

Do Voters Reward Programmatic Distribution? Evidence from Survey Experiments in India

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Abstract

Governments in developing countries spend considerable money distributing material benefits to their citizens. Some of these benefits are distributed through brokers, others as rule based, non-contingent, direct transfers. Governments are less likely to adopt programmatic distribution if voters do not prioritize efficient implementation, namely less leakage and more accurate targeting. Since rule based, non-contingent, direct transfers can end up benefiting out-partisans and ethnic out-groups, supporters of the ruling party should not punish their party for benefiting non-supporters. To assess whether voter behavior incentivizes programmatic distribution, I conduct two pre-registered studies in India, an online survey experiment and a telephone-based survey experiment fielded in 12 different languages. Indian voters reward good distributive performance but are more focused on outcomes than efficient implementation. They place a modest premium on distributive efficiency. Strikingly, ruling party supporters do not punish their party for benefiting ethnic out-groups. These findings suggest there are strong incentives for politicians to deliver benefits, though not entirely as rule-based, non-contingent direct transfers.

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Introduction

India's government, like so many governments in developing countries, distributes a wide variety of benefits to its citizens. It operates nearly 300 schemes that benefit 950 million people and in spending terms account for 3% of the gross domestic product in the last year ([Economist 2022](#)). Some of these benefits are distributed through brokers, who exercise discretion and make receipt of the benefit contingent on political support. Others are distributed through rule-based, direct transfers that reduce discretion of brokers and are not contingent on political support. In multiethnic societies, discretion and patronage typically lead to ethnic favoritism in the distribution of benefits ([Chandra 2004](#)). However, rule-based, non-contingent, direct transfers end up benefiting people outside a party's ethnic core. Programmatic distribution of this kind is also more efficient, in terms of leakages and need-based targeting of benefits, compared to the corruption and mistargeting associated with clientelism ([Stokes et al. 2013; Putnam 1993; Chubb 1982](#)). But do voters reward efficient implementation, creating incentives for politicians to distribute through rule based, non-contingent, direct transfers? This paper focuses on how voter behavior can incentivize politicians to engage in programmatic distribution, building on work that looks at why some politicians opt for clientelism and others programmatic distribution ([Wilkinson 2007; Levitsky 2007; Magaloni, Diaz-Cayeros, and Estvez 2007; Weitz-Shapiro 2012; Stokes et al. 2013; Weghorst and Lindberg 2013; Mares and Young 2019](#)).

Voters can shape distributive policy because office-seeking politicians have a strong incentive to focus on issues that resonate with their supporters and swing voters, and are likely to win their votes. How voters, especially core supporters of a party, react to different components of a distributive policy is strategically important and actionable information for politicians that can shape their future decisions. It can create electoral incentives for the politician or party to pursue some distributive strategies instead of others. This paper contends that programmatic distribution (i.e. rule based, non-contingent, direct transfers) is electorally viable when four conditions are jointly satisfied: (1) voters recognize and reward good distributive policies and performance, and punish bad distributive outcomes¹; (2) voters reward

¹This is not always the case. For example, ethnic or partisan motivated reasoning can skew how politicians evaluate performance ([Adida et al. 2017; Carlson 2016; Bolen, Druckman, and Cook 2014](#)) and whether they selectively blame or credit politicians for outcomes ([Graham and Singh 2022](#)).

programmatic efficiency, specifically less discretion, arbitrariness, and leakages; (3) core supporters of the ruling party do not punish distributive policies that end up benefiting people outside the party's ethnic core; and (4) voters outside the party's ethnic core reward the ruling party for channeling resources or opportunities to their group.

I evaluate these conditions for cross-ethnic, programmatic distribution in India, where the ruling party has experimented with rule-based, non-contingent, direct transfers that disproportionately benefit people outside its ethnic core. This paper assesses the impact of performance information on evaluations of the incumbent and donations to the ruling party using two pre-registered studies: an online survey experiment ($n = 1,047$) fielded primarily on core supporters of the ruling party, and a more nationally representative telephone-based survey experiment ($n = 5,350$) conducted in 12 different languages.

