

AGGRESSIVE BEHAVIOR

The role of vulnerable environments in support for homegrown terrorism: Fieldwork using the 3N model

Journal:	<i>Aggressive Behavior</i>
Manuscript ID	AB-19-254.R1
Wiley - Manuscript type:	Research Article
Date Submitted by the Author:	09-Jun-2020
Complete List of Authors:	Lobato, Roberto; University of Granada Moyano, Manuel; University of Cordoba, Psychology Bélanger, Jocelyn; New York University - Abu Dhabi Campus, Trujillo, Humberto; University of Granada
Keywords:	3N model of radicalization, mosque attendance, jihadist terrorism, legitimization, environment

SCHOLARONE™
Manuscripts

The role of vulnerable environments in support for homegrown terrorism: Fieldwork
using the 3N model

Abstract

The 3N model of radicalization proposes that violent radicalization is the result of the contribution of needs, networks, and narratives. Although research has mainly been supportive of this perspective, a substantial amount of ground remains uncovered regarding the network component of the model. Within this framework, we examine why individuals living in certain social environments tend to harbor more positive attitudes toward homegrown terrorism than others. Building on prior research, we hypothesized that individuals living in social environments known to be vulnerable (vs. less vulnerable) are more likely to experience a sense of significance loss (i.e., lack of social integration, perceived conflicts between religious groups), find solace in religious social networks (i.e., mosques), and thus adhere to radical narratives (i.e., legitimization of terrorism). A study with 365 young Muslims from different cities in Spain (Almería, Barcelona, Ceuta, and Melilla) supported these predictions. Theoretical and practical implications for the study of violent extremism are discussed.

Keywords: 3N model of radicalization; mosque attendance; jihadist terrorism
legitimization; environment

Jihadist radicalization is one of the great problems of our time. The spread of radical Islam compromises democracy by fomenting hatred toward Western values while proposing a simple view of the world where good and evil collide (Doosje et al., 2016; Taylor & Horgan, 2001). Homegrown jihadist radicalization is also a significant challenge to Western societies because it exploits media to achieve maximum visibility, divides society, and influences government decisions (Schuurman & Horgan, 2016). The epitome of the threat posed by jihadist terror groups is Daesh—arguably one of the deadliest and most significant geopolitical threats due to its demonstrated ability to galvanize thousands of new recruits worldwide with slick extremist digital content, conduct successful attacks in Europe (Hegghammer & Nesser, 2015), and conquer large swathes of land, roughly the size of Britain («ISIS ‘caliphate’ down to 1% of original size», 2019). In addition to the spread of terror and radical ideas, the rise of anti-migration movements in Europe (Park, 2015), the refugee crises (Postelnicescu, 2016), and the poor handling of multiculturalism (Chin, 2017) have created the perfect storm for anti-Muslim sentiments, Islamophobia, and Muslims feeling socially alienated—factors that facilitate adherence to radical narratives (Bélanger et al., 2019). Hence, to prevent further jihadist radicalization, it is imperative to investigate how and where these ideologies spread. The purpose of this research is to examine such dynamics by providing empirical evidence regarding the role of social environments and mosque attendance in radicalization within the framework of the 3N model.

A 3N explanation of radicalization

The present research is grounded in the 3N model of radicalization (Kruglanski, Bélanger, & Gunaratna, 2019), which argues that violent extremism emerges as the result of the confluence of three factors: (1) needs, (2) narratives, and (3) network. We describe them in turn.

1
2
3 The needs component refers to the motivational aspects. For years, numerous
4 motives have been proposed to explain the radicalization process (e.g., revenge,
5 humiliation, financial incentives, oppression). The 3N model proposes that these are
6 connected to a common denominator: the quest for personal significance (Kruglanski
7 et al., 2013, 2014; Kruglanski, Chen, Dechesne, Fishman, & Orehek, 2009) —the need
8 to feel respected, “to be someone” and to feel that one’s life has meaning.
9

10
11 This search for significance can be activated in various circumstances, but
12 especially when there is a loss of significance such as when individuals experience the
13 pang of humiliation (Kruglanski, Gelfand, Bélanger, Hetiarachchi, & Gunaratna, 2015),
14 oppression (Lobato, Moya, Moyano, & Trujillo, 2018), ostracism, incompetence (Dugas
15 et al., 2016), social alienation (Bélanger et al., 2019) or uncertainty (Webber et al.,
16 2018). Situations that produce a significance loss produces a strong impetus to retrieve
17 significance. It should be noted that this need to search for personal significance is
18 universal, and generally, people fill it through positive and prosocial means (work,
19 family, emotional relationships, art, sport; Jasko, LaFree, & Kruglanski, 2017).
20 However, sometimes prosocial means to attain significance are unattainable or
21 unavailable, in which case individuals in certain milieu can be tempted to turn to
22 alternative, clandestine ways of fulfilling their significance quest, such as joining a
23 group that upholds antisocial values, such as a criminal gang or radical group (della
24 Porta, 2013).
25

26
27 The aforementioned groups are social networks that can empower its members
28 with material resources, but above all, a positive sense of self and a feeling of
29 brotherhood —strong interpersonal relationships that binds individuals together (Gomez
30 et al., 2017). These relationships provide the social backdrop against which the process
31 of radicalization unfolds. Indeed, in addition to providing significance, networks are
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 vectors of (1) ideological transmission and (2) attitude polarization due to intragroup
4 consensus (Webber & Kruglanski, 2017). Given these dynamics, individuals who
5
6 commit violent actions at the behest of the group and its ideology are admired by other
7
8 group members and considered honorable (e.g., martyrs, heroes). In other words, the
9
10 social network is the medium par excellence through which personal significance can be
11
12 obtained and ideologies disseminated—a concept which we turn to next.
13
14
15

