Why do citizens (not) support democratic innovations? The role of instrumental motivations in support for participatory budgeting[1]

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Decreasing support for political institutions in Western democracies has put the topic of democratic reform high on the agenda of both academics and practitioners (Geissel and Newton, 2012, Dryzek et al., 2019). An increasingly popular approach to reform has been the implementation of democratic innovations (DIs) –that is, "institutions that have been specifically designed to increase and deepen citizen participation in the political decision-making process" (Smith, 2009). Such new ways of involving citizens in decision-making are meant to address a long list of democratic ills, ranging from public distrust in political institutions to policy inefficiencies (Papadopoulos and Warin, 2007, Geissel and Newton, 2012). Part of the new public management agenda of good governance, DIs in Western democracies are often implemented by public administrations in a top-down fashion (e.g. Baiocchi and Ganuza, 2014). This raises the question to what degree citizens themselves actually support such reforms -and why (cf. Hibbing and Theiss-Morse, 2002, Stoker and Hay, 2017).

In recent years, the question why citizens (do not) support DIs has attracted increasing academic attention. An important finding in previous research is that citizens mostly judge DIs in terms of their outcomes. The more a DI leads to outcomes citizens (do not) favour, the more (less) likely they are to express their support for it. Empirical research on DIs has stressed the importance of such "instrumental considerations" (Werner, 2020) for the support citizens express for DIs (Landwehr and Harms, 2020, Christensen et al., 2020) as well as for their willingness to accept the respective policy outcomes (Esaiasson et al., 2019, Arnesen, 2017, Arnesen and Peters, 2018). Yet, despite this sustained attention for instrumental considerations, it remains ambiguous *why* outcome favourability drives DI support. Instrumental considerations are not straightforward and may include self-interested as well as sociotropic motivations (that is, concerns with the wider community) (Kim, 2014). Research on economic policy attitudes and voting shows that not only a desire for personal material gains drives citizens' attitudes and behaviour but that also their

concerns with the state of the economy as a whole matter (Mansfield and Mutz, 2015, Bechtel et al., 2014). Other studies suggest instead that self-interest, defined as being motivated by goals "which bear directly on the material well-being of individuals' private lives" (Sears et al., 1980), trumps sociotropic considerations in citizens' evaluations of policy proposals (Haselswerdt, 2020). These findings beg the question to what degree citizens' instrumental considerations with regard to DIs similarly reflect a concern with personal material gains (i.e. self-interest), their community (i.e. sociotropic concerns), or both. While research on DI support consistently shows that instrumental considerations are important, it has yet to disentangle the underlying mechanisms.

In this research note, we for the first time empirically verify what drives citizens' instrumental considerations in their evaluation of a DI. We focus on a DI that has been widely implemented across the globe (Sintomer et al., 2013): participatory budgets (PBs). To test our expectations, we rely on a series of survey experiments on Dutch citizens' support for PBs at the local level. As this constitutes the first experimental study of citizen support for PBs, we start by testing to what extent it is driven by instrumental considerations (Study 1).[1] Next, we verify to what extent self-interest drives this effect (Study 2) and to what degree potential sociotropic considerations play a role (too) (Study 3). In the final section, we reflect on the generalizability of our findings to other DIs and suggest ways forward.

Experimental design and results

Our data come from three survey experiments on PBs conducted among citizens living in large municipalities in the Netherlands (Table 1). PBs allow citizens to decide how part of a public budget is to be spent. Dutch local governments have experimented extensively with PBs over the past decade in a wide variety of municipalities (Michels and De Graaf, 2010). This follows a wider

trend, with PB experimentation taking place also in other European countries, such as Germany (Schneider and Busse, 2019) and Spain (Font et al., 2015).

Table 1. Overview of survey experiments

Study	Sampling frame	Respondents (observations)*	Included attributes (see Table 2)
1	Citizens in ten largest municipalities	1,303 (2,606)	1-5
2	Citizens in municipalities > 100,000 inhabitants	538 (6,456)	1-4 & 6
3	Citizens in municipalities > 100,000 inhabitants	650 (7,800)	1-5 & 7

* The number of observations reflects the number of PBs rated by the respondents (2 per choice task, as in Figure 1). Example Study 2: 538 (respondents) * 6 (choice tasks) * 2 (PBs rated per choice task) = 6,456. For technical reasons, we only include the first choice task for Study 1 (see details in SM).

