really makes me angry when others criticize Tamils," "If Tamils had a major say in the world, the world would be a much better place," "Not many people seem to fully understand the importance of Tamils." Participants answered all questions using a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

Quest for individual significance (Ind-Quest). We used three items ($\alpha = .71$) to measure quest for personal significance (i.e., "I

feel that my life is worthless,” “I feel ashamed of myself,” “I feel dissatisfied with myself”). We excluded one additional, reverse-coded item (“I feel others value me”) because it was not correlated with the other items.

Ideological extremism. We operationalized ideological extremism as commitment to a separate Tamil state and we measured it with two items—“The Tamils should strictly follow the LTTE goal of a separate state” and “Only after getting a separate state, can Tamil people progress in life” ($r_{SB} = .65$).

Violent extremism. We used three items ($\alpha = .72$) to measure support for violence to attain a separate state: “A separate Tamil State can only be achieved through violence and insurgency,” “Today, armed fighting is a personal duty of all Tamil people,” and “Suicide bombers will be rewarded for their actions in their next life.”

Results

Comparison between groups. Means, confidence intervals (CIs), and correlations between variables are presented in Table 1. Former members of LTTE expressed lower Col-Quest than community members, $F(1, 333) = 13.29, p < .001, \eta^2 = .04$, and in contrast to our predictions, they also expressed less commitment to ideological extremism, $F(1, 333) = 23.27, p < .001, \eta^2 = .07$, and were less supportive of violent extremism, $F(1, 333) = 14.50, p < .001, \eta^2 = .04$. There were no differences between groups on Ind-Quest ($p = .160$).

Moderated mediation. To test our hypotheses, we used the PROCESS macro to conduct a moderated mediation model (Hayes, 2018; Model 59) with Ind-Quest and Col-Quest as predictors, violent extremism as an outcome variable, and ideological extremism as mediator (see Figure 1). First, we ran the total effects model of Ind-Quest and Col-Quest on violent extremism (c paths), without including ideological extremism in the model. Next, we analyzed the effects of Ind-Quest and Col-Quest on ideological extremism (a paths). Finally, we analyzed the effect of ideological extremism (b path), as well as direct (c' paths) and indirect (ab paths) effects of Ind-Quest and Col-Quest on violent extremism when all variables were included in the model. In each step, we

allowed all paths to be moderated by social context. We describe the results (unstandardized coefficients) in this order. The standardized coefficients for all paths, which were computed by standardizing the continuous variables prior to the analyses, are presented in Figure 2.

Violent extremism (total effects model). The main effect of Col-Quest on violent extremism was not significant ($p = .914$), but the main effect of Ind-Quest was significant ($b = 0.20, SE = 0.04, p < .001$). Both interactions, between the context and Ind-Quest ($b = -0.19, SE = 0.09, p = .027$) and between the context and Col-Quest ($b = 0.34, SE = 0.12, p = .005$) were significant. Simple slopes analyses (Hayes, 2018) showed that Col-Quest was a positive but not significant predictor of violent extremism among former LTTE ($b = 0.13, SE = 0.07, p = .056$), but a negative predictor for community members ($b = -0.21, SE = 0.10, p = .038$). On the other hand, Ind-Quest predicted violent extremism more strongly among community members ($b = 0.29, SE = 0.07, p < .001$) than among former LTTE ($b = 0.10, SE = 0.06, p = .073$).

Ideological extremism. To address the possible mediating role of ideological extremism, we examined the relationship between both forms of quest (collective and individual) and ideological extremism. Col-Quest was a significant predictor of ideological extremism among both LTTE members ($b = 0.39, SE = 0.09, p < .001$) and community members ($b = 0.45, SE = 0.12, p < .001$). The Col-Quest \times Context interaction was not significant ($p = .691$), indicating that the relationship between Col-Quest and ideological extremism did not differ between LTTE and community groups. Analyses then revealed that Ind-Quest did not predict ideological extremism in either group (LTTE: $b = 0.12, SE = 0.07, p = .102$; community: $b = 0.07, SE = 0.09, p = .397$). Likewise, the Ind-Quest \times Context interaction was not significant ($p = .672$).

Effects of ideological extremism on violent extremism. After including all variables in the model, the effect of ideological extremism on violent extremism was significant for both the community ($b = 0.20, SE = 0.06, p < .001$) and the LTTE ($b = 0.29, SE = 0.05, p < .001$). The Ideological Extremism \times Context

Table 1
Descriptive Statistics and Correlations Among Community Members ($n = 157$) and Liberation Tigers of Tamil Eelam (LTTE) Members ($n = 178$) in Sri Lanka (Study 1)

Variable	Quest for individual significance	Ideological extremism	Violent extremism	M (SD)	95% CI
Quest for collective significance					
Community	-.07	.27**	-.17*	4.80 _a (0.97)	[4.65, 4.95]
LTTE	.22**	.34***	.18*	4.32 _b (1.38)	[4.12, 4.52]
Quest for individual significance					
Community		.05	.33***	2.56 _a (1.47)	[2.33, 2.79]
LTTE		.19*	.18*	2.80 _a (1.65)	[2.56, 3.05]
Ideological extremism					
Community			.20*	3.26 _a (1.61)	[3.01, 3.52]
LTTE			.45***	2.38 _b (1.72)	[2.13, 2.64]
Violent extremism					
Community				2.16 _a (1.34)	[1.95, 2.38]
LTTE				1.64 _b (1.17)	[1.47, 1.81]

Note. CI = confidence interval. Means with different subscripts differ significantly from each other at $p < .05$. * $p < .05$. ** $p < .01$. *** $p < .001$.

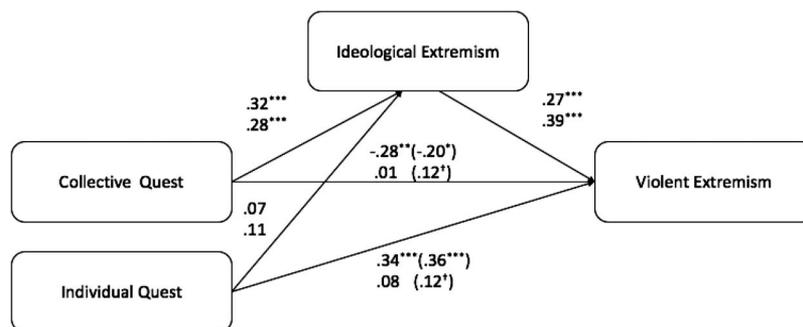


Figure 2. Results of the moderated mediation analysis (Study 1). Standardized coefficients for community members are presented first and standardized coefficients for former Liberation Tigers of Tamil Eelam members are presented second. Direct effects are presented first, followed by total effects in parentheses. Unstandardized coefficients are presented in text. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

interaction was nonsignificant ($p = .254$), demonstrating that the effect of ideological extremism on support for violence was comparable for both LTTE and community groups.

Direct effects of quest for significance on violent extremism.

For community members, the direct effect of Col-Quest on violent extremism remained significant and negative ($b = -0.30$, $SE = 0.10$, $p = .002$). For LTTE members, however, the direct effect was not significant ($b = 0.01$, $SE = 0.07$, $p = .824$). A significant Col-Quest \times Context interaction revealed that the effects within these two groups were significantly different from each other ($b = 0.31$, $SE = 0.12$, $p = .008$).

The same pattern of results was found for the direct effect of Ind-Quest on violent extremism. For community members, the direct effect remained significant ($b = 0.28$, $SE = 0.06$, $p < .001$), but it was not significant among LTTE members ($b = 0.07$, $SE = 0.05$, $p = .221$). A significant Ind-Quest \times Context interaction revealed these effects were significantly different from each other ($b = -0.21$, $SE = 0.08$, $p = .010$).

Indirect effect of quest for significance on violent extremism through ideological extremism. Finally, analyses examined the extent to which ideological extremism mediated the effects of quest for significance (collective and individual) on violent extremism. Different effects were found for each type of quest. Specifically, there was evidence for the indirect effect of Col-Quest on violent extremism through ideological extremism for both the LTTE (0.11, 95% CI [0.05, 0.19]) and community groups (0.09, 95% CI [0.03, 0.17]). The index of moderated mediation was not significant. This indicates that ideological extremism mediated the pathway between Col-Quest and violent extremism in an equivalent way for both former LTTE and the community. Neither of the indirect effects of Ind-Quest through ideological extremism was significant.

Discussion

Using data collected from former members of a terrorist organization and community members uninvolved in terrorist activity, we examined if having belonged to a radical social context moderated the relation between quest for significance and political extremism. We found a more positive relation between quest for collective significance and violent extremism

among former LTTE but not among community members for whom this effect was in fact negative. Mediation analyses further revealed that ideological extremism mediated the relationship between quest for collective (but not personal) significance and violent extremism. Moreover, context did not moderate this indirect effect. This demonstrates that regardless of whether participants belonged to a former terrorist organization or not, participants expressing quest for collective significance, also expressed greater ideological commitment, which was subsequently related to violent extremism.

However, as there were no differences in strength of the mediating effect between the groups and the direct effect was no longer significant among former LTTE members, these results do not offer a good explanation for the initial moderation of the total effect of the quest for collective significance. The overall low political extremism levels among former LTTE members, who were in fact less radical than community members, could have contributed to the weak effects, and made it difficult to detect subtle patterns. Former LTTE members had graduated from a comprehensive rehabilitation program that helped disabuse them of their radical tendencies (Webber et al., 2018). This could have reduced the variance of our outcome variable in this group. At the same time, the present findings suggest that the association between quest for collective significance and violent extremism might be a product of learning that remains active even though the overall level of violent extremism had decreased. On the other hand, quest for personal significance predicted violent extremism more strongly among community members than among former LTTE members. This is consistent with hypotheses that belonging to a radical network would weaken the relation between quest for personal, individually based, significance and political extremism.

