



How a direct vote and public deliberation contribute to the legitimacy of political decision-making: examining situational and individual-level moderators

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Abstract

Direct voting and public deliberation are often considered as a means to increase legitimacy of political decision-making. This study investigates whether the legitimizing effects of these procedural arrangements are affected by the level of threat stemming from topic associated with a decision-making situation. Further, we explore potential individual-level moderators. A vignette experiment with a mixed design was conducted ($N=220$). Results showed that the presence of a direct vote as well as public deliberation increased perceived legitimacy of the decision-making process, the effect of the latter being considerably stronger. Contrary to our expectations, all legitimizing effects remained unaffected by the presence of threat. Nevertheless, the legitimizing effect of a direct vote was stronger for people who were more alienated from and less interested in politics, while it was negligible if alienation was low and interest high. The legitimizing effect of public deliberation was less strong (but still present) for people with higher right-wing authoritarianism and lower political interest.

Keywords Decision-making · Deliberation · Direct democracy · Legitimacy · Political alienation · Right-wing authoritarianism

Introduction

Greater use of the procedures of direct and deliberative democracy is often considered as a remedy for a loss of citizens' confidence in democratic political institutions and democracy itself. Procedural arrangements such as a direct vote or public deliberation are expected to improve how citizens perceive the legitimacy of political decision-making, and thus to increase their acceptance of decision-making

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outcomes. However, previous research has shown that although these arrangements sometimes work in the expected way, they are far from being a panacea. This paper argues that mixed results of previous studies can be attributed to the fact that the legitimizing effects of direct voting and public deliberation vary across different contexts. Thus, instead of asking whether direct voting or public deliberation affect the perceived legitimacy of political decision-making, current research can benefit from exploring the conditions under which these effects can and cannot be expected. Employing a vignette experiment based on a hypothetical case of political decision-making, we examine potential moderators of the effects of a direct vote and public deliberation on the decision-making process legitimacy. First, we test two hypotheses suggesting that the legitimizing effects of a direct vote and public deliberation vary with different levels of threat stemming from the topic on which a decision is to be made. Threatening situations, such as terror attacks, economic crises, or natural disasters, have been shown to affect a number of political outcomes. However, research in the area of decision-making legitimacy is still missing. Second, in a more exploratory manner, we examine an alternative assumption, according to which the legitimizing effects of a direct vote and public deliberation are moderated by citizens' individual characteristics. By taking a more nuanced view on the legitimizing effects of direct voting and public deliberation, this study aims to extend our knowledge on their roles in political decision-making.

Legitimizing effects of a direct vote and public deliberation

Legitimacy refers to an attribute by which authorities, institutions or social arrangements are perceived as appropriate, proper, and just. If possessed by an authority or a rule, this property enhances people's sense of obligation to defer voluntarily to the decisions of that authority or the consequences of that rule (Tyler 2006). Being a relatively abstract concept, legitimacy can be deduced through its direct consequences, that is, people's willingness to obey beyond the avoidance of sanction (e.g., Levi et al. 2009), or established determinants, such as procedural fairness assessments (e.g., Esaiasson et al. 2012). In the area of political decision-making, legitimacy means that political decisions are made in a way that is perceived as appropriate, which leads citizens to a greater willingness to accept these decisions. The role of legitimacy is considered as particularly essential for those citizens who do not personally agree with the decision-making outcome because it might compensate for their frustration and prevent the growth of political alienation (Anderson et al. 2005).

Both the public and the academic debate about arrangements that increase the legitimacy of political decision-making often revolve around two themes. Although not always explicitly acknowledged, these themes are grounded in broader philosophical conceptions of democracy. First, there is a suggestion that political decisions are perceived as more legitimate if citizens can participate in them directly, which can be implemented, for instance, through voting in referendums. The idea that personal involvement increases citizens' willingness to accept collectively binding decisions has its roots in the Rousseauian view of democracy and is closely



associated with the participatory theory of democracy (e.g., Hilmer 2010). Second, according to another suggestion, citizens do not have to make decisions themselves, but there must be an opportunity for public deliberation before a decision is made. That is, legitimacy is expected to grow when all relevant social actors, including ordinary citizens, have free and equal opportunities to present and discuss their views. The most prominent example of this idea is the theory of deliberative democracy (Knight and Johnson 1994; Manin 1987).

Direct and deliberative democracy enrich the practices of standard representative democracy by introducing decision-making procedures that are more inclusive and require the greater engagement of citizens. Nevertheless, there are considerable differences between the two approaches. While proponents of direct democracy understand citizens' direct voting on issues as the primary source of democratic legitimacy, deliberative democracy theorists emphasize the process of deliberation that precedes the final decision. Consequently, each approach has its own shortcomings. Direct democracy has potential difficulties with citizens' ill-informed preferences, inconsistent decisions, or the tyranny of the majority. The problem of deliberative democracy can be the exclusion of citizens unable or unwilling to deliberate. That is why some authors suggest that direct and deliberative democracy are mutually supportive and work well when their procedures are combined (Saward 2001). Therefore, this study distinguishes between direct voting and public deliberation as two different procedural arrangements but considers it beneficial to study them together.

A psychological explanation for the presumed legitimizing effects of direct voting and public deliberation consists of their positive impact on the perceived fairness of the decision-making procedure. As mentioned above, procedural fairness is a direct and robust determinant of perceived legitimacy (Lind and Tyler 1988; Tyler 2012). One substantial factor enhancing perceived procedural fairness is whether opportunities are available for people or their group representatives to voice their perspectives, particularly when personally affected by the decisions (e.g., Lind et al. 1990; Lind and Tyler 1988; Van den Bos 1999). In addition, research suggests that people value the opportunity for a voice even when they are not directly involved in decision-making and suppose that their personal opinions have only negligible or no effects on the final decision (Lind et al. 1990; Terwel et al. 2010). Hence, sharing one's views rather than having control over the outcome seems to be the main explanation for the positive effect of voice on legitimacy (Tyler 2012). Because both a direct vote and public deliberation represent (at least hypothetically) opportunities for citizens to voice their opinions, it can be expected that decision-making procedures involving one of these two attributes are likely to be perceived as fairer, and thus more legitimate.