16
17 Narratives refer to the ideological component of radicalization. From a
18
19 psychological point of view, these narratives are useful for people because they
20
21 establish what is considered valid to achieve personal significance (Webber &
22
23 Kruglanski, 2017). Thus, people articulate their sense of reality around shared stories
24
25 that give them meaning and certainty. In the case of extremist ideologies, they generally
26
27 offer a polarized vision of society (“us and them”), which in certain cases legitimize
28
29 violence and aggression toward antagonistic groups and civilians (Bélanger et al.,
30
31 2019). Extremist ideologies are not confined to any specific groups and are across the
32
33 full spectrum of politico-religious tendencies (e.g., jihadism, extreme right, extreme left;
34
35 Webber, Kruglanski, Molinario, & Jasko, 2020).
36
37
38
39

40
41 The 3N model postulates that these three factors contribute to radicalization in a
42
43 dynamic and interactive way. One trajectory that has been documented is the transition
44
45 from need (personal significance) to joining like-minded individuals (networks) to
46
47 supporting political violence (narratives; see Bélanger et al., 2019; in press). It must be
48
49 emphasized that the loss of personal meaning is a vulnerability that can be easily
50
51 exploited by recruiters in order to legitimize political violence. Likewise, certain
52
53 contexts that facilitate the loss of meaning (ghettoized urban environments, prisons,
54
55 conflict zones), may constitute favorable scenarios for radicalization (Jasko et al.,
56
57 2019). Research for instance has found that cities characterized by scarce economic
58
59
60

1
2
3 opportunities, high crime rates, and low social integration were associated with greater
4 risk of Islamist radicalization (Moyano & Trujillo, 2014a, 2014b; Reinares & García-
5 Calvo, 2017). One question that we pose in the present article is why social contexts
6 that are prone to producing significance loss also tend to produce support for terrorism.
7
8 Here, we argue that in vulnerable contexts, mosques can play a role in this process.
9

14 **Mosques as support networks**

15
16
17 Mosques can be used by jihadi actors to recruit new followers (Trujillo, Alonso,
18 Cuevas, & Moyano, 2018) and indeed, there are several examples of mosques known to
19 have played a role in jihadist radicalization in many European countries like France
20 (Campion, 2015), the United Kingdom (Weeks, 2016), Germany (Azzam, 2007),
21 Netherlands (AIVD, 2015), and Spain (Reinares & García-Calvo, 2018). This seems
22 related to the emergence of vulnerable environments in Europe. For example, in the
23 United Kingdom, there were two potential hotbeds in the City of London. Both were
24 close to mosques, one around the Finsbury Park mosque in north London and the other
25 around the Masjid Ibn Taymeeyah mosque in south London, where a growing number
26 of disenfranchised —second- and third-generation— Muslim youths, who did not fit
27 into society nor into their families' moderate religious practices, were more comfortable
28 with extreme versions of Islam (Weeks, 2016).
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43

44 According to Silber and Bhatt (2007), mosques can become “radicalization
45 incubators,” meaning that they can amplify the radicalization process and allow an
46 individual to experiment with violent beliefs. Extremists find it easier to observe and
47 contact Muslims in mosques in order to recruit and radicalized them (Hoffman, 2018).
48
49 In this vein, Trujillo and colleagues found that in certain Spanish mosques, sermons
50 included political discussions (e.g., Irak and Palestine problems) instead of more social
51 debates (e.g., daily life problems, integration) (Trujillo, León, Sevilla, & González-
52
53
54
55
56
57
58
59
60

1
2
3 Cabrera, 2010). This is an indicator of the power of sermons to polarize and focus
4 attitudes on Muslim grievances, which, in turn, could be used by radical recruiters.
5
6

7
8 In general, mosques can be involved in spreading jihadist ideology in two
9 different ways: (1) through imams radicalizing their followers and (2) radical groups
10 forming among mosque attendees (even if their imam is moderate; Campion, 2015).
11
12

13
14 The first form usually consists of imams extolling the virtues of violent jihad
15 (Klausen, Campion, Needle, Nguyen, & Libretti, 2016) and preaching anti-Western,
16 pro-jihadist values during their sermons (Azzam, 2007; Campion, 2015). These imams
17 are usually related to foreign organizations or cells affiliated to these organizations that
18 provide funding, support, or guidance from more extensive networks (e.g., Omar
19 Mahmoud Othman, alias Abu Qatada, and Mustafa Kamel, alias Abu Hamza al-Mazri,
20 who were active in London; Silke, 2008).
21
22
23
24
25
26
27
28
29

30
31 The second form involves the community attending the mosque. The social
32 interactions with the attendees reinforce their ideological commitment and can provide
33 links to organizations supporting jihad through already connected members (Silke,
34 2008) and through mechanisms such as social learning (Akins & Winfree, 2017;
35 Becker, 2019). According to Sageman (2004) and Silke (2008), groups formed around
36 mosques progressively develop strong bonds that promote intense loyalty and emotional
37 support. Moreover, these groups can increase isolation from moderate social
38 environments, thereby increasing the probability of attitude polarization.
39
40
41
42
43
44
45
46
47
48

49 **The present research**

50
51 The foregoing analysis suggest that vulnerable environments can foment a loss
52 of significance which can encourage people to join social networks to restore their
53 significance, leaving them prone to adopting violence-supporting narratives. Therefore,
54 we present a study where we predict that individuals living in vulnerable (vs. non-
55
56
57
58
59
60

1
2
3 vulnerable) environments will report greater loss of significance (need), which in turn
4 will predict more frequent mosque attendance (network), and thus greater support for
5 radical ideologies (narrative). Thus, we predict an indirect effect between the
6 vulnerability of the environment and support for radical narratives through the loss of
7 significance and the support of the network found in the mosque.
8
9
10
11
12
13