Overall, Study 1 provided initial support for our main hypotheses, although some of the nuances of the effects were less clear. We examined the same theoretical model within a different context to ascertain which of these effects would generalize, and which may be specific to the Sri Lankan context. Study 2 used a different form of political extremism, a different method for identifying radical social context, and a different cultural context.

Study 2

Specifically, Study 2 examined political extremism within the context of Islamic extremism. Data were collected in Morocco, which has a rich history of violent jihadism tracing back to the Soviet–Afghan War. More recently, it is estimated that around 1,500 foreign fighters in Iraq and Syria have been supplied from Morocco (The Soufan Group, 2015). Within Morocco, we recruited participants from two distinct cities, which were identified in our previous research as differing in the level of radicalization. Our nonradical sample was selected from Casablanca, the largest and most diverse metropolitan area within Morocco. Our radical sample was selected from Tetouan. Tetouan is located within the Rif Mountain region of Northern Morocco. Perpetrators of the 2004 Madrid train bombings came specifically from Tetouan, and individuals involved in the 2015 Paris attacks and the 2016 Brussels attacks hailed from the Rif Mountain region (Jacinto, 2016). We therefore used geographical location (Casablanca vs. Tetouan) to indicate exposure to a relatively more or less radical social context.

We measured agreement with tenets of fundamental Islam (ideological extremism) and support for using violence to achieve these fundamental tenets (violent extremism). We hypothesized that quest for collective significance would be more strongly related to violent extremism for individuals residing in Tetouan relative to Casablanca and we further explored the moderating role of social context for the effects of quest for individual significance. Additionally, we investigated three possible forms in which this moderation could occur.

Method

Participants. A sample of 260 Muslim participants (130 males and 130 females) was recruited from two cities in Morocco: Casablanca ($n = 130$) and Tetouan ($n = 130$). Gender-mixed pairs of researchers from the region, and who spoke the local dialect, went door-to-door to recruit residents of these cities to participate in a survey. For reasons unrelated to the current study, participants were recruited from two age groups (18–25 and 35–50). However,

regardless of whether age was treated as a continuous or categorical variable, it did not affect our results.

Procedure. Data were collected by native Moroccan researchers. Researchers recruited participants willing to complete a survey from the two target cities. To ensure anonymity, all participants provided verbal informed consent. All survey materials were translated (and back-translated) into Arabic.

Measures.

Quest for collective significance (Col-Quest). We used the same five items ($\alpha = .87$) and 6-point scale used Study 1, but changed the reference group to Muslims.

Quest for individual significance (Ind-Quest). Participants indicated how often (1 = rarely or never, 5 = very often) they experienced the following emotions in their “daily life”: felt unimportant, humiliated, ashamed, like nobody cares about me, small, and worthless ($\alpha = .72$).

Ideological extremism. In conjunction with Muslim clerics in Singapore, we created a scale measuring ideological and violent extremism (Webber et al., 2018). Ideological extremism was operationalized as commitment to fundamental tenets of Islam. Sample items include “Political leaders in our country should be selected solely by Islamic clerics” and “Islam should be practiced in the strictest way, regardless of situations or circumstance.” In the current study we used a shortened version of this scale consisting of 10 items ($\alpha = .87$). Participants answered using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Violent extremism. We measured support for ideological violence in service of Islam with nine items ($\alpha = .93$). Sample items include “Jihad is the only remedy for jahiliyah (ignorance),” and “Armed Jihad is a personal obligation of all Muslims today.” Participants answered using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Results

Group comparison. Means, CIs, and correlations between variables are presented in Table 2. In comparison to participants surveyed in Casablanca, participants from Tetouan reported higher scores on all variables of interest: Col-Quest, $F(1, 258) = 37.86, p < .001, \eta^2 =$

Table 2
Descriptive Statistics and Correlations Among Residents of Casablanca ($n = 130$) and Tetouan ($n = 130$) in Morocco (Study 2)

Variable	Quest for individual significance	Ideological extremism	Violent extremism	$M (SD)$	95% CI
Quest for collective significance					
Casablanca	-.21*	.56***	.42***	4.19 _a (0.84)	[4.05, 4.33]
Tetouan	.02	.81***	.80***	5.01 _b (1.27)	[4.79, 5.23]
Quest for individual significance					
Casablanca		-.15	.08	2.22 _a (0.68)	[2.11, 2.34]
Tetouan		-.00	-.08	3.00 _b (0.93)	[2.84, 3.16]
Ideological extremism					
Casablanca			.55***	4.26 _a (0.91)	[4.10, 4.42]
Tetouan			.86***	5.76 _b (1.13)	[5.57, 5.96]
Violent extremism					
Casablanca				2.91 _a (0.77)	[2.77, 3.04]
Tetouan				5.04 _b (1.69)	[4.75, 5.33]

Note. CI = confidence interval. Means with different subscripts differ significantly from each other at $p < .05$.
* $p < .05$. *** $p < .001$.

.13, Ind-Quest, $F(1, 258) = 58.73, p < .001, \eta^2 = .19$, ideological extremism, $F(1, 258) = 139.53, p < .001, \eta^2 = .35$, and violent extremism, $F(1, 258) = 171.82, p < .001, \eta^2 = .40$.

Moderated mediation. As in Study 1, we tested the moderated mediation model with Ind-Quest and Col-Quest as predictors, violent extremism as the outcome variable, and ideological extremism as mediator (process, Model 59; Hayes, 2018). Below we describe the results (unstandardized coefficients). The standardized coefficients for all paths, which were computed by standardizing the continuous variables prior to the analyses, are presented in Figure 3.

Violent extremism (total effects model). The main effect of Ind-Quest on violent extremism was not significant ($p = .979$), but the main effect of Col-Quest was significant ($b = 0.86, SE = 0.06, p < .001$). The Col-Quest \times Context interaction was significant ($b = 0.64, SE = 0.11, p < .001$). A simple slopes analysis (Hayes, 2018) showed that Col-Quest was a positive predictor of violent extremism in both samples, but this effect was stronger in Tetouan ($b = 1.06, SE = 0.06, p < .001$) than in Casablanca ($b = 0.42, SE = 0.09, p < .001$).

On the other hand, Ind-Quest was a nonsignificant predictor of violent extremism in Casablanca ($b = 0.20, SE = 0.12, p = .085$), but it was a negative predictor in Tetouan ($b = -0.17, SE = 0.08, p = .042$). A significant Ind-Quest \times Context interaction revealed these effects were significantly different from each other ($b = -0.37, SE = 0.14, p = .010$).

Ideological extremism. Next, we examined the relationship between both forms of Quest for Significance (collective and personal) and ideological extremism. Col-Quest was a significant predictor of ideological extremism in both Tetouan ($b = 0.72, SE = 0.05, p < .001$) and Casablanca ($b = 0.59, SE = 0.08, p < .001$). The Col-Quest \times Context interaction was not significant ($p = .149$), indicating that the relationship between Col-Quest and ideological extremism did not differ between locations. Analyses revealed that Ind-Quest did not predict ideological extremism in either Tetouan ($b = -0.02, SE = 0.07, p = .741$) or Casablanca ($b = -0.05, SE = 0.09, p = .574$). The Ind-Quest \times Context interaction was not significant ($p = .792$).

Effects of ideological extremism on violent extremism. In the next step, we examined the relationship between ideological extremism and violent extremism. After including all variables in

the model, the effect of ideological extremism on violent extremism was significant in both Casablanca ($b = 0.39, SE = 0.08, p < .001$) and Tetouan ($b = 0.95, SE = 0.10, p < .001$). The Ideological Extremism \times Context interaction was significant ($b = 0.56, SE = 0.13, p < .001$), demonstrating that the effect obtained in Tetouan was stronger than the effect obtained in Casablanca.

Direct effects of quest for significance on violent extremism. In both samples, the direct effect of Col-Quest on violent extremism remained significant and positive (Casablanca: $b = 0.19, SE = 0.09, p = .040$; Tetouan: $b = 0.38, SE = 0.08, p < .001$). The Col-Quest \times Context interaction was not significant ($b = 0.19, SE = 0.13, p = .140$), indicating that those effects were not different from each other. On the other hand, an Ind-Quest \times Context interaction remained significant ($b = -0.37, SE = 0.12, p = .002$). In Casablanca, the direct effect was positive and significant ($b = 0.22, SE = 0.10, p = .022$), but it was negative and significant in Tetouan ($b = -0.15, SE = 0.07, p = .033$).

Indirect effects of quest for significance on violent extremism through ideological extremism. Finally, we analyzed the extent to which ideological extremism mediated the effects of quest (collective and individual) on violent extremism. Again, different effects were found for each type of quest. Specifically, the indirect effect of Col-Quest on violent extremism through ideological extremism was significant in both Casablanca (0.23, 95% CI [0.13, 0.38]) and Tetouan (0.69, 95% CI [0.51, 0.89]). This time, the index of moderated mediation was significant (0.45, 95% CI [0.23, 0.69]), indicating that ideological extremism was a stronger mediator in Tetouan than in Casablanca. Neither of the indirect effects of Ind-Quest on violent extremism through ideological extremism was significant.