These experiments show that voters recognize good performance and reward distribution of benefits but are more focused on outcomes than efficient implementation. This generates strong incentives for parties to deliver benefits, though not entirely as rule-based, non-contingent direct transfers. Specifically, I find that participants in the study evaluate the ruling party considerably more favorably when they read or listen to positively framed performance information (government programs benefited many people), and less favorably when they read or listen to negative performance information (growing income inequality, historic unemployment, rising prices). The effect size ranges between 8.5% to 11% of the total scale. Similarly, donations to the ruling party increase by 25 to 50 paisa (quarter to half a rupee) when respondents learn that government programs benefited many people. This effect is approximately 2% to 4.5% of the total budget available to respondents. In India's 2019 parliamentary election, political parties received donations worth \$910 million.² Figure 1 and Appendix J show that India's national parties actively seek and compete for small donations from voters. Even a 2% reallocation of donations in favor of the ruling party because of its distributive policies amounts to approximately \$18.2 million, equivalent to the legally prescribed campaign budget for 166 parliamentary candidates.

Even as voters recognize and reward distributive performance, they seem to place a modest pre-

²For more, see the Association for Democratic Reform's report, *Analysis of Funds Collected and Expenditure Incurred by Political Parties during Lok Sabha Elections, 2019*, available here. Conversions from Indian Rupee to US Dollar rely on the Internal Revenue Service's Yearly Average Exchange Rate for 2019 provided here.

Figure 1: India's Ruling Party Seeks Donations



Note: An example of publicity material used by India's ruling party to get donations from voters. Appendix J illustrates this point further with a tweet from the prime minister encouraging donations to the ruling party, and donation web pages of the two national parties.

mium on efficiency. Study participants who are told about specific steps taken by the government to reduce fake claim-making, corruption and discretion in the distribution of benefits evaluate the ruling party's performance as slightly better than those who are told government programs benefited many people. The additional reward for efficiency is 0.17 scale units in the telephone survey and 0.3 scale units in the online survey. This is approximately 1.5% to 3% of the total performance scale. When it comes to donations to the ruling party, respondents who are told about the steps taken to reduce fake claims, corruption and discretion donate 0.26 rupees more to the ruling party in the telephone survey, and 0.46 rupees more in the online survey. This efficiency reward is roughly 2% to 4% of the total budget available for donations.

Neither study supports the claim that supporters of the ruling party punish it for distributing benefits to people outside the ethnic core. This suggests that political parties are not constrained by ethnic considerations of their core supporters. In neither study do voters outside the ruling party's ethnic core *additionally* reward it for channeling benefits to their ethnic group. This finding points to the difficulty in weakening ethnic priors through programmatic distribution, particularly among ethnically opposed voters.

The paper improves our understanding of the politics of development in several ways. It proposes

and experimentally evaluates specific types of voter behavior (demand-side conditions) that generate electoral incentives for politicians to pursue programmatic distribution (i.e. activate supply-side conditions). I provide an individual-level explanation or micro-foundation for when distributive politics transitions from clientelistic to programmatic mode, which links up with prevailing accounts that focus on structural factors like socioeconomic development and party competition (Wilkinson 2007; Levitsky 2007; Magaloni, Diaz-Cayeros, and Estvez 2007; Weitz-Shapiro 2012; Stokes et al. 2013; Mares and Young 2019). The paper also helps understand why voters reward targeted, non-discretionary program spending in some cases (Manacorda, Miguel, and Vigorito 2011; Labonne 2013; Zucco Jr. 2013; Larreguy, Marshall, and Trucco 2018) but not others (Kadt and Lieberman 2017; Imai, King, and Rivera 2020).

Ethnicity and partisanship are known to shape how voters perceive distributive performance (Bolsen, Druckman, and Cook 2014; Kahan 2016; Carlson 2016; Adida et al. 2017). Here, I evaluate that relationship using different types of performance information, varying outcomes, who benefits from distributive policies, and how efficiently benefits reach intended recipients. The findings place limits on but also point to the stubborn persistence of politically or ethnically motivated reasoning.