Looking specifically at the legitimizing effect of a direct vote, previous empirical studies have provided rather mixed findings, which might seem surprising considering the strong theoretical rationale. Several field and vignette experiments showed that the opportunity to vote directly on the outcome of collective decision-making, compared to arrangements involving representation or expert-based decision-making, predicted higher legitimacy, particularly when operationalized as perceived procedural fairness (Esaïasson et al. 2012; Gilljam et al. 2010; Olken 2010; Persson et al. 2013). An experimental vignette study by Towfigh et al (2016) confirmed the



legitimizing effect of a direct citizen vote, as compared to decision-making left in the hands of elected political representatives or experts. However, this effect applied only when the decision-making involved topics that were perceived as important by citizens. Likewise, mixed results were found in studies focusing on people's evaluations of public authorities in terms of their trustworthiness and responsiveness, which can be understood as proxies for perceived legitimacy. While the availability of a direct democratic vote seemed to enhance legitimacy, its actual use by citizens did not (Bauer and Fatke 2014; Kern 2017). No effect of the use of direct democracy on citizens' political support was found either in a field quasi-experiment by Marien and Kern (2018). Thus, previous research has suggested that the availability of a direct vote might enhance the perceived legitimacy of political decision-making, but this effect is far from being universal. Specifically, it seems to be qualified by other factors such as the perceived importance of the decision-making topic.

Findings on the presumed legitimizing effect of public deliberation have been more convincing but also with some ambiguities. A vignette experiment showed that legitimacy of political decision-making was boosted if a parliamentary decision was preceded by deliberation, in which experts and ordinary citizens were involved (Christensen et al. 2020). Complementary to this finding, another vignette experiment demonstrated that people perceived decisions as more legitimate if they were made by groups of people who resembled the general population or were considered as experts, compared to groups that did not reflect the population or did not have an expert status (Arnesen and Peters 2018). There is also evidence from a school-based experiment suggesting that the opportunity to deliberate before a final decision was made contributed to its perceived legitimacy (Persson et al. 2013). However, this study also found that the legitimizing effect of deliberation was present only if people had no other means to get involved in the decision-making process (e.g., by a direct vote). A laboratory experiment by Nielsen (2016) suggested that deliberation-based decision-making could produce a greater legitimacy, operationalized as trust, than autocratic decision-making (although the difference was not statistically significant), but not greater than representation-based decision-making. Thus, it can be concluded that deliberation involving ordinary citizens or experts has a positive impact on legitimacy, but the magnitude of this effect is disputable.

Situational effects of threat on legitimization

This study hypothesizes that the mixed findings, presented in the preceding paragraphs, can be explained by the fact that the legitimizing effects of a direct vote and public deliberation are moderated by the level of threat stemming from topic associated with a specific decision-making situation. Perception of threat is an important situational variable studied in association to various political topics, such as political participation (Valentino et al. 2011; Weber 2013), partisanship (Marcus 2008), or political tolerance (Gibson 2006; Hazama 2011). However, research linking threat to perceived legitimacy of decision-making procedures is missing.

One of the most influential psychological theories on the role of threat in politics is the theory of affective intelligence. This theory distinguishes two types of



threats, familiar and novel, that are associated with two modes of decision-making: the disposition system and the surveillance system. Familiar threats, such as encountering disliked groups or ideas, are expected to induce anger or aversion, triggering the disposition system. This system is fast and promotes reliance on habits and heuristics and disregard for new information, which results in a preference for quick solutions and less deliberative and cooperative behavior. On the other hand, novel threats stem from unfamiliar circumstances and are expected to induce anxiety, which, in turn, triggers the surveillance system. This system is slow, bolsters attention to new information, helps us step outside our habitual thinking, and promotes deliberation and cooperation. Examples of novel threats are terror attacks, economic recessions, or natural disasters. (Marcus 2008, 2013; MacKuen et al. 2010; Vasilopoulos 2019). Because novel threats, rather than familiar threats, are likely to increase people's attention to the situation and make people open to situationally driven, non-habitual responses, this work focuses on perceived novel threats (stemming from a natural disaster). Thus, we investigate the role of novel threats in how a direct vote and public deliberation translate into legitimacy.

A first idea, tested by this study, is that decision-making involving citizens' direct voting is considered as more legitimate than decision-making by elected politicians if the decision-making concerns a topic that is perceived by citizens as threatening to them. In other words, we test whether the legitimizing effect of a direct vote is stronger for topics characterized by a greater threat. Research driven by the theory of affective intelligence has shown that the perceptions of novel threat can mobilize citizens' political participation (Brader 2005; Valentino et al. 2009; although some studies have had inconclusive results with respect to the effect of novel threats on participation, e.g., Valentino et al. 2011; Groenendyk and Banks 2014). In the same vein, research focusing on threats to the whole society has shown that the presence of these threats bolsters peoples' political participation such as voting (Stevens and Vaughan-Williams 2016). These findings suggest that perceived threat is linked to people's desire to participate in the decision-making process and to have more control over the decision. The explanation for the effect of novel threats is that unfamiliar situations activate the surveillance system, which is slow and more deliberative compared to the fast and automatic dispositional system. Surveillance system then promotes thinking about the issue and a need to gain personal control over it (Marcus 2013). As a result, we can expect threats to produce a stronger demand for direct voting as it provides an opportunity for participation and voicing one's opinions directly. This need for voice can also be viewed as a consequence of reduced reliance on political representatives, which can be considered a habitual behavior for most people in modern representative democracies. In the above-mentioned study, Towfigh et al (2016) found that a direct vote boosted legitimacy only if citizens perceived the topic as important. Because political topics that citizens consider important also are likely to be associated with non-negligible perceptions of threat, the effect reported in that study could be attributed to perceived threat. Hence, our first hypothesis is:



H1 The effect of direct voting (versus decision-making by elected representatives) on perceived legitimacy is stronger if a decision is made in the context of threat (compared to no threat).

