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'To Participate or Not Participate, That's the Question': The Role of Moral Obligation and Different Risk Perceptions on Collective Action

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Supplementary Materials: Data [see Index of Supplementary Materials]

Abstract

The current research investigates whether moral obligation and perceived close vs. distant risks of high vs. moderate risk collective actions are associated with willingness to participate in collective action in the case of Turkey. Two studies were conducted: one with re-placed university students after the July 15, 2016 coup d'état attempt (high-risk context; N_1 = 258) and one with climate strikes (moderate risk context; N_2 = 162). The findings showed that moral obligation predicts collective action in both studies, however, the strength of this relationship is contingent on the level of subjective likelihood of protest risk in the high-risk collective action (Study 1), but not in the moderate-risk collective action (Study 2). Study 2 extended the findings of Study 1 by showing that higher perceived climate crisis risks (e.g., extinction of many species, destroying the vast majority of vital resources; distant risk), but not risks of protest (e.g., being arrested, blacklisted; close risk) predicts higher willingness to participate in collective action. We discussed the role of moral obligation and different risk perceptions (e.g., distant, close, moderate, high) on climate movements and collective action of marginalized groups in repressive political contexts.

Keywords

moral obligation, perceived risk, collective action, high-risk protests, protest risk, climate risk

Özet

Bu araştırma ahlaki yükümlülük ve algılanan risk türlerinin (yakın vs. uzak) farklı risk düzeylerindeki kolektif eylemlere (yüksek vs. orta risk) katılma niyetiyle ilişkisini Türkiye bağlamında incelemektedir. İlki 15 Temmuz 2016 darbe girişimi sonrası üniversiteleri KHK'lar ile kapatılan üniversite öğrencilerini (yüksek riskli eylem; N_1 = 258), ikincisi ise iklim grevlerini (orta riskli eylem; N_2 = 162) merkeze alan iki çalışma yürütülmüştür. Bulgular ahlaki yükümlülüğün kolektif eylemleri iki çalışmada da yordadığını, ancak, bu iki değişken arasındaki ilişkinin kuvvetinin yüksek riskli eylem bağlamında (Çalışma 1) algılanan protesto riski düzeyine bağlıyken, orta-düzey riskli eylemlerde (Çalışma 2) bundan etkilenmediğini ortaya koymuştur. Çalışma 2 ayrıca algılanan yüksek iklim riskinin (uzak risk algısı; örn. birçok türün soyunun tükenmesi, yaşamsal kaynakların yok edilmesi) daha yüksek kolektif eylem niyetiyle ilişkili olduğunu, ancak algılanan protesto riskinin (yakın risk algısı; örn. gözaltına alınmak, fişlenmek) orta-düzeyde riskli eylemlere katılma niyetiyle ilişkili olmadığını ortaya koymuştur. Bu doğrultuda, ahlaki yükümlülük ve farklı risk algılarının (örn. uzak, yakın, orta, yüksek) riskli politik bağlamlarda iklim hareketi ve tehdit altındaki kolektif eylemler üzerindeki rolünü tartıştık.

Anahtar kelimeler

ahlaki yükümlülük, risk algısı, kolektif eylemler, protesto riski, iklim riski

Resumen

En esta investigación se analiza si la obligación moral y los diferentes tipos de riesgo percibido (próximo versus distante) de diferentes acciones colectivas con diferentes niveles de riesgo (alto versus moderado) están asociados con la intención de participar en acciones colectivas en el contexto de Turquía. Se realizaron dos estudios: uno con estudiantes universitarios recolocados tras el intento de golpe de estado del 15 de julio de 2016 (contexto de alto riesgo; $N_1 = 258$) y otro con huelgas contra el cambio climático (contexto de riesgo moderado; $N_2 = 162$). Los hallazgos mostraron que la obligación moral predice la acción colectiva en ambos estudios. Sin embargo, la fuerza de esta relación depende del nivel de probabilidad subjetiva de riesgo de protesta en la acción colectiva de alto riesgo (Estudio 1), pero no en la acción colectiva de riesgo moderado (Estudio 2). El Estudio 2 amplió los hallazgos del Estudio 1 al mostrar que los mayores riesgos de crisis climática percibidos (p. ej., extinción de muchas especies, destrucción de la gran mayoría de los recursos vitales; riesgo distante), pero no los riesgos de acción (p. ej., ser arrestado, incluido en la lista negra; riesgo próximo) predice una mayor intención de acción colectiva. Discutimos el papel de la obligación moral y las diferentes percepciones de riesgo (p. ej., distante, próximo, moderado, alto) en los movimientos contra el cambio climático y las acciones colectivas en contextos políticos de riesgo.

Palabras Clave

obligación moral, riesgo percibido, acción colectiva, protestas de alto riesgo, riesgo climático

How people perceive the power of the states that restrict the right of assembly to suppress the groups that challenge the status quo can be very important for participation in protests. The extent to which people perceive the police and law as representatives of state power as a risk to their life, body integrity, future and freedom can override all other psychological processes that determine participation in collective action when authoritarianism reaches extreme levels (Honari, 2018; Opp & Roehl, 1990; Susánszky, 2020). Hence, we believe that the role of perceived risk related to protest engagement should be especially important in non-democratic repressive countries. One particular question that we are interested in as researchers is what drives people to participate in collective action such as protests, demonstrations, and different forms of activism in authoritarian regimes despite these potential risks.

Morality represents codes that indicate what is good or bad in a society. People are often impassioned to protect and promote their moral values and beliefs (Skitka, Bauman, & Sargis, 2005). Considering its nature, it is not surprising that research has recently examined morality as an important driver of collective action (Lodewijkx, Kersten, & van Zomeren, 2008; van Zomeren, Postmes, & Spears, 2012; Vilas & Sabucedo, 2012). Accordingly, research shows that moral obligation is associated with a greater willingness to participate in collective action (Milesi & Alberici, 2018; Sabucedo, Dono, Alzate, & Seoane, 2018; Sabucedo, Dono, Grigoryev, Gómez-Román, & Alzate, 2019). A key feature of moral obligation is fostering collective action participation in spite of political risks in regimes where repression by authorities or state representatives is highly likely. In other words, individuals who experience higher moral obligation about a specific socio-political situation would engage in the protests, regardless of any cost-benefit estimation (Vilas & Sabucedo, 2012). However, to our knowledge, only a few studies looked at how moral obligation interacts with perceived risk (e.g., Ayanian et al., 2021). Would moral obligation inspire individuals who perceived high risks to participate in collective action? Would this association change according to different levels or different types of perceived political risks?

