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### Religious fundamentalism and radicalization: how nationalist-Islamist party politics polarizes Turkey—and how polarization can be reduced

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**Abstract** The reactivity hypothesis posits that individuals who are, or perceive themselves to be, deprived tend to develop a fundamentalist worldview and/or are more likely to (further) radicalize. In the present study, however, we predicted that individuals who feel less deprived would exhibit a stronger fundamentalist worldview and/or radicalized attitudes in a political context characterized by polarization driven by leaders or institutions such as governments. Using Turkey as an example, we found partial support for our hypothesis in a Muslim sample (N=736), which was representative of age, gender, education level, ethnic affiliations, and urbanity. Individuals who felt less disadvantaged—thus more privileged—were found to be more fundamentalist, even when controlling for a range of other variables previously associated with fundamentalism, including conspiracy beliefs, personality traits, and socio-demographic variables. In contrast, deprivation was unrelated to radicalization (acceptance of active and reactive violence). Interestingly, supporters of the nationalist-Islamist government (AKP-MHP) scored on average higher on fundamentalism and radicalization than supporters of other parties. However, we also note that there are substantial similarities between both groups and that most participants scored low on both radicalization measures. Finally, we discuss possible strategies drawn from various studies aimed at reducing polarization and radicalization.

**Keywords** Fundamentalism · Radicalization · Turkey · Polarization

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### Religiöser Fundamentalismus und Radikalisierung: Wie die nationalistisch-islamistische Parteipolitik die Türkei polarisiert – und wie Polarisierung reduziert werden kann

**Zusammenfassung** Die Reaktivitätshypothese besagt, dass Personen, die benachteiligt sind oder sich selbst als benachteiligt wahrnehmen, dazu neigen, eine fundamentalistische Weltanschauung zu entwickeln und/oder sich (weiter) zu radikalisieren. In der vorliegenden Studie sagten wir jedoch voraus, dass Personen, die sich weniger benachteiligt fühlen, eine stärkere fundamentalistische Weltanschauung und/ oder radikalisierte Einstellungen in einem politischen Kontext zeigen würden, in dem führende Persönlichkeiten wie Regierungen die Gesellschaft polarisieren. Am Beispiel der Türkei fanden wir in einer muslimischen Stichprobe (N=736), die hinsichtlich Alter, Geschlecht, Bildungsniveau, ethnischer Zugehörigkeit und Urbanität repräsentativ war, eine teilweise Unterstützung für unsere Hypothese. Personen, die sich weniger benachteiligt – also privilegierter – fühlten, erwiesen sich als fundamentalistischer, selbst wenn wir für eine Reihe anderer Variablen kontrollierten, die zuvor mit Fundamentalismus in Verbindung gebracht wurden, darunter Verschwörungsüberzeugungen, Persönlichkeitsmerkmale und soziodemografische Variablen. Im Gegensatz dazu stand die Deprivation in keinem Zusammenhang mit der Radikalisierung (Akzeptanz von aktiver und reaktiver Gewalt). Interessanterweise wiesen die Anhänger der nationalistisch-islamistischen Regierung (AKP-MHP) im Durchschnitt höhere Werte für Fundamentalismus und Radikalisierung auf als die Anhänger der anderen Parteien. Wir stellen jedoch auch fest, dass es erhebliche Ähnlichkeiten zwischen den beiden Gruppen gibt und dass die meisten Studienteilnehmer bei beiden Radikalisierungsmaßen niedrige Werte erzielten. Abschließend erörtern wir mögliche Strategien aus verschiedenen Studien, die darauf abzielen, Polarisierung und Radikalisierung zu verringern.

Schlüsselwörter Fundamentalismus · Radikalisierung · Türkei · Polarisierung

#### 1 Introduction

In light of the recent surge in scholarly investigations into fundamentalism (see Williamson and Demmrich 2024, for a review) and radicalization (Van den Bos 2018, for a review), it is evident that the field is marked by a disproportionate number of research gaps compared to substantive outcomes. Notably, the imbalance becomes even more pronounced when considering that the bulk of studies focused on Western contexts, particularly in the Northern Hemisphere.

This void of studies on fundamentalism and radicalization in non-Western countries can be attributed to a range of factors. Firstly, certain areas outside the Western sphere, such as Muslim-majority countries, have displayed a reluctance to delve into topics deemed negatively connoted within their religious traditions. Examples include the scant exploration of themes such as deconversion, religious doubt, or unbelief (Sevinç and Ağılkaya-Şahin 2015), including fundamentalism, and radicalization. Conversely, a contrasting phenomenon is observed in the tendency of social



science of religion (and beyond) to impose empirical findings derived from Western studies on diverse global contexts (see Allolio-Näcke and Demmrich 2022). This indiscriminate application of theories and empirical results raises concerns about the validity and cultural appropriateness of such transference (Cutting and Walsh 2008; Henrich et al. 2010; Spickard 2017).

