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Deliberation and Decision-Making in Public Participation: The Role of Agency in Shaping Policy Acceptance

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Abstract

Public opposition often hinders the implementation of sustainable mobility policies. Public participation is thought to improve policy acceptance, particularly when citizens have high levels of decision-making power and interaction, but empirical evidence on these assumptions and the underlying psychological processes remains limited. This study tested whether perceived agency mediates the effect of decision-making power on policy acceptance, and whether this effect is moderated by the form of deliberation (public vs. private). In a 2×2 online experiment, German residents imagined participating in a public meeting on an environmental parking levy. Participants were randomly assigned to either full decision-making power or a consultative role, and to public or private deliberation conditions. Having full decision-making power significantly increased perceived agency, which in turn positively influenced policy acceptance, supporting the hypothesised mediation. Decision-making power did not have a direct effect on acceptance, suggesting that the feeling of agency, rather than power alone, is key to fostering acceptance.

Key words: agency, public participation, decision-making power, deliberation, interaction

1. Introduction

One strategy to mitigate climate change and its negative impacts is to encourage a modal shift from the car to sustainable forms of transport (Lanzini & Kahn, 2017). However, many of the most effective policies at disincentivising car use – in particular, push measures, designed to make car use less convenient and more costly – face considerable opposition from the general public (Buehler et al., 2016; De Groot & Schuitema, 2012). Often, this public resistance forces policymakers to abandon, or significantly scale back planned policies (Baranzini et al., 2021; Hensher & Li, 2013), with public opposition to car-restrictive policies perhaps the main obstacle to their wider implementation (Baranzini et al., 2021; Gu et al., 2018). Hence, it is necessary to better understand which factors influence the public acceptance of mobility policies, defined as the extent to which the public evaluate specific policies favourably (Liu et al., 2020).

Public participation in decision making has been heralded as a key factor in the acceptability of climate policies (Perlaviciute, 2022). Broadly defined as the (voluntary) involvement of citizens in influencing political decisions at any stage of the policymaking process (Schroeter et al., 2016), public participation can take many forms, from citizen assemblies to surveys (Chilvers et al., 2021). Evidence from case studies indicates that the public seem to particularly resist climate policies when they feel excluded from decision making (Carratini et al., 2019; Gross, 2007). Conversely, when citizens have been involved in decision-making, the public appear to view both the decision-making process and the resulting policies more favourably (Bernauer et al., 2016; Walker & Baxter, 2017).

Although public participation in decision making is generally considered beneficial to the acceptability of climate policies, there is limited systematic empirical evidence for *when* and *how* public participation enhances the public acceptability of climate policies. In line

with normative standards and intuition, it is widely assumed that public participation is more effective when there is more interaction between citizens, and when they hold greater decision-making power (Murunga et al., 2024; Perlaviciute, 2022). But there has been limited empirical comparison of public acceptability under different levels of decision-making power and few studies have investigated the importance of citizen interaction for effective public participation (Erbaugh et al., 2024), research gaps this study aims to address. Moreover, it is not yet clear via which processes public participation in decision making may affect the public acceptance of climate policies. Recent studies indicate a role for perceived procedural fairness and trust in policymakers (e.g., Liu et al., 2020; ter Mors & van Leeuwen, 2023), but there is a need to examine which other psychological factors underpin the effects of public participation on policy acceptance (Liu et al., 2020). This study proposes that public participation in decision-making affects project acceptability via increased feelings of agency, defined as individuals' perceived ability to act intentionally and independently, in order to achieve desired consequences, either as an individual or group (see, Fritsche & Masson, 2021; Smith et al., 2023).

To provide insight into *when* and *how* public participation may increase acceptance of a sustainable mobility policy – in this case, parking charges – an experimental study was conducted, which investigated whether public participation affects policy acceptance via perceived agency. In addition, it tests whether perceived agency depends on citizens' level of interaction and decision-making power during a public participation process. Namely whether citizens have full decision-making power (i.e., citizen control) or rather a consulting role, as part of a public participation procedure with contrasting levels of interaction, in the form of public or private deliberation.

1.1. Public participation in decision-making and perceived agency

Agency has been described as the "essence of humanness" (Bandura, 2001), capturing individuals' perceived ability to act intentionally and independently to achieve desired outcomes. Particularly key is a sense of control, i.e., the feeling that an individual or group is independently responsible for reaching a desired outcome, rather than being passively subjected to external forces or decisions. In the context of policy-making, there are vastly different degrees of control afforded to citizens, from having no say at all in a traditional top-down "decide-announce-defend" approach to having substantial influence over policy at different stages of the policy-making process (Perlaviciute, 2022). As such, one might expect perceived agency over policy outcomes to vary considerably, in line with citizens' ability to independently influence policy outcomes. Thus, agency appears to be an appropriate psychological mechanism through which public participation influences policy acceptability.

Although little research has explicitly examined agency in relation to public participation and policy acceptability, there is reason to believe that agency underlies the effect of the former on the latter. Participation has been theorized to provide individuals with a greater feeling of control over policy (Thibaut & Walker, 1975) and to shape their perception of their ability to influence policymaking (Knobloch & Gastil, 2015). Moreover, prior research suggests that public participation can enhance a key component of agency: efficacy, i.e., the belief that one can effect change, either individually or collectively (e.g., Boulianne, 2019; Peiser & Schinko, 2023). While the concept of agency transcends efficacy, capturing elements beyond goal attainment, such as autonomy and intentionality (Fritzsche & Masson, 2021), we might similarly expect engaging in public participation to enhance agency, particularly when decision-making power is high

Thus, assuming that public participation allows participants to influence policy-

making in a way that is both meaningful and deliberate, enhancing their feelings of control and autonomy, we would expect it to strengthen their sense of agency. When this occurs, and people perceive themselves as active agents rather than passive recipients of policy, they may be more likely to see decisions as legitimate and fair, even if the outcomes are not entirely in their favour (Tomlinson, 2015). In contrast, when individuals feel they lack agency, they may perceive decisions as being imposed upon them, causing feelings of disempowerment and resentment. These negative emotions could, in turn, decrease policy acceptance, particularly when a policy has significant personal or societal impacts, as with a mobility policy designed to restrict car use by imposing a financial burden among drivers. Therefore, policy acceptability is expected to be higher when individuals perceive a higher level of agency in the decision-making process.

1.2. The role of decision-making power and public deliberation

As well as testing whether changes in agency influence the public acceptability of a sustainable mobility policy following public participation, this study aims to examine *when* public participation enhances the public acceptability of said policy. Specifically, it addresses whether perceived agency and public acceptability are affected by citizens' level of interaction and decision-making power during public participation. The common assumptions that policy acceptability is higher following public participation in which there is more interaction between citizens, who hold greater decision-making power, receives some empirical support. While looking more broadly at the effects of public participation on environmental outcomes, a recent meta-analysis of 305 case studies on public participation in environmental decision-making concluded that pro-environmental outcomes are best predicted by the delegation of authority to participants, and to a lesser extent the intensiveness of communication between participants (Newig et al., 2023). Moreover,

experimental studies have indicated that providing citizens with some decision-making power—compared to no influence at all, or influence that is perceived as obsolete—can enhance policy acceptability (e.g., Liu et al., 2019; Liu et al., 2020; Terwel et al., 2010; ter Mors & van Leeuwen, 2023). What remains unclear, however, is the extent to which *more* decision-making power leads to *greater* policy acceptance.