A case in point is Turkey where the population has restricted political rights including freedom of assembly and demonstration. According to Democracy Index, Turkey is ranked 110th in total score and 150th in civil liberties score across 167 countries (Economist, 2019). Hence, this research addresses the effect of moral obligation and perceived risk on willingness to engage in collective action in two studies carried out in Turkey. In Study 1, we examine relatively high-risk collective actions of re-placed university students after coup attempt, and in Study 2, we focus on climate strikes as a relatively moderate-risk collective action in the case of Turkey.

Morality and Collective Action

In general, people's social and political attitudes are based on their moral concerns (e.g., Aramovich, Lytle, & Skitka, 2012; Waytz, Iyer, Young, Haidt, & Graham, 2019). Research shows how morality is associated with political attitudes, voting, and collective action. For instance, strong feelings of right or wrong may lead individuals to support certain policies and leaders and despise some others (Skitka & Bauman, 2008). Individuals can also join protests to promote what they believe is morally right. Thus, moral concerns have been included among the important drivers of participation in collective action, such as identity, injustice, and efficacy, and are shown to motivate people to undertake collective action (van Zomeren et al., 2012; Vilas & Sabucedo, 2012).

To date, researchers have operationalized personal moral motivations to collective action mainly as moral convictions but also as a moral obligation. Moral conviction is defined as a meta-cognition that people may have about a given attitude in turn, these attitudes are based on core beliefs about what is fundamentally right and wrong (Skitka et al., 2005). Van Zomeren and colleagues (2012) showed the role of moral convictions as important energizers of collective action when people feel that their core personal beliefs are being threatened. Moral obligation, on the other hand, was described by Sabucedo and colleagues (2018) as a "motivational force toward a certain action that later could end in a decision to perform a behavior" (p. 2). They also showed that moral obligation and moral conviction are two different constructs, and that moral obligation has more predictive power over collective action participation. Moral obligation motivates people to engage in collective action because it requires people to comply with moral norms that demand collective action (Braunsberger & Buckler, 2011; Milesi & Alberici, 2018).

However, little is known about how individuals who feel moral obligation respond to challenges when personal risks related to participation in collective action arise. Vilas and Sabucedo (2012) argue that moral obligation is a strong predictor of collective action that evades cost-benefit estimation. To our knowledge, only one study has tested whether moral obligation predicts collective action without cost-benefit estimation. This research focused on the interaction between moral obligation and perceived risk. Findings showed that moral obligation predicted collective action at low and moderate level of perceived risk in Hong Kong, and at high level of perceived risk in Ukraine (Ayanian et al., 2021).

Perceived Risk and Collective Action

Although extant research has focused on the instrumental paths of collective action participation (Klandermans, 1984; McCarthy & Zald, 1977), the role of risk perception and how it influences motivations to engage in collective action is much less understood. The instrumental approach mostly seeks the answer of what makes collective action participation rational or irrational and what are the consequences of this rationality check. Accordingly, the rationale of the instrumental approach argued individuals' beliefs on the actions' success chance and affordable costs as a key motivation of collective action participation. Social psychological studies mostly focus on the first, individuals' beliefs on actions' success chance (e.g., efficacy) (Klandermans, 1984; Simon et al., 1998). However, there are very few studies and discussions on what the affordable cost is, that is, the risks that can be taken, and how risk perceptions motivate collective action participation.

Ayanian and colleagues (Ayanian & Tausch, 2016; Ayanian et al., 2021) defined perceived risk of collective action participation as anticipated legal, financial, or physical dangers such as being arrested, fined, and injured. Several studies on the relationship between risk perception and collective action investigated the dynamics underlying participation in collective action might differ in high-risk and low-risk contexts (McAdam, 1986). Ayanian and Tausch (2016) showed that the key energizers of collective action, that is, identity, efficacy, and anger predicted action intentions in such high-risk protests as the Arab Spring, but with some variations which reflect the political complexities of the repressive contexts.

We believe that risk expectation and its importance for individuals have different impacts on collective action participation in high-risk contexts. Ayanian and Tausch (2016) addressed the subjective likelihood of risk and subjective importance of risk as two distinct constructs. While subjective importance of anticipated risk may create a deterrence effect on collective action participation (Ayanian & Tausch, 2016), subjective likelihood of risk itself may not (Ayanian et al., 2021). Individuals living in non-democratic countries are often aware of the potential risks when it comes to

the right to demonstration and protest (Ayanian et al., 2021). The salience of intergroup context during protests such as temporal density of conflict between groups would not have much impact on the probability of risks in this sense. However, salient group identity in the protest contexts would lead people to ignore individual risks. With the decreasing importance of these risks regardless of the probability of risk, people will be more motivated to participate in collective action. Hence, we argue that subjective importance of risk may be more relevant to lower participation in collective action in high-risk contexts than subjective likelihood of risk.

Although the subjective likelihood of risk would not predict directly lower participation, we expect that it can be still created a kind of deterrence effect. At its highest level, it may decrease moral obligation impact on higher participation since the higher subjective likelihood of risk may create inaction. Thus, we expect that the positive relationship between moral obligation and collective action participation would decrease for higher levels of subjective likelihood of risk. We aim to test these hypotheses in two different collective action contexts in terms of levels of perceived risk. In Turkey, the protests directed at the current AKP (Justice and Development Party) government were perceived as high-risk political actions after the coup attempt. Thus, in Study 1, we choose replaced students whose universities were shut down by the government as a case for high-risk collective action, while climate strikes in Turkey are chosen as a case for moderate-risk collective action in Study 2.

However, in addition to collective action contexts, different types of risks have different consequences in terms of protest participation. For instance, climate change risk has a great deal of subjectivity, although it is a robust real-world threat. Although 52% of U.S. adults are in favor of dealing with global climate change as a top priority issue for the president and Congress (Pew Research Center, 2020), a limited number of individuals participate in any collective effort about it. One of the possible explanations of political inaction related to climate change might be the indirectness of climate change risk perception. Although, especially for Global South, climate disasters emerge as very vivid and urgent social justice problem (Fernandes-Jesus, Barnes, & Diniz, 2020), climate change risks can be invisible and experienced indirectly by some groups and societies (Weber, 2010), thus considered as distant psychological risks (van der Linden, 2015), contrary to physical life threats such as protest risks in high-risk contexts. Since climate change risk perception differs across countries (Kim & Wolinsky-Nahmias, 2014) as well as individuals who live in the same country (Smith & Leiserowitz, 2012), these variations can explain the individuals' motivation to participate in climate protests. Hence, we believe the importance of examining the impact of both psychologically distant (e.g., climate crisis risk as a risk of political inaction) and close risk (e.g., protest risk as a physical risk) on collective action participation in risky political contexts.

