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**Group Membership and Radicalization: A Cross-National Investigation of Collective Self-Esteem as a Risk Factor of Extremism**

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### **Abstract**

Uncertainty, perceived threats, and a generally insecure life attachment have been associated with endorsement of extremism. Furthermore, salient identification with a group can influence radicalized ways of addressing insecure life attachment through an established and sometimes extreme worldview and ideology. In the present study, we replicated the finding that an insecure life attachment is associated with a higher degree of extremism endorsement. Furthermore, we found similarities and differences in how this association was influenced by various aspects of group membership across dissimilar contexts and among majority and minority groups (e.g., Muslims and non-Muslims) from Denmark ( $n=223$ ), India ( $n=147$ ) and the United Kingdom ( $n=225$ ). Consequently, our results indicate that general social psychological processes underlie radicalization and that different aspects of collective self-esteem can be central promoting or mitigating factors. Overall, our findings suggest an important interplay among life attachment, collective self-esteem, and extremism across Western and non-Western majority and minority groups.

*Keywords:* Radicalization, extremism, social identity, uncertainty, threat

### **Group Membership and Radicalization: A Cross-National Investigation of Collective Self-Esteem Underlying Extremism**

Psychological research on radicalization and terrorism has shifted from an early primary focus on psychopathology and personality (Gill & Corner, 2017) toward greater emphasis on the situations and contextual influences that shape the radicalization trajectory through interaction with individual differences (Thomsen, Obaidi, Sheehy-Skeffington, Kteily, & Sidanius, 2014). These theoretical developments have emphasized social psychological mechanisms among the general population as central factors predicting or influencing radicalization (Doosje et al., 2016; Horgan, 2005). That is, developments in a generically based psychology of radicalization elucidate the general psychological mechanisms at play in radicalization processes, emphasizing the dynamic interplay between the contextual situation and the individual (Gøtzsche-Astrup, 2018, Ozer & Bertelsen, 2019).

The dynamic interaction between the individual and his or her context has been key in recent psychological theory of radicalization (Doosje et al., 2016; Gøtzsche-Astrup, 2018). Indeed, unfavorable sociocultural embeddedness characterized by uncertainty, discrimination, deprivation, and threats to one's way of life can make normal individuals vulnerable to various social influences and sensitive to radicalization (Doosje, Loseman, & Van den Bos, 2013; Obaidi, Bergh, Sidanius, & Thomsen, 2018; Ozer & Bertelsen, 2019).

The present paper investigates how an experience of one's sociocultural context as unfair, unsafe, and exclusive, conceptualized as insecure life attachment, is associated with extremism as a universal initiating factor for radicalization processes. Furthermore, the paper examines how aspects of group membership as social psychological mechanisms might influence radicalization processes, bringing us one step closer to explaining why only some are drawn toward radicalization.

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Group membership and identification can play a central role in relation to experiences of societal uncertainty and threat by providing clear and bounded prototypical categories for oneself and for others (Hogg, 2012). These group dynamics can lead to a mobilization toward reducing the origin of the unfavorable context by endorsing comprehensive societal change with no concern for human co-existence and sometimes even supporting the use of illegal or violent means in relation to this quest (Ozer & Bertelsen, 2019).

While previous studies have identified a strong relationship among immediate and specific threats, social identity, and various forms of hostility toward out-groups (Doosje et al., 2013; Obaidi, Kunst, Kteily, Thomsen, & Sidanius, 2018), the broader and more generic experience of contextual threat and insecurity that can be compared across context has received less attention (Branscombe, Ellemers, Spears, & Doosje, 1999). Accordingly, the present paper examines the cross-cultural mechanisms relating to an insecure life attachment and radicalization; furthermore, the study explores how various aspects of group membership can moderate this relationship across the contexts of Denmark and India, as well as among a Muslim minority in the UK. These contexts reflect great dissimilarity concerning local contextual embeddedness and group membership status and, consequently, provide new insights into the generalizability of psychological mechanisms of radicalization. Accordingly, through this cross-national study, we extend our knowledge of contextual embeddedness, group membership, and extremism beyond what can be categorized as WEIRD contexts (Henrich, Heine, & Norenzayan, 2010) and across majority and minority group distinctions.

### **Life Attachment as a Significant Factor of Extremism**

The contextual embeddedness of the individual has been theorized as central in regard to the initiation of radicalized trajectories (Doosje et al., 2016; Hogg, 2012; Ozer & Bertelsen, 2019). That

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is, if the social conditions in life do not facilitate the possibility of an acceptable life, then people are more inclined to endorse radical societal changes (Obaidi, Bergh, Akrami, & Anjum, 2019).

Life attachment has been conceptualized as the degree that individuals experience and find security and comfort in their sociocultural surroundings; indeed, such a concept reflects how an individual perceives the life conditions in which he or she is situated. Consequently, a secure life attachment has been delineated by five criteria regarding one's context (Ozer & Bertelsen, 2019): (1) safe (without fear of hostile or destructive intrusion); (2) inclusive (without fear of being excluded from the community); (3) reliable (without fear of sudden and unwanted changes in the fundamental values of life); (4) fair (without fear of being subjected to intolerable injustice and lack of recognition); and, (5) facilitating well-being (without fear of the insufficient fulfillment of basic needs, realistic desires, and hopes for a good enough life).

If an individual does not experience these criteria in everyday life, then an insecure life attachment might develop, which could lead to frustration and eventually the risk of radicalized trajectories. Furthermore, such a conception of an insecure life attachment includes an experience of uncertainty (Hogg, 2012) with fear of sudden injustice, intrusion, or exclusion. Drawing on Stephan and Stephan's (2000) integrated threat theory, insecure life attachment can refer to both the individual's material and safety conditions and to the culture and lifestyle that reflect how this concept coincides with the understanding of realistic threat (to the group's well-being) and symbolic threat (to the group's norms, values, morality, beliefs, and attitudes); yet in the life psychological conception, these two domains are extended to all five criteria of a secure life attachment.

Radicalization and extremism can be conceptualized generically across specific manifestations related to, for example, religion, political orientation, or specific issues (Doosje et al., 2016). Such an understanding of extremism is reflected in the definition of extremism as an intense desire for

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comprehensive life changes without concern for human coexistence and in opposition to democratic deliberative principles regarding different desires and perspectives on own and common life (Bertelsen, 2018). Furthermore, extremist attitudes can be categorized both as extremism in itself and additionally as the endorsement of violent or illegal means in regard to extremism (Ozer & Bertelsen, 2018). In other words, an extremist attitude does not necessarily develop into accepting the use of harmful means to carry out one's convictions (McCauley & Moskalenko, 2017).