Second, this study tests whether the presence of threat influences the legitimizing effect of public deliberation. Previous research has shown a robust effect of perceived societal threat on lower political tolerance, that is, one's willingness to put up with disliked views or groups (Gibson 2006; Hazama 2011), and greater preference for antidemocratic political systems (Russo et al. 2019). Based on these findings, it can be presumed that perceived threat also leads to a lower preference for public deliberation, which typically involves a presentation of diverse opinions on the topic in question. In line with the theory of affective intelligence, novel threats, which induce a high level of anxiety, are especially likely to boost the legitimizing effect of public deliberation. This is because established procedures or habitual behavior might not be enough to deal with unfamiliar situations, and so new ways of problem-solving are sought. As anxiety activates the surveillance system, which is associated with conscious attention to new information and deliberative behavior (Marcus 2013), more deliberative forms of decision-making can become preferred because they can be viewed as useful for creating solutions for unfamiliar problems. On the other hand, threats that are not accompanied by anxiety are less likely to have such an impact. In contrast, they might even weaken the legitimizing effect of public deliberation on perceived legitimacy as they activate the disposition system, which is associated with an avoidance of further information seeking and a preference for quick action over lengthy deliberation (Marcus 2013). Thus, although it can be expected that threat perceptions boost legitimizing effects of public deliberation if the threat is very high (i.e., inducing anxiety), this moderation effect might not be present (or be reversed) for other levels of threat. To take into account this uncertainty, our second hypothesis is non-directional and states:

H2 The effect of deliberation (versus no deliberation) prior to decision-making on perceived legitimacy varies if a decision is made in contexts characterized by different levels of threat.

The roles of individual variables

In addition to the situational effect of threat, an alternative explanation for the mixed findings on the legitimizing effects of direct voting and public deliberation may consist of individual differences among people. Although previous research has paid little explicit attention to this issue, findings have indicated that some individual variables are associated with one's views on direct and deliberative democracy. In the present study, we propose to further explore the roles of three variables: right-wing authoritarianism, political alienation, and political interest. All constructs are well established in political research, and previous studies have linked them to one's perceptions of or participation in democratic political procedures. At the same time, they capture different aspects of how people relate to politics. While right-wing



authoritarianism represents an essential dimension of political ideology, political alienation refers to an overall attitude toward the political system, and political interest is a motivational predisposition of one's cognitive or behavioral involvement with politics.

Right-wing authoritarianism (RWA) can be understood as a generalized attitude characterized by submission to authorities, adherence to social norms (conventionalism), and aggression toward outgroups, often associated with increased intolerance and prejudice (Duckitt 2009; Kimmelmeier 2015). Compared to low-RWA people, high-RWA people employ more closed-minded cognitive styles with a decreased tendency to update their false beliefs (Sinclair et al. 2020) and are less tolerant of differing opinions (Feldman 2020). Their views on democracy lean toward so-called stealth democracy, that is, a business-like model of governance, according to which politicians should not spend their time debating or seeking compromises, and thus, decisions should be made by authorities without public debate or direct involvement of the public (Muhlberger 2018). Based on these findings, it can be assumed that high-RWA people are rather uncomfortable with the idea of public deliberation, during which opposing political views are presented and authorities are challenged. In a similar manner, high-RWA might weaken one's support for direct democracy because citizens' direct involvement in political decision-making might undermine the power position of political authorities. By contrast, another aspect of RWA, conventionalism, might boost one's support for citizens' direct vote as it might be perceived as the most straightforward way to push through the interest and norms of the social majority (cf. Duckitt and Farre 1994). Hence, while we expect public deliberation to have greater legitimizing effects for low-RWA than high-RWA individual, potential associations between RWA and legitimizing effects of direct voting are less clear.

The concept of political alienation was introduced to mainstream political research in 1960s and 1970s to explain distrust in government and non-normative political participation among American youth (Citrin et al. 1975; Ranade and Norris 1984). It was defined as a long-term estrangement from a political system (or community) and its values and leaders (Citrin et al. 1975; Fox 2020), and operationalized through the sense of individual political powerlessness and a belief that politicians violate norms and rules (Finifter 1970). Though it seems sensible to assume that this attitude is linked to perceived legitimacy of political decision-making, a specific direction is not that straightforward, based on existing literature. Results show that people with high political alienation are more likely to support political decision-making through referendums (Johnston et al. 2020), but it is less clear whether they are also more likely to participate in it (Johnston et al. 2020; Fox 2020). A similar pattern is present for citizens with strong populist attitudes, which typically include alienation from traditional politics; these citizens are more likely to support referendums, but their actual participation in them is no different from people with non-populist attitudes (Jacobs et al. 2018). As for deliberation, deliberative democracy is often viewed as a cure for citizens' political alienation, encouraging people to re-examine their attitudes and therefore possibly become less alienated (McMillan and Harriger 2002). However, it also has been shown that political alienation discourages people from participating in deliberative decision-making (Jacquet 2017). In



sum, it is possible that a direct vote has a stronger legitimizing effect for citizens who are alienated from traditional politics, compared to those who are not alienated, but the interaction between political alienation and public deliberation is unclear.

Finally, political interest, meaning paying attention to politics, is closely associated with one's political knowledge. Although it has a well-established strong positive link to voting and other forms of political participation (Gallego and Oberski 2012; Kern and Hooghe 2017; Gil de Zúñiga and Diehl 2019), it remains unclear whether people with high political interest perceive citizens' direct vote on political topics as more legitimate than representation-based decision-making. On one hand, it is possible that their participatory tendencies translate into their higher support for decision-making arrangements that allow citizens' direct participation. On the other hand, their high participation in elections might indicate that they are content with a representation-based democracy, and thus, have no extra preference for citizens' direct vote. Further, people more interested in politics tend more to express their political opinions (Wang 2007), participate in online political discussions (Lu and Lee 2020), or take part in more deliberative forms of political involvement (Jacobs et al. 2009), all of which can suggest their higher support for more deliberative forms of decision-making. Hence, we expect political interest to increase the legitimizing effect of public deliberation, while its association with a direct vote is difficult to determine.