14 **Methodology**

15 **Participants and procedure**

16
17
18
19 Three hundred sixty-five Muslim high-school students (208 women) aged
20 between 13 and 19 years ($M = 15.20$, $SD = 1.10$) were surveyed. Regarding their
21 nationality, 49.60% were Spanish, 4.10% were also Spanish, but their parents were
22 foreigners, and 46.30% were foreigners from Morocco. The sample was collected in
23 Spanish high schools located in Almería (43.00%), Barcelona (8.30%); Ceuta (21.60%),
24 and Melilla (27.10%). Previous research suggests that these locations present at some
25 extent risk of radicalization (Moyano & Trujillo, 2014a, 2014b; Reinares & García-
26 Calvo, 2017). Indeed, the city of Almería is associated with a greater risk of
27 radicalization than the other environments. The results of a study by Moyano and
28 Trujillo (2014b) concluded that Almería presented greater risk given the scores of
29 Muslims considerably higher than the youth of the other contexts in perceived conflict
30 and legitimization of terrorism. Specifically, this city has some characteristics such as
31 high concentration of immigrants, polarization, and several neighborhoods that, given
32 their conditions, could be considered marginal (Checa & Arjona, 2005). Some of the
33 characteristics of these neighborhoods are lack of institutional support, low incomes and
34 high unemployment rates, Muslim foreigners as the majority of the population, high
35 crime rates, and presence of radicals (Capote & Nieto, 2017; Ministerio del Interior,
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

2020). Based on these indicators, we considered individuals living in Almería (vs. the individuals in the other environments) to be part of a more vulnerable environment.

The survey was administered in several high schools. Participants completed it on a voluntary basis and written informed consent was obtained from the participants' parents.

Measures

Need. The loss of significance was measured with two variables. First, the perception of conflict between Muslims and Christians, which was measured with a 10-item scale taken from Moyano (2011) (e.g., "In my school, Muslim and Christian students distrust each other;" $\alpha = .65$). Higher scores correspond to a higher perception of conflict, which means a higher loss of significance.

Second, the social integration, the extent to which participants are excluded from society, which was measured with five items taken from Moyano (2011) (e.g., "I am currently learning positive things for improving as a person and being able to find a job;" $\alpha = .81$). Lower scores relate to less perception of social inclusion and thus to a loss of significance. In both, participants responded on 5-point Likert scale ranging from 1 (*fully disagree*) to 5 (*fully agree*).

Network. The network was conceptualized as the frequency of mosque attendance, assuming that are usually contexts where relevant social and affective networks are established (Silber & Bhatt, 2007). Responses to this last question were measured on 7-point Likert scale from 1 (*never*) to 7 (*several times every day*).

Radical narrative. The radical narrative was conceptualized as legitimation of terrorist acts and it was evaluated with a single item (i.e., "The

3/11 terrorist attacks in Madrid were fair and deserved”). Responses were measured on 5-point Likert scale ranging from 1 (*fully disagree*) to 5 (*fully agree*).

Sociodemographic variables. We measured several sociodemographic variables such as age, gender (coded: 0 for male and 1 for female), highest level of education completed, nationality (coded: 0 Spanish and 1 foreigner), city of residence (Almería, Barcelona, Ceuta, or Melilla), and religion.

Results

First, from the four selected environments (i.e., Almería, Barcelona, Ceuta, and Melilla), previous research has shown that Almería was the context that presented more indicators of vulnerability (Moyano & Trujillo, 2014a, 2014b). Thus, we created a dummy variable as follows: low-vulnerable environment included participants from Barcelona, Ceuta, and Melilla (code as -1; $N = 208$, 57%), and high-vulnerable environment included participants in Almería (code as 1; $N = 157$, 43%). As expected, t-test analyses showed that participants in the high-vulnerable environment presented higher scores in legitimization of terrorism (low-vulnerable environment: $M = 1.93$, $SD = 1.43$; high-vulnerable environment: $M = 3.43$, $SD = 1.29$; $t = 10.239$, $p < .001$), mosque attendance (low-vulnerable environment: $M = 2.94$, $SD = 1.80$; high-vulnerable environment: $M = 3.65$, $SD = 2.34$; $t = 3.146$, $p = .002$), perceived conflict (low-vulnerable environment: $M = 1.99$, $SD = 0.79$; high-vulnerable environment: $M = 3.17$, $SD = 0.89$; $t = 12.722$, $p < .001$), and lower in social integration (low-vulnerable environment: $M = 4.27$, $SD = 0.79$; high-vulnerable environment: $M = 3.51$, $SD = 0.94$; $t = 7.998$, $p < .001$). We display means, standard deviations, and correlations among the variables in Table 1.

[Insert Table 1]

1
2
3 Second, path analyses were conducted to examine the influence of vulnerable
4 environment on terrorism legitimation through (1) perceived conflict and social
5 inclusion (need), and (2) frequency of mosque attendance (network). The model was
6 tested with *lavaan* package for R using maximum likelihood estimation procedures
7 (Rosseel, 2012). A covariance was added between the standard errors of perceived
8 conflict and social integration because they were negatively correlated (see Figure 1).
9

10
11
12
13
14
15
16
17 [Insert Figure 1]
18

19 Results revealed that the hypothesized model fit the data well: $\chi^2 (df = 1, N =$
20 $328) = 3.16, p = .075, CFI = .99, TLI = .93, RMSEA = .08, SRMR = .02$. We describe
21 the results with unstandardized coefficients. The standardized coefficients for all paths,
22 which were computed by standardizing the continuous variables before the analyses, are
23 presented in Figure 1. Results indicated that environment was positively associated with
24 perceived conflict ($b = 1.18, SE = 0.09, p < .001$) and terrorist legitimation ($b = 1.26,$
25 $SE = 0.19, p < .001$), and negatively to social integration ($b = -.73, SE = 0.10, p < .001$).
26 Perceived conflict was positively associated with mosque attendance ($b = .25, SE =$
27 $0.12, p = .040$), but not to terrorism legitimation ($b = .09, SE = 0.09, p = .321$), while
28 social integration was negatively associated with mosque attendance ($b = -.32, SE =$
29 $0.13, p = .014$) and terrorism legitimation ($b = -.27, SE = 0.09, p = .002$). Finally,
30 mosque attendance was positively associated with terrorism legitimation ($b = .08, SE =$
31 $0.04, p = .022$).
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48

49 Finally, indirect effects were examined to test the mediating role of perceived
50 conflict/~~lack of~~ social integration and mosque attendance in a sequential mediation, and
51 of perceived conflict/social integration by themselves. The 95% confidence interval of
52 the indirect effects was obtained with 10,000 bootstraps resamples (Preacher & Hayes,
53 2008). As expected, results showed an indirect effect through social integration and
54
55
56
57
58
59
60