Recent evidence suggests this may not always be the case. Across two experimental studies, Liu et al. (2021) found that granting citizens full decision-making power did not result in higher public acceptability than when they shared responsibility for the final decision in a local energy project. In this particular case, the absence of an effect for greater decision-making power may be due to study-specific factors, such as concern – among participants – about whether members of the public possess sufficient expertise to develop complex energy projects (Liu et al., 2021). Yet, it may also indicate that the observed positive effect of granting citizens decision-making power (e.g., Liu et al., 2019) is driven more by citizens’ aversion to being excluded from decision-making, than by the inherent benefits of greater decision-making power. If so, this challenges the assumption that more influence is inherently better, suggesting instead that a consultative role—where citizens contribute meaningfully but do not bear full decision-making responsibility—may be just as effective in enhancing policy acceptability. Given the growing emphasis on public participation in environmental decision-making (Akerboom & Craig, 2022), these findings have important implications for policymakers designing participatory processes. It is therefore critical to further investigate how different levels of decision-making power—particularly full decision-making control versus a consultative role—affect perceived agency and public acceptability of policies, as done in this study.

The importance of citizen interaction during public participation is also in need of

further investigation. Part of the reason why citizen interaction is believed to enhance policy acceptability is that face-to-face dialogue and discussion can facilitate deliberation, a process that involves actively weighing and reflecting on different perspectives and justifying one's own preferences (Dryzek and Niemeyer, 2019; Perlaviciute, 2022). Proponents of deliberation argue that it promotes considered judgement that allows individuals to accept more complex, collectively beneficial, or even personally unfavourable policy solutions (Dryzek et al., 2021; Fishkin, 1995). In the context of climate policy, which is often contested and can involve difficult trade-offs between short-term costs and long-term benefits, deliberation should, in theory, help foster greater acceptance, by encouraging citizens to engage with and understand the reasoning behind different policy proposals. Empirical evidence supports this possibility, with deliberation appearing to increase support for climate change measures, including for unpopular mobility policies like fuel taxes, so long as convincing arguments against the policy are not discovered through deliberation (Birnbaum et al., 2015; Mackenzie & Caluwaerts, 2021; Sanders, 2012).

However, while interactive deliberation processes have the potential to increase support for climate policies, they face barriers to broader implementation. In practice, these processes can only accommodate a small group of participants, as they require significant investments of time, effort, and money relative to the number of individuals able to take part (Murunga et al., 2024). Moreover, not all citizens have the ability to participate in, or feel empowered to engage in such discussions (King & Gregg, 2022; Lau et al., 2021). But though many definitions of deliberation implicitly emphasise the importance of interaction—particularly for exposure to diverse perspectives—individuals can still consider and reflect on alternative viewpoints in less interactive settings, such as during private reflection. Should private deliberation have similar benefits for public acceptability of climate policies as public deliberation, this would have implications for how many people are able participate in and

experience the benefits of deliberative processes in public participation. Thus, this study examines whether the type of deliberation in public participation – public or private – effects perceived agency and policy acceptability for a proposed sustainable mobility policy. Specifically, it tests whether deliberation type moderates the effect of decision-making power on perceived agency.

1.3. Overview of study and hypotheses

Mobility policy decisions have a tangible impact on citizens' everyday lives, are often in the hands of local government and are frequently contested by members of the public, especially if designed to disincentivise car use (De Groot & Schuitema, 2012; Van Dijk & Lefevere, 2023). As such, one might expect the benefits of public participation in decision-making – thus far predominantly studied in the context of the energy transition – to be observed for mobility policy decisions. An experimental study was conducted that tests this possibility, in addition to the following questions: a) whether public participation affects project acceptability via perceived agency and b) whether perceived agency depends on citizens' decision-making power or form of deliberation (private vs public) during public participation. Through a series of vignettes, participants imagined being residents of a fictional city and taking part in a public meeting concerning the introduction of an environmental parking levy – chosen because additional parking charges appear to be effective at reducing car travel but have not yet been widely implemented (e.g., Becker & Carmi, 2019; Crotti et al., 2022). During the public meeting participants learnt about the policy before engaging in either private (personal reflection) or public (group discussion) deliberation. Then, they had either full decision-making power (the ability to accept or reject the proposed policy) or a consultative role (the ability to provide feedback on the policy). Afterwards, participants learned whether the city would be implementing the policy or not.

So that policy acceptance reflected participants' willingness to accept an outcome that did not align with their personal views, this outcome was experimentally manipulated to be the opposite of participants' own preference, thereby isolating the effect of the participatory process itself. Participants then indicated how acceptable they found this policy decision.

Since full decision-making power allows individuals to have greater control over the final policy outcome and to act with greater intentionality than in a consultative role, perceived agency is expected to be higher for participants with full decision-making power. Then, given the assumed benefits of greater agency, policy acceptability is expected to increase when individuals feel they have more agency in the decision-making process. Therefore, this study hypothesises that decision-making power affects policy acceptability via perceived agency (Hypothesis 1).

Regarding deliberation type, engaging in public, as opposed to private, deliberation, affords individuals the opportunity to advocate for their preferred outcome, potentially enhancing their sense of personal control – especially when they hold full decision-making power – as their influence extends beyond their own decision. Moreover, the interactive nature of public deliberation may make the public's collective influence more tangible, reinforcing the perception that citizens can meaningfully shape policy outcomes. This, in turn, has implications for individuals' sense of collective agency. Therefore, this study hypothesizes that any increase in perceived agency from full decision-making power will be amplified when individuals also engage in public deliberation (Hypothesis 2).

Method

2.1. Participants

228 German residents were recruited online via the platform Prolific. Of these, 15 participants did not complete the study, dropping out before any key variables were measured. In addition, participants ($n = 2$) were excluded if they provided nonsense answers (e.g., “yes”, “no”) when asked to share their thoughts on the proposed policy, indicating limited engagement in the study. The final analysis included 211 participants, of whom 120 were male, 89 were female, one was non-binary and one preferred not to disclose their gender. They ranged in age from 19 to 68 years old ($M = 35.68$, $SD = 11.39$), with 159 owning a car, and 50 living in a household with someone who owned a car (two participants did not disclose).

An a priori power analysis was conducted to determine the required sample size for detecting a causal mediation effect. Using the method proposed by Qin (2024), assuming a small effect of decision-making power on policy acceptance (standardised effect size = 0.14) and a small-to-medium effect of agency on policy acceptance (0.27), a minimum of 160 participants was needed to achieve 80% power. All analyses were conducted with and without the excluded participants. Results remained substantively unchanged, and only the results from the final sample ($N = 211$) are reported.

2.2. Design

The study employed a 2 (decision-making power: full vs. a consultative role) by 2 (deliberation type: public vs private) between-subjects experimental design, resulting in four conditions: *public decision*, *private decision*, *public consultation*, and *private consultation*. Participants were randomly assigned to one of these conditions. The independent variables were decision-making power and deliberation type. Policy acceptance, the dependent

variable, was operationalised as acceptability of a final policy decision that was the opposite of participant's own preferences. Agency was measured as a proposed mediator of the relationship between decision-making power and policy acceptance.

2.3. Procedure

On the basis of a checklist developed by the EC-BSS at the University of Groningen, this study was exempt from full ethics and privacy review. The study was described to participants as an investigation into how individuals respond to being involved in a public consultation about a prospective sustainability policy. Participants could complete the study in either English or German¹, using a desktop or laptop computer.