Discussion

The results of Study 2 revealed that quest for collective significance was positively related to support for violent extremism. This relation was stronger in the more radical context (Tetouan) than in the less radical context (Casablanca). Moreover, a significant indirect effect revealed that this relationship was driven by the fact that individuals who expressed greater desire for collective significance, likewise reported higher ideological extremism, which was subsequently related to their increased violent extrem-

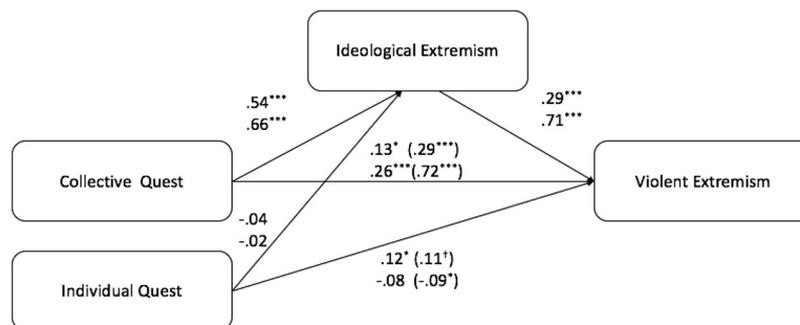


Figure 3. Results of the moderated mediation analysis (Study 2). Standardized coefficients for residents in Casablanca are presented first and standardized coefficients for residents in Tetouan, Morocco, are presented second. Direct effects are presented first, followed by total effects in parentheses. Unstandardized coefficients are presented in text. $^{\dagger} p < .10$. $^* p < .05$. $*** p < .001$.

ism. The findings, however, differed from Study 1, in that this indirect effect was more pronounced in Tetouan. This suggests that one reason quest for collective significance was related to violent extremism among individuals residing in radical context, is because they expressed a greater linkage between ideological and violent forms of extremism.

On the other hand, quest for personal significance was a significantly more positive predictor of violent extremism in Casablanca than in Tetouan. Similarly to the results of Study 2, this demonstrates that belonging to a radical context may decrease the relationship between quest for individual significance and violence though it should be noted that the effects in both groups were very small.

Study 2 provides converging evidence that association with a radical context is related to greater alignment between quest for collective significance and violent extremism, but in a context with a different ideological cause, and with social networks defined by geographical location. Benefits of designating radical context through geographical location aside (i.e., reduces the chance that effects are influenced by self-selection), residing within a specific region does not guarantee contact with radical elements in those regions. In Study 3, we therefore examined the same theoretical framework within the context of Islamic extremism, but designated belonging to radical group in a more direct manner, and extended the analyses to another cultural context.

Study 3

As Study 3 again examined Islamic extremism, measures of ideological and violent extremism were comparable to those used in Study 2. We recruited Muslims from religious organizations in Indonesia that espoused different perspectives on Islam, particularly pertaining to ideological extremism (i.e., establishing a caliphate), and violent extremism (i.e., violent jihad). We specifically targeted three groups: Moderates, Islamists, and Jihadists. Moderates were drawn from the membership of Muhammadiyah and Nahdlatul Ulama, which claim a combined membership of roughly 70 million. These organizations represent the moderate face of Islam within Indonesia (Sukma, 2015) and play prominent roles in immunizing Indonesian society against the appeal of Islamic extremism (Ramakrishna, 2014). Groups categorized as Islamist were those that were committed to ideological extremism, but disavowed the use of violent extremism. These groups included: Hizbut Tahrir, Indonesia Salafi Group, Persatuan Islam, and Partai Keadilan Sosial. Groups categorized as Jihadist were committed to both ideological extremism and violent extremism, and included Majelis Mujahedein Indonesia, Jemaah Islamiyah, Khilafatul Muslimin, Mujahidin Ambon, Tandzim Al-Qoidah Indonesia Serambi Makkah, and Wahdah Islamiyah. Two experts on Islamic extremism in Indonesia were consulted, and a literature review was conducted to ensure that these organizations were correctly classified. The three sources agreed unanimously on the categorization. We excluded one group from analyses (Islamic Defenders Front) because, although they support and utilize violence, they do so in a manner that is separate from attaining political goals prescribed in armed Jihad (e.g., establishing a caliphate).

We anticipated that quest for collective significance would be more strongly related to violent extremism for individuals belonging to Jihadist and Islamist organizations, than for those belonging

to Moderate groups. As in our previous studies, we continued to examine three possible forms in which such moderation could occur.

Method

Participants. Participants were 379 members of Moderate, Islamist, and Jihadist organizations in Indonesia (263 males and 113 females, four unreported, $M_{\text{age}} = 31.40$, $SD = 9.61$). Participants were recruited from 11 provinces across Indonesia. In each province, we aimed to recruit 20 Moderates and Islamists, and 10–15 Jihadists. Participants were not provided monetary compensation for their participation, although, Jihadists were given taxi fare to transport them to a neutral location to complete the study.

A team of native Indonesian researchers collected data through snowball sampling. The researchers established relationships with various groups and individuals in contact with extremist organizations (e.g., local human rights organizations, the National Anti-Terrorism Agency, journalists) who facilitated initial contact with principal figures of the Islamist and Jihadist groups. These principal figures then referred individuals within their membership willing to complete a survey. Each subsequent participant referred us to another member until we attained our sample goal in each province. Participants completed the survey in a location where they felt most comfortable, (e.g., cafes, universities, offices, homes). To ensure anonymity, participants provided verbal informed consent. All survey materials were translated (and back-translated) into Bahasa.

Measures.

Quest for collective significance (Col-Quest). We once again use the same five items ($\alpha = .78$) and 6-point scale as in the previous two studies, but changed the references group to “my group.”

Quest for individual significance (Ind-Quest). Participants indicated how often they experienced the same six significance-related emotions ($\alpha = .84$) used in Study 2.

Ideological extremism. Ideological extremism was measured with 17 items (e.g., “Political leaders in our country should be selected solely by Islamic clerics.”), but we excluded one reverse-coded item that did not correlate with the overall scale ($\alpha = .90$). Participants answered questions using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Violent extremism. Violent extremism was measured with 11 items, but we excluded one reverse-coded item that did not correlate with the overall scale ($\alpha = .91$). Sample items include “Armed Jihad is a personal obligation of all Muslims today.” Participants answered questions using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Results

Group comparison. There were significant differences between the groups with regard to Col-Quest, $F(2, 376) = 14.13$, $p < .001$, $\eta^2 = .07$, Ind-Quest, $F(2, 376) = 3.48$, $p = .032$, $\eta^2 = .02$, ideological extremism, $F(2, 376) = 44.34$, $p < .001$, $\eta^2 = .19$, and violent extremism, $F(2, 376) = 68.95$, $p < .001$, $\eta^2 = .27$. Jihadists expressed higher quest for collective significance but

Table 3
Descriptive Statistics and Correlations Among Members of Moderate (n = 165), Islamist (n = 115), and Jihadist (n = 99) Groups in Indonesia (Study 3)

Variable	Quest for individual significance	Ideological extremism	Violent extremism	M (SD)	95% CI
Quest for collective significance					
Moderates	.12	.34***	.37***	3.56 _a (1.09)	[3.40, 3.73]
Islamists	.06	.56***	.50***	3.79 _a (1.02)	[3.60, 3.98]
Jihadists	-.20*	.45***	.70***	4.26 _b (0.95)	[4.07, 4.45]
Quest for individual significance					
Moderates		.13 [†]	.18*	2.66 _a (0.76)	[2.54, 2.77]
Islamists		.02	.03	2.59 _{a,b} (0.74)	[2.45, 2.73]
Jihadists		-.06	-.28**	2.40 _b (0.84)	[2.23, 2.57]
Ideological extremism					
Moderates			.76***	3.85 _a (1.22)	[3.66, 4.04]
Islamists			.75***	4.58 _b (1.19)	[4.36, 4.80]
Jihadists			.74***	5.18 _c (0.85)	[5.01, 5.34]
Violent extremism					
Moderates				3.25 _a (1.25)	[3.05, 3.44]
Islamists				3.87 _b (1.41)	[3.60, 4.13]
Jihadists				5.15 _c (1.16)	[4.92, 5.39]

Note. CI = confidence interval. Means with different subscripts differ significantly from each other at $p < .05$. [†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

lower quest for individual significance than Moderates. They were also more ideologically extreme and supported violence to larger extent than Moderates. On each variable, means for Islamists were between those two groups. Exact means, CIs, and correlations between variables in each group are presented in Table 3. This obtained pattern of group differences offers an additional confirmation of the validity of our group distinctions.

Moderated mediation. We followed the same analytical strategy as in previous studies (Hayes, 2018; PROCESS Model 59). We used the group of Moderates as the reference category, and created two dummy-coded variables to represent the Islamist (vs. Moderates) and Jihadist (vs. Moderates) comparisons. The standardized coefficients for all paths, which were computed by standardizing the continuous variables prior to the analyses are presented in Figure 4.

Violent extremism (total effects model). We first examined the relationships between both forms of quest (collective and

individual) and violent extremism. The main effect of Col-Quest was significant ($b = 0.60$, $SE = 0.06$, $p < .001$), but the main effect of Ind-Quest was not significant ($p = .963$). Interactions between the Jihadist (vs. Moderate) group and Col-Quest ($b = 0.42$, $SE = 0.14$, $p = .004$) and between the Islamist (vs. Moderate) group and Col-Quest ($b = 0.29$, $SE = 0.13$, $p = .024$) were significant. A simple slopes analysis (Hayes, 2018) showed that Col-Quest was a positive predictor of violent extremism in all samples, but this effect was stronger among Jihadists ($b = 0.82$, $SE = 0.12$, $p < .001$), and among Islamists ($b = 0.70$, $SE = 0.10$, $p < .001$) than among Moderates ($b = 0.40$, $SE = 0.08$, $p < .001$).

An interaction between the Jihadist group and Ind-Quest was significant ($b = -0.42$, $SE = 0.18$, $p = .019$). Simple slopes analyses showed that Ind-Quest was a positive (although only marginal) predictor of violent extremism among Moderates ($b = 0.22$, $SE = 0.11$, $p = .053$) but it was negative and not significant among Jihadists ($b = -0.20$, $SE = 0.14$, $p = .147$). The interac-

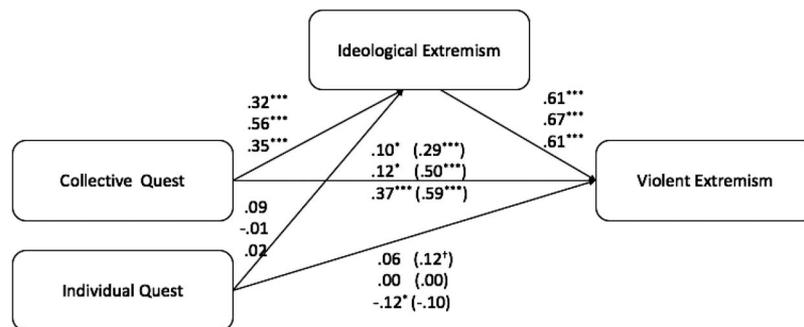


Figure 4. Results of the moderated mediation analysis (Study 3). For each path first standardized coefficients are presented for Moderates, second for Islamists, and third for Jihadists. Direct effects are presented first, followed by total effects in parentheses. Unstandardized coefficients are presented in text. [†] $p < .10$. * $p < .05$. *** $p < .001$.

tion between the Islamist (vs. Moderate) group and Ind-Quest was not significant ($b = -0.23$, $SE = 0.18$, $p = .207$).