An illustrative case in the study of fundamentalism and radicalization is the reactivity hypothesis, asserting a form of psychologically universal automatism. According to this hypothesis, individuals experiencing deprivation and exclusion are more prone to embracing a fundamentalist worldview and may subsequently intensify their trajectory into radicalization (e.g., Belgioioso et al. 2023; Diehl and Koenig 2009; Gurr 1970). In the first part of this paper, we tested this hypothesis in a context in which political leaders contribute to polarizing society by endorsing and fostering religious fundamentalism and further radical ideas (Khosrokhavar 2016), as exemplified in our study on Turkey (Demmrich and Hanel 2023). Additionally, we explore the role that individual support for the nationalist-Islamist government plays in both fundamentalism and radicalization. The second part of our paper presents potential strategies derived from recent studies (e.g., Syropoulos and Leidner 2023; Voelkel et al. 2023; Wolf and Hanel 2024) focused on mitigating radicalization and potentially also polarization and discuss their applicability within the Turkish context.

## 2 Part I: The reactivity hypothesis in the context of nationalist-Islamist party politics<sup>1</sup>

One of the most popular but simultaneously controversial hypothesis regarding the two separated yet related phenomena of fundamentalism and radicalization is the so-called reactivity hypothesis. This hypothesis asserts that individuals who perceive themselves as deprived are more likely to encapsulate themselves in a fundamentalist worldview (Diehl and Koenig 2009; Fleischmann and Phalet 2012; Schiffauer 1999) or are more likely to further radicalize (Gurr 1970; Kruglanski et al. 2015; Roy 2004). Fundamentalism, often defined as a defensive reaction to modernization (Emerson & Hartman, 2006), can be characterized by exclusivity, the assertion of both superiority and universality, and the ambition to revive a perceived past 'Golden Age' (Pollack et al. 2023, in press; Taylor and Horgan 2001). While most fundamentalists are not violent (Emerson & Hartmann, 2006), fundamentalism is often strongly associated with radicalization (e.g., Kanol 2024; Demmrich and Hanel 2024; C. Öztürk and Pickel 2024; cf. Beller and Kröger 2018, 2021<sup>2</sup>). Such a fundamentalist worldview and/or secure membership within such a demarcated group, is posited to alleviate

<sup>&</sup>lt;sup>2</sup> These two exceptions to the robust empirical finding linking fundamentalism and radicalization may be explained by the use of Muslim samples from the U.S. context, which are characterized by a higherthan-average level of education and greater socioeconomic status. As such, these samples are not directly comparable to Muslim communities living outside the U.S.



<sup>&</sup>lt;sup>1</sup> Some reported results in Part I stem from an earlier analysis published in Demmrich and Hanel (2023).

the adverse effects of discrimination. This transformation may potentially result in heightened self-esteem (Kruglanski et al. 2015; Schiffauer 1999).

The reactivity hypothesis, under scrutiny for over two decades (Taylor and Horgan 2001), has encountered numerous challenges and scientific critiques. On the empirical front, criticism largely stems from ambiguous findings (in support of the reactivity hypothesis: e.g., Schiffauer 1999; Verkuyten and Yildiz 2007; Victoroff et al. 2012; challenges the reactivity hypothesis: e.g., Fleischmann et al. 2011; Mishali-Ram and Fox 2022). Furthermore, all existing studies have employed correlational approaches. In contrast, more balanced quantitative (Demmrich and Hanel 2024; Kanol 2024; Koopmans 2015; Pollack et al. in press; Wetzels and Brettfeld 2023) and qualitative methodologies (Aslan et al. 2017), incorporating multiple variables to simultaneously explain fundamentalism or radicalization, indicate that the experiences of deprivation and exclusion are of relatively minor significance. On the conceptual front, the reactivity hypothesis has faced criticism for its derivation from the previously contested frustration-aggression hypothesis and its lack of specificity. Many individuals or groups experience discrimination or exclusion without reacting with fundamentalism or radicalization (e.g., Pisoiu 2012).

We introduce an additional challenge to the reactivity hypothesis by emphasizing the importance of context specificity. Fundamentalism and the propagation of radical ideas often find impetus or reinforcement through political leaders (Mazumdar 2019). In the Turkish context, the current President Recep Tayvip Erdoğan (\*1954) faces accusations of endorsing a nationalist-Islamist agenda that fosters religious fundamentalism (Bashirov and Lancaster 2018; Özpek and Yaşar 2018) and supports further radical ideas. Examples include his close ties to the Muslim Brotherhood (Taş 2022), al-Qaeda, and ISIS (Yayla 2017). As an illustration, in a recent development, he referred to Hamas—an offshoot of the Muslim Brotherhood—as a "liberation group" (Gumrukcu and Hayatsever 2023). Moreover, Erdoğan has employed repression against those who do not align with his views while rewarding those who support him, his party, the AKP, and its allies (e.g., MHP), as part of a strategy to maintain power (Yilmaz et al. 2020). For instance, Erdoğan has curtailed freedom in education (Aydin and Avincan 2021), press (Akser 2018; Reporters without Borders 2018), and state-led religious infrastructure (Babacan 2020; Çokgezen 2022; A. E. Öztürk 2016). However, a substantial portion of the population opposes the government's trajectory, leading to Turkey being widely recognized as one of the most polarized societies globally (Aydın-Düzgit and Balta 2019; Somer 2019). This political polarization, in turn, serves as a well-known catalyst for radicalization (Mc-Cauley and Moskalenko 2011): the polarization dynamic alters social norms towards reduced openness and plurality, consequently rendering fundamentalism and radical ideas increasingly acceptable to the majority (Zick and Böckler 2015).