1
2
3 mosque attendance ($b = .28, SE = .08; 95\% CI = [.12, .44]$), but not through perceived
4
5 conflict and mosque attendance ($b = .19, SE = .12; 95\% CI = [-.03, .44]$).
6
7

8 **Discussion and Conclusion**

9
10 The main objective of this research was to study the interrelations between need,
11 network, and narrative attending to the vulnerability of the environment. Building on
12 the 3N model we predicted that high vulnerable environments would be associated with
13 greater significance loss, which in turn would predict greater mosque attendance, and
14 thus greater support for radical ideologies; that is, an indirect effect between the
15 vulnerability of the environment and support for radical narratives through the loss of
16 significance and the support of the network found in the mosque. To test our
17 predictions, we carried out a study with a large sample of young Muslims in four
18 environments where we evaluated perceived conflict and lack of social integration
19 (significance loss), mosque attendance (network), and legitimization of terrorism
20 (narrative).
21
22
23
24
25
26
27
28
29
30
31
32
33
34

35 The results supported our predictions. First, we found that the environment
36 matters (Ng & Chow, 2017). Muslims living in high (vs. low) vulnerable environments,
37 perceived more conflict between them and Christians, reported having worse social
38 integration, attended the mosque more frequently, and presented higher support for
39 terrorist activities. Second, as predicted, the vulnerability of the environment predicted a
40 greater loss of significance. Living in a high-vulnerability environment (Almería) was a
41 predictor for a greater perception of conflict and lack of social integration. Third, the
42 loss of significance predicted mosque attendance. Those who perceived more conflict or
43 express a lack of integration attended more frequently to the mosque. Finally, increased
44 attendance at the mosque was a predictor of further legitimization of jihadist terrorism.
45
46
47
48
49
50
51
52
53
54
55
56
57
58 Integrating these paths, we found that the vulnerability of the environment was a
59
60

1
2
3 predictor of legitimization of terrorism through lack of social integration and mosque
4 attendance. However, unexpectedly, we did not find an indirect effect through perceived
5 conflict and mosque attendance. It seems that the lack of social integration is more
6 important than perceived conflict in this context. One possible explanation is that
7 mosque attendance helps the attendees feel integrated while not all attendees share the
8 perception of religious conflict. Moreover, we found that some sociodemographic
9 characteristics were related to perceived conflict and terrorism legitimization.
10 Specifically, being male (vs. female) and foreigner (vs. Spaniard) was related to higher
11 scores in perceived conflict, mosque attendance, and terrorism legitimization, and lower
12 scores in social integration.
13
14
15
16
17
18
19
20
21
22
23
24
25

26 Overall, the results are consistent with the 3N model. A more vulnerable
27 environment generates greater loss of significance, and the significant quest leads to a
28 more frequent attendance to the mosque, and to more support for radical narratives. The
29 confluence of the factors predicted a support for a radical narrative in the more
30 vulnerable environment as framed by the 3N model (Kruglanski, Bélanger, &
31 Gunaratna, 2019). Nonetheless, the results herein described make some contribution to
32 this model. The study advances the 3N model of radicalization by exploring two factors
33 that received little attention. On the one hand, the environment. To our knowledge, few
34 studies explored the influence of the environment in relation the 3N factors (e.g., Jasko
35 et al., 2019). Our results suggest that it is really important in that it can cause a loss of
36 significance. Thus, it should be taken into account when evaluating radicalization. On
37 the other hand, while the impact of some mosques in the processes of radicalization has
38 been explored (e.g., Champion, 2015; Silber & Bhatt, 2007), it has not been tested within
39 the 3N framework. The results confirm that mosques can work as a network that support
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 the radical narrative. However, mosques, in the same way, could be used for
4
5 delegitimize and propose alternative narratives to violent extremism.
6

7
8 First, it is clear that a vulnerable environment can generate a greater loss of
9
10 significance. Thus, it should be taken into account when evaluating radicalization (Jasko
11
12 et al., 2019). On the one hand, more research regarding different environments should
13
14 be done comparing different locations to find what specific factors inside the
15
16 environment are more related to the loss of significance. On the other hand, it should be
17
18 necessary to prioritize the most impoverished environments and pay special attention to
19
20 immigrants and their descendants, offering them what they need for integration.
21
22

23
24 Second, mosque attendance appears as a facilitator of the support for radical
25
26 narratives (Silber & Bhatt, 2007). Particularly, mosques located in vulnerable
27
28 environments. Those mosques are tools that *could be used* by radicals to propagate their
29
30 ideology. Nonetheless, protection factors, such as social integration in the community,
31
32 can fulfill the youth's needs of belonging making extremist efforts to convert mosques
33
34 in vectors of radicalization not useful. In the absence of radical leaders or recruiters,
35
36 mosques can be an opportunity for integration and democratic values learning
37
38 depending on the imams' speeches and social support provided by mosque attendees.
39
40 Therefore, there is nothing wrong with mosque attendance per se, but it can be a risk
41
42 when they are located in a vulnerable environment.
43
44
45

46
47 In this sense, there are different programs and alternatives to minimize the risk
48
49 of mosques located in vulnerable environments. Some of these alternatives include an
50
51 Islamic feminist perspective and engage in reformist readings of the Quran, making
52
53 teaching easily accessible to girls (Ghanem, 2017). Another alternative is to establish
54
55 tight control over imams, for example, training them in Europe to ensure that they are
56
57 well-integrated to society and their community (Yazbeck Haddad & Balz, 2008). Some
58
59
60

1
2
3 of these measures are required and implanted in Spain, the context of the research.
4
5 Specifically, in the Basque Country, an autonomous community in northern Spain,
6
7 police authorities have demanded that the sermon to be preached in Spanish (González,
8
9 2019), and they offer information and resources to mosques about how to prevent
10
11 radicalization («La Ertzaintza ofrece información en las mezquitas de Euskadi para
12
13 prevenir la radicalización yihadista», 2017). On the whole, the main recommendations
14
15 include: (1) transparent government and financing of mosques; (2) imams with
16
17 qualifications; (3) who know the native language; and (4) the local political, social,
18
19 legal, and economic systems; and (5) transmit democratic values and norms (Hart,
20
21 2009).
22
23
24
25