Ideological extremism. Next, we examined the relationship between both forms of quest and ideological extremism. Col-Quest was a significant predictor in all three groups (Moderates: $b = 0.37$, $SE = 0.07$, $p < .001$; Islamists: $b = 0.65$, $SE = 0.09$, $p < .001$; Jihadists: $b = 0.40$, $SE = 0.11$, $p < .001$). Only the interaction between the Islamist group and Col-Quest was significant ($b = 0.28$, $SE = 0.12$, $p = .019$), indicating that the effect of Col-Quest was stronger among Islamists than Moderates. Ind-Quest did not predict ideological extremism in either group ($p > .16$). The Ind-Quest \times Group interactions were not significant ($p > .30$).

Effects of ideological extremism on violent extremism. After including all variables in the model, the effect of ideological extremism on violent extremism was significant in all groups (Moderates: $b = 0.73$, $SE = 0.05$, $p < .001$; Islamists: $b = 0.80$, $SE = 0.08$, $p < .001$; Jihadists: $b = 0.73$, $SE = 0.11$, $p < .001$). The Ideological Extremism \times Group interactions were not significant ($p > .40$), demonstrating that the effects of ideological extremism on violent extremism did not differ between groups.

Direct effects of quest for significance on violent extremism. The direct effect of Col-Quest on violent extremism remained significant and positive in all groups, but it was much stronger among Jihadists ($b = 0.52$, $SE = 0.10$, $p < .001$) than in the other two groups (Moderates: $b = 0.13$, $SE = 0.06$, $p = .030$; Islamists: $b = 0.17$, $SE = 0.09$, $p = .050$). Only the interaction between the Jihadist group and Col-Quest was significant ($b = 0.39$, $SE = 0.12$, $p < .001$). The other two groups did not differ from each other.

The only significant direct effect of Ind-Quest on violent extremism was in the Jihadist group, and it was negative ($b = -0.22$, $SE = 0.10$, $p = .025$). The direct effects among Moderates ($b = 0.11$, $SE = 0.08$, $p = .172$) and Islamists were not significant ($b = 0.01$, $SE = 0.10$, $p = .950$). Only the interaction between the Jihadist group and Ind-Quest was significant ($b = -0.34$, $SE = 0.13$, $p = .010$).

Indirect effect of quest for significance on violent extremism through ideological extremism. Finally, we analyzed the extent to which ideological extremism mediated the effects of quest for significance on violent extremism. The indirect effects of Col-Quest through ideological extremism were significant in all three groups (Moderates: 0.27, 95% CI [0.14, 0.41]; Islamists: 0.52, 95% CI [0.37, 0.70]; Jihadists: 0.30, 95% CI [0.12, 0.46]). The analyses of index of moderated mediation showed that only the comparison between Islamist and Moderate groups was significant (0.25, 95% CI [0.05, 0.47]), suggesting that ideological extremism mediated the effects of Col-Quest on violent extremism more strongly in the Islamist group than among the Moderates. None of the indirect effects of Ind-Quest through ideological extremism was significant.

Discussion

Study 3 tested our predictions in formally organized social contexts (Moderate, Islamist, and Jihadist) whose degree of radicalization was clearly established a priori by subject matter experts. This categorization was confirmed using our measures of political extremism. Islamist participants who belonged to groups

expressing great commitment to ideological extremism, and Jihadist participants who belonged to groups endorsing violent extremism, indeed expressed greater ideological extremism and violent extremism than Moderate participants.

Confirming our hypotheses, the relation between quest for collective significance and violent extremism was once again stronger for participants affiliated with the more radical groups (i.e., Islamist and Jihadists) than among members of Moderate groups. The way in which this moderation was expressed, however, differed between the Islamist and Jihadist groups. Specifically, relative to Moderate participants, Islamists experiencing quest for collective significance were more likely to express ideological extremism, which was thereby related to their higher support for violent extremism. For Jihadists, although the indirect effect was also significant, quest for collective significance was additionally directly related to violent extremism, even when controlling for ideological commitment. Thus, Jihadists (vs. Moderates) experiencing quest for collective significance were more likely to support violent extremism regardless of their endorsement of ideological extremism. In essence, social groups appeared to strengthen the relationship between quest for collective significance and whatever feature of political extremism is most descriptive of that social network (i.e., Islamists desiring significance become more committed to Islamist doctrine, whereas Jihadists become more committed to violent jihad).

Again, quest for individual significance was more strongly related to violent extremism among Moderate participants, but it was negatively related to violent extremism among Jihadists. This replicates the pattern found previously, and suggests that belonging to a radical network can indeed actively suppress the effect of quest for personal significance on violent extremism. Still, it is important to note that overall effects of this variable were comparably weaker than the effects of quest for collective significance.

Three studies conducted so far tested the same theoretical model but in different social settings. While this provides information about generalizability of our model, the goal of Study 4 was to directly replicate the pattern of results obtained in Study 3 in the same cultural context (i.e., Islamic extremism in Indonesia) but in a different sample of members of Moderate, Islamist, and Jihadist organizations. Again, we predicted that quest for collective significance would be more strongly related to violent extremism among Jihadists and Islamists than among Moderates. We also conducted additional, exploratory analyses to investigate possible mechanisms of this effect.

Study 4

Method

Participants. Participants were 334 members of Moderate, Islamist, and Jihadist organizations in Indonesia. Ten participants were excluded due to missing data on the variables of interest leaving the final sample at 324 individuals (238 males and 86 females, $M_{\text{age}} = 33.54$, $SD = 10.52$; one person did not indicate age). Participants were recruited in the same way as participants in Study 3. Although they mostly belonged to the same groups, participants were also recruited from a handful of new organizations. Consultation with an expert on extremism in Indonesia and the literature confirmed the categorization

of these groups. Additions to the Jihadist group included Jamaah Asharus Syaria, Jamaa Asharut Tauhid, Jamaah Ashorud Daulah, and Indonesia Islamic State. Additions to the Islamist group included: Indonesia Muslim Students, Dewaa Dakwah Islamiyah Indonesia, Kesatuan Aksi Mahasiswa Muslimin, and Lembaga Dakwah Islam Indonesia.

Measures.

Quest for collective significance (Col-Quest). We used the same five items from the collective narcissism scale ($\alpha = .73$). Participants responded with regard to the group “Muslims.” Participants answered questions using a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

Quest for individual significance (Ind-Quest). Participants indicated to what extent they felt in their daily lives: worthless, important (reverse-coded), insignificant, ashamed, proud (reverse-coded), humiliated, treated with dignity (reverse-coded), like an outsider, accepted by others (reverse-coded), like nobody cared about them ($\alpha = .86$). Participants answered questions using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Ideological and violent extremism. Given their high internal consistency, we shortened the scales of ideological and violent extremism. Ideological extremism ($\alpha = .78$) and violent extremism ($\alpha = .93$) were each measured with six items taken from the respective scales used in Study 3. Participants answered questions using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Quest for collective significance: An alternative measure (Col-Quest-2). We included one more measure of quest for collective significance. It consisted of the same set of items that were used to capture Ind-Quest, but participants answered them with regard to the group of Muslims. The idea behind it was to test the effects of quest for collective and individual significance using as comparable a measure as possible. However, this attempt was not satisfactory in part due to very high correlations between individual and collective versions of the scale (e.g., among Jihadists: $r = .93$; $p < .001$). Therefore, below we describe the results using our

original operationalization of Col-Quest and we return to this issue in the General Discussion.

Results

Group comparison. Replicating the pattern of results from Study 3, we obtained significant differences between the groups with regard to Col-Quest, $F(2, 321) = 20.80, p < .001, \eta^2 = .12$, ideological extremism, $F(2, 321) = 47.98, p < .001, \eta^2 = .23$, and violent extremism, $F(2, 321) = 124.47, p < .001, \eta^2 = .44$. Jihadists expressed higher Col-Quest than Moderates. They were also more ideologically extreme and they supported violence to a greater extent than did the Moderates. In contrast to results of Study 3, Jihadists also expressed higher Ind-Quest than Moderates: Ind-Quest, $F(2, 321) = 49.89, p < .001, \eta^2 = .24$. In comparison to Moderates, Islamists expressed higher Col-Quest, were more ideologically extreme, but did not differ from Moderates with regard to Ind-Quest or support for violent extremism. Exact means, CIs, and correlations between variables in each group are presented in Table 4. It is worth noting that in contrast to all previous studies we also obtained a positive correlation between Ind-Quest and Col-Quest, which was particularly strong in the group of Jihadists, $r = .49, p < .001$.

Moderated mediation. We followed the same analytical strategy as in previous studies (Hayes, 2018; Process, Model 59). We used the group of Moderates as the reference category, and created two dummy-coded variables to represent the Islamist (vs. Moderates) and Jihadist (vs. Moderates) comparisons. The standardized coefficients for all paths, which were computed by standardizing the continuous variables prior to the analyses, are presented in Figure 5.