After providing informed consent, participants were randomly assigned to one of four conditions. They read a brief text which explained that global warming is caused by increasing CO₂ emissions and that car travel is one of the main sources of these emissions. Then, participants were asked to imagine that they lived in the fictional town of Winterfeld, a medium-sized German city. They learned that Winterfeld has high levels of road congestion, significant air pollution and an underfunded, insufficient public transport network. They read that the city council is considering the introduction of a car-parking levy to raise funds for improving the public transport in Winterfeld, and is organising a public meeting, to discuss the policy with residents of the city and receive their feedback.

As a resident of Winterfeld, participants imagined attending this public meeting. First, they received information about the structure of the event, corresponding to their experimental condition (see, Figure 1). Then, they were provided with more information

¹ The study materials were developed in English, and then translated into German by a native German speaker. Another native German speaker checked and provided feedback on the translations. Revisions were made where needed. The translated German materials can be found in Appendix C.

about the proposed car-parking levy. Next, deliberation type and then level of decision-making power were experimentally varied:



Figure 1. Vignettes from the *public decision* (top) and *private consultation* (bottom) conditions, illustrating the public meeting's structure. Deliberation type was manipulated, with participants imagining either group discussion (public deliberation) or individual reflection (private deliberation). Then, decision-making power was manipulated: citizens either made the final decision (full power), or provided feedback (consultative role).

2.3.1. Deliberation type: public vs. private

In the *public deliberation* conditions, participants imagined taking part in a small-group discussion with three fellow residents of Winterfeld. The personal background and individual perspective of each group member was described, and participants were prompted to reflect on a set of open-ended discussion questions provided to the group (e.g., “What concerns do you have about the policy?”). Subsequently, participants were asked to write their own opinion on the policy and reflect on how they would engage in the group discussion.

In *private deliberation* conditions, participants instead read that the attendees are given individual reflection sheets. They are encouraged to read through the questions - the same open-ended questions as the *public deliberation* conditions - and reflect privately. Afterwards, participants were asked to write their own opinion on the policy and share any benefits or concerns they had identified.

2.3.2. Decision-making power: full vs. consultative role

With full decision-making power, participants read that they could vote to accept or reject the policy, and that city officials would follow the decision of the citizens present. Participants then indicated whether they would personally accept or reject the environmental parking levy.

By contrast, when given a consultative role, participants were told that they had the option to give feedback on the proposed environmental parking levy, using an online survey, and that city officials would take the advice of those present into consideration. Participants then indicated whether they were broadly for or against the environmental parking levy.

2.3.3. Post-scenario

After completing the public meeting scenario, participants responded to measures of agency and manipulation checks. They were then informed whether the city government of Winterfeld had decided to implement the environmental parking levy or not. This policy decision was experimentally manipulated to contradict participants' own stated preference, as indicated during the public meeting scenario. Those who were in favour of the levy were told it was rejected ($n = 119$), and those opposed were told it was implemented ($n = 91$). The subsequent policy acceptance measure therefore reflected participants' willingness to accept an outcome that did not align with their own preferences, after having undergone the public participation process. Policy acceptance was then measured. Afterwards participants were debriefed.

2.4. Measures

2.4.1. Agency

Participants were asked to indicate on a one-to-seven Likert scale, from *strongly disagree* to *strongly agree*, the extent to which they agreed with statements concerning policy in Winterfeld. The six items captured both participants' sense of personal agency (three items, e.g., "I have a meaningful say over policy that will affect me") and collective agency (three items, e.g., "The citizens of Winterfeld are able to collectively influence policy that will affect them"). Agency was calculated by averaging responses across items ($M = 4.91$, $SD = 1.20$, $\alpha = .93$). For a comprehensive list of all items, see Appendix ____.

2.4.2. Policy acceptance

Measured using a single item adapted from Liu et al. (2019). Participants were asked how they felt about the city government's decision (not) to implement the environmental parking levy. In response to the prompt "I find this decision..." participants indicated how

acceptable they found the decision on a one-to-seven Likert scale, from very unacceptable to very acceptable ($M = 3.16$, $SD = 1.47$).

2.4.3. Manipulation checks.

To assess how effective the experimental manipulations were, participants rated to what extent they agreed with two statements on a one-to-seven Likert scale, from *strongly disagree* to *strongly agree*. For perceived decision-making power, which captured whether participants believed they had full decision-making power: “In the described scenario, it was up to me and the other citizens present whether the environmental parking fee gets implemented”. For perceived public deliberation: “In the described scenario, I was able to discuss the policy with other attendees at the event”.

Results

3.1. Manipulation checks

To verify that the experimental manipulations produced the intended differences in perceived decision-making power and deliberation type, two 2 (decision-making power: full vs. consultative) \times 2 (deliberation type: public vs. private) ANOVAs were conducted on participants' perceptions of decision-making power and public deliberation, respectively.

The analysis revealed a significant main effect of decision-making power on perceived decision-making power, $F(1, 203) = 123.38, p < .001, \eta^2 = .38$, indicating a successful manipulation. Participants in the *full* decision-making condition reported significantly greater perceived power ($M = 6.10, SD = 1.27$) than those in the *consultative* condition ($M = 3.72, SD = 1.73$). There was no significant main effect of deliberation type on perceived decision-making power, $F(1, 203) = 1.40, p = .237$.

A significant main effect of deliberation type on perceived public deliberation was observed, $F(1, 203) = 53.72, p < .001, \eta^2 = .21$, suggesting that this manipulation was effective. Participants in the *public* deliberation condition reported higher levels of perceived public deliberation ($M = 6.32, SD = 1.05$) compared to those in the *private* condition ($M = 4.81, SD = 1.81$), though it should be noted that a number of participants in the private condition reported levels of perceived public deliberation above the neutral midpoint. There was no main effect of decision-making power on perceived interaction, $F(1, 203) = 0.23, p = .631$.

3.2. Descriptive Statistics

On the central outcome variables, participants in the *decision* conditions had higher levels of agency on average than participants in *consultation* conditions, while policy acceptance was low across all four conditions, as shown in Table 1. Correlation analysis

revealed a significant positive relationship between decision-making power and agency, $r(208) = .40, p < .001$, as well as between agency and policy acceptance, $r(208) = .25, p < .001$. However, the correlation between decision-making power and policy acceptance was not significant, $r(208) = .07, p = .34$. Deliberation type was not significantly associated with either agency ($r = -.11, p = .10$) or policy acceptance ($r = -.06, p = .36$).

Table 1

Mean scores and standard deviations for agency and policy acceptance, by condition.