Summary of Hypotheses

Consequently, across two studies, we investigate the role of moral obligation and perceived risk of action in collective action intention. First, we hypothesize that higher moral obligation would predict more willingness to participate in collective action (*Hypothesis 1*). Second, we expect that higher subjective importance of risk will predict lower willingness to participate in collective action (*Hypothesis 2*) while subjective likelihood of risk would not (*Hypothesis 3*). Third, the subjective likelihood of risk related to collective action is likely to moderate the relationship between moral obligation and collective action, suggesting the predictive power of moral obligation on collective action would be less for the higher subjective likelihood of risk (*Hypothesis 4*). Last, for the second study, we believe that subjective likelihood of climate crisis risk and subjective importance of climate crisis risk would predict higher willingness to participate in collective action (*Hypothesis 5*). To address these hypotheses, two studies were performed in two different political contexts in Turkey: the high-risk collective actions of re-placed university students after the July 15, 2016 coup attempt (Study 1), and climate strikes that construe relatively moderate-risk in the case of Turkey (Study 2).

Study 1

Overview of Study

One week after the attempted coup d'état on July 15th, 2016, in Turkey, 15 universities were shut down by Decree-Law Number 667 (July 23rd, 2016) on the basis that these universities had connections with pro-coup groups. Following the closure of these universities, 64,533 students were forced to be re-matriculated to other universities. These students faced many challenges (Namer et al., 2018). For some, their student status was suspended, making it difficult for them to find scholarships, live in student accommodation, and take student loans. Without student status, some of them were also called up for their mandatory military service. In an attempt to rectify this, the Turkish Council of Higher Education (YÖK) attempted a brief, pseudo-selection process for re-placement but this was also deemed problematic. When this attempt also failed, "special student" status, meaning that students could take some courses from other universities in the same city as their former university, was introduced. In brief, these students experienced a serious loss of status and collective disadvantage. Although these disadvantages did not lead to offline protests to our knowledge, various online collective actions were organized by re-placed university students between 2016 and 2020, and they share their disadvantages and anger towards the government in the media on many occasions. In Study 1, we focused on re-placed students' willingness to engage in collective action for their rights.

Method

Participants and Procedure

We aimed to collect data from participants in Turkey who were students or graduated from universities that shut down after the 15th July 2016 coup d'état attempt. A priori power analysis was conducted with G*Power 3.1 showed that we need at least 161 participants to attain a power of .99 with an α error probability level of .05 and f^2 = .15, to perform linear regression analysis with three predictors (i.e., moral obligation, subjective likelihood of risk, and subjective importance of risk). Data were collected between June and August 2019. We distributed a link to the survey on Facebook and Twitter by sharing it on authors' personal accounts and groups for replaced students. We invited the current replaced students and alumni who graduated in the previous year to the research. The information that 5 participants will get the 100 Turkish lire worth voucher as an incentive was provided to all participants before they start to survey. We recruited 258 re-placement students who voluntarily completed an online survey. Due to the political sensitivity of the topic, demographic information was not asked to make the participants feel as comfortable as possible. All participants participated in the online survey after being informed on confidentiality and giving their consent.

Measures

Moral Obligation — Moral obligation was assessed with five items adapted from Vilas and Sabucedo (2012). We used a 5-point response scale (1 = *completely disagree* to 5 = *completely agree*). Sample item reads as "*If I do not participate in a protest for the social and legal rights of the re-placed students, my conscience would not be comfortable*" (α = .92).

Perceived Risk of Action — Risk perception was measured with eight items and consists of two subscales (Ayanian & Tausch, 2016). We measured *the Subjective Likelihood of Risk* with four items (α = .86). Participants evaluated the subjective likelihood of risk (*1 = not likely at all* to *5 = certain*) that it might occur if they participate in collective action. Sample item reads as "*How do you evaluate the likelihood of being arrested or detained if you participate in action for the social and legal rights of the re-placement students?*". *Subjective importance of risk* was also measured with four items (α = .88). Participants evaluated the importance of the potential risks that might occur if they participate in collective action (*1 = not important at all* to *5 = very important*). The sample item reads as "*How important is the likelihood of being arrested or detained in the decision to participate in the collective action for the social and legal rights of the re-placement students*?"

Collective Action — We measure re-placed university students' willingness to participate in collective action with seven items. We used a 5-point response scale (1 = *completely disagree* to 5 = *completely agree*). Participants were

asked to indicate their intention to participate in different types of collective action to protest the injustices against re-placed students: become a member for an organization; working for an organization as a volunteer; sign a petition; sending a protest letter/e-mail to the authorities; participate in sit-in action; participate in press release; participate in a march/protest (α = .91).

Results and Discussion

The descriptive statistics and zero-order correlations between our variables are presented in Table 1. Bivariate correlations showed that collective action intention is positively correlated with moral obligation, while it is negatively correlated with subjective importance of risk. However, there was no significant correlation between the subjective likelihood of risk and collective action intention. Bivariate correlations also showed that moral obligation is positively correlated with the subjective likelihood of risk, while it is negatively correlated with the subjective importance of risk. Last, the subjective likelihood of risk is positively correlated with the subjective importance of risk.

Table 1

Means, Standard Deviations, and Correlations of Measures, Study 1

Variable	*M*	*SD*	1	2	3	4
1. Moral obligation	2.43	1.14	–	.15*	-.18**	.68***
2. Subjective likelihood of risk	3.60	.91		–	.22***	.12
3. Subjective importance of risk	3.59	1.14			–	-.22***
4. Collective action intention	3.71	1.05				–

*p < .05. **p < .01. ***p < .001.