Violent extremism (total effects model). We first examined the relationships between both forms of quest (collective and individual) and violent extremism. In contrast to Study 3 the interaction between the Jihadist (vs. Moderate) group and Col-

Table 4
Descriptive Statistics and Correlations Among Members of Moderate ($n = 119$), Islamist ($n = 83$), and Jihadist ($n = 122$) Groups in Indonesia (Study 4)

Variable	Quest for individual significance	Ideological extremism	Violent extremism	$M (SD)$	95% CI
Quest for collective significance					
Moderates	.21*	.46***	.38***	4.62 _a (0.99)	[4.44, 4.80]
Islamists	.14	.36**	.04	4.98 _b (0.81)	[4.81, 5.16]
Jihadists	.49***	.52***	.44***	5.37 _c (0.86)	[5.22, 5.52]
Quest for individual significance					
Moderates		.14	.28**	2.83 _a (0.94)	[2.66, 3.00]
Islamists		-.03	.16	2.82 _a (0.77)	[2.65, 2.88]
Jihadists		.51***	.61***	4.18 _b (1.55)	[3.90, 4.46]
Ideological extremism					
Moderates			.42***	4.80 _a (1.37)	[4.55, 5.05]
Islamists			.27*	5.72 _b (0.93)	[5.51, 5.92]
Jihadists			.56***	6.19 _c (0.92)	[6.02, 6.35]
Violent extremism					
Moderates				2.22 _a (1.25)	[1.99, 2.45]
Islamists				2.51 _a (1.04)	[2.28, 2.74]
Jihadists				5.02 _b (1.90)	[4.68, 5.36]

Note. CI = confidence interval. Means with different subscripts differ significantly from each other at $p < .05$. * $p < .05$. ** $p < .01$. *** $p < .001$.

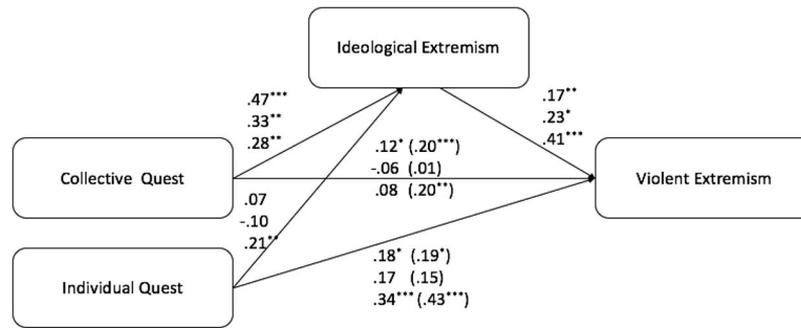


Figure 5. Results of the moderated mediation analysis (Study 4). For each path first standardized coefficients are presented for Moderates, second for Islamists, and third for Jihadists. Direct effects are presented first, followed by total effects in parentheses. Unstandardized coefficients are presented in text. * $p < .05$. ** $p < .01$. *** $p < .001$.

Quest was not significant ($b = -0.01$, $SE = 0.19$, $p = .959$) and Col-Quest was a positive predictor of violent extremism among both Moderates ($b = 0.42$, $SE = 0.12$, $p < .001$) and Jihadists ($b = 0.41$, $SE = 0.15$, $p < .001$). Although among Islamists the effect of Col-Quest was not significant ($b = 0.02$, $SE = 0.17$, $p = .908$) the test of the interaction between the Islamist (vs. Moderate) group and Col-Quest ($b = -0.40$, $SE = 0.21$, $p = .055$) showed that this effect was not significantly different from the effect obtained among Moderates.

On the other hand, the interaction between the Jihadist (vs. Moderate) group and Ind-Quest was significant ($b = 0.35$, $SE = 0.15$, $p = .022$). A simple slopes analysis showed that Ind-Quest was significantly related to violent extremism among both Moderates ($b = 0.28$, $SE = 0.13$, $p = .024$) and Jihadists ($b = 0.63$, $SE = 0.08$, $p < .001$) but this effect was stronger among Jihadists. Ind-Quest was not a significant predictor among Islamists ($b = 0.21$, $SE = 0.18$, $p = .239$) but the interaction between the Islamist (vs. Moderate) network and Ind-Quest was not significant ($b = -0.07$, $SE = 0.22$, $p = .751$).

Ideological extremism. Next, we examined the relationship between both forms of quest and ideological extremism. Replicating the results of Study 3, Col-Quest was a significant predictor of ideological extremism in all three groups (Moderates: $b = 0.62$, $SE = 0.09$, $p < .001$; Islamists: $b = 0.43$, $SE = 0.13$, $p = .002$; Jihadists: $b = 0.37$, $SE = 0.12$, $p = .002$) and these effects were not different from each other as indicated by the nonsignificant interactions between the networks and Col-Quest (Ideological Extremism \times Islamists: $b = -0.19$, $SE = 0.16$, $p = .254$; Ideological Extremism \times Jihadists: $b = -0.24$, $SE = 0.15$, $p = .109$).

On the other hand, Ind-Quest did not predict ideological extremism among Moderates ($b = 0.07$, $SE = 0.10$, $p = .480$) nor Islamists ($b = -0.10$, $SE = 0.14$, $p = .499$). While it was significantly related to ideological extremism among Jihadists ($b = 0.20$, $SE = 0.07$, $p = .003$), the interaction Ind-Quest \times Jihadist (vs. Moderate) group was not significant ($b = 0.13$, $SE = 0.12$, $p = .268$).

Effects of ideological extremism on violent extremism. After including all variables in the model, the effect of ideological extremism on violent extremism was significant in all groups (Moderates: $b = 0.27$, $SE = 0.09$, $p = .003$; Islamists: $b = 0.35$, $SE = .015$, $p = .022$; Jihadists: $b = 0.65$, $SE = 0.15$, $p < .001$).

The interaction between the Jihadist (vs. Moderate) group and ideological extremism was significant ($b = 0.38$, $SE = 0.17$, $p = .030$). Ideological extremism was a stronger predictor of violent extremism among Jihadists than among Moderates. The interaction between the Islamist (vs. Moderate) group and ideological extremism was not significant ($b = 0.08$, $SE = 0.18$, $p = .639$).

Direct effects of quest for significance on violent extremism.

After controlling for the effect of ideological extremism, the direct effect of Col-Quest on violent extremism was not significant among Islamists ($b = -0.13$, $SE = 0.18$, $p = .457$) nor Jihadists ($b = 0.17$, $SE = 0.16$, $p = .271$). While it was significant among Moderates ($b = 0.26$, $SE = 0.13$, $p = .044$) none of the interactions was statistically significant (Col-Quest \times Jihadists: $b = -0.09$, $SE = 0.20$, $p = .671$; Col-Quest \times Islamists: $b = -0.39$, $SE = 0.22$, $p = .075$).

The direct effect of Ind-Quest on violent extremism was significant in the groups of Moderates ($b = 0.27$, $SE = 0.12$, $p = .028$) and Jihadists ($b = 0.50$, $SE = 0.09$, $p < .001$) but those effects were not significantly different from each other (Ind-Quest \times Jihadists: $b = 0.24$, $SE = 0.15$, $p = .110$). The simple effect of Ind-Quest on violent extremism was not significant among Islamists ($b = 0.25$, $SE = 0.17$, $p = .155$) but it was not significantly different from the effect obtained among Moderates (Ind-Quest \times Islamists: $b = -0.02$, $SE = 0.21$, $p = .934$).

Indirect effect of quest for significance on violent extremism through ideological extremism.

Finally, we analyzed the extent to which ideological extremism mediated the effects of quest for significance on violent extremism. The indirect effects of Col-Quest through ideological extremism were significant in all three groups (Moderates: 0.17, 95% CI [0.05, 0.32]; Islamists: 0.15, 95% CI [0.01, 0.36]; Jihadists: 0.24, 95% CI [0.05, 0.55]). The analyses of moderated mediation showed that those effects were not significantly different from each other.

The indirect effects of Ind-Quest through ideological extremism was significant only among Jihadists (0.13, 95% CI [0.04, 0.23]) and it was not significant among Moderates (0.02, 95% CI [-0.05, 0.11]) nor Islamists (-0.03, 95% CI [-0.14, 0.05]). However, the comparison between Jihadists and Moderates showed that those indirect effects were not significantly different from each other (Index of moderated mediation: 0.11, 95% CI [-0.02, 0.23]).

Discussion

Study 4 replicated the same cultural and ideological context as Study 3. Like the results obtained in previous studies, quest for collective significance was positively related to support of violence through ideological extremism in all groups. This offers further evidence that collective grievances are positively associated with stronger commitment to ideological goals and willingness to use violence to pursue those goals. At the same time, with the exception of a weak effect among Jihadists, quest for individual significance was not related to ideological extremism. This is again a similar pattern of results that was obtained in previous studies and it suggests that, in contrast to a desire for collective significance, feelings of individual insignificance are not directly translated into endorsement of ideological goals.

However, in this study a stronger relationship between quest for significance and violent extremism among members of radical groups (i.e., Jihadists) was obtained with regard to individual but not collective form of quest. This result is in contrast to results of previous studies and is contrary to our hypotheses. A possible explanation of this unexpected effect is that in contrast to previous studies individual and collective forms of quest for significance were highly and positively correlated among Jihadists, but not among members of other organizations. Moreover, the overall level of individual quest for significance was higher for Jihadists than for the other two groups. This pattern was not observed in the previous studies, and it may suggest that for Jihadists in this study the distinction between individual and collective forms of quest for significance has been blurred. That is, when they were asked to respond about their personal significance, they were unable to cleave personal issues from group concerns, and responded in terms of how they felt about their collective identity. Admittedly this is a post hoc explanation that needs to be clarified further in subsequent research. We revisit this issue in the General Discussion.

Finally, the group of Islamists in this study, unlike the same group in Study 3, was not more supportive of violence than the Moderates. More importantly, in this group neither of the quest for significance indices were related to violent extremism. Given that this pattern of results does not replicate findings obtained in Study 3, we should treat results from this group obtained in both studies with caution. Future studies could investigate in greater details the specificity of groups that are extreme in terms of their ideological beliefs but are moderate in terms of the means they support.