	Agency		Policy acceptance	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Public decision	5.39	1.05	3.26	1.37
Private decision	5.51	0.82	3.33	1.70
Public deliberation	4.24	1.31	2.96	1.45
Private deliberation	4.60	1.29	3.17	1.36
All participants	4.89	1.20	3.17	1.47

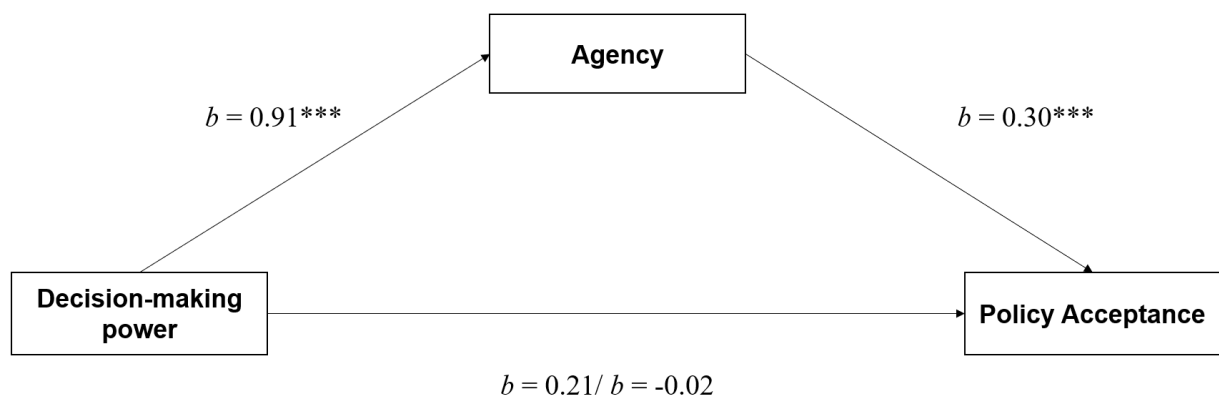
3.3. Hypothesis Testing

Hypothesis 1 predicted that decision-making power would influence policy acceptance via perceived agency. The relevant assumptions are met to test this hypothesis with mediation analysis following Hayes's process procedures for testing mediation. In line with expectations, having full decision-making power (versus a consultative role) resulted in higher perceived agency ($b = 0.91, t(207) = 5.68, p < .001, R^2 = .13$). Agency also positively predicted the degree to which participants accepted the final policy decision ($b = 0.30, t(207) = 3.64, p < .001, R^2 = .06$). However, having full decision-making power (versus a consultative role) did not have a significant direct effect on policy acceptance ($b = 0.21, t(207) = 1.20, p = .231, R^2 = .01$).

To formally test for mediation, a bootstrapped analysis (1,000 samples) was conducted.

The indirect effect of decision-making power on policy acceptance through agency was significant ($b = 0.23$, $p = .018$, 95% CIs [0.05, 0.50]), while the direct effect remained non-significant ($b = 0.02$, $p = .960$, 95% CIs [-0.44, 0.44]). The total effect of decision-making power on policy was non-significant ($b = 0.21$, $p = .272$, 95% CIs [-0.20, 0.63]).

This pattern supports full mediation: the influence of decision-making power on policy acceptance appears to operate entirely through participants' perceived agency, which accounted for approximately 93% of the total effect. See Figure 3 for a visual representation of the mediation model.



Note: *** denotes $p < .001$, ** denotes $p < .01$, * denotes $p < .05$.

Figure 2. The effect of having full decision-making power (vs. a consultative role) on agency and policy acceptance. The direct effect of decision-making power on policy acceptance is shown both without controlling for agency(left) and when controlling for agency (right).

Hypothesis 2 predicted that engaging in public deliberation would amplify any increase in perceived agency from full decision-making power. A simple moderation analysis was conducted to test whether deliberation type moderated the relationship between decision-making power and perceived agency. Contrary to the hypothesis, deliberation type did not significantly moderate this relationship ($b = 0.01$, $t(205) = 0.03$, $p = .978$). That is, the effect

of full (vs. consultative) decision-making power on perceived agency did not differ between public and private deliberation contexts.

Discussion

This experimental study set out to examine how, and under what conditions, public participation can enhance public acceptance of a sustainable mobility policy. Specifically, it investigated whether perceived agency mediates the relationship between citizens' decision-making power and their acceptance of the final policy decision, as well as whether the form of deliberation – public or private – moderates the effect of decision-making power on perceived agency. Our results confirm an instrumental role of perceived agency in public participation outcomes but fail to find support for deliberation type as a moderator of decision-making power's effect on agency.

On the basis that having full decision-making power would provide participants with the ability to meaningfully and deliberately influence policy-making, it was hypothesised that the effect of decision-making power on policy acceptance would be mediated by perceived agency. This is supported by the results. Participants with full decision-making power reported significantly higher perceived agency than those with a consultative role. Moreover, perceived agency positively predicted acceptance of the final policy decision, indicating that when individuals felt (more) able to exert intentional and independent influence on the policymaking process, they tended to find the final outcome more acceptable. Decision-making power did not directly predict acceptance of the final policy; however it did have an indirect effect through perceived agency, underscoring agency's key role as a psychological mechanism linking public participation and policy support.

In identifying perceived agency as a psychological mechanism through which public participation enhances policy acceptance, this study builds on experimental research highlighting the role of procedural fairness and trust in policy-makers (Liu et al., 2020; ter Mors & van Leeuwen, 2023), advancing our understanding of when and how participatory processes can foster public support for climate policy. Consistent with the idea that individuals

value a sense of control over policy outcomes (Thibaut & Walker, 1975), participants evaluated the policy outcome as more acceptable when they perceived themselves as having agency during the decision-making process. Notably, this effect emerged even though the policy outcome conflicted with participants' preferences, suggesting that public resistance to unpopular, yet necessary, sustainable mobility measures could be mitigated when citizens experience a sense of agency over the policy-making process.

The central role of agency in policy acceptance is further underscored by the absence of a direct effect of decision-making power on policy acceptance in our study. While it is widely assumed that public participation is more effective when citizens hold greater decision-making power (Murunga et al., 2024; Perlaviciute, 2022), our findings do not support this assumption. Participants who were given full decision-making power, meaning citizens decided whether the environmental parking levy would be implemented, did not rate the policy outcome as more acceptable than those in a consultative condition, where city officials made the final decision after considering public input.

Participants lack of familiarity with the proposed policy could factor into this finding. Previous research suggests that policy acceptance is related to the perceived expertise of those making decisions (Liu et al., 2021). While parking levies have been implemented in the United Kingdom to promote sustainable mobility (Dale et al., 2019), they are a relatively novel concept, especially in Germany. It is therefore plausible that participants questioned whether ordinary citizens possessed the necessary expertise to make a final binding decision on their implementation. This may have undermined the expected benefits of greater decision-making power, dampening its effect on policy acceptance.

However, our findings align with and add to a growing body of evidence suggesting that granting citizens *some* decision-making power may be just as effective for fostering policy acceptance as giving them *full* control, and may, in fact, better reflect public preferences for

how citizens should be involved in policy processes. Experimental research by Liu et al. (2021) found that granting citizens full control over a local energy project did not lead to higher policy acceptance compared to when citizens shared decision-making responsibility with energy company representatives. Citizens also appear to prefer being informed about, or having a say on policy outcomes, rather than deciding themselves (Perlaviciuti & Squintani, 2020) and would prefer for public participation outcomes to be limited to an advisory capacity, rather than those involved being empowered to make a binding decision (Goldberg & Bachtiger, 2023; see also, Smith & McDonough, 2001).

This does not mean that citizens should not have high decision-making power in public participation. Certainly, greater decision-making power may have other benefits, pertaining to the normative (i.e., democratic ideals) and substantive (i.e., improved decisions) goals of public participation (Fiorino, 1990; Perlaviciute et al., 2024). However, our findings suggest that designing public participation with high—or full—decision-making power may be insufficient for the instrumental purpose of boosting policy acceptance, especially if greater decision-making power fails to foster a corresponding sense of agency; for instance, because citizens lack the necessary knowledge, or support to act intentionally, or the participation process does not allow for real choice and deliberation.