Hence, we posit that these political interventions exert a profound influence on Turkish society, particularly anticipating that *less* deprivation should relate to more fundamentalist and radical attitudes (Khosrokhavar 2016) because fundamentalism is rewarded by those in power. This first hypothesis contradicts prior research, which indicates an opposite pattern, even within the Turkish context (Coreno 2002; Moaddel and Karabenick 2018). To examine this hypothesis, we investigate whether deprivation, particularly perceived deprivation, exhibits a negative association with



fundamentalism and radicalization. This analysis is conducted while accounting for various other variables previously linked to fundamentalism and/or radicalization in past studies, such as conspiracy beliefs and a spectrum of personality variables by employing a nationally representative quota sample from Turkey.

Previous studies have identified moderate to strong associations between belief in conspiracy theories—or more broadly, conspiracy mentality—and both fundamentalism (Moaddel and Karabenick 2018) and radicalization (C. Öztürk and Pickel 2024). Furthermore, various personality traits are frequently linked to both phenomena. The relationship between authoritarianism and fundamentalism is particularly well-researched (Altemeyer and Hunsberger 1992; for a review, see Williamson and Demmrich 2024), as is its connection to radicalization (C. Öztürk and Pickel 2024). Additionally, both fundamentalism and radicalization are positively correlated with narcissism (e.g., fundamentalism: Unterrainer et al. 2016; radicalization: Chabrol et al. 2019), schizotypy, which includes paranoia (Schneider 2002), and dependency (fundamentalism: Ghorbani et al. 2019; radicalization: Lloyd and Kleinot 2017). For more detailed explanations of these relationships, see Demmrich and Hanel (2023).

Further, we predicted that religious fundamentalism would be associated with active and reactive violence even after controlling for a range of other variables discussed above (e.g., authoritarianism, exploitable dependency) since previous research established that fundamentalism and radicalization are related (e.g., Kanol 2024; Demmrich and Hanel 2024; C. Öztürk and Pickel 2024). Additionally, we hypothesized that supporters of the Turkish government would score on average higher in radicalization as operationalized by active and reactive violence because the government has close ties with the Muslim Brotherhood (Taş 2022), and been accused to also have established relationships with al-Qaeda as well as ISIS (Yayla 2017). All of these organizations that seem to accept violence as an acceptable mean.

However, simply focusing on mean differences between groups such as supporters and non-supporters of the Turkish governments could increase the perception that they are very different and hence lead to increased polarization (cf. Wolf and Hanel 2024). We therefore also report similarities between both groups to prevent potential intergroup tensions resulting from our findings (cf. Hanel et al. 2019), as we outline in Part 2 below.

#### 3 Method

#### 3.1 Sample and procedure

We gathered a quota of Muslims living in Turkey, ensuring representation across age, gender (TÜIK 2020), and education levels (OECD 2014) with the support of Qualtrics. Our sample also mirrored national figures on ethnicities, urbanity (Doğan 2018), and voting preference (Metropoll, 2021) (for additional details on demographics see Table S1 in the supplementary material). In early 2021, participants completed an online questionnaire, and recruitment relied on an access panel. Qualtrics and their partners in Turkey reached out to potential respondents through email, SMS, or an app. To verify the authenticity of participants, Qualtrics used



captcha, Geoblocking, and IP addresses to ensure that only individuals residing in Turkey could participate. The questionnaire began with filter questions on religious affiliation and age, allowing only Muslim participants aged 18 and above to proceed. Those who completed the questionnaire in less than half of the median time were automatically excluded. Additionally, 16 participants were manually excluded due to questionable response patterns, such as consistent straight-lining.

The final sample comprises 736 individuals, with the following age distribution: 18-24 years (14.9%), 25-34 years (23.7%), 35-44 years (22.7%), 45-54 years (18.1%), and 55–70 years (20.5%, with 4 missing). The gender distribution is 50.3% female and 0.1% diverse. Regarding education, 47.0% reported having no school education, currently attending school, or pursuing further education; 18.1% held an elementary school or lower secondary school degree, while 33.8% possessed an upper secondary school/A-level qualification as their highest educational attainment. Ethnic identification revealed 88.9% identifying as Turkish, 14.5% as Kurdish, and 2.2% as another ethnic identity (with multiple answers possible). Geographically, 73 participants resided in a village, 85 in a town, 204 in a city, and 374 in a metropolitan city. Regarding political affiliation, 35.8% supported one of the two governing parties at that time (AKP and MHP), while the remainder supported another party or none at all. The sample size was determined by funding availability. A sensitivity analysis indicated that 736 participants would be adequate to detect a small effect size of r = 0.12 with a power of 0.95. The data and R-code are available at https:// osf.io/j8pw6/?view only=9485ee57295a4741aa95c0e5818432ea.