The survey experiments follow the logic of a conjoint analysis (Hainmueller et al., 2014). In all three experiments, we first asked respondents to imagine that the municipality they live in will implement a "neighbourhood budget" (*wijkbudget*) in their neighbourhood next year.[2] This will allow residents to submit ideas for projects to improve the quality of life in their neighbourhood and to decide which of these will be awarded €50,000 and subsequently executed. They were told that the municipality now needs to determine what such a neighbourhood budget will look like. Respondents then six times performed a choice task.

Each time, they saw two juxtaposed neighbourhood budgets consisting of 5-6 attributes that randomly displayed one of the pre-specified levels (see example in Figure 1). The included attributes (Table 2) reflect, on the one hand, common design features of PBs and DIs more generally, and, on the other, relevant outcome-related aspects (Smith, 2009, Fung and Wright, 2001).[3] Underneath the two neighbourhood budgets, we then asked respondents to (a) choose their

preferred neighbourhood budget and (b) give an approval rating for each of the two neighbourhood budgets on a seven-point scale (1: Completely disapprove; 7: Completely approve).

Choice 1

	Neighbourhood Budget A	**Neighbourhood Budget B**
Winning project	Repave bicycle tracks	Install more lights
Residents who are allowed to submit a project	Neighbourhood residents who are chosen by other neighbourhood residents	All neighbourhood residents
Allowed projects	Projects that fit themes selected by the municipality	Any project that seeks to improve the quality of life of the neighbourhood
Support from the municipality	The municipality organizes a meeting among neighbourhood residents to discuss the projects	The municipality offers no extra support
Choice of the winning project	All neighbourhood residents are allowed to vote for the winning project	All neighbourhood residents are allowed to vote for the winning project

Which of these two neighbourhood budgets do you prefer **for your neighbourhood?**

Neighbourhood Budget A □ Neighbourhood Budget B □

If it thus would be about **your neighbourhood**, what kind of grade would you give to the neighbourhood budgets on a scale from 1 to 7, with 1 meaning 'I completely disapprove' and 7 'I completely approve'?

What grade would you give to **Neighbourhood Budget A?**

Completely disapprove Completely approve
1 2 3 4 5 6 7

What grade would you give to **Neighbourhood Budget B?**

Completely disapprove Completely approve
1 2 3 4 5 6 7

Figure 1. Example of a choice task in Study 1

Table 2. Attributes and levels in the experiments

Attributes	Levels
1. Residents who are allowed to submit a project	All neighbourhood residents Neighbourhood residents who are randomly chosen by the municipality Neighbourhood residents who are chosen by other neighbourhood residents Neighbourhood residents who are chosen by the municipality
2. Choice of the winning project	All neighbourhood residents are allowed to vote for the winning project Neighbourhood residents that submit a project are allowed to vote for the winning project Independent experts choose the winning project Civil servants of the municipality choose the winning project
3. Allowed projects	Any project that seeks to improve the quality of life of the neighbourhood Projects that fit themes selected by the municipality
4. Support from the municipality	The municipality offers no extra support The municipality organizes a meeting among neighbourhood residents to discuss the projects The municipality organizes a meeting in which civil servants help neighbourhood residents to develop their projects
5. Winning project	Repave sidewalks; Repave bicycle tracks; Renovate playgrounds; Renovate squares; Install more lights; Install more speed bumps; Plant more trees and bushes; Install more garbage bins
6. Location of the winning project	On your street One street away from your home Four streets away from your home
7. Final costs of the winning project	Exactly as planned 5% more than planned 25% more than planned 50% more than planned

For the analyses presented here, we use the approval ratings as the dependent variable. We estimate the main effects in terms of average marginal component effects (AMCEs) (Hainmueller et al., 2014). AMCEs in our analyses can be interpreted as the difference an attribute's level makes for the respondent's approval rating on the seven-point scale relative to the attribute's reference level.

For details on the survey, experimental materials, and analyses, see the supplementary material (SM).