Linear regression analysis was carried out in SPSS version 24 (IBM Corp., 2017) to examine the degree to which moral obligation, subjective likelihood of risk, and subjective importance of risk would predict collective action intention of re-placed students. As summarized in Table 2, higher moral obligation (β = .65, p < .001) was associated with a higher willingness to participate in collective action for re-placed students' rights. Moreover, higher subjective importance of risk (β = -.11, p = .019) was associated with lower collective action intention, while subjective likelihood of risk was not.

Table 2

Model Summary of Regression Analysis in Study 1

	Collective action intention of re-placed university students in Turkey				
Variable	***b***	***SE***	**β**	***t***	***p***
Moral obligation	.59	.04	.64	13.45	< .001
Subjective likelihood of risk	.05	.06	.04	.80	.422
Subjective importance of risk	-.11	.05	-.11	-2.35	.019
F			71.570		
R^2			.459		

Furthermore, a moderation analysis was conducted by using PROCESS in SPSS (Hayes, 2018) to explored whether subjective likelihood of risk moderates the relationship between moral obligation and collective action intention of re-placed university students. Results revealed that the subjective likelihood of risk emerged as a significant moderator between moral obligation and collective action intention of re-placement students (see Figure 1). More specifically, the interaction term between moral obligation and subjective likelihood of risk negatively predicted (b = -.14, SE = .04, p < .001, 95% CI [-.212, -.063]) collective action intentions. The effect of moral obligation on collective action intention tends

to decrease for higher levels of subjective likelihood of risks (Table 3). In other words, the relationship between moral obligation and collective action intention is stronger if subjective likelihood of risk is low, while it is weaker if subjective likelihood of risk is high.

Table 3

Moderation Analysis Results: The Conditional Impact of Moral Obligation, Study 1

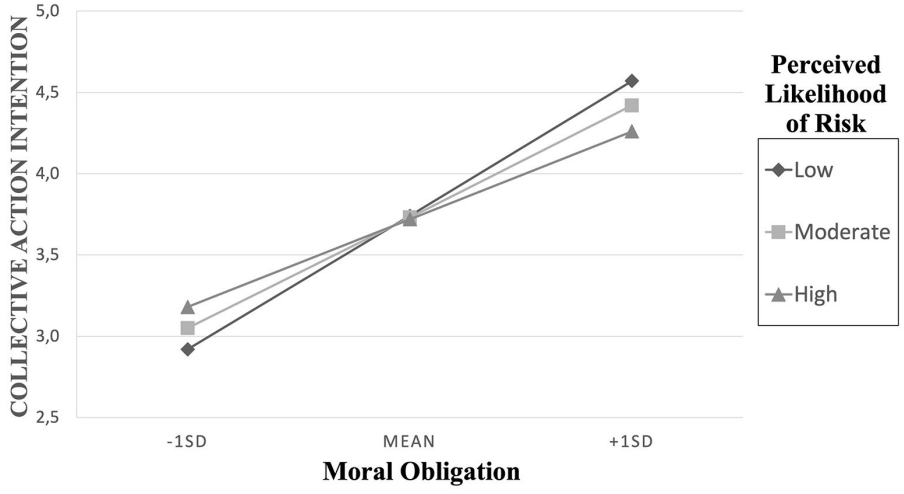
			95% CI			
Conditions	**Estimate**	***SE***	***LL***	***UL***	***z***	***p***
High (+1 *SD*)	.48	.05	.63	.82	14.46	< .001
Average (*M*)	.60	.04	.52	.69	14.03	< .001
Low (-1 *SD*)	.73	.06	.36	.59	8.05	< .001

Note. Shows the effect of the moral obligation on collective action intention at different levels of the subjective likelihood of risk.

Study 1 supports the first hypothesis that higher moral obligation would predict higher collective action intention of re-placed university students in Turkey. Study 1 also found support for the second and third hypotheses that higher subjective importance of risk would predict lower collective action intention, while subjective likelihood would not. Lastly, Study 1 found support for our fourth hypothesis that subjective likelihood of risk would moderate the relationship between moral obligation and collective action intention. Hence, the findings demonstrated that moral obligation predicted collective action participation; however, the strength of this relationship is contingent on the level of perceived risk. While the finding that moral obligation predicted collective action participation for those who perceived high risk complements the classical definition of moral obligation ("decision for collective action participation regardless of cost-benefit estimation"; Vilas & Sabucedo, 2012), the current finding also demonstrated that the link of moral obligation with collective action participation is closely related to the individual's risk perception on protests. People who have a higher moral obligation and perceived lower political risk have the highest level of willingness to participate in collective action in Turkey, whereas people who have higher perceived risk showed a relatively lower willingness to collective action participation even if they reported high moral obligation.

Figure 1

The Interaction of Moral Obligation and Perceived Risk for Collective Action Intention



Study 2

Overview of Study

Results of Study 1 showed that subjective likelihood of risk appeared as a moderator rather than a predictor for participation in collective action. In this respect, the content and function of risk should be considered in depth. In Study 1, risk was operationalized as it related to sanction, repression, and police brutality. However, risks might also be present as result of political inaction. Accordingly, Study 2 focused on a different type of protest that might arise with a different type of risk: climate strikes and climate crisis risk.

Recently, climate crisis protesters have gained an increased platform with student climate strikes, groups like Extinction Rebellion, and through young influential leaders such as Greta Thunberg, Leah Namugerwa, Freya Brown, and Jamie Margolin. Greta Thunberg has especially caught the attention of the media and world leaders as an outspoken teenager who speaks her mind about the state of the climate crisis. In many countries, many students and activists followed Greta's lead, and global climate strikes occurred in September 2019. The protests took place across 4,500 locations in 150 countries (Tollefson, 2019). The September protests were likely the largest climate strikes in world history (Laville & Watts, 2019). According to organizers, approximately 10,000 protesters went on strike in Turkey (Barclay & Resnick, 2019). In this study, in addition to the role of risk for action and moral obligation, we test the role of subjective likelihood of risk for inaction and subjective importance of risk for inaction (i.e., climate crisis risk).