#### 3.2 Measurements

#### 3.2.1 Dependent variables

Religious Fundamentalism was measured with a four-item scale (Pollack et al. 2023, in press). Example items include "There is only one true religion" and "Only Islam is able to solve the problems of our time" which were answered on a four-point scale ( $\alpha = 0.85$ ; for more details on the scale and its use see supplementary material).

Radicalization was assessed with the acceptance of religiously-motivated violence (violence acceptance as the most common operationalization of radicalization, see Van den Bos 2018; Vergani et al. 2020) with one item measuring reactive violence ("The threat to Islam from the Western world justifies Muslims using violence to defend themselves") and one item measuring active violence ("Violence is justified when it comes to spreading and enforcing Islam"; from Pollack et al. 2016). Answers were given on a four-point scale.

#### 3.2.2 Independent variables

Subjective perception of deprivation was measured by subjective stratification ("Imagine a ladder with seven steps, representing social status: Where would you place yourself?", 1: at the bottom, 7: at the top; recoded), relative deprivation ("Compared to other people living in Turkey: Do you believe you receive the portion you deserve?", 1: More than the just portion, 4: Much less), and discrimination



("Are you part of a group that is discriminated against in Turkey?", 0: No, 1: Yes; all from Pollack et al. 2016). Z-standardizing and averaging these three items resulted in the formation of an overall score ( $\alpha = 0.53$ ).<sup>3</sup>

Socio-structural deprivation was assessed through the highest educational qualification, categorized based on the International Standard Classification of Education by UNESCO (1997). The scale ranged from 0 (no degree [yet]) to 3 (upper secondary degree/A-level). Additionally, unemployment was determined by combining 'job seeking' and 'not employed for other reasons,' with occupational status coded as follows: 1= full-time, 2= part-time employed, 3= (university) student, 4= in vocational training/apprenticeship or in retraining, 5= job seeking, 6= retiree, 7= housewife/househusband, and 8= not employed for other reasons.

Governmental support was assessed by the 'Sunday Question' and by assigning a code of 1 to individuals supporting the parties forming the government in 2021 (AKP [Adalet ve Kalkınma Partisi] and MHP [Milliyetçi Hareket Partisi]), and a code of 0 to those supporting all other parties.

#### 3.2.3 Control variables

Conspiracy belief (CB) and conspiracy mentality (CM): Belief in Muslim-specific conspiracies was assessed through a single item (Moaddel and Karabenick 2018): "There are conspiracies against Muslims", with responses recorded on a four-point scale. Additionally, CM as a "general susceptibility to explanations based on such [myths]" (Bruder et al. 2013, p. 1) was measured using a 5-item scale translated into Turkish by the same authors (e.g., "I think that politicians usually do not tell us the true motives for their decisions"). Respondents provided their answers on an eleven-point Likert scale ranging from 0% (definitely not) to 100% (definitely). Reliability amounts to  $\alpha = 0.87$ .

Personality variables: Authoritarianism was assessed using a single item: "One of the most important qualities someone should have is disciplined obedience to authority," measured on a 4-point response scale (Pollack et al. 2016). Narcissism was gauged through the corresponding subscale of the Dark Triad (Jonason and Webster 2010, Turkish by Özsoy et al. 2017), employing a 9-point response scale (e.g., "I tend to want others to admire me";  $\alpha = 0.86$ ). Schizotypy was measured using a yes/no-response format with the 22-item Schizotypal Personality Questionnaire-Brief (Raine and Benishay 1995, Turkish by Aycicegi et al. 2005; e.g., "Are you sometimes sure that other people can tell what you are thinking?";  $\alpha = 0.82$ ). Exploitable dependency was assessed on a five-point Likert scale using the 12 items of the corresponding subscale of the Interpersonal Dependency Scale (Pincus and Gurtman 1995, e.g., "I am very sensitive to others for signs of rejection"). Since there was no existing Turkish version, the scale underwent an independent forth and backtranslation until a satisfactory level of agreement was reached. After the exclusion of two items (items 10 and 12) due to lack of correlation with the other 10 items, internal consistency was raised from  $\alpha = 0.78$  (12-item-scale) to 0.84 (10-items).

<sup>&</sup>lt;sup>3</sup> If the construct being measured is broad, low internal consistencies are generally deemed acceptable (e.g., Graham et al. 2011).