An insecure life attachment could greatly destabilize the individual and cause a sense of cognitive uncertainty (Ozer & Bertelsen, 2019), which then can be the motivation creating the individual's sensitivity to the influences of group membership, ideology, and the clear boundaries and homogeneity of group perception (Hogg, 2012). That is, uncertainty and threats in regard to the individual's self-perception, worldview, and direction in life can be mitigated by emphasizing one's group membership, which can provide answers to such experiences of insecure life attachment. Such group involvement can assist the individual in perceiving the world as more predictable and comprehensible (Hogg, 2012). Group membership is important in this context because it provides people with existential security (Durkheim, 1951), and group threats in turn may evoke existential concerns (Lewin, 1948), resulting in deviant intentions and behavior (Belmi, Barragan, Margaret, & Cohen, 2015). Hence, such group processes could influence the relationship between an insecure life attachment and extremist attitudes.

### **The Importance of Group Membership in Radicalization Processes**

Many researchers have emphasized the importance of social identity processes in radicalization (e.g., Magouirk, Atran, & Sageman, 2008; Perliger & Pedahzur, 2011; Sageman 2017; Swann, Jetten, Gomez, Whitehouse, & Bastian, 2012). Indeed, group membership is valued most by people who strongly identify with their group (e.g., Ashmore, Deaux, & McLaughlin-Volpe, 2004), and it

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is one of the main factors motivating people to protest on behalf of their group (de Weerd & Klandermans, 1999; Grant, 2008; Mummendey, Kessler, Klink, & Mielke, 1999; Kelly & Breinlinger, 1995). Group membership is in general a central aspect of humans' everyday lives and has been deemed central to individuals' self-concept and social behavior (Luhtanen & Crocker, 1992). Indeed, one's social identity reflects the part of one's self-concept that derives from group membership, as well as the value and significance related to such membership (Tajfel & Turner, 1979). A salient group identity can influence other self-aspects as well as attitude and behavior (e.g., Phalet, Baysu, & Verkuyten, 2010).

Groups can be conceptualized as social categories with prototypical attributes that can influence or even dictate the behavior of group members and furthermore define and distinguish them from other categories (Hogg, 2012). The importance of group membership was key to the development of the social identity theory stating that humans' social identity provides a sense of belonging associated with pride and self-esteem (Tajfel & Turner, 1979).

One well-established operationalization of group importance captures four essential aspects of collective self-esteem related to ascribed group membership among the general population. These aspects concerned (1) membership esteem, which is the individual's judgment of the worthiness of being a member of one's social groups; (2) private collective self-esteem concerning the individual's judgment of how good the individual's groups are; (3) public collective self-esteem, which is the individual's judgment of how others evaluate that individual's social groups; and, (4) importance to identity concerning the importance of group memberships to one's self-concept and social identity (Luhtanen & Crocker, 1992).

Group membership and social identity can become salient and normative when they are emphasized to reduce or protect against self-uncertainty or threats, which can be caused by contemporary societal complexity in a culturally globalized, dynamic, and uncertain world (Hogg,



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2012). The role of identity salience for understanding social behavior is most clearly elaborated in self-categorization theory (e.g., Oakes, Haslam, & Turner, 1994; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). According to self-categorization theory, peoples' thoughts, feelings, and actions are largely dependent on which particular group membership is highlighted (salient) in a certain context or situation.

The more uncertain and insecure the contexts are, the more likely one's self-inclusive social category is to prove defining for the individual. For example, group identifications related to country and university among students in the U.S. were found to have risen significantly after the terror attack on September 11, 2001; eighteen months later, this identification dropped back to the level it was six months prior to the attack (Moskalenko, McCauley, & Rozin, 2006). Additionally, group membership and identity can shape one's political expression. For example, Phalet, Baysu, and Verkeyten (2010) found that Moroccan-Dutch Muslims were more willing to engage in non-normative political action when their Muslim identity was made salient. Under circumstances of threats, uncertainty, and new cultural influences, a salient social identity and associated group ideology can be significant factors in regard to radicalization processes, protecting against or aggressively addressing such threats (Hogg, 2012). Consequently, group membership has been influential in regard to how individuals address contextual uncertainty by engaging in collective action in the larger society (Klandermans, 1989; Simon & Klandermans, 2001; Smith, Pettigrew, Pippin, & Bialosiewicz, 2012).

Threats and unjust treatment directed toward a particular group trigger social identification processes (e.g., Branscombe, Ellemers, Spears, & Doosje, 1999), and participation in collective action becomes a means to assert one's identity and protest against those responsible for the injustice (Drury & Reicher, 2005). Most terrorist attacks are developed within extremist groups. In a review of radicalization literature, group dynamics including social identity was identified as a

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central factor of radicalization trajectories following a sensitivity phase that includes individual experiences of uncertainty, threat, accelerating globalization, injustice toward one's group, and loss of significance in society (Doosje et al., 2016; see also Sageman, 2008; Obaidi, Bergh, Sidanius, & Thomsen, 2018; Kruglanski et al., 2014). In general, strong group identification leads to a shared understanding of social phenomena and vice versa (Swaab, Postmes, van Beest, & Spears, 2007), and how people feel about and appraise certain social phenomena should be affected by their shared group identity. Therefore, reactions to contextual uncertainty may be motivated by a greater importance of group membership, creating a shared basis for taking action to rectify that uncertainty (Klandermans, 1989; Simon & Klandermans, 2001).

Research in student environments has found an interaction effect among group membership and self-uncertainty, suggesting that uncertainty can shift group identification toward more radical groups (Hogg, Meehan, & Farquharson, 2010). Furthermore, empirical research indicates that a significant relationship between exposure to sectarian antisocial behavior and aggression toward the out-group was enhanced by the moderating effect of social identity (Merrilees et al., 2017). Accordingly, group processes and identification emerge as central components of radicalization, constituting an influential factor for extremist involvement as indicated in psychological research (Sageman, 2008).