Study 1 functioned as the baseline study. It sought to assess the relative importance of outcome favourability for citizens' support for PBs compared to that of the various design features. To measure outcome favourability, we matched the displayed winning project (Table 2, attribute 5) to the respondent's evaluation of the project in another survey question. This question asked respondents to what extent they would like to see each of the eight projects realized in their neighbourhood (1: not at all, 7: very much) (see SM for full wording). We treated scores above four as *strong* outcome favourability and all other scores as *weak* favourability. Figure 2 displays the results of Study 1. We find that respondents give significantly lower ratings to a PB that does not deliver a favourable outcome compared to one that does. The rating of PBs that result in unfavourable outcomes is, on average, 0.73 points lower on the seven-point rating scale. This makes it the strongest predictor of PB support among the included attributes.

We ran five robustness checks. First, we performed the main analysis with post-stratification weights correcting for over- and under-sampling in terms of sex and age. This produced highly similar results (Figures A.12-13). Second, to assess to what degree our findings depend on our choice to focus on large urban areas, we ran the exact same survey experiment on a fresh sample of citizens living in Dutch municipalities with less than 100,000 inhabitants (N = 647 (respondents), 7,764 (observations)). We only observed a slight, albeit significant, difference in the effect of outcome favourability: compared to citizens in large municipalities, the ratings of citizens living in small municipalities were 0.028 points higher for PBs with strong outcome favourability (Figure A.14). Third, we also ran the analyses on the full sample (including all of the six choice tasks).[4] The effects we observed were qualitatively highly similar (Figure A.11). Fourth, we examined respondents' written responses to the question "You have just made several choices

between different scenarios of possible neighbourhood budgets. Can you explain below in your own words on what you based your choices? Please be as detailed as possible" (N = 1,218). We relied on an automated form of topic modelling –Latent Dirichlet allocation (LDA)– which returns lists of words that tend to co-occur (cf. Hainmueller and Hopkins, 2015). We used a two-topic implementation of LDA to examine to what extent respondents used words related to the outcomes (Topic 1) and design features (Topic 2) to explain their choices. Topic 1 featured in 41.3% of the topics (Table A.3), confirming that outcomes are prominent in people's thinking about PBs. Finally, we reran the analyses with an alternative, three-level specification of outcome favourability (1-2: weak; 3-5: moderate; 6-7: strong favourability). This results in substantively similar conclusions (Figure A.16).

Why, then, do respondents care so much about favourable outcomes? Study 2 used a different operationalization of outcome favourability to test to what degree it is driven by self-interest. In this version of the experiment, we asked citizens to rank a series of six projects to improve the quality of life in their neighbourhood (rather than to rate each project) before the choice tasks. This enabled us to identify a single project they valued the most. In the displayed neighbourhood budgets, the winning project always corresponded to the project ranked highest by the respondent. Above each choice task, this top-ranked project was displayed as follows: "Winning project in both neighbourhood budgets: [top-ranked project]." As a measure of personal gains, we manipulated where the respective project would be executed: on one's street, one street away, or four streets away (Table 2, attribute 6). If outcome favourability is indeed about self-interest in terms of personal gains, we should see that people give significantly higher scores to PBs that lead to the implementation of favoured projects executed closer to where they live (rather than further away from their home).