#### 4 Results and discussion

## **4.1** Fundamentalism in the context of the reactivity hypothesis and governmental support

The bivariate correlations in Table S2 of the supplementary material supported our assumptions: Fundamentalism was negatively correlated with education, consistent with prior research, as well as employment and perceived deprivation. Moreover, we observed a positive relationship with governmental support. Additionally, we replicated previous findings, confirming positive associations of fundamentalism with authoritarianism, exploitable dependency, conspiracy belief, age, and urbanity (for a review see Williamson and Demmrich 2024).

The bivariate results mostly hold in the regression analysis presented in Fig. 1. The negative correlation between perceived deprivation and fundamentalism remains robust, even after controlling for CBs, CM, personality factors, governmental support, and various sociodemographic variables. This implies that, in this specific context, Muslims who perceive themselves as less deprived—and thus, more privileged—have a higher probability to hold an encompassing fundamentalist worldview. The stability of this negative link could suggest that the current political context of Turkey, wherein the government supports and incentivizes religious fundamentalist ideas (e.g., Özpek and Yaşar 2018) and polarizes society at the same time (Aydın-Düzgit and Balta 2019; Somer 2019), has the potential to upend the reactivity hypothesis (e.g., Schiffauer 1999; Verkuyten and Yildiz 2007; Victoroff et al. 2012). Nevertheless, future cross-country research is imperative, particularly regarding specific political variables such as freedom of the press, education, and religion (Moaddel and Karabenick 2008). Additionally, exploring governments' support for specific cultures of emotions (Tezcan 2020) may shed light on factors influencing the direction of the deprivation-fundamentalism association.

However, a key limitation of the reactivity hypothesis, as highlighted in the theory section of this paper, applies to our study as well—a cross-sectional design with a correlational approach. To enhance the robustness of findings, future studies should consider experimental designs to rigorously examine the proposed cause-and-effect relationship posited by this hypothesis. Initiatives in this direction have already been initiated in a radicalization project at the University of Erlangen (RADIS 2024), and the results are anticipated soon. Furthermore, a meta-analysis could provide additional insights into the controversial findings (e.g., Schiffauer 1999; cf. Fleischmann et al. 2011; Kanol 2024) associated with the hypothesis. Another limitation targets the indicators of deprivation. While the operationalization of perceived deprivation resembles earlier studies (e.g., Pollack et al. in press), socio-structural deprivation could be replaced with individual deprivation. While some studies have found links between perceived deprivation and radicalization, individual discrimination (items asking, e.g., about specific discriminatory events that occurred in the past year) has shown weaker or no connections to radicalization (e.g., Brettfeld and Wetzels 2007; Van den Bos 2018). However, Grewal and Hamid (2024) found the opposite. Future research on Turkey should also examine perceived deprivation in relation to the West, such as narratives that portray the West as unjustly threatening Turkey or



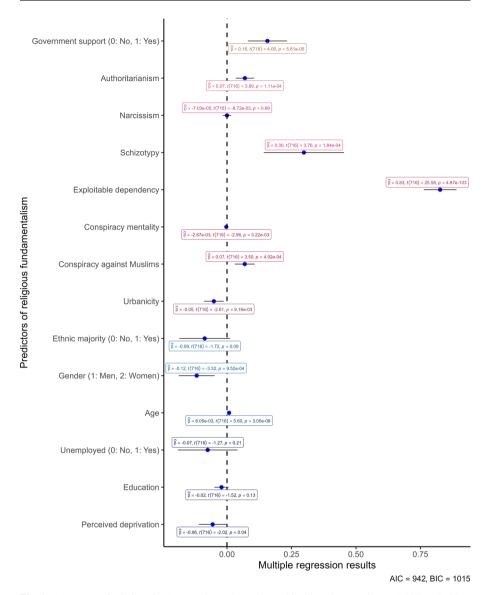


Fig. 1 Predictors of religious fundamentalism (Notes. No multicollinearity was detected (VIFs<2). Horizontal lines around each estimate represent 95%-CIs)

suggest that Turks experience discrimination in the West but not in Turkey. These factors may be more strongly associated with fundamentalism and radicalization. More studies, including meta-analyses, are needed to further clarify how different forms of deprivation and related with fundamentalism and radicalization.

In line with our assumption that fundamentalism is propagated by the Turkish government, governmental support predicts fundamentalism positively. This outcome extends a previously identified relationship between general religiosity and



changes in perceived oppression and fairness of the current political system since the AKP was elected in 2002 (Aytaç 2022). This pattern appears to hold similarly for individuals with an encompassing fundamentalist worldview.

## 4.2 Radicalization in the context of the reactivity hypothesis and governmental support

Parallel to fundamentalism, we tested the linear associations of both radicalization indicators (acceptance of active and reactive violence) separately with other variables using correlational and regression analyses. First, bivariate zero-order correlations (Table S2 in supplementary materials) show no linear relation between reactive violence and active violence on the one hand and education, unemployment, and perceived deprivation on the other hand. Interestingly, and contrary to some previous studies (e.g., Archer 2019), gender was neither correlated with active nor reactive violence, ps > 0.14. However, there are slight positive correlations between both radicalization indicators and governmental support, especially with reactive violence.