While it is now evident that social identification causes greater sensitivity in the individual toward the experience of threat to one's in-group, a meta-analysis indicates that various kinds of threats to one's group and way of life are positively associated with negative out-group attitudes (Riek, Mania, & Gaertner, 2006), which can be found in diverse forms of extremism (Obaidi, Thomsen, & Bergh, 2018). Accordingly, group membership can play an important moderating role in regard to enhancing or mitigating the relationship between an insecure life attachment and radicalization (Ozer & Bertelsen, 2019). Although an insecure life attachment and experiences of

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threat may explain proclivity to radicalization, they are nevertheless insufficient in themselves to explain radicalization. Many people may experience an insecure life attachment and experiences of threat, but few resort to extremism. Hence, the role of group membership as a potential moderator may help explain why only some, but not others under the same circumstances, become radicalized, which is also known as the *specificity problem* in research in radicalization (Sageman, 2004; Kruglanski & Fishman, 2009). For instance, by focusing on social identity processes, we can explain why some people without personal experience of threat or suffering still internalize the suffering of other in-group members and engage in extremism to address it (e.g., Obaidi et al., 2018a).

### **The Present Studies**

Based on the understanding that strong groups and salient social identity are often clearly bounded and somewhat uniform in regard to attitudes and values, as well as rigidly structured, they contain the properties necessary to develop a clearly defined and unambiguous sense of self and belonging (Hogg, 2012). In circumstances where individuals feel that their security, their material conditions, or their lifestyle and culture are under threat, group membership could shape possible endorsement of extremist attitudes, including a goal and ideology of radical societal changes without concern for other humans or groups.

In the present studies, we tested our predictions in various contexts to examine whether the proposed mechanisms were culturally specific or universal. In addition, we wanted to focus on majority populations not only in the West but also beyond. The Danish context was chosen because of the comprehensive welfare system reflected in strong labor market policies, equal wealth distribution, and generous social services (Biswas-Diener, Vittersø, & Diener, 2010). Consequently, this context would generally facilitate a secure life attachment (Ozer & Bertelsen, 2019).

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India was chosen because this context differs from the Danish society with a more neo-liberal ideology and greater income inequality. The Indian context is influenced more than the Danish by instability and terrorism (Global Terrorism Index, 2017). Accordingly, the Indian context reflects a context that might be less facilitative of a secure life attachment as compared to Denmark.

Finally, we tested our predictions in a sample of Muslims within the UK in order to examine our model across majority-minority dissimilarity. Some Muslim minorities in the UK have been exposed to racism and socioeconomic discrimination, which could be risk factors for radicalization (Kinnvall & Nesbitt-Larking, 2011). Moreover, the UK has in recent years been the target of several Islamist terrorist attacks committed by native-born Muslims.

Although these samples reflect great diversity emphasizing the sociocultural specificities, there are also relevant similarities. All three contexts have experienced a recent rise of right-wing populist parties: in India in particular, the Hinduist nationalist party now in power, the Bharatiya Janata Party, has significantly affected intergroup relations between Hindus and Muslims, leading to both symbolic and realistic threat perceptions on both sides (Alam, 2020). We have seen similar trends in Denmark and the UK regarding immigration and anti-immigration discourses and dynamics (Zienkowski & Breeze, 2019).

In the present studies, we examine a model that tests the following two hypotheses. First, based on the literature review, we expected insecure life attachment to be significantly and positively associated with endorsement of extremism across three highly dissimilar contexts (H1); such a relationship replicates previous findings (Ozer & Bertelsen, 2019). Second, we investigate how such a cross-national relationship between an insecure life attachment and extremism could be moderated by aspects of collective self-esteem; this reflects how group membership can enhance or

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mitigate the orientation toward radical societal change and intergroup hostility during greater experiences of one's context as being unsafe, unfair, and excluding (H2).

### Study 1

The first study examined the two hypotheses in a sample of Danish students.

#### Procedure

Data for the first study were collected through purposive non-random sampling using an online self-report questionnaire. An invitation letter for participation was distributed through student mailing lists and through relevant student Facebook groups related to a Danish college and university. The participants did not receive any compensation.

#### Participants

Using G\*Power (Faul, Erdfelder, Buchner, & Lang, 2009), we conducted a power analysis for a two-tailed test to detect at least small to medium effects ( $r=.25$ ) with a power of .80 (Cohen, 1992). This power analysis (which also applies to Studies 2 and 3) revealed a minimum required sample size of  $N=137$  to detect significant effects (alpha level of .05) given the existence of a true effect.

Participants in Study 1 were 223 students studying in Denmark. The mean age was 22.74 ( $SD=2.32$ ) and 71.7% were female. In regard to SES, 5.4% were below national average, 9.4% were just below average, 40.1 were average, 29.1% were just above average, and 15.7% were above average. Concerning religion, 54.7% identified as Christian, 30.5% as atheist, 9.4% as "other," 3.1% as Hindu, 1.3% as Muslim, and 0.9% identified as Buddhist.

#### Measurement

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Besides answering questions concerning background information such as their age, gender, religious affiliation, and perceived socioeconomic status, participants answered the following four measures in their original English versions.

*Life Attachment Scale* (LAS; Ozer & Bertelsen, 2019) was included as a measure tapping into the individual experience of not being securely and meaningfully embedded within one's sociocultural context. This scale comprises 14 items tapping into the individual's lack of a sense of safety, inclusion, reliability, fairness, and facilitation of well-being within one's country of living. The items represent the two domains of (a) material life conditions (e.g., job, education, finances, and well-being) and (b) lifestyle and culture. With a high correlation between these two domains of insecure life attachment, the scale was employed in further analyses in a fully aggregated version,  $r=.83$ . Internal consistency was good with Cronbach's  $\alpha=.94$ . All items were answered on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*. The sample item read, "In this country there is the risk of a sudden threat to the lifestyle and culture that are meaningful for me."

*Collective Self-Esteem Scale* (CSES; Luhtanen & Crocker, 1992) measures the following four aspects of one's collective self-esteem with four items each: (1) membership esteem (sample item: "I am a worthy member of the social groups that I belong to";  $\alpha=.76$ ); (2) private collective self-esteem (sample item: "I feel good about the social groups I belong to";  $\alpha=.76$ ); (3) public collective self-esteem (sample item: "In general, others respect the social groups that I am a member of";  $\alpha=.79$ ); and, (4) importance to social identity (sample item: "The social groups that I belong to are an important reflection of who I am";  $\alpha=.79$ ). Participants were asked to think of group membership in regard to gender, race, religion, nationality, ethnicity, and socioeconomic class. All items were answered using a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*.