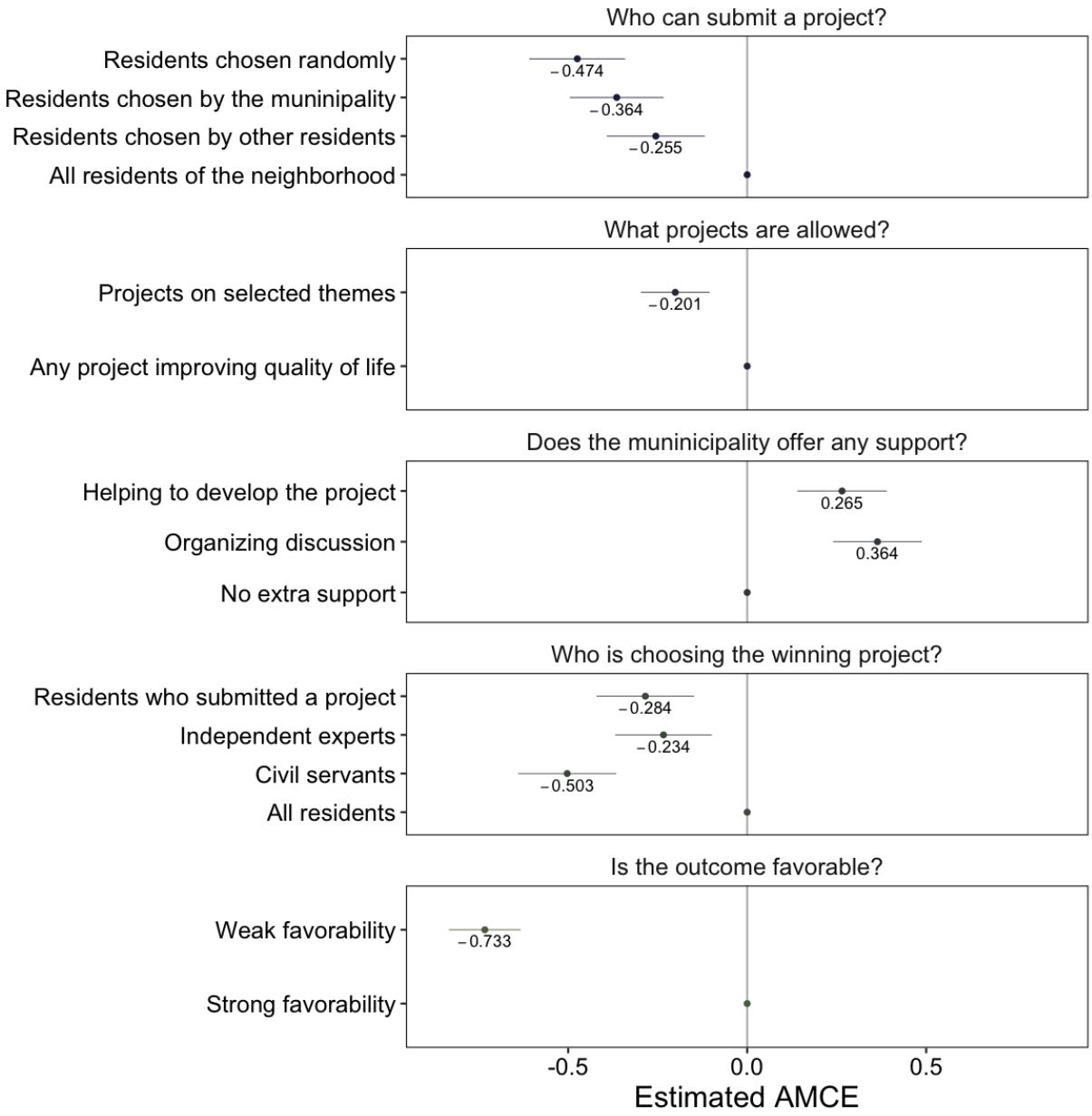

Figure 2. Results study 1
Note: AMCEs with 95% confidence intervals. Results based on first task only, as a test for model comparison shows that there is a significant carry-over effect ($F(11) = 2.45$, $p = 0.005$). We do not find evidence for a profile-order effect in this first-task sample ($F(11) = 0.86$, $p = 0.578$).

The results in Figure 3 suggest that a pursuit of personal gains indeed drives the effect of outcome favourability on DI preferences. The further away the implementation of the most favoured project is from the respondents' own street, the lower the rating they tend award to the PB. Whereas the

implementation of the project one street away does not yet make a significant difference, its implementation four streets away from one's street has a significant negative effect on the respondent's expressed support for the PB. [5]