The bivariate results regarding the reactivity hypothesis are largely consistent with the regression analysis displayed in Figs. 2 and 3. Neither sociostructural nor perceived deprivation predicted any radicalization indicators. This challenges the reactivity hypothesis (e.g., Diehl and Koenig 2009; Fleischmann and Phalet 2012; Schiffauer 1999) again, since, at least in the Turkish context, deprivation does not contribute to radicalization. In line with previous studies (e.g., Kanol 2024; C. Öztürk and Pickel 2024; for an overview see Demmrich and Hanel 2024), fundamentalism is the strongest predictor of both forms of radicalization. However, even the exclusion of fundamentalism leads to the same results that no form of deprivation predicted any form of radicalization.

Interestingly, 33.0% of participants agreed that reactive violence is partly or fully justified, whereas 16.7% of participants agreed that active violence is partly or fully justified—which is higher than among Muslims of Turkish origin in Germany (20.1 and 6.8%, respectively, see Pollack et al. in press). For reactive violence, especially religious fundamentalism, but also schizotypy and education were positive predictors, whereas exploitable dependency and conspiracy mentality were negative predictors. Concerning active violence, religious fundamentalism was again the strongest positive predictor, followed by the belief that there are conspiracies against Muslims. Exploitable dependency was a negative predictor of active violence. Overall, the explanatory power of the model is relatively low, aligning with findings in other radicalization studies (Demmrich and Hanel 2024).

Finally, we ran two t-tests to investigate whether participants supporting the Turkish government would on average score higher on active and reactive violence than participants who are not supporting the government. Figure 4 displays the scores of reactive violence for both groups separately. The difference is significant. Similarly, Fig. 5 shows the scores of active violence for the same two groups and the difference is significant again.

However, as Hanel et al. (2019) pointed out, just relying on a *p*-value to determine whether two groups are different can be misleading and polarizing (Wolf and Hanel 2024). For instance, an independent-samples t-test only tests whether the group



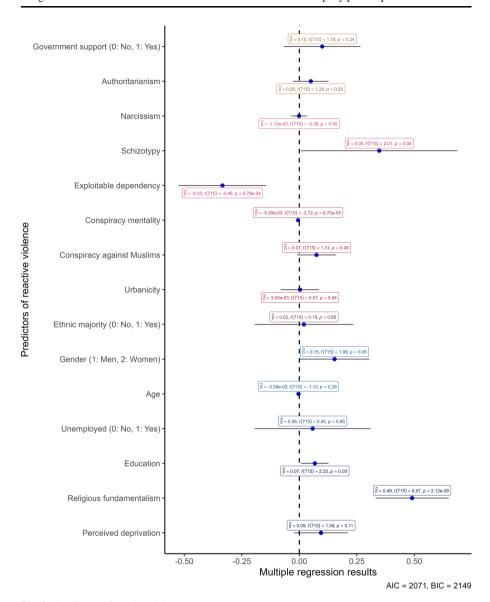


Fig. 2 Predictors of reactive violence

means are from the same population, not whether the groups are different. There still can be substantial overlap or similarities between groups, even when p < 0.001, for instance. A small effect size (Cohen 1992) of Cohen's d = 0.20 indicates 92% similarities between two groups, a medium effect size of d = 0.50 means that two groups are 80% similar, and even a large effect size of d = 0.80 means that two groups are still 69% similar (Inman and Bradley 1989; for an interactive visualization see https://rpsychologist.com/cohend/). Converting the effect sizes of gs = -0.25 and -0.19 reported in Figs. 4 and 5 to a Percentage of Common Responses, an effect size quantifying similarities (Hanel et al. 2019), shows that people who support and do



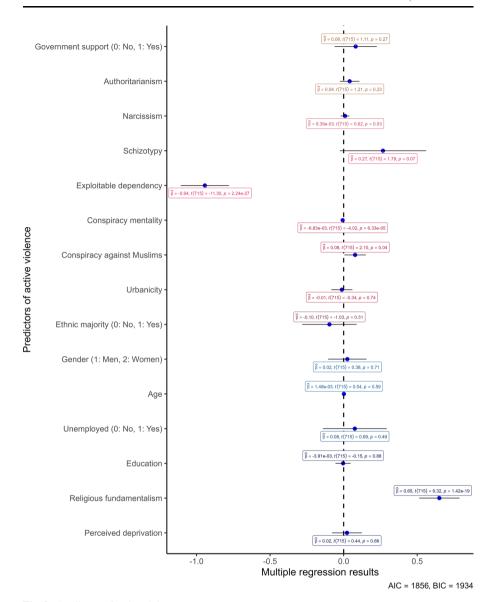


Fig. 3 Predictors of active violence

not support the government are 90.1 and 92.4% similar in their support of reactive and active violence, respectively. This overlap can also be seen in Figs. 4 and 5: Some government supporters endorse violence (orange dots at the top), whereas others oppose it (orange dots at the bottom). The same holds true for people who do not support the government (green dots). If we had solely focused on the results of the t-test and claimed that supporters of the government are endorsing violence more, it could have caused non-government supporters to believe that all government supporters are radicals, because many people have a binary bias (Fisher and Keil