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*Extremism Scale* (ES; Ozer & Bertelsen, 2018) was included as a measure of extremist attitudes.

The scale consists of a unidimensional 14-item scale that taps into both a strong desire for comprehensive personal and societal change as well as aspects of intolerance. Responses are scored on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*. Sample items include: “Most people in this country have a lifestyle and culture that is necessary to change totally.” The scale yielded good internal consistency with Cronbach’s alpha  $\alpha=.87$ .

*Pro-violence and Illegal Acts in Relation to Extremism Scale* (PIARES; Ozer & Bertelsen, 2018)

was employed to tap into acceptance of using violence and acceptance of using illegal means through two separate subscales. This scale was included to acknowledge the separate trajectories of extremist attitudes and accepting harmful means in relation to such attitudes (McCauley & Moskaleiko, 2017). The scale includes six items pertaining to accepting the use of violence and six matching items relating to the acceptance of using illegal means in relation to extremism. All items were answered through a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*. Sample items read, “Using physical violence is the only thing that really works when it is a matter of...creating a new and better society,” and, “Breaking the law is the only thing that really works when it is a matter of...preventing repression and assault of my people.” Internal consistency was good with  $\alpha=.92$  for the pro-violence subscale and  $\alpha=.92$  for the pro-illegal acts subscale.

### Results

The correlation matrix (Table 1) reveals the relationships between the different variables in this study. In relation to our first hypothesis, significant and positive bivariate correlations between an insecure life attachment and extremism ( $r=.65, p<.01$ ), acceptance of violence ( $r=.54, p<.01$ ), and acceptance of using illegal means ( $r=.47, p<.01$ ) support this hypothesis. That is, the experience of being insecurely embedded in one’s sociocultural context appears to be an important factor in

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initiating endorsement of radical societal change without concern for others, which could in some instances include violent and illegal means.

To test our second hypotheses, we ran a series of moderation analyses using Hayes' (2013) PROCESS macro (Model 1) with insecure life attachment as the independent variable, the three aspects of extremism (extremism in itself, accept of violence, and accept of illegal means) as the dependent variables, and each aspect of collective self-esteem (e.g., membership esteem, private collective self-esteem, public collective self-esteem, and importance to social identity) as moderating variables. Out of the moderation analyses, three yielded a significant moderation effect with importance to social identity moderating the relationship between insecure life attachment and extremist attitudes, acceptance of violent means, and acceptance of illegal means.

In the first significant moderation analysis, our model examining how the relationship between insecure life attachment and endorsement of extremism was moderated by the importance ascribed to one's social identity provided a significant model fit to the data,  $F(3, 219)=67.06, p<.01, R=.48$ . Within this model, the centered main effects revealed that both insecure life attachment ( $b=.62, 95\%CI [0.53, 0.71]$ ) and social identity ( $b=.08, 95\%CI [0.02, 0.14]$ ) were positive and significant predictors of extremist attitudes. Furthermore, social identity had a moderating effect on the relationship between insecure life attachment and extremist attitude,  $b=.13, 95\%CI [0.07, 0.20], t(219)=3.99, p<.01$ . That is, with lesser importance ascribed to one's social identity (1 *SD* below the mean), the level of insecure life attachment still significantly increased the level of extremist attitudes  $b=.45, p<.01, 95\%CI [0.33, 0.57]$ . However, this effect was stronger at a relatively high-level social identity (1 *SD* above the mean):  $b=.79, p<.01, 95\%CI [0.67, 0.92]$ .

In the second significant moderation analysis, we likewise found a significant fit to our data for our model examining how the relationship between insecure life attachment and the acceptance of



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using violent means in relation to extremism was moderated by the importance ascribed to one's social identity,  $F(3, 211)=33.03$ ,  $p<.01$ ,  $R^2=.32$ . Within this model, insecure life attachment ( $b=.51$ , 95%CI [0.40, 0.61]) and social identity ( $b=.09$ , 95%CI [0.02, 0.16]) were positive and significant predictors of endorsing the use of violent means. Moreover, social identity had a moderating effect on the relationship between insecure life attachment and accepting violent means,  $b=.08$ , 95%CI [0.00, 0.15],  $t(211)=2.03$ ,  $p=.04$ . That is, with lesser importance ascribed to one's social identity (1 *SD* below the mean), the level of insecure life attachment increased the acceptance of violent means,  $b=.41$ ,  $p<.01$ , 95%CI [0.27, 0.54]. This effect was stronger at relatively high-level social identity (1 *SD* above the mean):  $b=.61$ ,  $p<.01$ , 95%CI [0.46, 0.75].

Finally, in the third significant moderation analysis, we found a significant fit to our data for our model examining how the relationship between insecure life attachment and the acceptance of using illegal means in relation to extremism was moderated by the importance ascribed to one's social identity,  $F(3, 213)=23.18$ ,  $p<.01$ ,  $R^2=.25$ . Within this model, insecure life attachment was a positive and significant predictor of endorsing the use of illegal means ( $b=.58$ , 95%CI [0.44, 0.73]) while social identity was not ( $b=.07$ , 95%CI [-0.03, 0.16]). However, social identity had a moderating effect on the relationship between insecure life attachment and accepting illegal means,  $b=.13$ , 95%CI [0.03, 0.23],  $t(213)=2.49$ ,  $p=.01$ . That is, with lesser importance ascribed to one's social identity (1 *SD* below the mean), the level of insecure life attachment increased the acceptance of illegal means,  $b=.41$ ,  $p<.01$ , 95%CI [0.22, 0.60]. This effect was stronger at a relatively high-level social identity (1 *SD* above the mean):  $b=.76$ ,  $p<.01$ , 95%CI [0.55, 0.96].

Overall, the pattern of these moderation analyses reveals that social identity moderates the relationship between life attachment and the various aspects of extremism, illustrating that an insecure life attachment increased the level of extremism; this effect was strongest for those reporting relatively high importance of social identity. In sum, the findings of the first study partly

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confirm our hypotheses one and two. That is, H1 was confirmed through a significant and positive association between insecure life attachment and various aspects of extremism, while H2 was partly confirmed through social identity's moderating effect on the relationship between insecure life attachment and the various aspects of extremism.