26 Third, it is interesting that according to our path model, the high-vulnerable
27
28 environment did not directly predict mosque attendance, but indirectly through loss of
29
30 significance. According to our results, those who perceived to be in conflict with
31
32 Christians and did not find social support in society are more likely to go to the mosque
33
34 looking for it—a tendency which can tend be exploited by recruiters (Trujillo &
35
36 Moyano, 2019). Thus, the perception of conflict is not enough to support terrorism if
37
38 this narrative is not socially validated (Kruglanski, Jasko, Webber, Chernikova, &
39
40 Molinario, 2018).
41
42
43
44

45 Finally, several sociodemographic characteristics were related to perceived
46
47 conflict and terrorism legitimation. Specifically, being male (vs. female) and foreigner
48
49 (vs. Spaniard) was related to higher scores in perceived conflict, mosque attendance,
50
51 and terrorism legitimation, and lower scores in social integration. Regarding gender, the
52
53 results support the existence of gender roles. In some cases, women do not usually
54
55 attend the mosque either because they are not allowed to, or there are not areas ready for
56
57 them in the mosque. These gender differences may be related to the higher sensation
58
59
60

1
2
3 seeking attributed to younger men due to biological and socialization factors (Schumpe,
4 B elanger, Moyano, & Nisa, 2018; Victoroff et al., 2010). Regarding nationality, one of
5 the possible reasons is the custom of their countries and families who usually go to the
6 mosque more frequently. However, another possible reason is the search for an identity
7 or a group of peers in the new receiving country. For Olivier Roy, the acculturation of
8 Western countries together with difficulty to adapt and be accepted by their new peers
9 brings about an identity crisis (Roy, 2003). Then, they suffer a cognitive opening
10 (Wiktorowicz, 2004) while they become vulnerable to radical narratives and identities.
11 Therefore, a recruiter could take advantage of the situations and try to recruit these
12 youths (Jasko & LaFree, 2020; Trujillo & Moyano, 2019).

13
14 It is also important to highlight the limitations of the research. We did not
15 measure the neighborhood where participants resided neither the mosque they attended.
16 Both can be determinant given our results, so future studies should control these factors
17 looking to replicate these insights. Likewise, we evaluated perceived conflict and lack
18 of social integration as loss of significance. Other factors such as unemployment or low
19 social status could have similar or higher impact (Jasko et al., 2017). In this vein, the
20 possibility of gaining significance should have the same effect. Finally, as we did not
21 conduct any manipulation, we did not control causality. Longitudinal and multilevel
22 analyses could give some evidence about the maintenance of these effects.

23
24 In conclusion, the present research provides empirical evidence supporting the
25 notion that environments, loss of significance, and frequency of mosque attendance
26 facilitate the support for violent narratives. Therefore, it is essential to use models that
27 include all these factors in order to understand better the radicalization process and
28 develop counter-violent extremism measures more effectively. Hence, even if mosques
29 can be used as vectors or radicalization, they can also constitute an opportunity to

1
2
3 combat radicalization by promoting social cohesion and integration with the extended
4
5 community.
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review

References

- AIVD (2015). *Salafism in the Netherlands: Diversity and dynamics* (Research report). General Intelligence and Security Service (AIVD) and National Coordinator for Security and Counterterrorism (NCTV). Retrieved from <https://english.aivd.nl/binaries/aivd-en/documents/publications/2015/09/24/salafism-in-the-netherlands-diversity-and-dynamics/salafism-in-the-netherlands.pdf>
- Akins, J. K., & Winfree, L. T. (2017). Social learning theory and becoming a terrorist: New challenges for a general theory. En *The Handbook of the Criminology of Terrorism* (pp. 133-149). Hoboken, NJ, USA: John Wiley & Sons, Inc. doi:10.1002/9781118923986.ch8
- Azzam, M. (2007). The radicalization of Muslim communities in Europe: Local and global dimensions. *Brown Journal of World Affairs*, 13(2), 123-134.
- Becker, M. H. (2019). When extremists become violent: Examining the association between social control, social learning, and engagement in violent extremism. *Studies in Conflict & Terrorism*. doi:10.1080/1057610X.2019.1626093
- Bélangier, J. J., Moyano, M., Muhammad, H., Richardson, L., Lafrenière, M.-A. K., McCaffery, P., ... Nociti, N. (2019). Radicalization leading to violence: A test of the 3N model. *Frontiers in Psychiatry*, 10(42). doi:10.3389/fpsy.2019.00042
- Campion, S. (2015). *Islamist extremist inspired radicalization in France: Analyzing recruitment methods in mosques, prisons, and online* (doctoral dissertation). Brandeis University, Waltham, Massachusetts.
- Capote, A., & Nieto, J. A. (2017). Segregación de la población marroquí en los principales núcleos urbanos de Andalucía [Segregation of Moroccan Nationals in Andalucía's Main Cities]. *Contexto*, XI(14), 23-41.