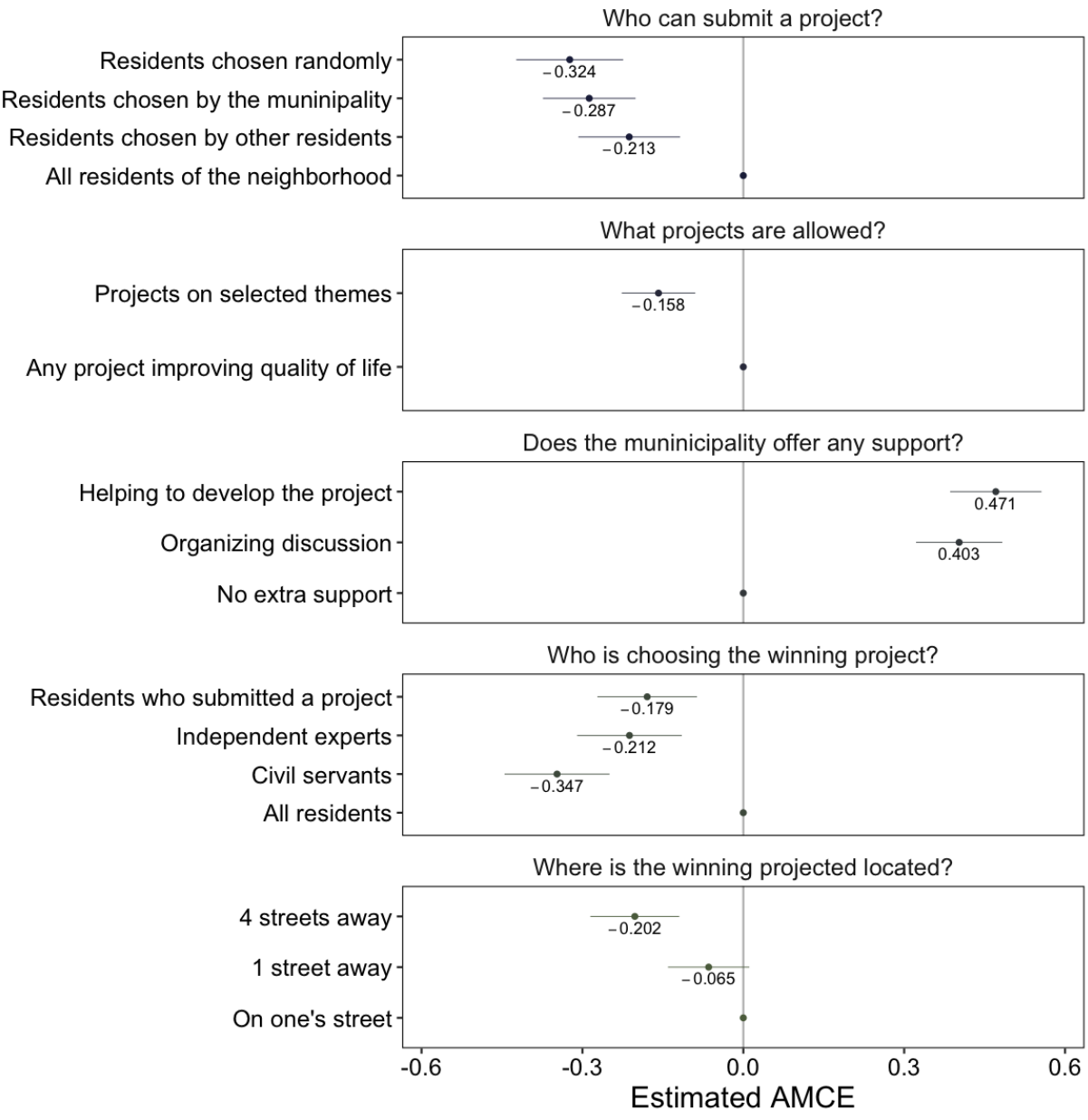

Figure 3. Results study 2
Note: AMCEs with 95% confidence intervals. Results based on all six tasks, with clustered standard errors at the level of the respondent. Tests for model comparison show that there are no significant carry-over ($F(12) = 0.97$, $p = 0.477$) or profile-order effects ($F(12) = 0.82$, $p = 0.630$).