### **Study 2**

In the second study, we examined whether our two hypotheses could be replicated in a sample from a highly dissimilar, non-Western context. Again, we tested the relationship between insecure life attachment and various aspects of extremism endorsement, as well as the moderating effects from the first study involving the interaction between social identity and insecure life attachment and possible other moderations from aspects of collective self-esteem.

#### **Procedure**

Data for the second study were collected through purposive non-random sampling using the same online self-report questionnaire as the first study. An invitation letter for participation was distributed through student mailing lists and through relevant student Facebook groups related to Indian colleges and universities. Five percent of the sample was recruited this way and these participants did not receive any compensation; the remaining 95% of the Indian participant group was recruited through Amazon Mechanical Turk.

#### **Participants**

Participants were 147 students studying in India. The mean age was 25.59 ( $SD=2.55$ ) and 66.7% were male. In regard to SES, 3.4% were below national average, 7.5% were just below average, 68.7% were average, 11.6% were just above average, and 8.8% were above average.

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Concerning religion, 79.6% identified as Hindu, 10.2% as Muslim, 7.5% as Christian, 1.4% as Buddhist, and 0.9% as atheist; 0.9% identified as “other.”<sup>1</sup>

### Measurement

The same measurement used for Study 1 was deployed again here, so besides answering questions concerning background information such as age, gender, religious affiliation, and perceived socioeconomic status, the following four measures were used in their English versions: Life attachment Scale ( $\alpha=.95$ ), Collective Self-Esteem Scale (membership esteem  $\alpha=.63$ ; private collective self-esteem  $\alpha=.63$ ; public collective self-esteem  $\alpha=.70$ ; importance to identity  $\alpha=.67$ ), Extremism Scale ( $\alpha=.90$ ), and Pro-violence ( $\alpha=.61$ ) and Illegal Acts ( $\alpha=.88$ ) in Relation to Extremism Scale. With a high correlation between the material and cultural domains of insecure life attachment, the scale was used in a fully aggregated version,  $r=.90$ .

### Results

As presented in the correlation matrix (Table 2), our first hypothesis was replicated in the Indian sample as a significant and positive association between insecure life attachment and extremism ( $r=.59, p<.01$ ), acceptance of violence ( $r=.27, p<.01$ ), and acceptance of illegal acts ( $r=.49, p<.01$ ) emerged. This finding strengthens the assumption that insecure life attachment could be a generic and important initiating factor in regard to extremism.

Moderation analyses examining how the relationship between insecure life attachment and various aspects of extremism was affected by collective self-esteem could confirm a replication of the moderation effects present in the Danish sample.

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<sup>1</sup> For mean scores across religious affiliation, please see supplementary material here: <https://osf.io/azm9n/>

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First, we tested the model examining how the relationship between insecure life attachment and endorsement of extremism was moderated by the importance ascribed to one's social identity; this provided a significant model fit to the data,  $F(3, 143)=35.36, p<.01, R^2=.43$ . Within this model, the centered main effects revealed that insecure life attachment ( $b=.36, 95\%CI [0.26, 0.42]$ ) was a positive and significant predictor of extremist attitudes while social identity was not, ( $b=.13, 95\%CI [-0.00, 0.26]$ ). Still, in this model, social identity had a moderating effect,  $b=.20, 95\%CI [0.10, 0.31], t(143)=3.90, p<.01$ . That is, with less importance ascribed to one's social identity (1 *SD* below the mean), the level of insecure life attachment still increased the level of extremist attitudes  $b=.18, p=.02, 95\%CI [0.03, 0.34]$ . This effect was, however, stronger at a relatively high-level social identity (1 *SD* above the mean):  $b=.55, p<.01, 95\%CI [0.43, 0.67]$ . Overall, this finding indicates that social identity moderating the relationship between life attachment and extremism is comparable across highly dissimilar sociocultural contexts.

Second, we examined a model of how the relationship between insecure life attachment and acceptance of violent means in relation to extremism could be moderated by the importance ascribed to one's social identity. Within this model, social identity did not have a moderating effect,  $b=.09, 95\%CI [-0.02, 0.21], t(143)=1.56, p=.12$ .

Third, we tested the model examining how the relationship between insecure life attachment and acceptance of illegal means in relation to extremism could be moderated by the importance ascribed to one's social identity. This model provided a significant fit to the data,  $F(3, 143)=20.49, p<.01, R^2=.30$ . Within this model, the centered main effects revealed that both insecure life attachment ( $b=.36, 95\%CI [0.22, 0.51]$ ) and social identity ( $b=.19, 95\%CI [0.00, 0.38]$ ) were positive and significant predictors of extremist attitudes. Furthermore, in this model social identity also had a moderating effect,  $b=.21, 95\%CI [0.07, 0.36], t(143)=2.95, p<.01$ . That is, with less importance ascribed to one's social identity (1 *SD* below the mean), the level of insecure life

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attachment did not significantly increase the acceptance of illegal means  $b=.17, p=.12, 95\%CI [-0.04, 0.39]$ . However, this effect was significant at a relatively high-level social identity (1 *SD* above the mean):  $b=.55, p<.01, 95\%CI [0.39, 0.72]$ . Again, this finding indicates a generalizability of social identity moderating the relationship between life attachment and acceptance of illegal acts across the dissimilar national contexts.

Unlike the Danish sample, other significant moderation effects emerged in the Indian sample. In regard to the relationship between insecure life attachment and extremism, this relationship was additionally moderated by membership esteem ( $b=.17, 95\%CI [0.07, 0.28], t(143)=3.18, p<.01$ ), private collective self-esteem ( $b=.19, 95\%CI [0.08, 0.30], t(143)=3.52, p<.01$ ), and public collective self-esteem ( $b=.17, 95\%CI [0.06, 0.29], t(143)=2.96, p<.01$ ). In regard to the relationship between insecure life attachment and accepting violent means in relation to extremism, moderation effects were found for membership esteem ( $b=.16, 95\%CI [0.04, 0.27], t(143)=2.58, p=.01$ ) and private collective self-esteem ( $b=.15, 95\%CI [0.02, 0.27], t(143)=2.37, p=.02$ ). Finally, concerning the relationship between insecure life attachment and accepting illegal means in relation to extremism, additional significant moderation effects were found for membership esteem ( $b=.27, 95\%CI [0.12, 0.42], t(143)=3.59, p<.01$ ), private collective self-esteem ( $b=.26, 95\%CI [0.11, 0.41], t(143)=3.48, p<.01$ ), and public collective self-esteem ( $b=.18, 95\%CI [0.02, 0.34], t(143)=2.22, p=.03$ )<sup>2</sup>.