The present study

In sum, the aim of this study is to investigate factors affecting the perceived legitimacy of political decision-making. Perceived legitimacy is our dependent variable, which is expected to be positively affected by two independent variables: whether the decision-making process involves citizens' direct vote and whether it involves public deliberation before the decision is made. We assume that the effects on legitimacy of a direct vote and public deliberation are not constant. Specifically, we hypothesize that contexts inducing threat moderate the strength of the effects from both a direct vote (H1) and public deliberation (H2) to legitimacy. In addition to hypotheses testing, a novel contribution of our study is an exploration of the roles of individual differences among people. We ask whether people differing in their RWA, political alienation, and political interest also differ in the extent to which direct voting and public deliberation affect their perceptions of legitimacy.

Method

Participants

Participants were recruited through advertising on social networking sites and in printed newspapers. Overall, the sample came from the Czech Republic and comprised 220 people (59% females) aged 18 to 82 ($M=32.4$, $SD=12.7$). Almost half the participants (48%) were working; others were students (31%), unemployed (8%),



or reported being something else (e.g., retired, on parental leave etc.; 13%). Most participants had completed college or university as their highest level of education (54%), others had completed high school with (32%) or without (8%) a final exam, or elementary school (6%). This means that unemployed participants and participants with college or university education were overrepresented in our sample compared to the Czech population (unemployment rate was 2% in the Czech Republic in 2019; the educational structure of the population was: 19% college or university, 34% high school with a final exam, 33% high school without a final exam, and 14% elementary school; Czech Statistical Office 2020). Participation in the study was rewarded with 400 Czech crowns (approx. 15 EUR or 18 USD).

Procedure

A vignette experiment was conducted with one between-subject and two within-subject factors. Participants came to the university where all research materials were administered to them using desktop computers. All participants were presented with a hypothetical problem that the region of South Moravia (the Czech region where the study was conducted) had to decide between two strategies of water consumption reduction: a blanket increase of water prices, or an introduction of maximum allowed water consumption per household on some days of the year. This dilemma was chosen because it clearly affected the whole society, was easily imaginable, and had a technical rather than ideological nature, so participants' perceptions were presumably unaffected by their political views and loyalties. We deliberately presented all participants with the same dilemma, but set in different contexts, to ensure that the presumed moderation effect could be attributed to the context and not the decision-making problem itself.

Threat manipulation

Each participant was randomly assigned to one of three possible explanations of this problem. These explanations were characterized by different levels of threat and represented a between-subject factor in our study. In *low threat* condition, participants read a fictitious journal article explaining the decision about the strategy of water consumption reduction as a pre-emptive measure (which might never be implemented) to address a potential future problem with drought. In *high threat* condition, participants read a fictitious journal article maintaining that drought represents a serious problem for the region and describing its grave consequences for agriculture, forestry, and public water supply. The need to adopt one of the strategies was explained as resulting from an immediate threat posed by droughts. Finally, in *no threat* condition, which served as a control condition, participants read a fictitious journal article in which the need to decide between the strategies was explained as a consequence of a scheduled time-limited reconstruction of public water pipelines. After all participants read the fictitious article and the description of the alternatives, they completed three manipulation check items (see below). The *high threat*



condition was meant to be associated with the highest levels of anxiety in participants, and thus to correspond to a novel (rather than a familiar) type of threat.

Direct vote and public deliberation

Next, participants were instructed: “Now please try to disregard your personal preferences concerning the alternatives. We would like to know in which way you think the region should reach the decision in this particular situation. Read the descriptions of four possible ways in which the decision can be made. After that, the four descriptions will be presented to you (in random order) and you will be asked to evaluate, on given scales, how you perceive them in this particular situation.” This instruction was followed by a list of four decision-making strategies. Descriptions of these strategies were created to represent two within-subject two-level factors (i.e., a 2×2 design): (1) a direct vote: decision made by all citizens of the region in a referendum versus decision made by the regional parliament, and (2) public deliberation: decision made after a public debate versus decision made immediately. Hence, the first part of the description (referring to public deliberation) was: “First of all, a regional public debate will take place, during which all relevant political parties, state institutions, scientific institutions, non-governmental organizations, and individuals will express themselves so a wide range of opinions will be voiced. After this debate ...,” or it was “Without unnecessary delays or a public debate ...”. The second part of the description (referring to a direct vote) was: “... a regional referendum will be organized, in which all regional citizens with voting rights will decide by a simple majority,” or it was “... decision will be made by politicians in the regional parliament.” All descriptions were presented to participants at the same time and then once again, one by one. During the second presentation, participants evaluated the perceived legitimacy of each strategy using nine items (see below).

Other measurements and debriefing

After evaluating all four strategies, participants completed sociodemographic items and measures of other individual characteristics. Finally, participants were debriefed, that is, informed about the hypotheses and explicitly assured that the decision-making problem and the journal article were fictitious, presenting information intended to raise certain feelings in them.