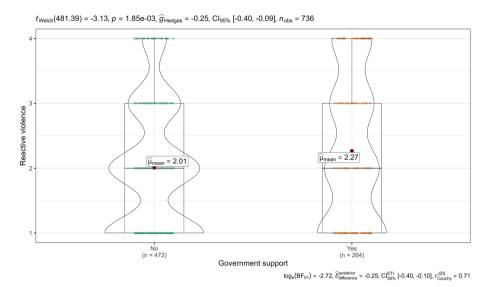


Fig. 4 t-test for differences between government supporters versus non-supporters regarding reactive violence

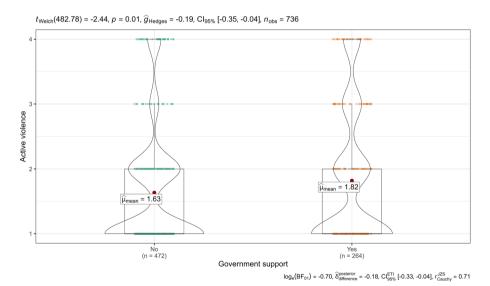


Fig. 5 t-test for differences between government supporters versus non-supporters regarding active violence

2018). Furthermore, it might have implied at least to some readers that all or the majority of government supporters are in favor of violence, because it does not become clear to what extent participants from both groups actually endorse violence. Hence, the way how scientific findings are communicated can be important. We discuss this and how it is linked to polarization in the next part in detail.



### 5 Part II: Polarization in Turkey and beyond—and how it can be reduced

Polarization appears to be increasing—at least, that is the perception of many in the German (Roose 2021) and Turkish contexts (Aydın-Düzgit and Balta 2019). A current debate in the social sciences revolves around the question of whether this perception corresponds to an actual increase (Mau et al. 2023). With regard to Turkey, Samuel Huntington already noted in 1993 that "The most obvious and prototypical torn country is Turkey" (p. 42).

While sociologist Mustafa Şen (2013) attributes the onset of the intertwining of authoritarian nationalism and Islamism—which stands in a polarized relationship with the secular constitution of the country—to the military coup of 1980, political scientist Can Dündar (2023) goes even further by tracing a common thread through modern Turkish history. The "'Turkish-Islamist synthesis' [...] persisted in almost all phases of Turkish history and exerted influence in numerous political areas, including the Armenian Genocide, the 1955 pogrom, the persecution of communists, and the suppression of Kurds. This nationalism, intertwined with religious motives, pursued an 'ideal' that sought to unite the Turkish world with the Islamic one" (pp. 120-121, translated by the authors of this paper; similar: Agai 2020). This process of constructing a nationality-based identity is characterized by a pronounced exclusion of non-Muslims, exemplified through practices such as ethnoreligious cleansings and genocides (Ther 2011). It can be discerned as having Islamist underpinnings, with discernible influences tracing back to prominent figures like Ziya Gökalp (1876-1924), who stands as a key ideologue within the intellectual framework of Mustafa Kemal Atatürk (1881–1938; as explored by Alagöz 2012). Additionally, some scholars have begun to question the narrative surrounding the notion of a strictly secular-Laicist republic during its formative years (Agai 2020; Reinkowski 2022). It appears that Turkey has been strongly polarized for a long time, both at the political level and significantly at the societal level, with a central cleavage seeming to emerge between secularism and Islamism (Ağılkaya-Şahin and Yapıcı 2021).

Despite Turkey having a multi-party system, the recent elections witnessed the formation of voting alliances. On one side, there were alliances between the Islamist AKP, other Islamist parties such as Hüda Par, and authoritarian-nationalist parties like MHP. On the other side stood all other oppositional parties (Ertan et al. 2022). This political landscape is mirrored in the media sphere, which is predominantly aligned with the ruling parties or comprises the remaining oppositional media (Çarkoğlu et al. 2014). This situation parallels with the two-party system in the United States, where the media landscape reflects and simultaneously contributes to societal polarization (Mau et al. 2023).

In the remainder of this second part, we discuss research on how such a polarization can be reduced. Most of this research was conducted in Western countries, mostly the USA. However, we believe that those methods would also work to reduce polarization and potentially even radicalization in other countries, including Turkey. Many of the interventions that were successfully used to reduce polarization are aiming to correct people's perception of others. This is possible because peo-



ple, especially those who strongly identify with their ingroup, tend to believe that a (disliked) outgroup is substantially different to themselves (e.g., Hanel et al. 2019; Hanel and Wolf 2020; Wolf and Hanel 2024). For example, Westfall et al. (2015) found that voters of the US-American Democratic and US-American Republican Party overestimated by a factor of two on how different the other group was to them across a range of issues such as defense spending or co-operating more with Russia. Further, Wolf and Hanel (2024) showed that Democrats and Republicans are on average over 80% similar across 10 value types (Schwartz 1992) such as security, benevolence, self-direction, and power (see also Garcia-Rada and Norton 2020).