For those tasked with designing public participation processes, our findings highlight the importance of fostering a sense of agency around policy decisions. They suggest that when people feel that they have deliberate and meaningful input into policymaking, they are more likely to accept policy outcomes, even when those outcomes go against their personal preferences. This is especially relevant for sustainable mobility policies, such as pricing or restriction measures, that tend to face strong public opposition despite their effectiveness (Buehler et al., 2016; Baranzini et al., 2021). Currently, citizens are typically only passively involved in the later stages of mobility planning, primarily as recipients of information rather

than as active contributors (Michellini et al., 2023). Our study suggests that shifting towards more active, agency-supportive forms of participation in the latter stages of mobility planning could help increase public support for necessary but contentious mobility measures.

In this study, we also examined the potential moderating role of deliberation type. As public deliberation affords individuals the opportunity to advocate for their preferred outcome and may strengthen perceptions of collective influence, it was hypothesised that any increase in perceived agency from full decision-making power would be amplified when paired with public deliberation. This hypothesis was not supported by the results. There was no interaction between decision-making power and deliberation type, suggesting that the positive effect decision-making power had on perceived agency was similar across both public and private deliberation contexts.

While it is important to note that some participants in the private deliberation condition reported high levels of perceived public deliberation, perhaps reflecting intuitive associations about town hall settings and face-to-face discussion, this cannot fully account for the lack of a moderating effect. One possible explanation lies in how public deliberation was operationalised in this study. Anecdotally, it seems some participants did not feel that a group discussion with three members of the public would measurably change the outcome, with several remarking that the discussion was “pointless” when asked to describe how they would approach it. Moreover, while deliberation can foster acceptance by encouraging individuals to consider and understand opposing viewpoints (Dryzek & Niemeyer, 2019; Perlaviciute, 2022), it can also surface trade-offs, value conflicts, and competing interests that were previously unacknowledged (Burston & Mustelin, 2013). Being introduced to three fictional citizens of Winterfeld, each representing a distinct, opposing perspective on the proposed environmental parking levy may have drawn attention to the contested and uncertain nature of the policymaking process, potentially complicating participants’ sense of agency. In contrast,

participants in the private deliberation condition – who engaged in a private reflection task – may have experienced a more direct and unambiguous sense of control. Without needing to reconcile their views with others or confront competing societal interests, they may have found it easier to imagine acting independently and intentionally to achieve their desired outcomes.

The finding that public deliberation did not amplify the effect of decision-making power on perceived agency has several practical implications. Most notably, it suggests that private deliberation—structured moments of individual reflection on policy choices—may offer some of the same psychological benefits as more resource-intensive public deliberation, at least in terms of fostering a sense of influence. This matters because public deliberative processes, while normatively desirable and potentially effective in enhancing policy support, face substantial barriers to large-scale implementation. They are often time- and cost-intensive, and only a limited number of citizens can realistically participate (Murunga et al., 2024). Moreover, participation is uneven: some individuals lack the time, confidence, or resources to engage in public discussions, and it is unclear the extent to which benefits of public participation extend to members of the public who are just aware of – but did not themselves participate in – a participatory process (Boulianne, 2018; King & Gregg, 2022; Lau et al., 2021).

If private deliberation – deliberative reflection without interpersonal exchange - can support citizens' perceptions of agency similarly to public deliberation, then it may provide a more accessible and scalable complement to interactive formats. However, this remains an open empirical question. Few studies have investigated the importance of citizen interaction for effective public participation (Erbaugh et al., 2024). While the current study offers initial evidence that private deliberation may be just as effective as public deliberation in certain contexts, future research should examine whether these patterns hold in real-world participatory processes.

4.1. *Limitations and future research*

Several limitations of this study should be acknowledged. Firstly, manipulating the final policy outcome, such that it was always the opposite of participants' own preference, has complex practical implications. It that for more than half of participants ($n = 119$), this study measured how acceptable they found the decision not to implement a sustainable mobility policy. While theoretically interesting that agency positively predicted acceptance of an undesirable policy outcome; practically climate policymakers are not looking at how to foster acceptance for not implementing climate policy. Moreover, because of the manipulation of policy outcome, our policy acceptance measure also cannot account for changes in policy-specific (how acceptable I find the policy itself) – as opposed to outcome-specific (how acceptable I find the policy decision) – policy acceptability, which may have occurred during the public participation process, for instance as a result of deliberation (Dryzek et al., 2021). Future studies should measure both policy-specific and outcome-specific policy acceptance separately (e.g., Liu et al., 2021), manipulating the policy outcome – not only whether a policy accepted or rejected, but for instance whether certain concessions are given – only after the former has been measured.

Another caveat when interpreting the study is that it only examines the influence of public participation at the very end of the policy-making process. While this reflects certain real-world formats, such as referenda or final consultation stages, it does not account for more iterative or upstream forms of participation, in which citizens shape or co-create policy content. Public participation in earlier stages of decision-making, when citizens can help shape the scope of policy in a way that takes into account their needs, values, and preferences, may be particularly influential in fostering a sense of agency and shaping support for policy outcomes. Future research could test whether different configurations of participation—e.g., agenda-setting vs. final approval—influence agency and acceptance differently.

Lastly, although the deliberation manipulation successfully produced differences in perceived interaction, the distinction between public and private deliberation may have been less stark in practice than intended, with some participants in the private deliberation condition reporting high levels of perceived public deliberation. More immersive and realistic manipulations, such as interactive video-based vignettes or live group discussion tasks, may better capture the social dynamics of public deliberation and enhance the ecological validity of future research.

In terms of broader directions, future research should investigate the role of agency beyond its instrumental value in securing policy acceptance. For example, perceptions of agency in policy-making may shape trust in institutions, place identity. Future work should also aim to disentangle the relative effects of personal and collective agency. While exploratory analysis, not reported in the main results, suggested that personal agency was more sensitive to differences in decision-making power, and collective agency slightly higher overall, more research is needed to understand their distinct roles and interactions.

Finally, field studies are needed to test the external validity of our findings in real-world participatory settings. The controlled nature of experimental vignette studies allows for internal validity, but it does not capture the complexity, stakes, and institutional credibility of actual public participation processes. Future research should employ longitudinal, correlational, and field (quasi-)experiments to assess whether the observed mediation effects—and the absence of moderation by deliberation type—hold when citizens are genuinely involved in shaping policy. Particular attention should be paid to whether private deliberation (i.e., structured individual reflection) can support agency and acceptance in real-world contexts, and whether it offers a scalable complement to more resource-intensive forms of public deliberation.

4.2. Conclusion

This study highlights the central role of perceived agency as a psychological mechanism through which public participation enhances policy acceptance. While granting citizens full decision-making power did not directly boost policy acceptance, it enhanced acceptance indirectly by increasing participants' sense of agency. Contrary to expectations, public deliberation did not strengthen this effect, suggesting private reflection may offer similar psychological benefits. Our findings underscore the importance of designing participatory processes that support citizens' agency, by not just giving power, but ensuring people feel able to act intentionally and meaningfully within policymaking. Future research should test these dynamics in real-world participation settings.

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Appendices (Contents page)

Appendix A: Scales for agency and policy acceptance

Appendix B: Full vignette materials – English

Appendix C: Full vignette materials – German translation

Appendix D: Study Information Sheet

Appendix E: Participant Consent Form

Appendix F: Participant Debrief Sheet

Appendix A: Scales for Agency and Policy Acceptance

Agency

Having taken part in this public consultation organised by the city of Winterfeld, during which ...