These findings also reveal that the material value of a benefit does not really affect how voters perceive distributive performance. This has implications for the policy choices that politicians have to make with a finite budget, and how researchers model voters' utility and political preferences.

In what follows, I develop a set of hypotheses drawing on the existing literature, describe the research design, present the findings, and explore their implications.

Theory and Hypotheses

Are voters receptive to performance information?

When voters in democracies recognize and reward good performance, politicians have an incentive to deliver benefits for their constituents and produce better policies. This becomes particularly important when the distribution of benefits is not contingent on political support, and politicians cannot monitor voters and enforce transactions. In other words, programmatic politics is electorally viable only when

voters' evaluations of politicians are responsive to performance information, particularly on distributive issues. Specifically, we expect voters to reward an incumbent when there are good outcomes or policies, and punish them when there are bad outcomes or failed policies. Yet, as we know, political preferences depend on a variety of considerations, the incumbent's performance only one amongst them. Several factors can erode democratic accountability, chief among them *politically motivated reasoning*³. As Kahan (2016) explains, this is “identity protective” behavior or “the formation of beliefs that maintain a person’s status in affinity group united by shared values” (Kahan 2016:3)⁴. In several contexts, ranging from Uganda to the United States, scholars have argued that partisan identity skews how voters evaluate performance information, particularly politically inconvenient information (Carlson 2016; Bolen, Druckman, and Cook 2014). Voters selectively blame or credit politicians for outcomes, “disproportionately crediting their party for positive developments and blaming opponents for negative developments” (Graham and Singh 2022). In multiethnic democracies, ethnic identity can play a similar role, shaping how voters process performance information. As Adida et al. (2017) find in Benin, voters “reward good-performing incumbents only if they are coethnics, and punish bad performers only if they are noncoethnics.

This literature motivates the first hypothesis of the study that evaluates whether the ground conditions for programmatic politics exist in the Indian case. Specifically, I evaluate whether Indian voters are receptive to performance information.

H₁: Voters will donate more money to the ruling party and rate its performance as better when they are exposed to positively framed performance information, compared to when they are exposed to negatively framed performance information.

Crossethnic distribution

A feature of programmatic distribution is that opposition supporters or ethnically opposed voters are not excluded from private benefits or public goods. This means that sections of the population that are

³For a broader discussion of directional motivated reasoning, see Kunda (1990)'s seminal work on this.

⁴See also Taber and Lodge (2006).

eligible for assistance but outside the ruling party's ethnic core can also receive material benefits.⁵ In fact, political parties may deliberately appeal to voters outside their ethnic core and target material benefits at them whether to expand their base, diversify sources of support, or because institutions require them to do so ([Arriola 2013](#); [Thachil 2014](#); [Adida et al. 2016](#); [Arriola et al. 2020](#); [Gadjanova 2021](#)). What is less clear is how voters respond to crossthetic distribution, namely a program that intentionally or accidentally benefits a large number of people outside the party's ethnic core.

In the instrumentalist account, ethnic voting is the result of ethnic favoritism in the distribution of material benefits and opportunities ([Chandra 2004](#); [Posner 2005](#); [Burgess et al. 2015](#); [Kramon and Posner 2016](#); [McClendon 2016](#); [Ejdemyr, Kramon, and Robinson 2018](#)). Ethnicity is a readily available, costless signal of politicians' distributive intent in low information environments. But performance information and who ends up benefiting from distributive policies can weaken the salience of ethnicity ([Conroy-Krutz 2013](#); [Ichino and Nathan 2013](#)). More specifically, when core supporters of a party learn that its distributive policies considerably benefit people outside the party's ethnic core, they are less likely to think that this party solely champions their material interests and well-being. In other words, information on crossthetic distribution might lower support for a ruling party among its core supporters. Conversely, people outside the party's ethnic core (henceforth non-supporters) might be more likely to think this party will do something for them, and hence more supportive of it when they encounter information on crossthetic distribution.