Method

Participants and Procedure

A priori power analysis was conducted with G*Power 3.1 showed that we need at least 138 participants to attain a power of .95 with an α error probability level of .05 and f^2 = .15, to perform linear regression analysis with five predictors (i.e., moral obligation, subjective likelihood of action risk, subjective importance of risk of action, subjective likelihood of climate crisis risk, and subjective importance of climate crisis risk). As in Study 1, we used social media (e.g., Facebook and Twitter) to collect data. We shared the survey link on our personal accounts and same pages and groups on environmental issues and climate activism. We announced that 10 of the participants who would be picked by drawing would be given a shopping card worth 100 Turkish liras as an incentive. Data were collected between October and November 2019 in Turkey, right after the initial September strikes and while the climate strikes continued. We collected data from not only participants who self-identify as climate activists or participated in climate strikes, but also included non-activists or individual who did not participate in strikes yet. The study recruited 162 Turkish participants who voluntarily completed an online survey. Forty-eight participants self-identified as male, 110 as female, and four as other. Participants' ages ranged from 18 to 56 (M = 27.04, SD = 6.80). Six participants had completed a doctoral degree, 34 a master's degree, 86 a university degree, and 36 had completed high school.

Measures

We used 5-point Likert type multi-item measures for all of our variables. Higher values indicated more participation intention, greater moral obligation, a stronger likelihood of risk, more subjective importance of risk. *Moral obligation* (α = .91) was measured with the same scale as in Study 1. We measured *perceived risk for action* with six items of two subscales which used for Study 1. One item was removed for each subscale used in Study 1 due to relatively low factor loadings. We measured the *subjective likelihood of risk for action* with three items (α = .82). *Subjective importance of risk for action* was also measured with three items (α = .91). Participants evaluated the importance of the potential risks that might occur if they participate in collective action. We measured *collective action intention* with three items. In this case, participants were asked to indicate their intention to participate in the following acts against the global climate crisis: sit-in action, public statement, and march/protest (α = .86)

Perceived Risk for Climate Crisis — We created 10 items to measure perceived risk related to climate crisis. We adapted the items of perceived risks (Ayanian & Tausch, 2016) for situations where people did not participate

in collective action against climate crisis. Items loaded on two components (71.18%) (KMO = .796; Barlett's test of sphericity: $\chi 2$ (45) = 1064.775, $p < .001$). The first dimension, *Subjective likelihood of climate crisis risk,* consisted of 5 items ($\alpha = .88$). Sample item reads as "*How do you evaluate the likelihood of the global climate crisis bringing the end of humanity*". Items' loadings ranged from .74 to .86.

The second dimension, *subjective importance of climate crisis risk,* also consisted of 5 items ($\alpha = .91$). Sample item reads as "*How important is the likelihood of the global climate crisis causes the extinction of many species in your decision to participate in an action against the climate crisis*". Item loadings range from .80 to .92.

Results and Discussion

The descriptive statistics and correlations among the variables are presented in Table 4. Inspection of the means shows that, on average, participants reported high moral obligation ($M = 3.52$) and collective action intention ($M = 3.72$). While they perceived relatively moderate subjective likelihood of risk ($M = 3.43$) and subjective importance of risk ($M = 2.96$) related to collective action, they had greater subjective likelihood of climate crisis risk ($M = 4.44$) and subjective importance of climate crisis risk ($M = 3.99$) scores related to potential political inaction.

Table 4

Means, Standard Deviations, and Correlations of Measures, Study 2

Variable	*M*	*SD*	1	2	3	4	5	6
1. Moral obligation	3.52	.86	–	.08	-.18*	.33***	.44***	.58***
2. Subjective likelihood of risk (action)	3.43	.70		–	.22**	.11	-.08	.11
3. Subjective importance of risk (action)	2.96	1.07			–	-.06	.00	-.12
4. Subjective likelihood of climate crisis risk (inaction)	4.44	.50				–	.24**	.41***
5. Subjective importance of climate crisis risk (inaction)	3.99	.76					–	.47***
6. Collective action intention	3.72	.94						–

*$p < .05$. **$p < .01$. ***$p < .001$.

Linear regression analysis was carried out in SPSS version 24 (IBM Corp., 2017) to examine the degree to which moral obligation, subjective likelihood of risk for action, subjective importance of risk for action, subjective likelihood of climate crisis risk, and subjective importance of climate crisis risk would predict collective action intention. Higher moral obligation ($\beta = .38$, $SE = .08$, $p < .001$), subjective likelihood of climate crisis risk ($\beta = .21$, $SE = .12$, $p = .002$) and subjective importance of climate crisis risk ($\beta = .26$, $SE = .09$, $p < .001$) predicted greater intention to participation in collective action (Table 5). However, subjective likelihood of risk for action and subjective importance of risk for action did not predict collective action intention.

Table 5

Model Summary of Regression Analysis in Study 2

	Collective action intention against climate crisis				
Variable	***b***	***SE***	**β**	***t***	***p***
Moral obligation	.42	.08	.38	5.29	< .001
Subjective likelihood of risk (action)	.12	.09	.09	1.37	.172
Subjective importance of risk (action)	-.05	.06	-.06	-.89	.376
Subjective likelihood of climate crisis risk (inaction)	.39	.12	.21	3.37	.002
Subjective importance of climate crisis risk (inaction)	.32	.09	.26	3.32	< .001
F			24.345		
R^2			.438		

We also conducted moderation analysis via PROCESS for SPSS to examine the moderator role of subjective likelihood of risk related to action in the relationship between moral obligation and collective action participation. Contrary of Study 1, interaction term between moral obligation and subjective likelihood of risk related to action did not predict collective action (b = .06, SE = .09, p = .525, 95% CI [-.124, .241]). We believe that one of the important reasons for these null findings might be that the perceived risk of replaced students and climate activists are both quantitatively and qualitatively very different. The physical risks anticipated by the replaced university students were too destructive. After 2016, the Turkish government called opponents to the post-coup policies terrorists and imposed the heaviest sanctions on them. Thus, the subjective likelihood of risk for action was very high, including physical violence or even death. On the contrary, climate actions were not considered to be as politically fraught as they were not directed against the current government. Hence, we argued the risks that triggered climate activists were risks of political inaction that flow from eco-anxiety.

Study 2 supports the first hypothesis that higher moral obligation would predict a higher willingness to participate in climate strikes in Turkey, as in Study 1. However, it failed to support our second hypothesis that higher subjective importance of risk would predict lower collective action intention. Nevertheless, Study 2 offers support for the third hypothesis that subjective likelihood of risk for action would not predict collective action intention, as in Study 1. Our results also extended the findings of Study 1 by showing subjective likelihood of climate crisis risk and subjective importance of climate crisis risk predicts collective action intention. In other words, higher subjective likelihood of climate crisis risk and subjective importance of climate crisis risk is related to higher collective action intention, supporting fifth hypothesis.