We want you to reflect on the extent to which you agree with the following statements

Personal Agency - subscale

	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
I have a meaningful say over policy that will affect me							
I am able to independently influence policy that will affect me in Winterfeld							
I am able to achieve my desired policy outcome							

Collective Agency - subscale

	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
We as citizens have a meaningful say in shaping local policy							
The citizens of Winterfeld are able to collectively influence policy that will affect them							
As citizens of Winterfeld we are able to work together to reach the best policy outcome							

Policy Acceptance

As a citizen of Winterfeld, please describe how you feel about the city government's decision to proceed with implementing the environmental car-parking levy.

OR

As a citizen of Winterfeld, please describe how you feel about the city government's decision not to proceed with implementing the environmental car-parking levy

I find this decision...	Very unacceptable	Unacceptable	A little unacceptable	Neutral	Slightly Acceptable	Acceptable	Very Acceptable

Appendix B: Full Vignette Materials – English

Condition	Slide	Vignette / Text
ALL	I	N/A: Participants fill in: <ul style="list-style-type: none"> • demographic information • values
ALL	li	N/A: Participants assigned to condition
ALL	1	Global warming is caused by ever-increasing CO2 emissions. One of the main sources of these emissions is car travel. In Europe, it accounts for around one-sixth of all carbon emissions.
ALL	2	<p>We would like you to imagine that you live in the city of Winterfeld, a medium-sized city with a population of approximately 200,000 residents.</p> <p>Much like other European cities, its narrow streets struggle to accommodate modern traffic, resulting in daily gridlock and significant air pollution. Public transportation in Winterfeld offers a potential solution, but it is currently underfunded and insufficient for the city's needs.</p> <p>In order to alleviate congestion and pollution in Winterfeld, the city government wants to invest in improving and expanding the public transport offering. It is considering the introduction of an environmental car-parking levy, targeting all citizens and visitors who use on-street parking.</p> <p>This will allow the city to raise funds for improving the public transport in Winterfeld, while reducing car travel.</p>
ALL	3	<p>You read that the city has organised a public consultation, in order to discuss its plans in more detail with residents of the city and receive their feedback.</p> <p>As someone who will be affected by legislation that makes it more expensive to get around by car, you decide to attend.</p>
ALL	4A	<p>You arrive at Winterfeld's City Hall on a cold autumn evening. You take a seat inside the main hall which is almost full. Looking around you see citizens from all walks of life.</p> <p>Rows of chairs face a podium where several city officials are gathered.</p> <p>On time, they begin the event. They thank everyone present for turning out and explain how the event will be structured, as shown in the following image.</p>
DEC-PUB	4B	[image]
DEC-PRIV	4B	[image]
INF-PUB	4B	[image]
INF-PRIV	4B	[image]
ALL	5	<p>They explain the <u>car-parking levy</u> as follows:</p> <p>In order to <u>reduce congestion</u> and <u>pollution</u>, all residents who wish to park their vehicle on city streets or car parks will have to pay an <u>environmental car-parking levy</u>. This will be charged either at a fixed monthly rate, or at a more expensive daily rate, which is intended for visitors.</p> <p>Parking spaces at park-and-ride locations on the outskirts of the city will remain <u>exempt</u> from the levy, encouraging commuters and visitors to park their cars here and take public transport into the city centre.</p>

		The funds generated from the levy will be invested directly in <u>improving</u> Winterfeld's public transport and cycling infrastructure.
DEC-PUB & INF-PUB	6.i.	<p>After taking 10 minutes to answer questions from citizens, the city officials proceed with explaining the next stage of the event.</p> <p>You are told to form small groups of four to six with members of the public you have not met before. This is a chance for you to share your opinions and ideas with other residents from Winterfeld, and to learn more about their perspective in return.</p> <p>You find yourself in a group with three other strangers.</p>
DEC-PUB & INF-PUB	6.ii.	[Visual image: DEC-PUB & INF-PUB 6]
DEC-PUB & INF-PUB	6.iii.	<p>In your group you have:</p> <ul style="list-style-type: none"> a) A university student who does not own a car. They are frustrated with how slow and unreliable public transport is in the city and would like to see fewer cars on the streets and better cycling infrastructure. b) An older man in a suit who seems skeptical about the policy. Like most residents of the city, he uses the car to commute to work every day. To him, the levy represents yet another tax at a time when the cost of living is high. c) A mother and local business owner believes that the policy will unfairly affect families like hers who rely on the car to get about. She is also worried that the policy will reduce foot traffic to her store in the city centre. <p>As a group you are asked to discuss the following questions</p> <ul style="list-style-type: none"> • What are the potential benefits of the environmental car-parking levy? • What concerns do you have about the policy? • How could these concerns be addressed? • Are there <i>alternative</i> measures to the <u>car-parking levy</u> that the city should consider instead? <p>Reflect on these questions and the perspectives of your group members for a short while.</p>
DEC-PUB & INF-PUB	7	<p>What is <u>your</u> opinion on the policy? [Please type here]</p> <p>How would you find this group discussion? Are there particular points you would want to raise with the group? [Please type here]</p>
DEC-PRIV & INF-PRIV	6.i.	<p>The city officials proceed with the next stage of the event.</p> <p>Sheets of paper are handed out to those present and you are encouraged to take 15 minutes to read through the questions and reflect privately.</p>
DEC-PRIV & INF-PRIV	6.ii.	[Visual image: DEC-PRIV & INF-PRIV 6]

DEC-PRIV & INF-PRIV	6.iii.	<p>The paper lists the following questions as bullet points:</p> <ul style="list-style-type: none"> • What are the potential benefits of this policy for Winterfeld? • What concerns do you have about the policy? • How could these concerns be addressed? • Are there <i>alternative</i> measures to the <u>car-parking levy</u> that the city should consider instead? <p>Reflect on these questions for a short while.</p>
DEC-PRIV & INF-PRIV	7	<p>What opinions do you have towards the policy? [Please type here]</p> <p>What benefits and concerns can you think of? [Please type here]</p>
DEC-PUB & DEC-PRIV	8	<p>As the event is nearing its conclusion, the city officials inform those present that they would like <i>your</i> input, in order to <u>decide</u> whether to proceed with implementing the <u>environmental parking levy</u> in Winterfeld.</p> <p>Using an online voting platform, you, along with the other members of the public present <u>vote</u> either to accept or reject the policy.</p> <p>The city officials will follow the decision of the citizens present.</p>
INF-PUB & INF-PRIV	8	<p>As the event is nearing its conclusion, the city officials inform those present that they are invited to share their feedback on the proposed environmental parking levy with the city government.</p> <p>Using an online survey, you, along with the other members of the public present can share your thoughts on the policy.</p> <p>The city officials say that they will take your advice into consideration.</p>
	iii	<p>Participant indicates policy preference:</p> <p>DEC-PUB & DEC-PRIV: As a citizen of Winterfeld do you accept or reject the environmental car-parking fee?</p> <p>INF-PUB & INF-PRIV: As a citizen of Winterfeld are you broadly for or against the environmental car-parking fee?</p>
	iv	Manipulation checks
	v	Measures of personal and collective agency
	8	<p>Three weeks after the event you read that the city government of Winterfeld has decided to proceed with implementing the environmental car-parking levy.</p> <p><i>OR</i></p> <p>Three weeks after the event you read that the city government of Winterfeld has decided not to proceed with implementing the environmental car-parking levy. It will seek alternative means to fund more modest improvements of the public transport network.</p>
	vi	Measure of project acceptance

DEC-PUB Deciding (high decision-making power), with public deliberation

DEC-PRIV Deciding (high decision-making power), with private deliberation

INF-PUB	Consulting (low decision-making power), with public deliberation
INF-PRIV	Consulting (low decision-making power), with private deliberation