However, a social identity based account of ethnic voting can yield different predictions. These theories suggest that group membership shapes cognition, evaluation of information, and emotional responses ([Tajfel 1974](#); [Fiske, Cuddy, and Glick 2007](#); [Taber and Lodge 2006](#)). If so, information on crossthetic distribution can prime ethnic identity in the voter's mind or trigger considerations about intergroup competition for resources. Ethnically motivated reasoning might lead core supporters and non-supporters to disregard inconvenient information, and maintain their prior beliefs, attitudes and preferences. In other words, supporters would not punish crossthetic distribution, and non-supporters

⁵This is possible under clientelism when broker networks are ethnically heterogeneous ([Auerbach and Thachil 2018](#); [Auerbach 2020](#)). However, generally speaking, clientelism provides more precise targeting of benefits, whether to co-ethnics or co-partisans, compared to programmatic distribution.

would not reward it. However, priming resource competition between groups might make core supporters of the party less supportive of it, and non-supporters more supportive of it. In summary, the ethnic politics literature makes contrasting predictions about how voters would respond to crossthetic distribution.

Parties, however, are more likely to engage in programmatic distribution when supporters do not punish it for policies that benefit people outside the ethnic core, and non-supporters reward such policies. I contend that two factors jointly shape the party's distributive choice, with core supporters' behavior acting as the primary constraint. This yields two hypotheses:

H₂: Core supporters will punish the ruling party for diverting resources to other ethnic groups. Specifically, treated subjects (core supporters who are informed that government programs have benefited a large number of people outside the ruling party's ethnic core) will donate less money to the ruling party and be more critical of its performance compared to control subjects (core supporters who are given generic information about government programs).

H₃: Non-supporters will reward the ruling party for diverting resources to their ethnic groups and away from core supporters. Specifically, treated subjects (non-supporters who are informed that government programs have benefited a large number of people outside the ruling party's ethnic core) will donate more money to the ruling party and be less critical of its performance compared to control subjects (non-supporters who are given generic information about government programs).

Furthermore, these effects should be sensitive to cost heuristics. Cost heuristics refer to information about the quantity of resources being channeled outside the ethnic core. In low information environments, there are typically two types of information that are readily available and highly visible: how expensive a material benefit or project is, and how much budgetary resources are allocated to the program. Since public resources are scarce, voters are more likely to reward or punish a party for distributing expensive benefits outside the ethnic core, compared to cheap benefits. This then yields a fourth hypothesis:

H₄: Core supporters will punish the party more for distributing an expensive benefit to people outside the ethnic core compared to when the party distributes a cheap benefit. Non-supporters will

reward the party more for distributing an expensive benefit compared to a cheap benefit.

Rewarding efficiency

A distinct advantage of programmatic distribution is that it reduces discretion and leakages. For such distribution to be electorally viable, voters should reward efficient implementation. Every ruling party has the option to engage its brokers and intermediaries in the distributive process. Earlier in the dissertation, I have shown that brokers play a pivotal role in converting latent good will from material benefits into votes. To keep brokers happy, the party needs to generate rents for them or what can be colloquially called “oiling the wheels of the machine”. In contrast, rule-based, low discretion, direct transfers can be vote-winners because more of the intended benefit reaches people and others observe this efficient transaction and reward it (what can be thought of as a “bystander effect”).

However, it is far from clear if voters reward programmatic efficiency. For example, [Manacorda, Miguel, and Vigorito \(2011\)](#) in Uruguay, [Pop-Eleches and Pop-Eleches \(2012\)](#) in Romania, [Labonne \(2013\)](#) in Philippines, [De La O \(2013\)](#) in Mexico, [Zucco Jr. \(2013\)](#) in Brazil, and [Larreguy, Marshall, and Trucco \(2018\)](#) in Mexico find that voters reward incumbents for targeted, non-discretionary program spending. Interestingly, [Kadt and Lieberman \(2017\)](#) find a negative relationship between improvements in service provision and support for the incumbent, ostensibly due to voter “concerns about corruption” and “ratcheting [up of] preferences for service delivery”. However, [Imai, King, and Rivera \(2020\)](#) evaluate two programs using large-scale randomized control trials and conclude that “programmatic policies have no measurable effect on voter support for incumbents”.