Researchers capitalized on the findings that actual similarities between groups of people tend to be larger than often assumed by emphasising similarities between polarised groups to improve intergroup attitudes. For instance, Syropoulos and Leidner (2023) found that by emphasizing similarities (versus differences) in attitudes can lead to warmer feelings towards the other party and greater belief that common ground can be reached (cf. also Tartaglione and de-Wit 2024). Replicating and extending those findings, Wolf and Hanel (2024) additionally found that those effects can also occur when emphasizing similarities in human values (Schwartz 1992) are compared to a passive control condition in which no information is shown. A recent 'megastudy' compared across over 32,000 participants the effectiveness of 25 interventions which aimed to reduce anti-democratic attitudes, support for political violence, and partisan animosity in the USA (Voelkel et al. 2023). Three interventions significantly lowered agreement with all three dependent variables by reducing perceived differences between voters or politicians of the US Democratic and Republican parties. Those interventions focused on correcting overestimates of opposing partisans' willingness to break democratic norms, on correcting erroneous meta-perceptions, and watching politicians from both sides agreeing on honouring democratic processes.

Theoretically, these findings can be at least partly explained by the symbolic threat theory (Stephan and Stephan 2000). Specifically, perceived value differences can explain intergroup animosities, at least as much as actual (economic) threat (Gonzalez et al. 2008). However, it is unclear whether those findings and theoretical predictions also replicate in non-Western countries such as Turkey. A possible intervention could, for instance, first ran a study to identify the societal and political issues as well as values in which supporters and opponents of the government or other polarized camps believe they are most different to each other. Additionally, participants' views on these issues could be assessed. In a follow-up experiment, for those variables for which differences appeared to be largest, similarities between polarized groups could be computed and presented to participants, followed by some relevant dependent variables such as feelings towards the other group and belief that common ground can be reached. Such replications are important as our research shows that the reactivity hypothesis is context dependent.



#### 6 Conclusion

The reactivity hypothesis, like many other hypotheses or empirical findings derived from Western-secular countries, cannot be readily applied to different religious-cultural contexts (Allolio-Näcke and Demmrich 2023; Henrich et al. 2010; Spickard 2017). This hypothesis seems to be context-dependent, as we found no evidence for it in the Turkish-Muslim context. In the atmosphere of Islamist-nationalist politics that appear to pervade the entire public space (Aydin and Avincan 2021; Babacan 2020; Reporters without Borders 2018) and within a polarized society (Somer 2019), *less* deprived individuals tend to embrace fundamentalism, and there is no connection between various forms of radicalization and (perceived) deprivation at all.

However, a more profound question arises about whether this hypothesis, in a context-independent manner, has a strong empirical foundation (proponents: e.g., Schiffauer 1999; Verkuyten and Yildiz 2007; Victoroff et al. 2012; opponents: e.g., Diehl and Schnell 2006; Fleischmann et al. 2011; Kanol 2024; Koopmans 2015; Mishali-Ram and Fox 2022; Pollack et al. in press). The lack of specificity in the reactivity hypothesis seems fundamentally problematic, suggesting that discrimination and feelings of deprivation trigger a kind of psychological automatism that leads (sooner or later) to fundamentalism and potentially radicalization (e.g., Pisoiu 2012). A key to a better understanding of fundamentalism and radicalization may lie in examining individual differences in coping with experiences of discrimination and deprivation (Koomen and Van Der Pligt 2016). It is conceivable that some individuals adaptively cope with such experiences by exhibiting appropriate and regulated emotions and behaviors in those contexts. On the other hand, another group of individuals might maladaptively cope, meaning they let unregulated negative emotions like anger or moral outrage guide them (Van den Bos 2018) and externalize their own problems onto scapegoats (Horgan 2014). Including such variables could also heighten the explained variance of models predicting fundamentalism or radicalization. An interdisciplinary investigation currently taking place at the University of Münster addresses such questions (Center for Islamic Theology 2023).

Moreover, the support of the nationalist-Islamist government appeared to be in a consistent positive linear relation with fundamentalism and radicalization in the form of accepting reactive violence (defending Muslims against the perceived threat from the West) and active violence (justifying violence for propagating Islam).

However, whether actual polarization in Turkey has really increased and not only in perception but in the socio-cultural reality requires a comprehensive investigation with panel studies. If actual polarization has not or only slightly increased as it is the case in other countries such as Germany (Mau et al. 2023), this could be shown to people to reduce polarization between different groups (Syropoulos and Leidner 2023; Tartaglione and de-Wit 2024; Voelkel et al. 2023; Wolf and Hanel 2024).

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