General Discussion

Our studies have four important implications. First, moral obligation appears to be a strong predictor of willingness to participate in collective action in Turkey. Moreover, moral obligation has the highest predictive power in explaining collective action participation compared to risk perceptions. This is in line with Sabucedo and colleagues' work which shows that moral obligation appeared as the strongest predictor for both collective action intention (Vilas & Sabucedo, 2012) and actual protest behavior (Sabucedo et al., 2018). In this sense, moral obligation may be conceptualized as the most proximal predictor of engaging in protests (Ayanian et al., 2021). Moreover, our finding in Study 2 regarding the predictive power of moral obligation on climate activism in Turkey implies the importance of moral motivations in climate movements by supporting the previous research that showed the role of moral conviction and moral obligation in participating in the Portuguese climate movement (Fernandes-Jesus, Lima, & Sabucedo, 2020).

Second, subjective importance of risk but not subjective likelihood of risk predicted collective action intentions. These findings complement findings from previous research which show that risk perception might have both deterrence and backlash effects in collective action participation (e.g., Ayanian & Tausch, 2016; Opp & Roehl, 1990). Although individuals may expect important risks such as police brutality, blacklisting, or arrest, lower subjective importance of anticipated risk of protest participation may still predict higher collective action intention. One can ask why people have low subjective importance of risk despite high risk expectations. Higher group identification can be one of the most important factors that decrease subjective importance of risk while increase the subjective likelihood of risk. Social identity theory claims that group-level goals have crucial importance, rather than individual goals, when social identity becomes salient (Tajfel & Turner, 1979). Risky situations create opportunities to contribute to the in-group's goals and show one's loyalty, in turn, it may decrease subjective importance of risk and increase collective action intention by provoking backlash effect (Ayanian & Tausch, 2016). In other words, perceived risk can increase the willingness to participate in collective action under repression through salient ingroup identity.

However, our hypothesis that subjective importance of risk would predict collective action intention was only partially supported. While higher subjective importance of risk predicted lower collective action intention in Study 1, it did not predict it in Study 2. One of the underlying reasons for this may be the risk level that the groups perceived in Turkey. While displaced students face a much greater political threat as they are perceived to be part of pro-coup groups, climate activists are at relatively moderate political risk when it comes to collective action in Turkey, especially

as their protests are not directly related to the current government. The significant difference between the subjective likelihood of risk scores of Studies 1 and 2 supported this argument.

Third, our findings showed that moral obligation predicts collective action participation even among individuals who perceive higher subjective risk related to protests. The strength of this relationship, however, is contingent on the level of subjective likelihood of risk. Moral obligation appeared as a strong predictor even for individuals who perceived high risks in Study 1. This finding complements Vilas and Sabucedo's (2012) argument that moral obligation is "a personal decision to participate in a specific collective action based on the belief that this is what should be done, regardless of any cost-benefit estimation" (p. 371). However, it should be remembered that perceived risk significantly moderated the relationship between moral obligation and willingness to participate in collective action. People who have a higher moral obligation and perceived lower political risk showed a higher willingness to participate in collective action in Turkey.

Fourth, our findings show that we should consider a new variable concerning the relations between political risks and protest participation: perceived risk of political inaction. According to van Bezouw (2020), the social psychological investigation of political inaction should include awareness of political opportunities, as like research on political action. Our findings may move this analysis one step further and suggested that both psychological investigation of action and inaction need to acknowledge of risks as well. For instance, participation in climate strikes in Turkey may involve some level of risk about the arrested or face with tear gas and water cannon. On the other hand, not participating these protests in despite of the awareness of climate change and its consequences may both individual, group, societal, and global level risk related outcomes. Individuals may hold themselves responsible for the outcomes of global climate crisis if they would not engage in these strikes. If these potential risks are severe, for instance, extinction of species, an individual's intention to participate in a protest will be greater.

Limitations and Future Directions

We acknowledge that the findings we report should be interpreted with caution due to the limitations of our studies. First, both studies are correlational and have relatively smaller sample sizes, thus it is problematic to assume causality. Further experimental studies with larger sample sizes could investigate the effect of moral obligation on collective action participation in different levels of risky conditions manipulated by researchers.

Both studies were conducted in an increasingly restrictive regime (Yılmaz & Turner, 2019). Future studies should compare the effects of perceived risk related to inaction in contexts where freedom to protest is considered as an essential aspect of civic participation. They may also try to measure exact difference between risk of action and inaction in specific situations. This difference may closely relate to collective action participation, especially in totalitarian regimes, as engaging in a protest in totalitarian contexts may be contingent upon the calculation of these two types of risks, rather than calculation of risky and risk-free acts.

Recent research on morality and collective action participation revealed the link between politicized identity and moral concerns. For instance, van Zomeren et al. (2012) showed that politicized identity mediates the relationship between moral conviction and engagement in collective action. Similarly, Alberici and Milesi revealed that moral obligation predicts collective action through the politicized identity (Alberici & Milesi, 2016; Milesi & Alberici, 2018). Hence, we believe that future studies that focus on the mediating role of politicized identity in the relationship between moral obligation and collective action participation in risky contexts are needed. These studies might unpack the differences between group identities and politicized identities in terms of moral concerns. Relatedly, we did not include any control variable in our studies such as politicized identity or past participation. By controlling these variables, future research that focuses on the link between politicized identity and moral obligation, might explain how politicization and empowerment as a consequence of past activism can create sustaining political participation through developing moral obligation (see Drury & Reicher, 2000; Vestergren, Drury, & Chiriac, 2019).

Our findings showed that moral obligation predicted collective action at the low and moderate levels of subjective likelihood of perceived risk. Although this finding is in a similar direction with Ayanian et al.'s (2021) findings in Hong Kong, it contradicts with their another finding that moral obligation was a significant positive predictor of collective action at high levels of risks in Ukraine. Thus, the picture might be more complex than we expected.

Although both Turkey, Ukraine, and Hong Kong can be considered as repressive contexts, some regional or contextual differences might explain these different outcomes. More research is needed focusing on cross-cultural differences and the relationship between moral obligation, subjective risk, and collective action participation in high-risk contexts.