Measures

Perceived legitimacy (dependent variable)

Participants’ perceptions concerning the legitimacy of the decision-making procedure were captured using nine items. We employed three items on procedural fairness, which is a well-known determinant of legitimacy and has been used as a proxy for it in previous studies (e.g., Esaiasson et al. 2012) and three items on one’s willingness to accept the decision, which is a direct consequence of legitimacy and has



also been used in previous research as the operationalization of legitimacy (e.g., Arnesen and Peters 2018). Next to these indicators, we added three items assessing one's expectation that the procedure could produce a high-quality decision. A four-point response scale ranging from *absolutely disagree* (= 1) to *absolutely agree* (= 4) was used. Items capturing procedural fairness were: "I consider this form of decision-making as just" "This form of decision-making would make me feel that I am treated fairly, as a citizen of my region" and "This form of decision-making is just for all sides." Items capturing willingness to accept were: "I am going to be willing to accept the decision made in this way even though I do not agree with it" "No matter what the outcome is, I would not mind accepting the final decision" and "If the decision is made in this way, I would not be upset even though I wished a different outcome." Finally, items capturing expected appropriateness were: "This procedure will lead to the best possible decision" "A well-informed decision can be made based on this procedure" and "The decision made in this way takes in consideration all relevant facts."

As our data were formed by 880 evaluations of legitimacy (four per participant), nested in 220 participants, a multilevel confirmatory factor analysis was employed to assess the structure of our measure. Results showed that the evaluations of legitimacy were best represented by a hierarchical factor model, in which a general legitimacy factor had three lower-order factors (i.e., procedural fairness, willingness to accept, and quality; $\chi^2[24] = 135.25$, $p < 0.01$; CFI = 0.99; TLI = 0.96; RMSEA = 0.07). Standardized factor loadings of the items were high (from 0.82 to 0.93), just as were standardized factor loadings from general legitimacy factor to procedural fairness (0.90), willingness to accept (0.90), and expected appropriateness (0.91). These results confirmed that our measure captured one general construct manifested in three closely related subdimensions. Therefore, the final score was computed by averaging all nine items, $\omega = 0.94$, $\alpha = 0.94$; $M = 2.46$, $SD = 0.79$.

Perceived threat (manipulation check)

Three items were used as a manipulation check: "I feel flooded by anxiety when thinking about the consequences of this problem for South Moravia" "This problem causes big worries in me" and "It is the most serious problem faced by South Moravia these days." A response scale had five points and ranged from *definitely no* (= 1) to *definitely yes* (= 5). Total score was computed by averaging the items, $\omega = 0.85$, $\alpha = 0.84$; $M = 2.96$, $SD = 1.05$.

Right-wing authoritarianism (RWA)

Authoritarianism was measured using the 12-item scale by Funke 2005 (translated to Czech by Āápal 2012). Sample items are: "Obedience and respect for authority are the most important values children should learn" or "The withdrawal from tradition will turn out to be a fatal fault one day." A four-point response scale ranged from *absolutely disagree* (= 1) to *absolutely agree* (= 4). Total score was created by averaging the items, $\omega = 0.76$, $\alpha = 0.74$; $M = 2.16$, $SD = 0.44$.



Political alienation

Alienation from politics was captured using four items: “It does not matter who wins the election in our country because nobody cares about the interests of ordinary people anyway” “People like me have no opportunity to influence decisions of our government” “Politicians more often fight for their own interests than the interests of the whole society” and “A decent person has no chance to succeed in politics.” Participants indicated their agreement using a four-point response scale from *absolutely disagree* (=1) to *absolutely agree* (=4). The items were averaged to form a total score, $\omega=0.81$, $\alpha=0.81$; $M=2.54$, $SD=0.66$.

Political interest

A one-item measure asked: “How much are you interested in politics?” Response scale ranged from *not at all* (=1) to *very much* (=4), $M=2.61$, $SD=0.77$.

Analysis

The hypotheses were tested using ANOVA for mixed designs with legitimacy as a dependent variable. The three levels of threat represented a between-subjects factor, while direct voting (with/without a direct vote) and deliberation (with/without deliberation) represented two intra-subject factors. H1 corresponded to the interaction between threat and a direct vote, while H2 corresponded to the interaction between deliberation and a direct vote.

The exploratory analysis of the roles of RWA, political alienation, and political interest employed linear mixed (multilevel) modeling (maximum likelihood estimator), which is a more suitable alternative than ANOVA for investigating interactions between factors and continuous covariates. Data were represented by 880 evaluations of legitimacy (level-1) nested in 220 participants (level-2). Direct vote and deliberation were treated as level-1 factors, threat as a level-2 factor, and RWA, political alienation and political interest as level-2 covariates. The covariates and their interactions with direct vote and deliberation were added to the model, step by step, to assess whether they moderated the legitimizing effects of direct voting and deliberation. Models were compared in terms of the Akaike information criterion (AIC), the Bayesian information criterion (BIC), and the deviance statistic, in which lower levels indicated more preferable models.

The multilevel confirmatory factor analysis was conducted using Mplus 7.4 (Muthén and Muthén 1998–2015). All other analyses were conducted using jamovi 1.1.9.0 (The jamovi project 2020).



Results

Initial analyses

Results suggested that the experimental manipulation was successful. Mean perceived threat in *no threat* ($M=2.43$), *low threat* ($M=2.99$) and *high threat* ($M=3.45$) conditions differed significantly ($F[2,217]=20.45$, $p<0.01$) with a large effect size ($\eta^2=0.16$). Post-hoc tests with Bonferroni correction showed significant mutual differences between all groups ($p_{\text{bonferroni}}<0.05$).

Means and standard deviations for all experimental conditions are presented in Table 1.

Hypotheses testing

ANOVA for mixed designs showed that a direct vote was perceived as more legitimate than representation-based decision-making ($F[1,217]=26.43$, $p<0.01$, $\eta^2=0.04$). Decision-making with deliberation was perceived as more legitimate than decision-making without deliberation ($F[1,217]=526.88$, $p<0.01$, $\eta^2=0.31$), this effect being considerably greater than the effect of a direct vote. Threat (i.e., experimental condition) had a significant but very small main effect on perceived legitimacy ($F[2,217]=3.15$, $p<0.05$, $\eta^2=0.01$).