### Study 3

In the third study, we examined our two hypotheses in a minority sample of Muslims living in the UK.

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<sup>2</sup> For description of the slopes for the additional significant moderations, please see supplementary material here: <https://osf.io/azm9n/>

### **Procedure**

Data for the third study were collected through purposive non-random sampling using the same online self-report questionnaire as employed in the first two studies. All participants were recruited through Prolific.

### **Participants**

Participants were 225 Muslims living in the UK. The mean age was 28.57 ( $SD=8.90$ ) and 59.6% were female. In regard to SES, 30.2% were below national average, 21.3% were just below average, 33.8% were average, 9.3% were just above average, and 5.3% were above average.

### **Measurement**

The same measurements used for Studies 1 and 2 were deployed again here in their English versions: Life attachment Scale ( $\alpha=.93$ ), Collective Self-Esteem Scale (membership esteem  $\alpha=.71$ ; private collective self-esteem  $\alpha=.83$ ; public collective self-esteem  $\alpha=.70$ ; importance to identity  $\alpha=.69$ ), Extremism Scale ( $\alpha=.87$ ), and Pro-violence ( $\alpha=.93$ ) and Illegal Acts ( $\alpha=.92$ ) in relation to Extremism Scale. The material and the cultural domains of insecure life attachment were highly correlated,  $r=.85$ . Thus, in further analyses, we combined all items related to material and cultural domains of insecure life attachment into one index. When confronted with the Collective Self-Esteem Scale, the participants were asked to reply in regard to being part of the Muslim minority group in the UK.

### **Results**

As presented in the correlation matrix (Table 3), our first hypothesis was partly replicated in the minority sample from the UK through a significant and positive association between insecure life attachment and extremism ( $r=.23, p<.01$ ) and acceptance of illegal acts ( $r=.19, p<.01$ ). However,

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unlike the other two samples, insecure life attachment was not significantly associated with acceptance of violence ( $r=.13, p=.06$ ). Nevertheless, these findings strengthen the assumption of an insecure life attachment as being a factor relevant for understanding extremism.

Analyses examining how the significant associations between insecure life attachment and extremism and acceptance of either illegal or violent means were moderated by various aspects of collective self-esteem yielded divergent results compared to the Danish and Indian majority samples.

First, we tested the model examining how the relationship between insecure life attachment and endorsement of extremism was moderated by the importance ascribed to one's social identity that proved significant in the previous two studies. Within this model, social identity did not have a significant moderating effect,  $b=-.07, 95\%CI [-0.16, 0.01], t(221)=-1.74, p=.08$ . Furthermore, the relationship between insecure life attachment and acceptance of illegal means was not significantly moderated by social identity,  $b=.06, 95\%CI [-0.06, 0.18], t(221)=1.01, p=.31$ .

Second, we examined the remaining aspects of collective self-esteem for significant moderation effects. This resulted in one significant moderation model regarding private collective self-esteem reflecting one's evaluation of how good one's group is. This model provided a significant model fit to the data,  $F(3, 221)=10.71, p<.01, R^2=.13$ . Within this model, the centered main effects revealed that insecure life attachment ( $b=.17, 95\%CI [0.07, 0.28]$ ) was a positive and that private collective self-esteem ( $b=-.20, 95\%CI [-0.30, -0.09]$ ) was a negative and significant predictor of extremist attitudes. Furthermore, within this model, private collective self-esteem had a moderating effect,  $b=-.09, 95\%CI [-0.17, 0.00], t(221)=-2.07, p=.04$ . That is, with a relatively lower score in private collective self-esteem (1 *SD* below the mean), the level of insecure life attachment significantly increased the level of extremist attitudes  $b=.28, p<.01, 95\%CI [0.14, 0.42]$ . This effect was,

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however, not significant at a relatively high score of private collective self-esteem (1 *SD* above the mean):  $b=.07$ ,  $p=.37$ , 95%CI [-0.08, 0.21]. Overall, this finding indicates that the moderating effect of one's judgment of how good one's group is emerges as a protective factor in relation to the association between insecure life attachment and extremism among minority Muslims residing in the UK.

### Discussion

In sum, our cross-national findings indicate that there exists a significant and positive association between an insecure life attachment and different aspects of extremism, which is moderated differently by various aspects of collective self-esteem in dissimilar cultural contexts and groups. In the Indian sample, several aspects of group membership were significant and positive moderators, suggesting that group membership might be of greater importance in regard to extremism in the Indian context versus the Danish. In the Muslim minority group from the UK, positive evaluation of one's religious group emerged as a protective factor in regard to radicalization processes, while the other aspects of group membership were not significantly influential moderators. This suggests that radicalized group processes might diverge in regard to majority and minority groups.

### Similarities and Differences across Group and National Context

In contemporary social science research, there is fresh awareness regarding the limitations of using Western college students for generic studies of human psychology. Consequently, it was recommended to include more diverse populations to detect similarities and differences across contexts (Henrich et al., 2010). In this regard, it has been suggested that the relationship between various threat experiences and outgroup prejudice vary according to the specific context (Stephan & Stephan, 2000).



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Our cross-national comparison indicates that social identity emerges as the central aspect of group membership that moderates associations between insecure life attachment and extremism among majority groups. Nevertheless, importance to identity was the only aspect of collective self-esteem not significantly correlated with the three aspects of extremism in the Danish non-Muslim and the UK Muslim sample. This indicates that an insecure life-attachment was more influential in regard to radicalization among those who stress the importance of social identity as a reflection of the ways in which psychological factors interact. While social identity was a significant moderator in the Danish and Indian contexts regarding extremist attitude and acceptance of illegal means, the importance of collective self-esteem was broader in India where all aspects of collective self-esteem yielded significant moderating effects. This could reflect Indian context as shaped by less individualism and greater uncertainty avoidance as compared to Denmark (Hofstede, Hofstede, & Minkov, 2010). Indeed, group membership is more salient in collectivist societies where individuals are more influenced by the opinion of the group, and although Indian culture is not closely associated with uncertainty avoidance, more beliefs are created to avoid the ambiguity of the unknown within this country as compared to Denmark. At the same time, mean scores of collective self-esteem were generally higher among the Danish sample, perhaps reflecting a general positive evaluation of Danish society (Biswas-Diener, Vittersø, & Diener, 2010).