I contend that parties are likely to pursue programmatic distribution when voters, especially core supporters of the party, reward efficient implementation. When this happens, programmatic distribution makes electoral sense: the party can win over new supporters by distributing material benefits to them, and consolidate existing support through reputation building (i.e. claiming to reduce corruption, leakages, and improved last-mile delivery).

On the other hand, if core supporters do not reward or prioritize efficiency, clientelism makes more sense as a distributive strategy. The party is better off engaging brokers because they can maximize the

impact of the material benefit through effective credit claiming, and the party can keep them happy by “oiling the machine” using public resources. This discussion then generates the following hypothesis:

H₅: Voters will reward efficiency. Specifically, treated subjects (voters who are given information on program implementation) will donate more money to the ruling party and be less critical of its performance compared to control subjects (voters who are given generic information about government programs).

Once again, I expect the magnitude of effects to vary by cost heuristics. Voters are more likely to reward efficiency in the distribution of expensive benefits with large budgetary allocations, compared to cheap benefits with small budgetary outlays.

H₆: Voters are more likely to reward the party for programmatic distribution when the benefit is expensive and has a large budgetary allocation compared to when the benefit is cheap and has a small budgetary allocation.

Finally, from the ruling party’s perspective we can see that expensive benefits are higher cost – higher reward propositions. Core supporters are more likely to punish the party for distributing an expensive benefit to people outside the ethnic core but non-supporters are more likely to reward the party for such distribution. The reputational gains from programmatic distribution are also larger for expensive benefits. In contrast, cheap benefits are lower cost – lower reward propositions: core supporters are less likely to punish their distribution among non-supporters, non-supporters are less likely to reward the party for channeling these benefits to them, and the electorate is less likely to reward efficiency in the distribution of such benefits.

Putting this together, programmatic distribution becomes more likely when the rewards from efficiency and crossthetic distribution significantly exceed the punishment for distributing benefits outside the ethnic core. It should be noted that the party faces this trade-off only among core supporters, who likely punish the diversion of resources to other ethnic groups. Consequently, the decision hinges on whether core supporters *net reward* the party for programmatic distribution that might end up benefiting people outside the ethnic core. This, then, yields a final prediction:

H_7 : Among core supporters of a party, the reward for programmatic efficiency significantly exceeds the punishment for distributing benefits outside the ethnic core.

Research Design

Data

To evaluate these hypotheses, I fielded an online ($n = 1,047$) and telephone-based ($n = 5,350$) survey experiment in India. These studies were approved by Yale's IRB⁶, pre-registered with the Open Science Foundation, and have a publicly available pre-analysis plan (see Appendix I).⁷ The online survey experiment was fielded on Lucid between April 20 and 27, 2022. Online survey takers tend to be younger, educated, middle class, more urban, and from high status groups (see Table 1). Conventionally, these characteristics are positively associated with support for the ruling party, the BJP. Indeed 74% of online respondents report voting for the BJP in the prior parliamentary election. In effect, an online survey is a good way to study core supporters of the BJP.

I followed a rigorous, multi-step quality control process for the online survey. The survey was open to only those located in India and 18 years or older. For representativeness, I placed census-based quotas on gender, age, and region based on screening questions available on Lucid Marketplace. To deter bots and reduce low quality, inattentive respondents, I put a Captcha verification at the start of the survey, turned on Qualtrics' security feature that prevents multiple submissions from the same IP address and blocks search engines from including the survey in their search results, and included a pre-randomization attention check question that screened-out respondents who failed to answer correctly. 1,870 people entered the survey from Lucid, and 1,064 (or 56.9%) crossed these quality control measures. I dropped another 17 observations because they were either multiple submissions from the same IP address (6 observations) or left the survey more than once while answering pre-treatment questions prior to randomization (11 observations). These conditions were specified in the pre-analysis plan, prior to data collection.