Supplemental Analyses

The main goal of Study 4 was to conduct a direct replication of the effects obtained in Study 3. However, we also included variables assessing several group-related characteristics to explore whether they would differentiate radical and nonradical contexts. If we identified such differences, this could offer insights into the processes through which social contexts exert the effects we have obtained so far. These variables included: group fusion (e.g., Swann, Gómez, Seyle, Morales, & Huici, 2009), perceptions that belonging to the group had provided a sense of personal significance, strength of ingroup norms (i.e., tightness–looseness, Gelfand et al., 2011), and perceived group consensus regarding the use of violence. We identified the above variables as potentially im-

portant with regard to translating the quest for significance into support for violent extremism.

For instance, research on group fusion has found that when an individual's personal identity overlaps with their group identity, they are more willing to self-sacrifice on behalf of that group (Swann et al., 2009). It could be that, if members of radical social contexts are more fused with their religious organization (or with Muslims in general) and fused individuals are at the same time more responsive to collective insignificance, this might explain the moderation found across studies. Likewise, we defined radical contexts as clusters wherein violence is perceived as an acceptable means toward significance. Thus, it may be possible that members within these contexts (vs. moderate contexts) perceive greater consensus regarding the necessity of violence to address the significance need. Finally, it has been shown that violent extremism is more likely within contexts with stronger group norms (Gelfand, LaFree, Fahey, & Feinberg, 2013). If radical groups exert more normative pressure on group members, they might be more willing to respond to significance threat in line with group norms. If any of these mechanisms is at play, including an interaction between quest for significance and the respective variable (e.g., group fusion) should reduce or remove the interaction between quest for significance and belonging to a radical versus moderate context.

Importantly, participants responded to items measuring the constructs—fusion, group significance, agreement, and tightness–looseness—in reference to six different groups: family, friends, Muslims, their religious organization, Indonesia, and people from their region of Indonesia. This allowed us to compare the perceptions of religious ingroups with other important social contexts that individuals are embedded in.

We treat these analyses as exploratory and due to limitations of our data collection they are based on a smaller sample size than would be ideal. As they are supplemental to our focal goal, we present them here in summary form. Full details on the measures themselves and the analyses are presented in the online supplemental materials. Because Islamists and Moderates were not different from each other across majority of the measures—and for clarity sake—we describe the results for only Moderates and Jihadists.

Regarding the analytical strategy, we first examined group (Jihadist vs. Moderate) differences on group fusion, group significance, tightness–looseness, and perceived agreement regarding support for ideological and violent extremism. Next, we looked at the correlations between these variables and violent extremism. Finally, we tested whether these variables moderated the relationship between loss of significance and violent extremism. As we recognize that there were already too many analyses given our sample size—for that final analysis we focused only on variables related to participants' religious organization and Muslims in general.

Regarding perceptions of their Islamic organizations and Muslims in general, Jihadists reported greater fusion with both groups than did Moderates. Likewise, Jihadists perceived tighter norms within the Muslim community than did Moderates. However, even though Jihadists' views on violence were more extreme than those of Moderates, there were no differences in how much agreement they perceived to be within their respective organizations. Both groups perceived other members of their organizations to share their (radical or moderate) views to the same extent. Moreover,

among Jihadists violent extremism was positively correlated with fusion with their organization and significance derived from the organization, but it was unrelated to normative pressures or perceived agreement. Further analyses revealed a significant interaction involving fusion with Muslims, such that the quest for individual significance was more strongly related to violent extremism for individuals fused with Muslims, but the inclusion of this interaction did not remove our interaction effect (i.e., Ind-Quest \times Group) reported in the main analyses.

Regarding perceptions of alternative groups—friends, family, and the national group—we found strong differences between Jihadists and Moderates. Specifically, in comparison to Moderates, Jihadists expressed much weaker attachment to those groups. They also perceived weaker normative pressures within these groups and less agreement regarding the use of violence between their views and the views of their friends, family, and Indonesians. At the same time, greater emotional and normative distance to those alternative groups was related to greater support for violence among Jihadists (but not among Moderates).

We find those results particularly important for several reasons. First, while there is evidence suggesting that participation in collective violence increases identification with a violent group (Litman, 2018), our results, if replicated, suggest that distancing from the mainstream, nonpoliticized groups could constitute another significant mechanism that enables extremism. This is important also because politicized groups and identities seem to be the most salient and obvious choices for investigation. However, a pattern of results obtained in this analysis, which shows much stronger differences between radical and moderate groups with respect to their perceived distance from nonpoliticized groups, suggest a promising alternative path. At the same time, we believe that those additional analyses, while hopefully inspiring future investigations, should be interpreted with caution, given that they were statistically underpowered.

General Discussion

Past literature has recognized that ideologically motivated violence, despite its destructive potential, may be maintained in society because it addresses important psychological needs (Fromm, 1973; Hogg & Adelman, 2013; Pyszczynski et al., 2006). In line with that reasoning, we examined whether violent extremism is more likely endorsed in a psychological state of questing for individual or collective significance (Kruglanski et al., 2017). We further proposed that belonging to a radicalized social context may increase the importance of the quest for collective significance as a driver of violent extremism, while possibly reducing the role of the quest for individual significance and we explored alternative paths of how social context may exert those effects. We tested these predictions in three unique cultural settings using different operationalizations of radical and moderate contexts.

Quest for Collective Significance and Violent Extremism

Across all studies, we found significant interactions between social context and quest for significance on violent extremism. In three of the four studies, results were consistent with our hypotheses. Thus, in more radicalized social contexts, either due to past involvement in political violence (LTTE in Sri Lanka), current

ideological climate (Morocco), or explicit ideological agenda (Islamists and Jihadists in Indonesia), the quest for collective significance was a more positive predictor of violent extremism than in less radicalized contexts. As such, the greater the perception that one's group had not received its deserved appreciation among participants embedded within these networks, the greater was their support for political violence. Indeed, this effect emerged in Sri Lanka, despite the fact that members of the radical group had undergone deradicalization efforts and currently expressed low support for violence. We also found this pattern in Morocco, where the social contexts were identified based on geographical location and self-selection of more aggressive individuals into violent networks was a less probable alternative explanation.

These findings provide initial evidence consistent with the idea that social contexts regulate what people consider as appropriate means to assert collective significance. Past research has already demonstrated that people are more likely to express more extreme opinions in groups (Isenberg, 1986), and violent behavior is more likely under influence of important others (Dahl & van Zalk, 2014; Glowacki et al., 2016; Jasko et al., 2016; Sageman, 2004). Moreover, outgroup hostility and support for intergroup violence has been found to be higher among individuals who desire group recognition (Golec de Zavala et al., 2013, 2016). Our findings extend and integrate these lines of research to suggest that social context does not simply increase violence, but it rather moderates the relationship between the quest for significance and support for violence.

Ideological Extremism and Violent Extremism

To investigate a possible mechanism through which social context intervenes in this process we distinguished between extreme ideological commitment to a political goal and willingness to support violence as a means to pursue that goal. Regardless of whether participants belonged to radical or nonradical groups, the greater their desire for collective significance, the greater was their commitment to the group's cause. This finding confirms that commitment to political and social programs is related to deep psychological needs. When threatened, such needs are associated with greater extremism of explicit political beliefs.

Stronger ideological commitment was in turn related to greater support for violence. The more participants were committed to a separate state or fundamentalist religious beliefs, the more they supported violence to achieve these goals. This pattern was also present regardless of one's network affiliation. This raises a question as to whether strong political commitment will always be positively related to greater acceptance of violence for the cause. In support of this logic, Gousse-Lessard, Vallerand, Carbonneau, and Lafrenière (2013) demonstrated that imbalanced, obsessive commitment to a cause was positively related to endorsement of radical actions. However, it is also likely that this effect is subject to boundary conditions. Future research may wish to identify the circumstances under which extreme ideological commitment will be unrelated to violence or even related to the rejection of violence and support for a peaceful course of action. For instance, a belief in availability and efficacy of alternative, nonviolent means (Saab, Spears, Tausch, & Sasse, 2016) might moderate the relationship between commitment to a cause and violent extremism. There is evidence that personal significance gained from activism for a

cause can act as a motivator for further peaceful (but not violent) sacrifices (Jasko, Szastok, Grzymala-Moszczyńska, Maj, & Kruglanski, 2019).