Our two main hypotheses were not confirmed. We found no significant interaction between threat and a direct vote ($F[2,217]=0.32$, $p=0.73$, $\eta^2=0.00$), suggesting that the legitimizing effect of a direct vote remained unchanged by the level of threat. Likewise, non-significant interaction between threat and deliberation ($F[2,217]=1.37$, $p=0.26$, $\eta^2=0.00$) suggested that the legitimizing effect of deliberation did not change with different levels of threat. As can be seen in Fig. 1, the effects of a direct vote and public deliberation were almost identical across all conditions.

To check the robustness of our null findings, we tested whether the results remained the same if threat operationalized as experimental manipulation was replaced by threat perceptions reported by participants (i.e., the manipulation check variable). Even in this alternative analysis, neither deliberation

Table 1 Descriptive statistics of perceived legitimacy by procedural arrangements and the level of threat

	Mean (SD)		
	No threat	Low threat	High threat
<i>Direct vote</i>			
With deliberation	3.08 (0.63)	2.91 (0.61)	2.98 (0.64)
Without deliberation	2.29 (0.69)	2.08 (0.67)	2.23 (0.74)
<i>No direct vote</i>			
With deliberation	2.79 (0.57)	2.78 (0.78)	2.70 (0.63)
Without deliberation	1.98 (0.60)	1.76 (0.59)	1.88 (0.68)
<i>N</i>	73	73	74



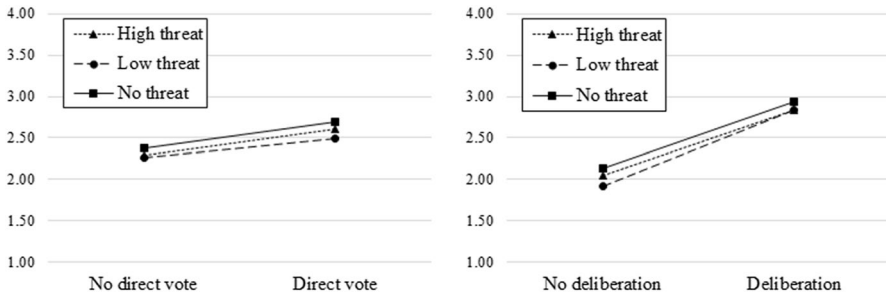


Fig. 1 Moderation effects of threat on the effects of direct vote and public deliberation on perceived legitimacy

($F[1,218]=0.44$, $p=0.51$, $\eta^2=0.00$) nor direct democracy ($F[1,218]=0.48$, $p=0.49$, $\eta^2=0.00$) significantly interacted with threat.

Exploratory analysis

Linear mixed models were used to test the effects of RWA, political alienation, and political interest on legitimacy (Table 2). An initial Model 1 was analogous to the ANOVA used to test our hypotheses. Once again, it confirmed significant effects of a direct vote and deliberation, but non-significant interactions of these variables with threat. In the next steps, RWA (Model 2), political alienation (Model 3), and political interest (Model 4) were added. Every step meant an improvement of model fit in terms of lower levels of AIC, BIC, and deviance, and a higher amount of explained variance. Results for the final Model 4 showed a significant main positive effect of RWA ($B=0.19$, $SE=0.06$, $p<0.01$) and four significant interactions.

All significant interactions from Model 4 are depicted in Fig. 2. A stronger legitimizing effect of direct voting was found for people who felt alienated from politics ($B=0.48$, $SE=0.06$, $p<0.01$) than for those who were not alienated ($B=0.08$, $SE=0.06$, $p=0.17$). At the same time, the legitimizing effect of a direct vote was stronger for people with low interest in politics ($B=0.44$, $SE=0.06$, $p<0.01$) than with high interest ($B=0.12$, $SE=0.06$, $p<0.05$). Next, a stronger legitimizing effect of public deliberation was present for low-RWA individuals ($B=0.99$, $SE=0.06$, $p<0.01$) than high-RWA individuals ($B=0.69$, $SE=0.06$, $p<0.01$). Finally, deliberation had a stronger legitimizing effect for people with high political interest ($B=0.96$, $SE=0.06$, $p<0.01$) than with low political interest ($B=0.72$, $SE=0.06$, $p<0.01$).

For completeness, three-way interactions between threat, intra-individual variables (direct vote and deliberation), and inter-individual variables (RWA, political alienation, and political interest) were tested, step by step, but none of them was significant.



Table 2 Linear mixed models predicting perceived legitimacy

	Model 1	Model 2	Model 3	Model 4
Direct vote	44.62**	45.98**	48.35**	50.03**
Deliberation	398.35**	410.17**	431.80**	446.66**
Threat (experimental condition)	3.21*	4.17*	4.31*	4.44*
Right-wing authoritarianism (RWA)		8.10**	8.44**	9.33**
Political alienation			0.56	1.15
Political interest				1.36
Direct vote × Threat	0.54	0.62	0.75	0.75
Deliberation × Threat	1.04	1.31	1.32	1.43
Direct vote × RWA		4.73*	0.10	0.07
Deliberation × RWA		15.09**	8.76**	11.51**
Direct vote × Political alienation			32.10**	18.54**
Deliberation × Political alienation			2.62	0.50
Direct vote × Political interest				14.86**
Deliberation × Political interest				7.90**
AIC	1757.54	1736.06	1707.66	1689.93
BIC	1810.12	1802.98	1788.92	1785.53
Deviance (−2LL)	1735.54	1708.06	1673.66	1649.93
χ^2 difference test		27.48[2]**	34.40[2]**	23.73[2]**
R^2 Marginal	0.32	0.34	0.37	0.38
R^2 Conditional	0.38	0.40	0.43	0.45

F values are reported. Degrees of freedom are [1, 660] for the main effects of direct vote and deliberation, [2, 220] for the main effect of threat, [1, 220] for the main effects of RWA, political alienation, and political interest, [2, 660] for the interactions involving threat, and [1, 660] for all other interactions