⁶The study was deemed exempt by Yale's Institutional Review Board (Protocol Number 2000032215, Determination Date: February 8, 2022).

⁷The pre-analysis plan is available here: <https://osf.io/3hrsp>.

The telephone-based survey experiment was fielded by CVoter, a reputed Indian polling firm that has collected data for several published academic studies. CVoter added my treatment vignettes and questions to their periodic omnibus surveys that use random digit dialing and computer assisted telephone interviewing (CATI). The study was conducted in over 25 Indian states in 12 different languages between April 18 and May 5, 2022 and yielded a more-nationally representative sample (see Table 1). For example, 69% of online survey respondents reported living in a city (population exceeding 500,000) while 71% of respondents in the telephone survey reported living in a village. Similarly, 90% of online survey takers were highly educated, compared to 20% in the telephone survey. 81% of online respondents reported middle class incomes (households earning more than 20,000 rupees a month)⁸ compared to just 14% in the telephone sample. Politically, 91% of online respondents reported voting in the last parliamentary election, compared to 76% in the telephone sample. 74% of online respondents supported the BJP in that election, compared to 57% of telephone respondents. There is also considerable underrepresentation of marginalized social groups in the online sample (7% Scheduled Castes (SCs), 1% Scheduled Tribes (STs), 15% religious minorities). The telephone sample is more representative: 15% SCs, 5% STs, and 19% religious minorities).

The pre-analysis plan describes in greater detail the data collection procedures, sample size rationale based on power calculations from a pilot study, and stopping rule.

Experiment Design

The survey experiment randomly assigns respondents to read or listen to information about the ruling party's performance. The treatment vignettes are identical in the online and telephone surveys. Figure 2 shows the survey design. Respondents are randomly assigned, with equal probability, to one of seven experimental conditions.

In the *baseline* condition, respondents are given negatively framed performance information about the ruling party. They are told that "India's economy is not doing well" and that "the income of 84% of

⁸The Center for Monitoring Indian Economy (CMIE) classifies households as middle class if their annual income is greater than or equal to 200,000 rupees. This roughly translates to a monthly household income of 17,000 rupees or more. The surveys use a coarsened measure in which a monthly household income of 20,000 to 50,000 rupees is coded as 5. All respondents coded as 5 or higher are considered middle class.

households declined [last year] but rich people became richer”. Furthermore, “unemployment is the highest in 30 years” and “prices are also rising, with 1 liter of petrol costing close to 100 rupees” (which is a historic high). Appendix B.1 provides the exact text of the treatments.

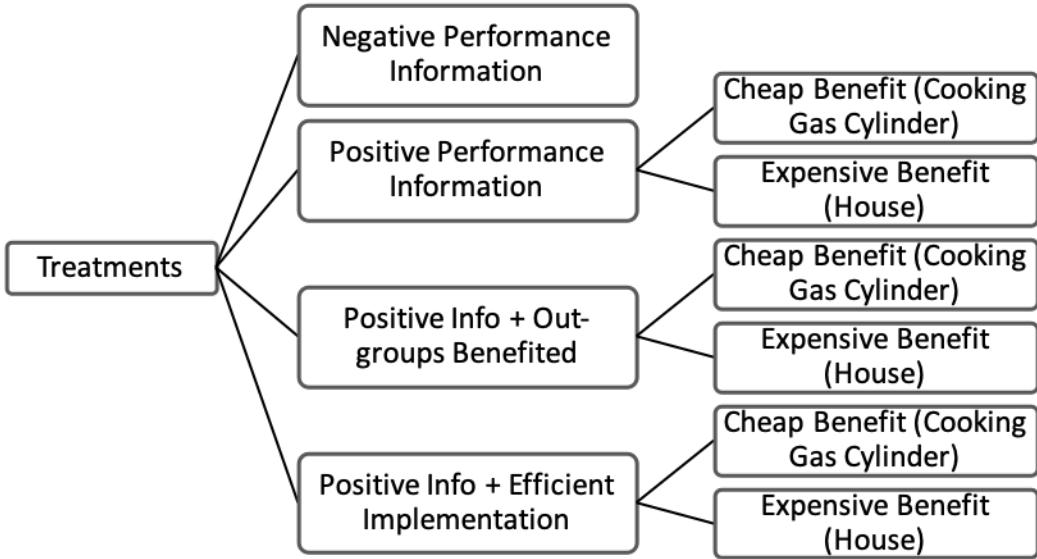
In the first treatment condition, respondents are given *generic* positively framed performance information. Among respondents randomly assigned to this condition, I further randomize whether the information is about a government program that distributes a cheap benefit (\$10 cooking gas cylinder) or an expensive benefit (\$2000 house). The *generic* condition only mentions the number of people that have benefited from each government program.