Finally, our analyses provide some support for the notion that social context moderates the indirect path to violent extremism through ideological extremism. In Indonesia in Study 3 (but not in Study 4), Islamists who expressed a stronger quest for collective significance were more likely to support violence because they were more ideologically committed than members of moderate organizations. Likewise, residents of the radical city of Tetouan, Morocco were more likely to support violence because of a stronger association between ideological extremism and violent extrem-

ism. This pattern of results, however, was not obtained in Sri Lanka, or when comparing Jihadists and Moderates within Indonesia (see Table 5). For instance, even after controlling for ideological extremism, Jihadists in Study 3 were more likely to support violence directly in response to the quest for collective significance. Overall, it was apparent that the relative weight of indirect versus direct effects varied between samples. This suggests that other factors not included in our model likely help determine whether ideological extremism is necessary to mediate the relationship between one's desire for collective significance and violent extremism. One possible factor is the sophistication and complexity of the group's ideology. It could be that the direct path

Table 5
Summary of All Effects in All Studies

Variable	Ideological extremism	Violent extremism		
		Total effect	Direct effect	Indirect effect
Quest for collective significance				
Study 1				
Community	0.45 [0.20, 0.71]	-0.21 [-0.40, -0.01]	-0.30 [-0.49, -0.11]	0.09 [0.03, 0.17]
LTTE	0.39 [0.22, 0.57]	0.13 [-0.003, 0.26]	0.01 [-0.12, 0.15]	0.11 [0.05, 0.19]
Study 2				
Casablanca	0.59 [0.44, 0.74]	0.42 [0.24, 0.61]	0.19 [0.01, 0.37]	0.23 [0.13, 0.38]
Tetouan	0.72 [0.63, 0.82]	1.06 [0.94, 1.18]	0.38 [0.21, 0.55]	0.69 [0.51, 0.89]
Study 3				
Moderates	0.37 [0.22, 0.51]	0.40 [0.25, 0.56]	0.13 [0.01, 0.26]	0.27 [0.14, 0.41]
Islamists	0.65 [0.47, 0.83]	0.70 [0.50, 0.90]	0.17 [0.0001, 0.35]	0.52 [0.37, 0.70]
Jihadists	0.40 [0.19, 0.62]	0.82 [0.058, 1.05]	0.52 [0.33, 0.71]	0.30 [0.12, 0.46]
Study 4				
Moderates	0.62 [0.44, 0.80]	0.42 [0.19, 0.66]	0.26 [0.01, 0.51]	0.17 [0.05, 0.32]
Islamists	0.43 [0.17, 0.70]	0.02 [-0.32, 0.36]	-0.13 [-0.48, 0.22]	0.15 [0.01, 0.36]
Jihadists	0.37 [0.14, 0.61]	0.41 [0.11, 0.71]	0.17 [-0.14, 0.48]	0.24 [0.05, 0.55]
Quest for individual significance				
Study 1				
Community	0.07 [-0.10, 0.24]	0.29 [0.16, 0.42]	0.28 [0.16, 0.40]	0.01 [-0.02, 0.05]
LTTE	0.12 [-0.02, 0.27]	0.10 [-0.01, 0.21]	0.07 [-0.04, 0.17]	0.04 [-0.01, 0.09]
Study 2				
Casablanca	-0.05 [-0.24, 0.13]	0.20 [-0.03, 0.43]	0.22 [0.03, 0.41]	-0.02 [-0.13, 0.06]
Tetouan	-0.02 [-0.16, 0.11]	-0.17 [-0.33, -0.01]	-0.15 [-0.28, -0.01]	-0.02 [-0.16, 0.10]
Study 3				
Moderates	0.15 [-0.06, 0.36]	0.22 [-0.003, 0.45]	0.11 [-0.05, 0.28]	0.11 [-0.08, 0.29]
Islamists	-0.02 [-0.27, 0.24]	-0.006 [-0.28, 0.27]	0.01 [-0.19, 0.21]	-0.01 [-0.21, 0.19]
Jihadists	0.03 [-0.21, 0.28]	-0.20 [-0.47, 0.07]	-0.22 [-0.42, -0.03]	0.03 [-0.11, 0.17]
Study 4				
Moderates	0.07 [-0.12, 0.26]	0.28 [0.04, 0.53]	0.27 [0.03, 0.50]	0.02 [-0.05, 0.11]
Islamists	-0.10 [-0.37, 0.18]	0.21 [-0.14, 0.57]	0.25 [-0.09, 0.59]	-0.03 [-0.14, 0.05]
Jihadists	0.20 [0.07, 0.33]	0.63 [0.46, 0.80]	0.50 [0.33, 0.67]	0.13 [0.04, 0.23]
Ideological extremism				
Study 1				
Community		0.20 [0.09, 0.32]		
LTTE		0.29 [0.19, 0.40]		
Study 2				
Casablanca		0.39 [0.22, 0.56]		
Tetouan		0.95 [0.076, 1.14]		
Study 3				
Moderates		0.73 [0.62, 0.83]		
Islamists		0.80 [0.66, 0.95]		
Jihadists		0.73 [0.52, 0.94]		
Study 4				
Moderates		0.27 [0.09, 0.45]		
Islamists		0.35 [0.05, 0.66]		
Jihadists		0.65 [0.36, 0.94]		

Note. Within each study, the effects that were significantly moderated by social context are in boldface (i.e., that effect was different for participants in the radical social context vs. the moderate social context).

from quest for collective significance to violent extremism becomes more important when it requires a deep and nuanced grasp of the ideological narrative, so that the indirect path through ideology may be inaccessible for people with lower political sophistication.

Quest for Individual Significance and Political Extremism

With the exception of Study 4, among individuals who belonged to radical social groups the personal significance quest was either unrelated or negatively related to violent extremism. For individuals who belonged to less radical groups, on the other hand, quest for individual significance was positively related to support for violence. Importantly, when there was an effect of individual significance quest on violence, this effect was not mediated by ideological extremism. This suggests that individuals searching for personal significance might find violence particularly appealing, regardless of their level of commitment to the cause. Such an effect is consistent with the basic premise of the frustration aggression (Berkowitz, 1989) and the threatened egotism hypotheses (Baumeister et al., 1996), according to which aggression is a direct way to release negative affect and restore a sense of individual power (Leander & Chartrand, 2017).

It is also worth noting that in the first three studies the effect of the individual quest for significance was stronger than that of collective quest for significance only among community members in Sri Lanka. In Morocco and Indonesia (Study 3), collective quest for significance was a much stronger predictor of violent extremism, even for individuals who belonged to less radical networks while loss of individual significance was overall a relatively weak predictor of violent extremism. This pattern of results is in line with research that finds a stronger and more consistent link between collective action and relative group deprivation, as opposed to relative personal deprivation (Smith & Ortiz, 2002). This likely occurs because collective action is a more straightforward response to collective insignificance, and serves as a direct coping mechanism. Collective action may likely serve more of a compensatory function, which could account for the overall lower applicability of the individual quest for significance.

However, the overall greater importance of the individual quest for significance for supporting violence obtained with Jihadists in Study 4 adds complexity to the picture (see Table 5). While the correlation between individual and collective significance quest might have accounted for that effect, it was not a predicted pattern of results. It may suggest a more complex relationship between those two predictors of violent extremism. Future research may wish to investigate the temporal relation between these variables. We suspect that the full cycle may involve (a) translation of personal into collective quest for significance, (b) relation of collective quest for significance to ideological extremism, and (c) ultimately to violent extremism. Without going through this collectivistic shift (Orehek & Kruglanski, 2018), personal insignificance may be a weaker and less stable predictor of violent extremism (Runciman, 1966; Tougas & Beaton, 2002). In our research, this would be the case for individuals not associated with radical networks. However, if personal significance remains strongly attached to feelings of collective grievances (which could be the case of Jihadists in Study 4) it may remain a strong predictor of violent

extremism. While at this stage these are hypothetical relations that would require further empirical tests, their exploration would constitute a promising direction for future studies. It could also inform research on other constructs that have parallel individual and collective levels such as relative deprivation or emotions. We predict that the extent to which individuals assimilate both the personal and the collective levels versus contrasting them with each other would account for the relative strength of their effects.

Possible Mechanisms

The primary goal of our studies was to verify the moderating effect of radical versus moderate social contexts. Given that our sample sizes were limited we did not want to increase the complexity of our model by adding more variables capturing possible mechanisms through which this moderation occurs. However, the mechanisms at play are important to understand, and future research should investigate specific paths through which radical and moderate groups exert their effects. In our view, these paths might include: greater consensus within radical groups that violence is an appropriate means to deal with group significance, more restrictive social norms within radical groups that lead individuals to conform to violent norms for fear of being “punished” for nonconformity, and higher valuing of one’s social relationships within radical contexts that leads to a greater willingness to use extreme means to protect these relationships. In support of these possibilities, a recent study showed that perceived social consensus around a moralized social cause was related to greater support for political violence for this cause (Mooijman et al., 2018). Past research also found that strength of group norms (Gelfand et al., 2013) and group fusion (Swann et al., 2009) were both positively related to violent extremism.

Our exploratory analyses in Study 4 shed some light on the differences between radical and moderate contexts with regard to those variables. They showed that greater fusion with Muslims was related to a stronger relationship between quest for significance and violent extremism and members of radical groups were indeed more fused with their religious groups than were the Moderates. At the same time, the largest differences between Jihadists and Moderates were found with regard to the perception of mainstream groups. Jihadists declared greater emotional and ideological distance from their friends, family, and the national group than Moderates, and their distance to those mainstream groups was positively related to their support for violence. These findings are intriguing as they suggest that people in moderate contexts feel embedded in various groups to a comparable extent. In radical contexts, on the other hand, different group identities are less aligned, with the radical identity dominating over other group loyalties. Such configuration would be in line with the model of radicalization in terms of motivational imbalance described earlier (Kruglanski et al., 2017) and it would demonstrate it in a domain of social identity motives.

The mechanisms that we explored in our last study—group fusion, ideological consensus, strength of group norms - are by no means exclusive. An additional possibility not yet explored in our studies is that radical social contexts may decrease trust in alternative sources of justice like the international community or government (Nowak, Gelfand, Borkowski, Cohen, & Hernandez, 2016). If social networks direct its members toward the means that

are available and instrumental for significance restoration, the perceived low availability of alternative remedies may prompt the use of violence. Indeed, Moghaddam (2005) stated that disadvantaged individuals will only proceed toward violent extremism if they believe they have no other mechanisms for remedying this treatment. A greater distance to the national and regional groups expressed by Jihadists in Study 4 could suggest their lower trust in the sources of justice operating at these levels. We look forward to future research that can more directly assess these possibilities.

Limitations and Future Directions

We conducted our research in three different contexts to speak to the generalizability of the model. Nonetheless, there are some aspects of our design and samples that might constrain the generality of our conclusions.