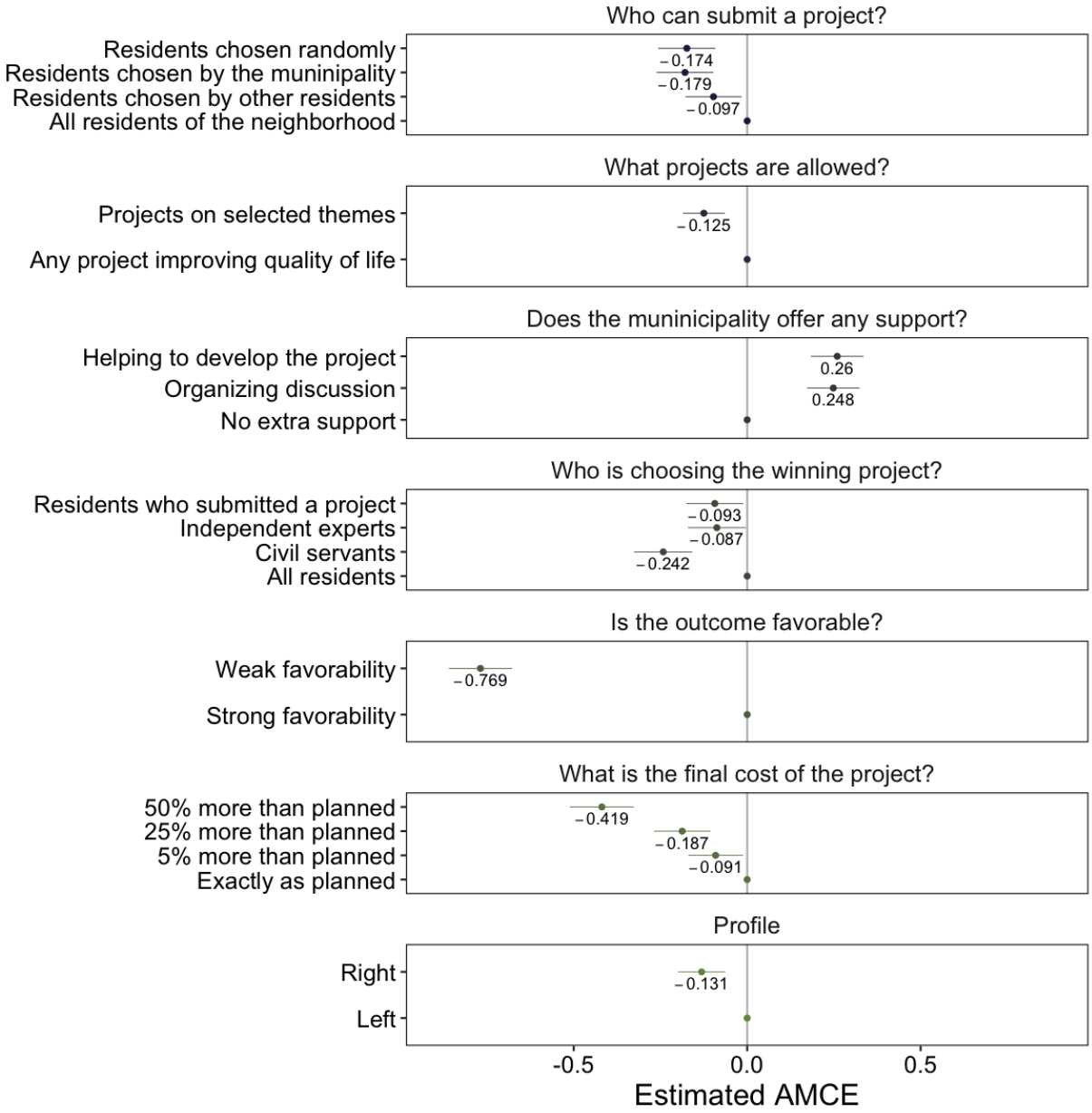

Figure 4. Results study 3

Note: AMCEs with 95% confidence intervals. Results based on all six tasks, with clustered standard errors at the level of the respondent. A test for model comparison shows that there is no significant carry-over effect ($F(14) = 1.63$, $p = 0.063$). We do find a profile-order effect ($F(14) = 2.44$, $p = 0.002$) and therefore control for this in the analysis.

Study 3 assessed to what degree sociotropic considerations matter too and, in turn, may temper citizens' self-interested considerations. We copied the structure of the experiment in Study 1 but added an attribute that captured incurred community costs in terms of the final costs of the winning project (Table 2, attribute 7). We discerned between PBs that managed to stick to the planned costs and PBs that spent 5, 25, or 50 percent more than planned (cf. Strebel et al., 2019).