- 1
2
3 Checa, J. C., & Arjona, Á. (2005). Factores que determinan el proceso de exclusión de
4 los barrios periféricos: El caso de El Puche (Almería) [Factors that Determine
5 the Exclusion Process of Peripheral Neighborhoods: The Case of El Puche
6 (Almería)]. *Revista Electrónica de Geografía y Ciencias Sociales*, *IX*(186), 181-
7 204.
8
9
10
11
12
13
14
15 Chin, R. (2017). *The crisis of multiculturalism in Europe: A history*. New Jersey:
16 Princeton University Press.
17
18
19 Della Porta, D. (2013). *Clandestine political violence*. Cambridge University Press.
20
21
22 Doosje, B., Moghaddam, F. M., Kruglanski, A. W., Wolf, A. De, Mann, L., & Feddes,
23 A. R. (2016). Terrorism, radicalization and de-radicalization. *Current Opinion in*
24 *Psychology*, *11*, 79-84. doi:10.1016/j.copsy.2016.06.008
25
26
27
28 Dugas, M., Bélanger, J. J., Moyano, M., Schumpe, B. M., Kruglanski, A. W., Gelfand,
29 M. J., ... Nociti, N. (2016). The quest for significance motivates self-sacrifice.
30 *Motivation Science*, *2*(1), 15–32. doi:10.1037/mot0000030
31
32
33
34
35
36 Ghanem, C. Y. (2017). Providing a gender perspective to integration in Western
37 Europe. Muslim women's agency between multicultural and assimilationist
38 policies. *Peace Human Rights Governance*, *1*(13), 307-332. doi:10.14658/pupj-
39 phrg-2017-3-1
40
41
42
43
44
45 Gómez, Á., López-Rodríguez, L., Sheikh, H., Ginges, J., Wilson, L., Waziri, H., ... &
46 Atran, S. (2017). The devoted actor's will to fight and the spiritual dimension of
47 human conflict. *Nature Human Behaviour*, *1*(9), 673-679.
48
49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Hart, A. D. (2009). *Mosques made in Britain* (Research report). London: Quilliam
4 Foundation. Retrieved from [https://www.quilliaminternational.com/shop/e-](https://www.quilliaminternational.com/shop/e-publications/mosques-made-in-britain-2/)
5
6
7
8
9
10 Hegghammer, T., & Nesser, P. (2015). Assessing the Islamic State's commitment to
11 attacking the West. *Perspectives on Terrorism*, 9(4), 14-30.
12
13
14 Hoffman, R. E. (2018). *Determining who is vulnerable to radicalization and*
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
- ISIS 'caliphate' down to 1% of original size (2019, February 9) *The Straits Time*.
Retrieved from [https://www.straitstimes.com/world/isis-caliphate-down-to-1-of-](https://www.straitstimes.com/world/isis-caliphate-down-to-1-of-original-size)
original-size
- Jasko, K., & LaFree, G. (2019). Who is more violent in extremist groups? A
comparison of leaders and followers. *Aggressive Behavior*.
<https://doi.org/10.1002/ab.21865>
- Jasko, K., LaFree, G., & Kruglanski, A. (2017). Quest for significance and violent
extremism: The case of domestic radicalization. *Political Psychology*, 38(5),
815-831. doi:10.1111/pops.12376
- Jasko, K., Webber, D., Kruglanski, A. W., Gelfand, M., Taufiqurrohman, M.,
Hettiarachchi, M., & Gunaratna, R. (2019). Social context moderates the effects
of quest for significance on violent extremism. *Journal of Personality and*
Social Psychology. doi:10.1037/pspi0000198
- Klausen, J., Champion, S., Needle, N., Nguyen, G., & Libretti, R. (2016). Toward a
behavioral model of «homegrown» radicalization trajectories. *Studies in Conflict*
& *Terrorism*, 39(1), 67-83. doi:10.1080/1057610X.2015.1099995
- Kruglanski, A. W., Bélanger, J. J., Gelfand, M., Gunaratna, R., Hettiarachchi, M.,

1
2
3 Reinares, F., ... Sharvit, K. (2013). Terrorism-a (self) love story: Redirecting the
4 significance quest can end violence. *The American Psychologist*, 68(7), 559–75.
5
6 doi:10.1037/a0032615
7
8

9
10 Kruglanski, A. W., Bélanger, J. J., & Gunaratna, R. (2019). *The three pillars of*
11
12 *radicalization: Needs, narratives, and networks*. USA: Oxford University Press.
13

14 Kruglanski, A. W., Chen, X., Dechesne, M., Fishman, S., & Orehek, E. (2009). Fully
15
16 committed: Suicide bombers' motivation and the quest for personal significance.
17
18 *Political Psychology*, 30(3), 331–357. doi:10.1111/j.1467-9221.2009.00698.x
19
20

21 Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Hetiarachchi, M., & Gunaratna, R.
22
23 (2015). Significance Quest Theory as the driver of radicalization towards
24
25 terrorism. En J. Jerard & S. M. Nasir (Eds.), *Resilience and Resolve.*
26
27 *Communities against Terrorism* (pp. 17-30). Imperial College Press.
28
29
30 doi:10.1142/9781783267743_0002
31
32

33 Kruglanski, A. W., Gelfand, M. J., Bélanger, J. J., Sheveland, A., Hetiarachchi, M., &
34
35 Gunaratna, R. (2014). The psychology of radicalization and deradicalization:
36
37 How significance quest impacts violent extremism. *Political Psychology*, 35,
38
39 69–93. doi:10.1111/pops.12163
40
41

42 Kruglanski, A. W., Jasko, K., Webber, D., Chernikova, M., & Molinario, E. (2018). The
43
44 making of violent extremists. *Review of General Psychology*, 22(1), 107-120.
45
46
47 doi:10.1037/gpr0000144
48

49 La Ertzaintza ofrece información en las mezquitas de Euskadi para prevenir la
50
51 radicalización yihadista [The Ertzaintza Offers Information in the Euskadi
52
53 Mosques to Prevent Jihadist Radicalization] (2017, February 26). *eldiario.es*.
54
55 Retrieved from [https://www.eldiario.es/norte/euskadi/Ertzaintza-informacion-](https://www.eldiario.es/norte/euskadi/Ertzaintza-informacion-Euskadi-radicalizacion-yihadista_0_616638370.html)
56
57 [Euskadi-radicalizacion-yihadista_0_616638370.html](https://www.eldiario.es/norte/euskadi/Ertzaintza-informacion-Euskadi-radicalizacion-yihadista_0_616638370.html)
58
59
60