* $p < .05$, ** $p < .01$

Discussion

Although the main hypotheses were not confirmed, our results provided several novel insights into the roles of direct voting and public deliberation in the perceived legitimacy of political decision-making. First, decision-making arrangements involving a direct vote and public deliberation were, in general, perceived as more legitimate than arrangements without these components. Public deliberation had a clearly greater legitimizing effect than a direct vote, confirming the claim that voice matters more to citizens than control. Second, contrary to H1 and H2, the legitimizing effects of direct voting and public deliberation were relatively stable despite the changing levels of threat that was associated with the decision-making. Third, there were non-negligible individual differences between people in how strong the legitimizing effects of a direct vote and public deliberation were. Specifically, people with high-RWA or low interest in politics were less affected by lacking public deliberation, while people with low political alienation or high interest in politics were less affected by lacking a direct vote. In the



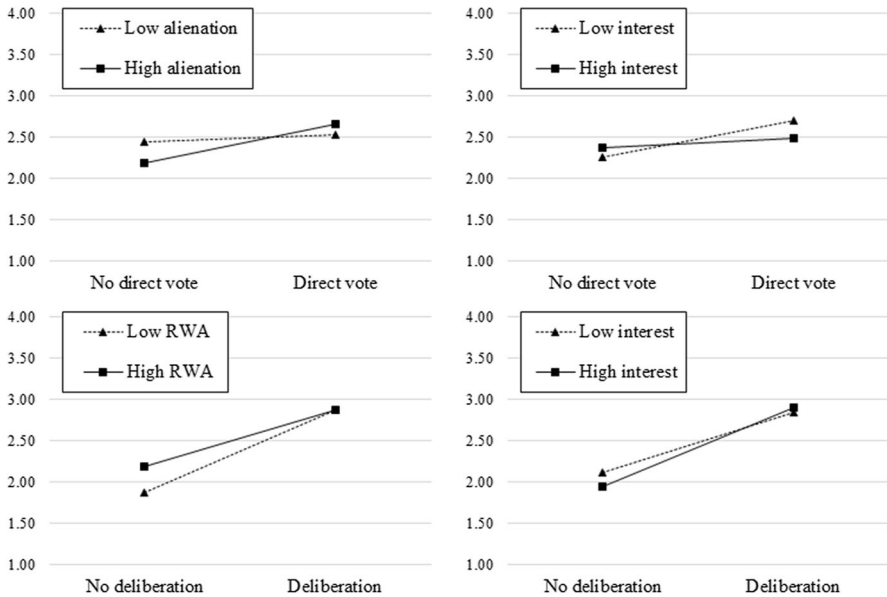


Fig. 2 Moderation effects of individual variables on the effects of direct vote and public deliberation on perceived legitimacy. *Note* Low and high values of the moderator variables correspond to one standard deviation below and above the mean, respectively

following paragraphs, we elaborate these conclusions in more detail and discuss the possible limitations of our study.

The good news for the proponents of participatory and deliberative democracy is that people generally perceive decision-making arrangements involving citizens' voices as more legitimate than no-voice arrangements. In line with some previous studies, we found presumed legitimizing effects of both people's direct vote, compared to a decision by political representatives (e.g., Esaiasson et al. 2012; Olken 2010; Persson et al. 2013), and public deliberation, compared to decision-making without public deliberation (Christensen et al. 2020; Persson et al. 2013). Employing traditional statistical criteria for determining the effect sizes (Cohen 1988), the effect of public deliberation was very large, while the effect of a direct vote was of a small to medium size. This corroborates previous findings that people care about having an opportunity to present and share their views even though they do not have direct control over the final decision (cf. Lind et al. 1990; Terwel et al. 2010). Thus, in situations where it is too complicated, undesirable, or even impossible to allow citizens a direct vote (i.e., to organize a referendum), or an introduction of public deliberation into the decision-making process seems to be a sufficient alternative. Nevertheless, it should be kept in mind that decision-making arrangements combining *both* citizens' direct voting and public deliberation were still perceived in our study as the most legitimate.

Inconsistent with our expectations, perceived threat did not interact with the legitimizing effects of a direct vote and public deliberation. Because our manipulation check indicators showed expected differences across the three treatment conditions,



we believe that we can rule out the possibility that the null result was due to an ineffective experimental manipulation. The content of the items clearly referred to anxiety and worries (items 1 and 2), which showed that participants perceived the threats in the *low threat* and particularly in the *high threat* conditions as novel (Marcus 2013).

Our first hypothesis maintained that threat leads to a greater need for participation and control over the situation (Marcus 2013), and thus, a greater legitimizing effect of a direct vote. Because it was not supported by our results, it is possible that this effect applies primarily to decision-making situations in which individuals can realistically assume they can personally influence a decision-making outcome. However, in the case of a large-scale direct democracy, citizens are often aware that their vote is only one of many and referendums are often associated with a great deal of uncertainty with respect to their outcomes. People who strongly dislike uncertainty or believe that the majority is incompetent to take a proper decision might be especially likely to perceive a direct vote as an unfavorable decision-making arrangement, this tendency being stronger with increasing threat. Thus, it is possible that a higher threat produces two contradictory tendencies in people: a greater wish for participation and control on one hand, but a greater concern about uncertainty and risks associated with a direct democracy on the other. As these two tendencies counterbalance each other, no apparent differences in the legitimizing effect of direct vote might be apparent across different levels of threat. We believe that if future research manages to disentangle these processes, new insights into the association between direct democracy and perceived threat can be gained.