Social identification has in research been associated with sensitivity for experiencing threats and injustice toward one's in-group (Riek et al., 2006). In regard to this, India has been home to a great variety of terrorist groups and has experienced instability reflecting the complex political and religious constitution of the nation (Mazumdar, 2019). With a collectivist appreciation of one's group membership, sensitivity and experience of uncertainty could be prevalent experiences in initiating endorsement of radical societal change. Perhaps such an experience of a threat to the

nation also reflects how the Indian sample, unlike the Danish and the UK samples, positively associates collective self-esteem with endorsement of non-violent extremism.

### **Group Membership Enhancing or mitigating Extremism during Insecure Life Attachment**

When individuals are challenged concerning their sociocultural embedding, group membership could provide a way of reestablishing a secure life attachment and belonging through strong social identity and associated ideology (Ozer & Bertelsen, 2019). According to Tajfel and Turner (1979), an uncertain context can be experienced as more organized and simpler when the norms of a group membership prescribe how the individual should think and behave. This could relate to understandings about how challenging contextual situations require greater cognitive resources; together with perceived in-group threats, this could in turn limit the complexity and multiplicity of one's social identities related to various groups, which would consequently reduce differences among in-group categories and enhance the salience of a specific in-group (Roccer & Brewer, 2002). Indeed, data from convicted terrorists suggest that enhancement of a collective identity emerged as a central aspect of radicalization by way of reacting to a collective threat or mistreatment (Porter & Kebbell, 2011). Hence, empirical investigations indicate that part of radicalization processes include a change in identity configuration—where the personal identity is deemphasized and replaced by a group identity that can offer greater significance in the fight against perceived injustice and humiliation (Milla, Putra, & Umam, 2019). Interestingly, our results from the correlation analyses for the Danish and the UK samples did not reflect group membership as a risk factor of radicalization per se. Rather, this risk factor emerged through interaction with insecure life attachment in the Danish and Indian samples, reflecting the importance of capturing the interaction among multiple psychological factors when examining the complex phenomenon of radicalization (Gill & Corner, 2017).

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The effects of group membership on the development of extremist attitudes poses the question of what kind of groups are characterizing our social identity and collective self-esteem and associated power positions. That is, we have many social identities reflecting the groups we subjectively belong to (Roccer & Brewer, 2002). In our UK sample, positive individual perceptions of the Muslim minority group emerged as a protective factor in regard to extreme reactions to insecure contextual embeddedness. These findings are in line with previous research conducted among various populations of Muslims showing that identification with the in-group did not moderate the relationship between symbolic and realistic threats and outgroup hostility (Obaidi et al., 2018b).

In contrast, in the Indian sample, group membership was the strongest risk factor for extremism, which could reflect a strong nationalism with the desire to stabilize a rather uncertain and insecure contextual embeddedness. Such nationalism might reflect a high level of entitativity, which refers to the property of the group, relying on clear boundaries, homogeneity, common goals, and a clear internal structure (Hogg, 2012). Experimental research has found that people identify more strongly with their group if they experience uncertainty and if the group is characterized by high entitativity (Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007). Indeed, high entitativity groups have a clear prototype, providing the group members with a more coherent self-understanding, which can guide behavior and make social interaction more predictable (Hogg, 2012). Consequently, our results suggest that interventions could challenge group entitativity through, for example, dialogue and perspective exchange; additionally, alternative group memberships could be made available that promote peaceful civic participation when addressing contextual insecurity.

Finally, in the current studies, and in line with previous studies (e.g., Obaidi et al., 2018b), we aimed to investigate whether same social psychological factors can explain extremism among high

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and lower power groups in various cultural contexts. Therefore, in the current studies we focused not only on minority populations (e.g., Muslim minorities in the UK), but also on more advantaged high-power groups (e.g., ethnic Danes in Denmark and Indians in India). It is important to note that previous studies among Muslim populations found no evidence suggesting that poverty and low educational attainment generate terrorism (see also, Atran, 2003; Krueger & Maleckova, 2003). In fact, individuals enrolled in higher education and high earners are more likely to support and sympathize with violent protest and acts of terrorism (see, Bhui, Warfa, & Jones, 2014), suggesting a role for relative deprivation (e.g., Van den Bos, 2020; Obaidi et al., 2019; Setiawan, Scheepers, & Sterkens, 2019). Hence, we believe it is equally important to investigate how and why the majority high-power populations endorse extremism. Previous research indicates that the perception of injustice and status threat is a strong predictor of extremism among high status groups (Obaidi et al., 2018).

In recent years, we have witnessed an increase in social movements, including the alt-right and Black Lives Matter movements, increased immigration, and increases in racial, ethnic, and religious diversity. Such social and demographic changes seem to have disrupted the status quo, leading to an increase in right-wing extremism, political polarization, and support for white nationalism (Morgan, 2018; Mertus, 2001; Greitmeyer & Sagioglou, 2016). For example, in an attempt to defend their dominant status, high-power groups endorse violent extremism against out-groups when intergroup inequality is high (Kunst, Fischer, Sidanius, & Thomsen, 2017; Osborne, Garcia-Sanchesz, & Sibley, 2019; Sidanius & Pratto, 1999). Indeed, previous research shows that the perception of deprivation among high status group predicts more support for right-wing extremist violence and own violent intentions (Doosje, Van den Bos, Loseman, Feddes, & Mann, 2012). Relatedly, the perception of threat among white U.S. Americans with a Republican political affiliation predicted a stronger willingness to violently persecute political out-groups (Kunst, Dovidio, Thomsen, 2019).

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Although our participants may have a relatively high sense of security and enjoy a meaningful embeddedness within their country of living, in the domains of material life conditions and of lifestyle and culture, any perceived or actual change in society may be perceived as a potential threat to their status quo and social standing, leading to collective action toward preserving their dominant societal status.

### **Limitations**

The present study should be considered in relation to several limitations. First, our attitudinal study is based on a generic approach to extremist mind-sets among the general population. Therefore, we have no data to confirm that endorsement of violent means in relation to extremism could lead to execution of radicalization. Additionally, our self-report measurement does not capture the objective state of the context, including factual threats to one's life attachment. However, our cross-national study does tap into important differences in the experience of insecure life attachment.