- 1
2
3 Lobato, R. M., Moya, M., Moyano, M., & Trujillo, H. M. (2018). From oppression to
4 violence: The role of oppression, radicalism, identity, and cultural intelligence in
5 violent disinhibition. *Frontiers in Psychology*, 9(1505).
6
7
8
9
10 doi:10.3389/fpsyg.2018.01505
11
- 12 Ministerio del Interior (2020). *La Policía Nacional detiene en Almería a uno de los*
13
14 *Foreign Terrorist Fighters de DAESH más buscados de Europa* [The National
15 Police detain one of the most wanted DAESH Foreign Terrorist Fighters in
16 Europe in Almería]. Retrieved from <http://www.interior.gob.es/web/interior/>
17
18
19
20
- 21 Moyano, M. (2011). *Factores psicosociales contribuyentes a la radicalización islamista*
22
23 *de jóvenes en España: Construcción de un instrumento de evaluación*
24 [Psychosocial Factors Contributing to the Islamist Radicalization of Young
25 People in Spain: Construction of an Evaluation Instrument] (doctoral
26 dissertation). Universidad de Granada, Granada.
27
28
29
30
31
- 32
33 Moyano, M., & Trujillo, H.M. (2014a). Intention of activism and radicalism among
34 Muslim and Christian youth in a marginal neighbourhood in a Spanish city.
35 *Revista de Psicología Social/International Journal of Social Psychology*, 29, 90-
36
37
38
39
40
41
42
- 43 Moyano, M., & Trujillo, H. M. (2014b). Evaluación del riesgo de radicalización
44 islamista en cuatro contextos de interés estratégico para España [Risk
45 Assessment of Islamist Radicalization in Four Contexts of Strategic Interest for
46 Spain]. En F. Velasco & R. Arcos (Eds.), *Estudios en Inteligencia. Respuestas*
47 *para la Gobernanza Democrática*. Ministerio de la Presidencia (Gobierno de
48 España) y Ed. Plaza y Valdés.
49
50
51
52
53
54
55
- 56 Ng, H. K. S., & Chow, T. S. (2017). The effects of environmental resource and security
57 on aggressive behavior. *Aggressive behavior*, 43(3), 304-314.
58
59
60

- 1
2
3 Park, J. (2015). *Europe's migration crisis* (Research report). New York: Council on
4 Foreign Relations. Retrieved from [https://www.cfr.org/backgrounders/europes-](https://www.cfr.org/backgrounders/europes-migration-crisis)
5
6 migration-crisis
7
8
9
10 Postelnicescu, C. (2016). Europe's new identity: The refugee crisis and the rise of
11 nationalism. *Europe's Journal of Psychology*, *12*(2), 203-209.
12
13 doi:10.5964/ejop.v12i2.1191
14
15
16
17 Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for
18 assessing and comparing indirect effects in multiple mediator models. *Behavior*
19 *research methods*, *40*(3), 879-891. doi:10.3758/BRM.40.3.879
20
21
22
23
24 Reinares, F., & García-Calvo, C. (2017). *Actividad yihadista en España, 2013- 2017:*
25 *De la Operación Cesto en Ceuta a los atentados en Cataluña*. Madrid.
26
27
28
29 Reinares, F., & García-Calvo, C. (2018). «Spaniards, you are going to suffer»: The
30 inside story of the August 2017 attacks in Barcelona and Cambrils. *CTC*
31 *SENTINEL*, *11*(1), 1-11.
32
33
34
35
36 Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling and more.
37 Version 0.5–12 (BETA). *Journal of Statistical Software*, *48*(2), 1-36.
38
39
40
41 Roy, O. (2003). *El islam mundializado: Los musulmanes en la era de la globalización*
42 [Globalized Islam: Muslims in the Era of Globalization]. Barcelona: Bellaterra.
43
44
45
46 Sageman, M. (2004). *Understanding terror networks*. Philadelphia: University of
47 Pennsylvania Press.
48
49
50
51 Schumpe, B. M., Bélanger, J. J., Moyano, M., & Nisa, C. F. (2018). The role of
52 sensation seeking in political violence: An extension of the significance quest
53 theory. *Journal of Personality and Social Psychology*. doi:10.1037/pspp0000223
54
55
56
57 Schuurman, B., & Horgan, J. G. (2016). Rationales for terrorist violence in homegrown
58 jihadist groups: A case study from The Netherlands. *Aggression and Violent*
59
60

- 1
2
3 *Behavior*, 27, 55-63. doi:10.1016/j.avb.2016.02.005
4
5
6 Silber, M. D., & Bhatt, A. (2007). *Radicalization in the west: The homegrown threat*
7
8 (Research report). New York: Police Department New York. Retrieved from
9
10 <https://info.publicintelligence.net/NYPDradicalization.pdf>
11
12
13 Silke, A. (2008). Holy warriors: Exploring the psychological processes of jihadi
14
15 radicalization. *European Journal of Criminology*, 5(1), 99-123.
16
17 doi:10.1177/1477370807084226
18
19
20 Taylor, M., & Horgan, J. (2001). The psychological and behavioural bases of islamic
21
22 fundamentalism. *Terrorism and Political Violence*, 13(4), 37-71.
23
24 doi:10.1080/09546550109609699
25
26 Troian, J., Baidada, O., Arciszewski, T., Apostolidis, T., Celebi, E., & Yurtbakan, T.
27
28 (2019). Evidence for indirect loss of significance effects on violent extremism:
29
30 The potential mediating role of anomia. *Aggressive Behavior*, 45(6), 691-703.
31
32 <https://doi.org/10.1002/ab.21863>
33
34
35 Trujillo, H. M., Alonso, F., Cuevas, J. M., & Moyano, M. (2018). Evidencias empíricas
36
37 de manipulación y abuso psicológico en el proceso de adoctrinamiento y
38
39 radicalización yihadista inducida [Empirical evidence of manipulation and
40
41 psychological abuse in the indoctrination and induced radicalization of
42
43 Jihadists]. *Revista de Estudios Sociales*, 66. doi:10.7440/res66.2018.05
44
45
46 Trujillo, H. M., León, C., Sevilla, D., & González-Cabrera, J. (2010). Riesgo de
47
48 radicalización islamista en las mezquitas de una ciudad española [Risk of
49
50 Islamist Radicalization in the Mosques of a Spanish City]. *Psicología*
51
52 *Conductual*, 18, 423-440.
53
54
55 Trujillo, H. M., & Moyano, M. (2019). Towards the study and prevention of the
56
57 recruitment of jihadists in Europe: A comprehensive psychosocial proposal. En
58
59
60