Appendix C: Vignette Materials - German

Condition	Slide	Vignette / Text
ALL	I	N/A: Participants fill in: <ul style="list-style-type: none"> • demographic information • values
ALL	li	N/A: Participants assigned to condition
ALL	1	Die globale Erwärmung wird durch die ständig zunehmenden CO2-Emissionen verursacht. Eine der Hauptquellen für diese Emissionen ist der Autoverkehr. In Europa ist er für etwa ein Sechstel der gesamten CO2-Emissionen verantwortlich.
ALL	2	<p>Stellen Sie sich vor, Sie leben in der Stadt Winterfeld, einer mittelgroßen Stadt mit etwa 200.000 Einwohnern.</p> <p>Wie in vielen anderen europäischen Städten gibt es auch hier viele enge Straßen, die für den modernen Verkehr nicht geeignet sind, was zu täglichen Verkehrsstaus und erheblicher Luftverschmutzung führt. Der öffentliche Nahverkehr in Winterfeld bietet eine mögliche Lösung. Er ist jedoch derzeit unterfinanziert und für die Bedürfnisse der Stadt unzureichend.</p> <p>Um die Staus und die Luftverschmutzung in Winterfeld zu verringern, möchte die Stadtregierung in die Verbesserung und den Ausbau des öffentlichen Nahverkehrs investieren. Sie zieht die Einführung einer <u>Umwelt-Parkgebühr</u> für alle Bürger und Besucher, die am Straßenrand parken, in Erwägung.</p> <p>Dadurch sollen Mittel für die Verbesserung des öffentlichen Nahverkehrs in Winterfeld aufgebracht und gleichzeitig der Autoverkehr reduziert werden.</p>
ALL	3	<p>Sie lesen, dass die Stadt eine öffentliche Konsultation organisiert hat, um ihre Pläne ausführlicher mit den Bewohnern der Stadt zu besprechen und deren Feedback zu erhalten.</p> <p>Da Sie von einer Gesetzgebung, die das Autofahren teurer macht, betroffen sein werden, entscheiden Sie sich dafür, an der Konsultation teilzunehmen.</p>
ALL	4A	<p>Sie kommen an einem kalten Herbstabend zum Rathaus von Winterfeld und nehmen Platz im großen Saal, der fast vollständig besetzt ist. Um sich herum sehen Sie Bürgerinnen und Bürger aus allen Lebensbereichen vertreten.</p> <p>Alle Stühle sind auf ein Podium ausgerichtet, auf dem sich mehrere städtische Beamte versammelt haben.</p> <p>Die Veranstaltung fängt pünktlich an. Die Stadträte danken allen Anwesenden für ihre Anwesenheit und erklären den Ablauf der Veranstaltung, wie in dem folgenden Bild dargestellt wird.</p>
DEC-PUB	4B	
DEC-PRIV	4B	
INF-PUB	4B	

INF-PRIV	4B	
ALL	5	<p>Die <u>Umweltparkgebühr</u> wird folgendermaßen erklärt:</p> <p>Um <u>Staus</u> und <u>Luftverschmutzung</u> zu reduzieren, müssen alle Einwohner, die ihr Fahrzeug auf städtischen Straßen oder Parkplätzen abstellen möchten, eine <u>Umweltparkgebühr</u> zahlen. Diese wird entweder zu einem festen monatlichen Tarif oder zu einem teureren Tagesstarif erhoben, welcher für Besucher gedacht ist.</p> <p>Parkplätze an Park-and-Ride-Standorten am Stadtrand bleiben von der Gebühr <u>ausgenommen</u>. Dadurch sollen Pendler und Besucher ermutigt werden, ihre Autos dort abzustellen, um mit öffentlichen Verkehrsmitteln ins Stadtzentrum zu fahren.</p> <p>Die durch die Gebühr eingenommenen Mittel sollen direkt zur <u>Verbesserung</u> des öffentlichen Nahverkehrs und der Fahrradinfrastruktur in Winterfeld benutzt werden.</p>
DEC-PUB & INF-PUB	6.i.	<p>Die Stadträte beantworten zehn Minuten lang Fragen der Bürger. Danach fahren sie mit der Erklärung des nächsten Veranstaltungsteils fort.</p> <p>Sie werden aufgefordert, kleine Gruppen von vier bis sechs Personen zu bilden – zusammen mit Einwohnern, die Sie bisher noch nicht kennen. Dies ist eine Gelegenheit, Ihre Meinungen und Ideen mit anderen Einwohnern aus Winterfeld zu teilen und dabei mehr über deren Perspektiven zu erfahren.</p> <p>Sie befinden sich jetzt in einer Gruppe mit drei weiteren unbekannten Personen.</p>
DEC-PUB & INF-PUB	6.ii.	[Visual image: DEC-PUB & INF-PUB 6]
DEC-PUB & INF-PUB	6.iii.	<p>Ihre Gruppe besteht aus:</p> <p>a) Einem Universitätsstudenten, der kein Auto besitzt. Er ist frustriert darüber, wie langsam und unzuverlässig die öffentlichen Verkehrsmittel in der Stadt sind, und wünscht sich weniger Autos auf den Straßen und eine bessere Infrastruktur für Fahrradfahrer.</p> <p>b) Einem älteren Mann im Anzug, der dieser Politik skeptisch gegenübersteht. Wie die meisten Einwohner der Stadt benutzt er das Auto, um jeden Tag zur Arbeit zu fahren. Für ihn ist die Parkgebühr-Abgabe eine weitere Steuer in einer Zeit, in der die Lebenshaltungskosten hoch sind.</p> <p>c) Einer Mutter und örtlichen Geschäftsinhaberin, die der Meinung ist, dass die Politik Familien wie die ihre, die auf das Auto angewiesen sind, ungerechtfertigt benachteiligen wird. Sie ist auch besorgt, dass die Politik die Anzahl von Kunden in ihrem Geschäft im Stadtzentrum einschränken wird.</p> <p>In der Gruppe sollen Sie die folgenden Fragen diskutieren</p> <ul style="list-style-type: none"> • Was sind die potenziellen Vorteile der <u>Umweltparkgebühr</u> ? • Welche Bedenken haben Sie in Bezug auf diese Politik? • Wie könnten diese Bedenken gelöst werden?