Second, we want to acknowledge that our empirical findings were obtained by means of Facebook, Amazon Mechanical Turk, and Prolific Academic and these types of sampling methods have obvious limitations. Although, a strength of this study was that it comprised diverse samples of participants from various cultural contexts, nevertheless these samples were not representative of their populations. Thus, our conclusions of the paper are restricted to the samples we report here. Further, it is important to note that the online and chain-referral technique we have used in our studies may have resulted in recruiting subjects who shared similar traits and characteristics. For instance, the use of Prolific to collect data among Muslims has limitations since it is unclear whether our conclusions can be generalized to Muslims in England broadly, since previous research has found significant differences in the psychological profile of users who use (versus do not use)

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specific online platforms such as Facebook (Brailovskaia and Margraf, 2016). Hence, future research is needed to reveal whether the findings obtained in the present studies can be generalized to other populations using representative samples and other methods of collecting data.

Third, and related to the above, one of the main limitations of our research was our reliance on student samples or cross-sectional data. As emphasized above, we do acknowledge that restricting our paper to subgroups of the general population not only produces the possibility of introducing selection bias, but also leads to lack of generalizability and inference making about the entire population. However, we believe that our inferences are valid, as we have replicated our findings in three different cultural contexts. Nevertheless, future studies are needed to replicate our findings among representative samples using both experimental and longitudinal methodology. Furthermore, cross-sectional data allowed us to examine diverse aspects of group membership across dissimilar contexts and groups. However, the data do not allow us to establish causality in our model. Future longitudinal and experimental research is needed to strengthen the empirical foundation of radicalization research and to establish the directionality of the relevant psychological mechanisms such as group membership (Gøtzsche-Astrup, 2018).

Fourth, while our work provides new insights into the generalizability of contextual and group dynamics in regard to radicalization, the complex nature of this phenomenon requires an understanding of multiple concerted influential factors and sociohistorical specificity to reach a full comprehension (Gill & Corner, 20017).

### **Conclusion**

Radicalization can have devastating consequences for individuals, intergroup relations, and societies affected by it. Membership of groups that are clearly defined in terms of their attitudinal and behavioral attributes has emerged as a central influential factor (Hogg, 2014). In our study, we

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found cross-cultural support for the assumption that an insecure life attachment is associated with extremism, and furthermore that social identity can be a risk factor enhancing such an association. This result emerged as a general finding across majority group members in highly dissimilar national contexts. However, a broader conception of social self-esteem yielded greater importance in the more collectivist context of India as compared to Denmark and the UK, with several aspects of collective self-esteem strengthening the relationship between insecure life attachment and radicalization. Contrary to this, we found that among a minority group of Muslims in the UK, positive evaluations of one's religious group was a mitigating factor in regard to extremism, and that other aspects of group membership were insignificant in regard to the basic relationship between insecure life attachment and extremism.

Our results indicate that group membership and extreme group identification are psychological factors that could be addressed in regard to counter-radicalization initiatives. Specifically, more moderate group identification among majority and positive group evaluations among minority groups could be supported to address contextual uncertainty and threat through civil participation and intergroup dialogue, which could mitigate group entitativity and increase the number and complexity of one's social identifications.

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Table 1. Correlation matrix, means, and reliability for the Danish sample.

	2.	3.	4.	5.	6.	7.	8.	Mean (SD)	$\alpha$
1. Insecure life-attachment	-.36**	-.40**	-.33**	-.10	.65**	.54**	.47**	1.79 (0.88)	.94
2. Membership esteem		.52**	.65**	.35**	-.23**	-.15*	-.17*	5.65 (0.99)	.76
3. Public collective esteem			.57**	.26**	-.24**	-.15*	-.09	5.76 (0.96)	.79
4. Private collective self-esteem				.40**	-.25**	-.14*	-.20**	5.86 (0.89)	.76
5. Importance to identity					.05	.08	.03	4.83 (1.32)	.79
6. Extremism						.64**	.53**	1.92 (0.81)	.87
7. Pro-violence							.68**	1.37 (0.80)	.92
8. Pro-illegal acts								1.81 (1.07)	.92

Note. \* $p < .05$ ; \*\* $p < .01$

## GROUP MEMBERSHIP AND RADICALIZATION

Table 2. Correlation matrix, means, and reliability for the Indian sample.

	2.	3.	4.	5.	6.	7.	8.	Mean (SD)	$\alpha$
1. Insecure life-attachment	.17*	.16	.16*	.34**	.59**	.27**	.49**	4.31 (1.21)	.95
2. Membership esteem		.62**	.69**	.62**	.29**	-.35**	.19**	4.94 (0.90)	.68
3. Public collective esteem			.58**	.57**	.29**	-.32**	.22**	5.03 (0.83)	.70
4. Private collective self-esteem				.60**	.23**	-.31**	.14	4.93 (0.84)	.63
5. Importance to identity					.32**	-.28	.30**	4.84 (0.89)	.67
6. Extremism						.50**	.84**	4.73 (0.92)	.90
7. Pro-violence							.59**	4.02 (0.90)	.61
8. Pro-illegal acts								4.78 (1.16)	.88

Note. \* $p < .05$ ; \*\* $p < .01$

## GROUP MEMBERSHIP AND RADICALIZATION

Table 3. Correlation matrix, means, and reliability for the Muslim sample.

	2.	3.	4.	5.	6.	7.	8.	Mean (SD)	$\alpha$
1. Insecure life-attachment	-.10	-.33**	-.07	.02	.23**	.13	.19**	3.16 (1.23)	.93
2. Membership esteem		.23**	.55**	.40**	-.14*	-.23**	-.25**	5.05 (1.14)	.71
3. Public collective esteem			.27**	.15*	-.20**	-.22**	-.19**	4.55 (1.12)	.70
4. Private collective self-esteem				.51**	-.26**	-.30**	-.19**	5.44 (1.20)	.83
5. Importance to identity					-.09	-.12	-.04	4.50 (1.19)	.69
6. Extremism						.59**	.50**	2.87 (1.03)	.87
7. Pro-violence							.66**	1.85 (1.22)	.93
8. Pro-illegal acts								2.54 (1.45)	.92

Note. \* $p < .05$ ; \*\* $p < .01$