- 1
2
3 I. Marrero & H. M. Trujillo (Eds.), *Jihadism, Foreign Fighters and*
4
5 *Radicalisation in the European Union: Legal, Functional and Psychosocial*
6
7 *Responses* (pp. 211-230). London: Routledge, Taylor & Francis Group.
8
9
10 Victoroff, J., Quota, S., Adelman, J. R., Celinska, B., Stern, N., Wilcox, R., & Sapolsky,
11
12 R. M. (2010). Support for religio-political aggression among teenaged boys in
13
14 Gaza: Part I: Psychological findings. *Aggressive Behavior*, 36(4), 219-231.
15
16 <https://doi.org/10.1002/ab.20348>
17
18
19 Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M.,
20
21 Bélanger, J. J., ... Gelfand, M. J. (2018). The road to extremism: Field and
22
23 experimental evidence that significance loss-induced need for closure fosters
24
25 radicalization. *Journal of Personality & Social Psychology*, 114(2), 270–285.
26
27 [doi:10.1037/pspi0000111](https://doi.org/10.1037/pspi0000111)
28
29
30 Webber, D., & Kruglanski, A. W. (2017). Psychological factors in radicalization: A
31
32 “3N” approach. In G. LaFree & J. Freilic (Eds.), *The Handbook of the*
33
34 *Criminology of Terrorism* (pp. 33–46). West Sussex: Wiley Blackwell.
35
36 [doi:10.1002/9781118923986.ch2](https://doi.org/10.1002/9781118923986.ch2)
37
38
39
40 Webber, D., Kruglanski, A., Molinario, E., & Jasko, K. (2020). Ideologies that justify
41
42 political violence. *Current Opinion in Behavioral Sciences*, 34, 107-111.
43
44 [doi:10.1016/j.cobeha.2020.01.004](https://doi.org/10.1016/j.cobeha.2020.01.004)
45
46
47 Weeks, D. (2016). Hotbeds of extremism: The UK experience. En A. Varvelli (Ed.),
48
49 *Jihadist Hotbeds: Understanding Local Radicalization Processes* (pp. 63-74).
50
51 Milano: Edizioni Epoké. [doi:10.19201/ispjihadisthotbeds](https://doi.org/10.19201/ispjihadisthotbeds)
52
53
54 Wiktorowicz, Q. (2004, May). *Joining the cause: Al-Muhajiroun and radical Islam*.
55
56 Paper presented at the Roots of Islamic Radicalism conference, Yale University,
57
58 Cambridge, MA.
59
60

1
2
3 Yazbeck Haddad, Y., & Balz, M. J. (2008). Taming the Imams: European governments
4
5 and Islamic preachers since 9/11. *Islam and Christian–Muslim Relations*, 19(2),
6
7 215-235. doi:10.1080/09596410801923980
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review

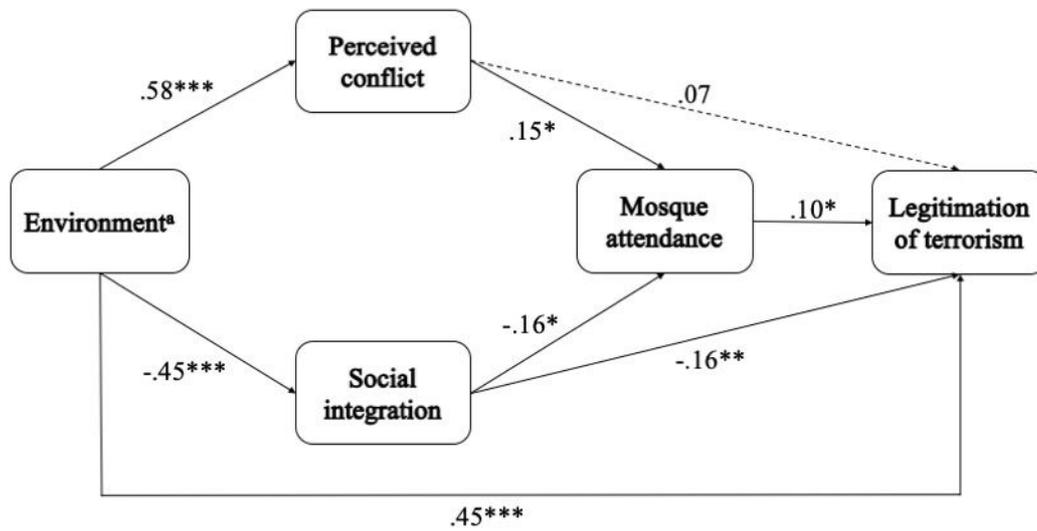
Table 1. Means, standard deviations, and correlations involving all variables ($N = 365$).

	1	2	3	4	5	6	7	<i>M</i>	<i>SD</i>
1. Gender								0.57	0.50
2. Age	-.03							15.20	1.10
3. Nationality	-.11*	-.28**						0.56	0.50
4. Environment ^a	-.14**	-.28***	.85***					0.43	.496
5. Mosque attendance	-.22***	-.04	.20***	.17**				3.25	2.08
6. Perceived conflict	-.13*	-.21***	.58***	.57***	.20***			2.49	1.02
7. Social integration	.17**	-.01	-.33***	-.40***	-.17**	-.36***		3.95	0.94
8. Legitimation of terrorism	-.09 ⁺	-.09 ⁺	.44***	.48***	.20***	.35***	-.35***	2.57	1.56

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; ⁺ $p < .10$; ^a coded -1 for low vulnerable

environment and +1 for high vulnerable environment

Figure 1. Results from Path Analysis.



Note: For clarity, covariance paths and error terms are not shown. Standardized coefficients are presented in the figure, while unstandardized coefficients are presented in text; ^a coded -1 for low vulnerable environment and +1 for high vulnerable environment; * $p < .05$; ** $p < .01$; *** $p < .001$.