In collective action research, scholars acknowledge that disadvantages rarely fuel protests. For instance, it has been argued that fewer than 10% of disadvantaged group members participate in collective action (e.g., Jost, Becker, Osborne, & Badaan, 2017; Klandermans, 1997). Nevertheless, reasons for inaction are an understudied topic in collective action research. In one exception, Stroebe (2013) showed that just world beliefs predicted inaction despite perceived injustices. Stroebe, Postmes, and Roos (2019), on the other hand, claimed that the significant percentage that does not participate in group-based collective action does not choose inaction, but instead they participate in different types of actions, such as individual actions. van Bezouw (2020) suggests that political inaction is a response to a societal issue and is distinct from general inaction. Awareness of the possibilities of political action is crucial in the conceptualization of political inaction, unlike general inaction. In line with this conceptualization of political inaction, we suggest that if individuals decide to be politically inactive despite awareness of political opportunities, individuals might also be aware of the risks of no action. So, perception of risk can emerge in a way of risks of action and risks of inaction. Surprisingly, while there is a wealth of research on perceived risk related to political action, risk perception as it relates to political inaction has not received the same attention. We examined whether the perceived risk of political inaction is associated with collective action intention in particular contexts that have a particular risk through the concept of the climate crisis risk. However, future research that more directly investigate the relationship between risk and political inaction is needed.

Finally, future studies should focus on how moral obligation affects support of third parties or non-activists during the protests. The trajectory of protests is highly impacted from public opinion's legitimizations of protests. Moreover, public opinion has influence on the non-participants' thoughts on what is normative and non-normative during protests and their support to action (Saavedra & Drury, 2019). In that sense, the moral obligation of non-activists on supporting the action may affect the fate of protests.

Our research investigates how moral obligation may motivate individuals' willingness to engage in collective action across two cross-sectional survey studies in Turkey. Our findings suggested that perceived risk related to protest (close risk) emerged as a moderator between moral obligation and collective action intention, whereas perceived risk related to the climate crisis (distant risk) appeared as a strong predictor of willingness to participate in collective action. Further work is needed to understand the nature and contour of risk perception in the sense of political inaction as well. We believe that our research sheds some light on the processes underlying collective action participation in a repressive context.

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Data Availability: For this article, two data sets are freely available (Uysal, Acar, Sabucedo, & Cakal, 2022)

Supplementary Materials

The Supplementary Materials contain the raw data of the studies as SPSS files (for access see Index of Supplementary Materials below).

Index of Supplementary Materials

Uysal, M. S., Acar, Y. G., Sabucedo, J., & Cakal, H. (2022). *Supplementary materials to "'To participate or not participate, that's the question': The role of moral obligation and different risk perceptions on collective action"* [Research data]. PsychOpen GOLD. https://doi.org/10.23668/psycharchives.8126

References

Alberici, A. I., & Milesi, P. (2016). Online discussion, politicized identity, and collective action. *Group Processes & Intergroup Relations, 19*(1), 43–59. https://doi.org/10.1177/1368430215581430

Aramovich, N. P., Lytle, B. L., & Skitka, L. J. (2012). Opposing torture: Moral conviction and resistance to majority influence. *Social Influence, 7*(1), 21–34. https://doi.org/10.1080/15534510.2011.640199

Ayanian, A. H., & Tausch, N. (2016). How risk perception shapes collective action intentions in repressive contexts: A study of Egyptian activists during the 2013 post-coup uprising. *British Journal of Social Psychology, 55*(4), 700–721. https://doi.org/10.1111/bjso.12164

Ayanian, A. H., Tausch, N., Acar, Y. G., Chayinska, M., Cheung, W.-Y., & Lukyanova, Y. (2021). Resistance in repressive contexts: A comprehensive test of psychological predictors. *Journal of Personality and Social Psychology, 120*(4), 912–939. https://doi.org/10.1037/pspi0000285

Barclay, E., & Resnick, B. (2019). How big was the global climate strike? 4 million people, activists estimate. *Vox.* https://www.vox.com/energy-and-environment/2019/9/20/20876143/climate-strike-2019-september-20-crowd-estimate

Braunsberger, K., & Buckler, B. (2011). What motivates consumers to participate in boycotts: Lessons from the ongoing Canadian seafood boycott. *Journal of Business Research, 64*(1), 96–102. https://doi.org/10.1016/j.jbusres.2009.12.008

Drury, J., & Reicher, S. (2000). Collective action and psychological change: The emergence of new social identities. *British Journal of Social Psychology, 39*(4), 579–604. https://doi.org/10.1348/014466600164642

Economist. (2019). *The Economist Intelligence Unit 2019 Democracy Index.* https://www.eiu.com/public/topical_report.aspx?campaignid=democracyindex2019

Fernandes-Jesus, M., Barnes, B. R., & Diniz, R. F. (2020). Communities reclaiming power and social justice in the face of climate change. *Community Psychology in Global Perspective, 6*(2), 1–21. https://doi.org/10.1285/i24212113v6i2-2p1

Fernandes-Jesus, M., Lima, M. L., & Sabucedo, J.-M. (2020). "Save the climate! Stop the oil": Actual protest behavior and core framing tasks in the Portuguese Climate Movement. *Journal of Social and Political Psychology, 8*(1), 426–452. https://doi.org/10.5964/jspp.v8i1.1116

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York, NY, USA: The Guilford Press.

Honari, A. (2018). From 'the effect of repression' toward 'the response to repression'. *Current Sociology, 66*(6), 950–973. https://doi.org/10.1177/0011392118787585

IBM Corp. (2017). *IBM SPSS Statistics for Windows* (Version 24) [Computer software]. Armonk, NY, USA: IBM Corp. Retrieved from https://hadoop.apache.org

Jost, J. T., Becker, J., Osborne, D., & Badaan, V. (2017). Missing in (collective) action: Ideology, system justification, and the motivational antecedents of two types of protest behavior. *Current Directions in Psychological Science, 26*(2), 99–108. https://doi.org/10.1177/0963721417690633

Kim, S. Y., & Wolinsky-Nahmias, Y. (2014). Cross-national public opinion on climate change: The effects of affluence and vulnerability. *Global Environmental Politics, 14*(1), 79–106. https://doi.org/10.1162/GLEP_a_00215

Klandermans, B. (1984). Mobilization and participation: Social-psychological expansions of resource mobilization theory. *American Sociological Review, 49*(5), 583–600. https://doi.org/10.2307/2095417

Klandermans, B. (1997). *The social psychology of protest.* Oxford, United Kingdom: Blackwell.