One possible limitation stems from the sampling scheme. There are unique constraints that exist when sampling real-world radical groups that consist of terrorists (current or former). The most pertinent of these is self-selection, wherein the more violent members of these organizations might have self-selected out of the study. The most violent individuals could have been contacted to participate and refused, or could be off the grid and unreachable by researchers. It is, unfortunately, impossible for us to determine whether this had occurred in the present studies. In Indonesia, for instance, roughly 30% of those contacted to participate refused, but we do not know if those who refused differed from those who participated in any meaningful ways. In Sri Lanka, community centers spread messages about a survey throughout the villages, and no details about the content of that survey were shared. Everyone who arrived at the center participated after being informed about the survey. Information provided to researchers by those who participated suggested that those who declined to come did so because of other obligations (such as having to work that day), and not because they were more radical. Still, if self-selection occurred, we anticipate that this would have only reduced the variance of variables capturing political views within the radical context (i.e., among Jihadists or former LTTE), and thus it should have hindered our ability to find an effect, rather than providing an alternative explanation for the effect.

Related to the sampling issue is the question of operationalization of radical versus moderate contexts. Our intent was to capture people residing within social contexts that differed in their support for extremism. Comparisons of contexts showed that it was indeed the case for three out of four studies. However, in Study 1 in Sri Lanka former LTTE members turned out to be less radical than community members. While we found significant but weak support for our model in that context as well, it is possible that the mechanism could be somewhat different in this case. For instance, a relationship between quest for collective significance and support for violence in case of former LTTE members, currently less radical, could rely on associations learned in the past rather than on associations present in one's immediate environment.

Moreover, as our studies utilized correlational designs, the causal direction between the variables under investigations is still open to possible alternative explanations. It is possible that the role of social contexts is more complex than what we tested in the present study. For instance, it is likely that social context also impacts the level of motivation for significance as well as the

overall support for extreme ideologies. While these relationships are likely they do not invalidate the effects that were the focus of the present study. Finally, our studies explicitly focused on violent extremism as the outcome. We recognize that a sense of collective insignificance does not always lead to aggression, but often leads to normative social action (Tausch et al., 2011; Verkuyten, 2017).

It is also important to consider the manner in which we operationalized the quest for significance. First, quest for collective significance was measured using a short version of the collective narcissism scale (Golec de Zavala et al., 2009). On the surface, a belief in ingroup greatness, a defining feature of collective narcissism, could seem inconsistent with the quest for significance theory. However, despite collective narcissists' positive explicit opinion of their group, they do not show positive implicit evaluations of their groups (Golec de Zavala et al., 2009). Even more importantly, collective narcissism denotes a belief in ingroup greatness that is contingent on others' recognition. Thus, if other people do not acknowledge that greatness, a belief that is also associated with collective narcissism, it creates a discrepancy between the recognition the group receives and the expectations of what it should receive. This sentiment, present in the items measuring collective narcissism, is consistent with the way we conceptualize the quest for collective significance. Finally, there is evidence showing that collective narcissists are indeed more likely to experience collective insignificance. Four studies (Golec de Zavala et al., 2016) found that the effects of collective narcissism on outgroup hostility were fully mediated by perceived insult, humiliation or discrimination of the ingroup. To sum up, according to this analysis, measurement utilized in our studies fits our definition of collective quest for significance. However, it would be important to extend it to other operationalizations of collective quest for significance to verify some of the outlined predictions. By including two types of measures of quest for collective significance we wanted to address the measurement issue but for reasons described earlier, this attempt was unsatisfactory.

Interestingly, in previous research the effects of collective narcissism on outgroup hostility were not found for people with secure group identification (Golec de Zavala et al., 2016). Presumably, people with secure (vs. insecure) identification do not react in this way because their need for collective significance is not as inflated and it does not depend on other people to an equal extent. Therefore, it should be more easily satisfied. Still, from our theoretical standpoint we predict that when actions against their ingroup induce significance loss, high identifiers should react in the same way as collective narcissists in our studies. At the same time, people who believe their group is superior (i.e., collective narcissists), but have that superiority acknowledged by others, should not show hostile intentions. While we do not know of studies that would test that prediction on the collective level, literature on individual sense of power confirms that when the powerful position feels stable, secure, or absolute, hostility against the other side decreases (Handgraaf, Van Dijk, Vermunt, Wilke, & De Dreu, 2008; Strelan, Weick, & Vasiljevic, 2014). The distinction between collective narcissism and secure group identification resembles another differentiation in the literature on collective esteem, namely between group glorification and group attachment (Roccas, Klar, & Liviatan, 2006). Particularly relevant to the present examination is the construct of glorification. Glorification is defined as a perception of the ingroup as superior to other groups and

feeling insulted if others do not show respect for the group. Research indeed found that group glorification was associated with stronger perceptions of the ingroup as an innocent victim (Dugas et al., 2018). This finding supports our view that the experience of loss of significance would more strongly affect those high in group glorification because, in their case, it should create a greater discrepancy between the reality and their expectations.

Second, the way we operationalized individual and collective quest for significance raises a question of the equivalence of those constructs. We conceptualized these measures as assessing the extent to which an individual (or their important ingroup) is not being respected in the manner deemed to be deserved. To be consistent with the way quest for individual significance was measured in the past (e.g., Webber et al., 2018) we used items tapping what insignificance should entail—the sense of worthlessness, a lack of acceptance, shame, or feeling unimportant. As already noted, quest for collective significance was measured with the collective narcissism scale (Golec de Zavala et al., 2009). Although there is a conceptual overlap between these measures, we recognize that the collective narcissism scale taps the discrepancy aspect of the quest for significance better than the individual measure. It is therefore more in line with our conceptualization of quest for significance as a motivational state resulting from a gap between current and desired state of significance.

It is possible that these differences may have accounted for the difference in our effects, namely an overall stronger effect of quest for collective (vs. individual) significance. While that does not speak against our main hypotheses, which were focused on the moderation by the social context, future research testing hypotheses derived from significance quest theory would benefit from improved measures. First, we recognize that the ideal test of our hypotheses would utilize scales of individual and collective quest that are more comparable. As mentioned earlier, Study 4 attempted to create such a scale measuring quest for individual and collective significance. Because of a high correlation between individual and collective forms of insignificance in that study, particularly in the case of members of radical groups, it was inappropriate to include this scale in our analyses. However, future research should include analogous measures of quest for individual and collective significance together with other measures of related constructs (e.g., relative deprivation, individual and collective esteem). Second, the most direct measure of the quest for significance would be one that is designed for the explicit purpose of measuring the extent to which one is motivated to earn significance. Our research team has devised such a measure and is in the process of validating this measure (Molinario et al., 2019). Preliminary analyses suggest that the new measure is indeed positively related to the loss of significance, both as measured in the present examination and induced via experimental manipulation. Thus, although we are designing an improved scale to better tap this motivational state, the preliminary evidence supports our use of the current measures as a proxy for the quest for significance. Third, and relatedly, these measurement suggestions highlight the need for research to better explicate the differences between the concept of quest for significance, and other related constructs. This might include self-esteem, status, and meaning in life, to name a few. Although we expect these constructs to be correlated in many cases, empirical evidence is needed to ascertain the extent to which these various constructs produce similar behavioral effects as it pertains to extremism and

other phenomena. Within this article, we have outline the logic derived from the motivation literature as to how the quest for significance should differ from these other constructs, but empirical evidence is needed to test these notions.

Finally, we acknowledge that although the present analyses focused on the need for significance as a motivator that increases one's endorsement of or engagement in extremism, this does not capture the full cycle of this motivational process. We theorize that people are motivated to engage in extreme behavior to earn feelings of significance. Engaging in this behavior (e.g., belonging to an extremist organization) should increase feelings of significance. Extremist individuals should remain involved in these actions as long as they perceive that so doing will fulfill their significance needs. Once that is no longer the case (or if a new psychological need has become more important) individuals should cease their engagement with extremism. Interviews conducted with former members of the right-wing in Germany have supported these notions (Kruglanski, Webber, & Koehler, 2019). For instance, analyses revealed that just under 70% of those interviewed discussed how their time in the movement made them feel important and valued. Indeed, those individuals who felt this way were significantly more devoted to the movement (as measured by their willingness to abandon important relationships and responsibilities external to the right-wing) than those who did not have their needs fulfilled. In the context of peaceful extremism, we also have evidence that engagement in more radical actions on behalf of the cause is related to greater feelings of significance gain. Specifically, environmental activists who have engaged in more radical actions in the past (e.g., chaining themselves to trees to block the logging of the forest) felt more significant than those who only engaged in normative actions (e.g., signing petitions; Jasko et al., 2019). These studies speak to this entire cycle, but future research should continue to explore these issues, as much of the literature has focused on the initial radicalization phase.

Implications and Conclusion

We believe the present findings are particularly informative for counter terrorism approaches that attempt to limit recruitment of new fighters. Consider the recruitment patterns of ISIS foreign fighters. Research has identified specific regions from which disproportionately large numbers of foreign fighters are recruited, such Bizerte and Ben Gardane in Tunisia, the Molenbeek district of Brussels (The Soufan Group, 2015), and the Rif mountain region in Morocco (from where our Study 2 sample was drawn). Successful recruitment also occurred in Iraq when Jihadists and ex-members of the Baath party were simultaneously detained in American-run prisons. One such detainee described the situation as follows: “If there was no American prison in Iraq, there would be no IS now. Bucca was a factory. It made us all. We had so much time to sit and plan. It was the perfect environment” (as cited in Chulov, 2014).

Given that we live in a world connected through social media, and that terrorist organizations have become adept at navigating this space for recruitment and propagating their message, there has been a push for the governments to make a foray into the online space as a counter terrorism tactic. Indeed, this led to the creation of failed social media campaigns like the U.S. State Department's Think Again Turn Away project that has been repeatedly lam-

pooned within the traditional media (e.g., Katz, 2014). We are not suggesting that the government should cede this battle to the terrorists, rather that the existence of these hotbeds suggests that the immediate social network may exert a stronger influence over potential recruits than possible messaging from the outside. The present analyses clarify one of the mechanisms through which these immediate networks are so critical—that is, strengthening the relationship between quest for collective significance, commitment to a political cause, and support for violence toward this cause. With continuing research in this vein, we can better understand the group dynamics of terrorist behavior that are important in efforts against this pressing issue of international security.

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