		<ul style="list-style-type: none"> Gibt es <i>alternative</i> Maßnahmen zur <u>Umweltparkgebühr</u>, die die Stadt stattdessen in Betracht ziehen sollte? <p>Denken Sie eine Weile über diese Fragen und die Perspektiven Ihrer Gruppenmitglieder nach.</p>
DEC-PUB & INF-PUB	7	<p>Was ist Ihre Meinung zu dieser Politik? [Please type here]</p> <p>Wie würden Sie diese Gruppendiskussion finden? Gibt es bestimmte Punkte, die Sie in der Gruppe ansprechen möchten? [Please type here]</p>
DEC-PRIV & INF-PRIV	6.i.	<p>Die Stadtverwaltung fährt mit der nächsten Phase der Veranstaltung fort.</p> <p>Den Anwesenden wird ein Blatt Papier ausgehändigt, und sie werden gebeten, sich 15 Minuten Zeit zu nehmen, um die Fragen durchzulesen und privat darüber nachzudenken.</p>
DEC-PRIV & INF-PRIV	6.ii.	[Visual image: DEC-PRIV & INF-PRIV 6]
DEC-PRIV & INF-PRIV	6.iii.	<p>In dem Papier werden die folgenden Fragen als Aufzählungspunkte aufgeführt:</p> <ul style="list-style-type: none"> Was sind die möglichen Vorteile dieser Politik für Winterfeld? Welche Bedenken haben Sie gegenüber die Politik? Wie könnten diese Bedenken berücksichtigt werden? Gibt es <i>alternative</i> Maßnahmen zur <u>Umweltparkgebühr</u>, die die Stadt stattdessen in Betracht ziehen sollte? <p>Denken Sie eine Weile über diese Fragen nach.</p>
DEC-PRIV & INF-PRIV	7	<p>Was ist Ihre Meinung zu dieser Politik? [Please type here]</p> <p>Welche positiven Aspekte empfinden Sie und welche Bedenken haben Sie in Bezug auf diese Politik? [Please type here]</p>
DEC-PUB & DEC-PRIV	8	<p>Am Ende der Veranstaltung teilen die Stadtbeamten den Anwesenden mit, dass sie <u>entscheiden</u> sollen, ob die Einführung der <u>Umweltparkgebühr</u> in Winterfeld eingesetzt werden soll oder nicht.</p> <p>Über eine Online-Abstimmungsplattform <u>stimmen</u> Sie und alle anderen Bürgerinnen und Bürger, die bei der Konsultation anwesend waren, über die Annahme oder Ablehnung der Politik ab.</p> <p>Die Stadtbeamten werden die Entscheidung der anwesenden Bürger annehmen und sich danach richten.</p>
INF-PUB & INF-PRIV	8	<p>Am Ende der Veranstaltung teilen die Stadtbeamten den Anwesenden mit, dass sie <u>entscheiden</u> sollen, ob die Einführung der <u>Umweltparkgebühr</u> in Winterfeld eingesetzt werden soll oder nicht.</p> <p>Über eine Online-Abstimmungsplattform <u>stimmen</u> Sie und alle anderen Bürgerinnen und Bürger, die bei der Konsultation anwesend waren, über die Annahme oder Ablehnung der Politik ab.</p>

		Die Stadtbeamten werden die Entscheidung der anwesenden Bürger annehmen und sich danach richten.
	iii	Participant indicates policy preference: DEC-PUB & DEC-PRIV: Akzeptieren Sie als Bürger von Winterfeld die Umweltparkgebühr oder lehnen Sie sie ab? INF-PUB & INF-PRIV: Sind Sie als Bürger von Winterfeld grundsätzlich für oder gegen die Umweltparkgebühr?
	iv	Manipulation checks
	v	Measures of personal and collective agency
	8	Drei Wochen nach der Veranstaltung lesen Sie, dass die Stadtverwaltung von Winterfeld beschlossen hat, die Umweltparkgebühr einzuführen. <i>OR</i> Drei Wochen nach der Veranstaltung lesen Sie, dass die Stadtverwaltung von Winterfeld beschlossen hat, die Umweltparkgebühr nicht einzuführen. Sie wird nach einer Alternative suchen, um bescheidenere Verbesserungen des öffentlichen Verkehrsnetzes zu finanzieren.
	vi	Measure of project acceptance

AGENCY

Personal Agency - subscale

	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme eher nicht zu	Weder noch	Stimme eher zu	Stimme zu	Stimme voll und ganz zu
Ich habe ein Mitspracherecht bei politischen Entscheidungen, die mich betreffen.							
Ich bin in der Lage, selbstständig die Politik zu beeinflussen, die mich in Winterfeld betrifft.							
Ich bin in der Lage, meine gewünschten Ziele bei der Kommunalpolitik zu erreichen.							

Collective Agency - subscale

Wir haben als Bürger ein aussagekräftiges Mitspracherecht bei der Gestaltung der Kommunalpolitik.							
Die Bürgerinnen und Bürger von Winterfeld können gemeinsam die Politik, die sie betrifft, beeinflussen							
Als Bürger von Winterfeld haben wir die Möglichkeit zusammenarbeiten, um das beste politische Ergebnis zu erzielen							

Appendix D: Study Information Sheet

Project title: Public consultation on mobility policy

Researcher:

Nicholas Wilson

University of Groningen, Psychology Department

Contact details:

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Supervised by:

Goda Perlaviciute

University of Groningen, Psychology Department

Roman Trötschl

Leuphana University, Psychology Department

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You are invited to take part in a study that I am conducting as part of my Master thesis at the University of Groningen.

Before you decide whether to agree to take part it is important for you to understand the purpose of the research and what is involved as a participant. Please read the following information carefully. Please get in contact if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

This study aims to investigate how individuals respond to being involved in a public consultation about a prospective sustainable policy

Do I have to take part?

Your participation is voluntary and you do not have to agree to take part. If you do agree to take part, you can withdraw at any time, without giving a reason.

What will happen to me if I take part?

If you agree to take part in the study, you will be asked to engage with a series of texts, images and questions that allow you to imagine going through a public consultation (e.g., a town hall meeting) about a specific policy. There will also be a couple of short questionnaires you will be asked to complete, at the start and at the end of the experiment.

If you feel uncomfortable answering any question, you are free to move onto the next question.

The experiment should take between 10 and 15 minutes to complete. For taking part, you will be reimbursed, as advertised on Prolific.

What will happen with the data?

All information obtained during the study will be kept confidential. If the data is published it will be entirely anonymous and will not be identifiable as yours.

What will happen to the results of the project?

We expect the project to be completed in summer 2025.

No personal data will be shared, however anonymised (i.e. not identifiable) data may be used in reports, presentations and other research outputs.

All research data and records needed to validate the research findings will be stored for 10 years after the end of the project, in line with the Faculty Data Storage Protocol.

Who do I contact if I have any questions or concerns about this study?

If you have any further questions or concerns about this study, please speak to the researcher or their supervisor.

If you remain unhappy or wish to make a formal complaint, you may send your complaint to the Ethics Committee of the Faculty of Behavioural and Social Sciences of the University of Groningen: ec-bss@rug.nl

Thank you for reading this information and considering taking part in this study.

Appendix E: Consent Form

Project title: Public consultation on mobility policy

Researcher:

Nicholas Wilson

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This form is to confirm that you understand what the purposes of the project, what is involved and that you are happy to take part. Please tick each box to indicate your agreement:

I confirm that I have read and understand the purpose of the study, and what will happen to me if I take part	
I have had sufficient time to consider the information and ask any questions I might have, and I am satisfied with the answers I have been given.	
I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.	
I agree to take part in the project.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason.	

Appendix F: Study Debrief Sheet

Thank you for taking part in this study. With this research I aim to better understand *when* and *how* involving the public in policy-making affects their acceptance of the subsequent policy.

In particular, it tests how different levels of decision-making power and interaction affect citizens feelings of agency and their policy acceptance.

It is widely assumed that public involvement is more effective when there is more interaction between citizens and when they hold greater decision-making power, but there is limited experimental evidence for these assumptions, a research gap this study aims to address. While all participants in this study imagine attending a public consultation about the same policy, their decision-making power as citizens, and ability to 'interact' with other members of the public was manipulated. The final 'decision' of the city government was also manipulated to be the opposite of participants stated preferences.

The data you have provided is automatically anonymized and cannot be traced back to your identity

If you would like further information about the study or would like to know about what my findings are when all the data have been collected and analysed, then please contact me via email (n.a.wilson@student.rug.nl). I cannot however provide you with your individual results.