Figure 4 summarizes the results. It indicates that extra-incurred community costs reduce the ratings respondents give to a PB. A budget overrun of fifty percent –in our experiment amounting to €25,000– results in a 0.4 points lower rating compared to PBs that stick to the estimated costs of the winning project. This suggests that citizens' sociotropic considerations also drive PB support. At the same time, we do not find evidence for a significant interaction between extra-incurred community costs and outcome favourability (Figure A.15). This suggests that even when the PB leads to higher community costs than planned, citizens' ratings still tend to go up when it delivers a favourable outcome. Combined with the finding from Study 2 that self-interest tends to drive the effect of outcome favourability on support, this seems to suggest that citizens continue to care about their own material gains, regardless of whether the community has to bear higher costs (even though they prefer it does not have to). However, as we have less statistical power to estimate the interaction effect, this result is less robust (see the wider confidence intervals in Figure A.15).

Discussion

The past decades have witnessed a strong push for democratic innovations to (re)involve citizens in policy-making (e.g. Geissel and Newton, 2012). Yet, we still know little about why citizens themselves (do not) support DIs. This paper has tried to address this gap by teasing out the effect

of instrumental considerations on support for participatory budgets. In line with studies of other DIs, we find that instrumental considerations are important in explaining citizens' support for PBs (Study 1). Our findings add to this that citizens seem to care so much about getting what they want mostly because they care about their own material gains (Study 2). While citizens also dislike higher costs for the wider community, we find preliminary indications that such sociotropic concerns do not mitigate the effect of self-interest on PB support (Study 3).

These findings have several limitations. First, our measures of self-interest and sociotropy remain only a first attempt at tapping these concepts in the context of DIs. We cannot rule out that some respondents may have associated cost overruns with a potential increase in municipal taxation or with inefficiency *in general*. Cost overruns might hence (partly) capture an egocentric motivational factor (i.e. fear of paying more taxes) and/or a general aversion to inefficiency. In addition, the phrasing of the attribute (i.e. 'costs') may have also partly driven the negative effect of cost overrun on PB support and have led to an overestimation of the effect.[6] While we have reasons to believe our operationalization captured sociotropic concerns in this specific sample (see discussion in SM, Figure A.18), it therefore remains important for future research to operationalize sociotropy in a way that cancels out other motivational factors and that employs a less directional phrasing of the attribute. Similarly, while our measure of self-interest focused on the distance to the execution of a preferred, *tangible* policy outcome, we cannot ascertain whether respondents indeed interpreted that in terms of *personal* and/or *material* gains. This also warrants attention in future research.

In terms of design, our studies only allow for an indirect assessment of the relative contributions of self-interest and sociotropy to PB support. Prospective work could improve this by including attributes related to self-interest and sociotropy in a *single* study in order to facilitate a direct comparison of their effect sizes, ideally in a large enough sample to also test more robustly

for a potential interaction effect. In terms of scope, our findings derive from experiments focused on a specific type of DI (PBs), in a specific context (the local level in the Netherlands). We considered this appropriate for a first empirical verification of the mechanisms driving the effect of outcome favourability on DI support, as it enabled us to keep contextual factors constant. At the same time, the findings may not apply to other DIs or contexts. For example, the personal and community gains/costs of DIs such as citizens' assemblies and other deliberative mini-publics are often less clear than in PBs (Grönlund et al., 2014). Hence, it remains ambiguous to what degree the mechanisms driving the effect of outcome favourability on DI support would be similar for such DIs. We therefore hope that our studies will stimulate research on other DIs to assess the generalizability of the findings.

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[1] Study 1 follows a preregistered experimental design (accessible at https://osf.io/g35vx/).

[2] This is a common way to refer to PB at the local level in the Netherlands (Michels and De Graaf, 2010).

[3] We randomized the order of the attributes across respondents in order not to systematically emphasize a particular attribute (cf. Strebel et al., 2019).

[4] Recall that the main results are based only on the first choice task. For technical details, see SM.

[5] As suggested by one of the reviewers, respondents may prefer a particular project but *not on their street.* However, if many respondents really did not want their preferred project executed on *their* street, we should not see the significant *negative* effect of distance on PB support in Figure 3. The results therefore enhance our confidence in the distance attribute as a measure of self-interest (for another robustness check, see Figure A.17).

[6] We would like to thank the editors and reviewers for this point.