Laville, S., & Watts, J. (2019). Across the globe, millions join biggest climate protest ever. *The Guardian, 21*, 9-10.

Lodewijkx, H. F. M., Kersten, G. L. E., & van Zomeren, M. (2008). Dual pathways to engage in "silent marches" against violence: Moral outrage, moral cleansing and modes of identification. *Journal of Community & Applied Social Psychology, 18*(3), 153–167. https://doi.org/10.1002/casp.916

McAdam, D. (1986). Recruitment to high-risk activism: The case of freedom summer. *American Journal of Sociology, 92*(1), 64–90. https://doi.org/10.1086/228463

McCarthy, J. D., & Zald, M. N. (1977). Resource mobilization and social movements: A partial theory. *American Journal of Sociology, 82*(6), 1212–1241. https://doi.org/10.1086/226464

Milesi, P., & Alberici, A. I. (2018). Pluralistic morality and collective action: The role of moral foundations. *Group Processes & Intergroup Relations, 21*(2), 235–256. https://doi.org/10.1177/1368430216675707

Namer, Y., Düzen, E., Hünler, O., Uysal, M. S., Duman, E., & Hasates, M. (2018). *Narratives of being 'left-behind': Students' accounts of academic displacement* [Paper presentation]. 2018 Annual IMISCOE Conference, 2-4th of July, Barcelona, Spain.

Opp, K. D., & Roehl, W. (1990). Repression, micromobilization, and political protest. *Social Forces, 69*(2), 521–547. https://doi.org/10.2307/2579672

Pew Research Center. (2020). *As economic concerns recede, environmental protection rises on the public's policy agenda.* Retrieved from https://www.pewresearch.org/politics/2020/02/13/as-economic-concerns-recede-environmental-protection-rises-on-the-publics-policy-agenda/

Saavedra, P., & Drury, J. (2019, October 11). *Solidarity with those who hit the streets: Public opinion and support for protesters' self-defence actions when the right to protest is restricted.* PsyArXiv. https://doi.org/10.31234/osf.io/753ph

Sabucedo, J. M., Dono, M., Alzate, M., & Seoane, G. (2018). The importance of protesters' morals: Moral obligation as a key variable to understand collective action. *Frontiers in Psychology, 9*, Article 418. https://doi.org/10.3389/fpsyg.2018.00418

Sabucedo, J. M., Dono, M., Grigoryev, D., Gómez-Román, C., & Alzate, M. (2019). Axiological-Identitary Collective Action Model (AICAM): A new integrative perspective in the analysis of protest. *PLoS One, 14*(6), Article e0218350. https://doi.org/10.1371/journal.pone.0218350

Simon, B., Loewy, M., Stürmer, S., Weber, U., Freytag, P., Habig, C., Kampmeier, C., & Spahlinger, P. (1998). Collective identification and social movement participation. *Journal of Personality and Social Psychology, 74*(3), 646–658. https://doi.org/10.1037/0022-3514.74.3.646

Skitka, L. J., & Bauman, C. W. (2008). Moral conviction and political engagement. *Political Psychology, 29*(1), 29–54. https://doi.org/10.1111/j.1467-9221.2007.00611.x

Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology, 88*(6), 895–917. https://doi.org/10.1037/0022-3514.88.6.895

Smith, N., & Leiserowitz, A. (2012). The rise of global warming skepticism: Exploring affective image associations in the United States over time. *Risk Analysis, 32*(6), 1021–1032. https://doi.org/10.1111/j.1539-6924.2012.01801.x

Stroebe, K. (2013). Motivated inaction: When collective disadvantage does not induce collective action. *Journal of Applied Social Psychology, 43*(10), 1997–2006. https://doi.org/10.1111/jasp.12153

Stroebe, K., Postmes, T., & Roos, C. A. (2019). Where did inaction go? Towards a broader and more refined perspective on collective actions. *British Journal of Social Psychology, 58*(3), 649–667. https://doi.org/10.1111/bjso.12295

Susánszky, P. (2020). Demobilization processes: Perceived risks of protest participation among Hungarian students. *Intersections, 6*(4), 63–92. https://doi.org/10.17356/ieejsp.v6i4.664

Tajfel, H., & Turner, J. (1979). An integrative theory of inter-group conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of inter-group relations* (pp. 33-47). Monterey, CA, USA: Brooks/Cole.

Tollefson, J. (2019). The hard truths of climate change-by the numbers. *Nature, 573*, 324–327. https://doi.org/10.1038/d41586-019-02711-4

van Bezouw, M. (2020). *A social psychological investigation of political inaction* [Doctoral dissertation, Vrije Universiteit Amsterdam]. VU Research Portal. https://research.vu.nl/en/publications/a-social-psychological-investigation-of-political-inaction

van der Linden, S. (2015). The social-psychological determinant of climate change risk perceptions: Towards a comprehensive model. *Journal of Environmental Psychology, 41*, 112–124. https://doi.org/10.1016/j.jenvp.2014.11.012

van Zomeren, M., Postmes, T., & Spears, R. (2012). On conviction's collective consequences: Integrating moral conviction with the social identity model of collective action. *British Journal of Social Psychology, 51*(1), 52–71. https://doi.org/10.1111/j.2044-8309.2010.02000.x

Vestergren, S., Drury, J., & Chiriac, E. H. (2019). How participation in collective action changes relationships, behaviors, and beliefs: An interview study of the role of inter- and intragroup process. *Journal of Social and Political Psychology, 7*(1), 76–99. https://doi.org/10.5964/jspp.v7i1.903

Vilas, X., & Sabucedo, J.-M. (2012). Moral obligation: A forgotten dimension in the analysis of collective action. *Revista de Psicología Social, 27*(3), 369–375. https://doi.org/10.1174/021347412802845577

Waytz, A., Iyer, R., Young, L., Haidt, J., & Graham, J. (2019). Ideological differences in the expanse of the moral circle. *Nature Communications, 10*, Article 4389. https://doi.org/10.1038/s41467-019-12227-0

Weber, E. U. (2010). What shapes perceptions of climate change? *Wiley Interdisciplinary Reviews: Climate Change, 1*(3), 332–342. https://doi.org/10.1002/wcc.41

Yılmaz, Z., & Turner, B. S. (2019). Turkey's deepening authoritarianism and the fall of electoral democracy. *British Journal of Middle Eastern Studies, 46*(5), 691–698. https://doi.org/10.1080/13530194.2019.1642662