According to our second hypothesis, very high levels of threat were expected to activate the surveillance system, that is, produce greater attention to new information (Marcus 2013), which would result in a stronger legitimizing effect of public deliberation. Considering that very strong legitimizing effects of public deliberation were found for all treatment conditions, we believe that the crucial question is not why high threat did not increase the effect of public deliberation, but rather why such strong effects were found also in other conditions. Indeed, this finding is surprising in the light of the affective intelligence theory, which suggests that a decreasing level of novel threat (and thus anxiety) is associated with a lower tendency to deliberate (Marcus 2013). In our view, the most likely reason for this finding is the nature of the decision-making problem that was employed in our study. As the problem of water consumption reduction was relatively technical and most participants had probably never thought about it before, they might have favored a presentation of different views on this issue even if the level of threat was low. It is possible that if we had used a more traditional political issue, about which people had more information and already knew the stances of relevant public actors, their preference for public deliberation would have been lower in less threatening conditions. Thus, participants' tendency to seek new information (and, in turn, influence the legitimizing effect of public deliberation) could have been boosted by the novelty of the decision-making problem itself, possibly overshadowing a situational impact of threat. Hence, perceived novelty of the political topic can be another factor (e.g., next to perceived importance; Towfigh et al. 2016) to be considered by further studies in this context.



The exploratory part of our analysis suggested several individual differences. First, the legitimizing effect of public deliberation was associated with RWA. Although both low-RWA and high-RWA individuals perceived the decision-making as more legitimate with public deliberation than without it, a decrease of legitimacy when deliberation was absent was greater for low-RWA than high-RWA people. In other words, it seems that despite their general preference for less deliberative and participatory forms of democracy (Muhlberger 2018), high-RWA people basically acknowledge the legitimizing role of public deliberation. At the same time, however, high-RWA individuals react less negatively to the lack of deliberation than low-RWA individuals. A likely explanation for this finding is that high-RWA people have a somewhat ambivalent approach to public deliberation: while they might feel uncomfortable with the plurality and ambiguity of views voiced during public deliberation, it also represents an opportunity to bring their own (i.e., authoritarian) views to the public debate. A further investigation of the mixed approach of authoritarians to public deliberation seems to be a promising direction for further research.

Second, our results showed that people alienated from politics perceived decision-making procedures involving direct voting as more legitimate (in contrast to procedures without a direct vote), while the legitimizing effect of a direct vote was essentially missing for people with low political alienation. The most straightforward explanation is that alienated citizens prefer a direct vote because it bypasses politicians and political parties (which they do not trust) and is viewed as a means of defending the interests of common people. On the contrary, non-alienated people usually trust in their elected representatives and the representation-based decision-making process, and thus, the presence of direct voting does not improve their perceptions of legitimacy. Our findings that the legitimizing effect of citizens' direct vote is driven by people with high political alienation corroborates the assumptions that the idea of referendums is particularly appealing to this segment of citizenry (Jacobs et al. 2018; Johnston et al. 2020). However, it should be noted that the high legitimacy of direct democracy among these citizens does not necessarily imply their higher practical use of corresponding procedures (Fox 2020; Jacobs et al. 2018).

Finally, we found a smaller legitimizing effect of a direct vote and a greater legitimizing effect of public deliberation for people who were more interested in politics, compared to people less interested in politics. We suppose that the former effect can be attributed to the fact that people interested in politics have a more critical view of direct democracy as they are more familiar with not only its advantages but also its shortcomings (e.g., citizens' ill-informed preferences, inconsistent decisions, or the risk that some relevant interests and arguments are omitted). In contrast, people not interested in politics are likely to pay most attention only to the central aspect of a direct vote, that is, the alleged expression of the people's will, which means that they perceive decision-making involving a direct vote as more legitimate. As for the latter effect, people with high political interest are often more active in political communication and deliberation (Jacobs et al. 2009; Lu and Lee 2020; Wang 2007), and thus, it is natural for them to put a greater value on the presence of deliberation in the decision-making process.



On the whole, considering their restrained approach to a direct vote, people interested in politics seem to have a stronger inclination to the deliberative than the participatory model of democracy, according to our results.

An important caveat to the effects of direct vote and public deliberation reported in our study, is that we did not consider the effect of outcome favorability on perceived legitimacy. Previous studies have shown that people's perceptions of legitimacy can be considerably affected by whether or not the decision-making process has led to their personally preferred outcome. In other words, people tend to perceive decision-making arrangements resulting in favorable outcomes as more legitimate, compared to arrangements leading to unfavorable outcomes (Arnesen 2017; Esaiasson et al. 2019). This effect is bound particularly to situations in which decision-making involves fundamental moral values (Skitka 2002; Skitka and Mullen 2002), when people are not familiar with all aspects of the decision-making procedure (Blader 2007; Van den Bos 1999), or they learn about the outcome prior to learning about details of the procedure (Van den Bos et al. 1997). Hence, we suggest being cautious about the sizes of reported effects as they can become lower if the decision-making concerns moral values or there is a room for citizens' uncertainty about the precise shape of the procedure.

In addition, our study has several limitations. First, our experiment employed only one type of political dilemma. As already suggested, future studies should consider other decision-making topics that are, for instance, less novel or more value-laden. Second, our research design (i.e., a vignette experiment) enabled us to directly manipulate and measure all key variables, but the presumed analogy between the real-world processes and the processes observed in our study might not be straightforward. Therefore, our findings should be further verified by studies conducted outside laboratory settings. Third, perceived legitimacy does not automatically imply people's actual compliance with decision-making outcomes. Hence, it should be acknowledged that additional factors (e.g., outcome favorability or practical barriers) can intervene in people's behavior, as compared to perceptions. Finally, our findings regarding individual variables are based on an exploration and have to be confirmed by future studies. These studies should also consider other individual variables that are potentially related to the perceptions of political decision-making, such as populist attitudes or different types of political trust and distrust.

Despite these limitations, our results suggest that both citizens' direct voting (i.e., referendums) and public deliberation represent effective means of boosting the perceived legitimacy of political decision-making on issues similar to the one employed in this study. Moreover, these legitimizing effects seem to be untouched by whether or not the decision is made in the context of threat. That said, public deliberation probably represents a more powerful legitimizing instrument because its effects are stronger and more persistent despite individual differences between people. By contrast, the legitimizing effect of a direct vote appears to be questionable in the case of people who are less alienated from and more interested in politics.

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Declarations

Conflict of interests On behalf of all authors, the corresponding author states that there is no conflict of interest.

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