A second treatment condition, *out groups benefited*, includes the generic, positively framed performance information from above but also informs respondents that government programs have benefited a large number of people outside the ruling party’s ethnic core, namely Muslims, Scheduled Castes (SCs) and Scheduled Tribes (STs). Once again, I further randomize whether this information is about a cheap or expensive benefit.

Finally, in the *efficiency* condition, respondents get the generic, positively framed performance information and details about the specific steps taken by the government to reduce fake claim-making (biometric authentication of beneficiaries), corruption and discretion (direct transfer of money to bank accounts). Again, respondents can be randomly assigned to receive such information about the cooking gas cylinder scheme or the housing program. The exact text of these information vignettes is provided in Appendix B.1.

Immediately after reading or hearing the information vignette, respondents answer two outcome questions: an attitudinal measure of satisfaction with the ruling party’s performance (0 to 10 scale), and a behavioral measure that captures how respondents split 10 rupees between major political parties, where I am interested in the amount donated to the ruling party, BJP (0 to 10 scale). For the donation question, the online survey offered three options: BJP (national party), Congress (national party), and Other. The telephone survey measured this outcome slightly differently. Respondents were provided the option of two main national parties (BJP and Congress), and major state parties in their state. Depending on the state, there could either be no state party option, one major state party option, or two major state party

Figure 2: Experiment Design



Note: Information vignettes in the survey experiments. Subjects are randomly assigned, with equal probability, to one of seven experimental conditions.

options. There was also an option “will not donate to any party” that was not read out by the enumerator but available to respondents should they express a desire to not donate at all. Since I am interested in the amount donated to the ruling party, BJP, I code respondents as 0 if they either donate all the money to other parties, or refuse to donate money to any party. The online survey also contained an open-ended question on “how [participants] decide who to vote for in national elections?”. A research assistant blind to the study’s hypotheses and respondent’s treatment assignment status coded these responses as 1 if they only mention performance, developmental work, and distributive policies, 0.5 if they mention these and other considerations, and 0 if they only mention other factors. The exact text of these outcome questions is provided in Appendix B.2.

Appendix F reports the results of a pre-registered randomization check. In the online and telephone survey experiment, covariates are not jointly predictive of treatment assignment. Table 13 in Appendix G checks whether missingness in any outcome is predicted by treatment assignment. There is no missingness in outcomes in the online survey, and only 2% missingness in the attitudinal outcome in the telephone survey. Treatment assignment does not predict missingness in that outcome.

Heterogeneity

Some of the hypotheses developed in the previous section distinguish between *core supporters* of the ruling party and *non supporters*. I use ethnicity as the primary measure for identifying core supporters. Respondents that identify as Hindu General/ Upper Caste, Hindu OBC and Jain are coded as “core supporters”, while those from all other ethnic categories (Hindu SC, Hindu ST, Muslim, Sikh, Christian, Parsi, and Buddhist) are coded as “non-supporters”. For robustness, I pre-registered an alternative, multidimensional measure that considers social status and economic affluence (see Appendix E for more details).

Estimation

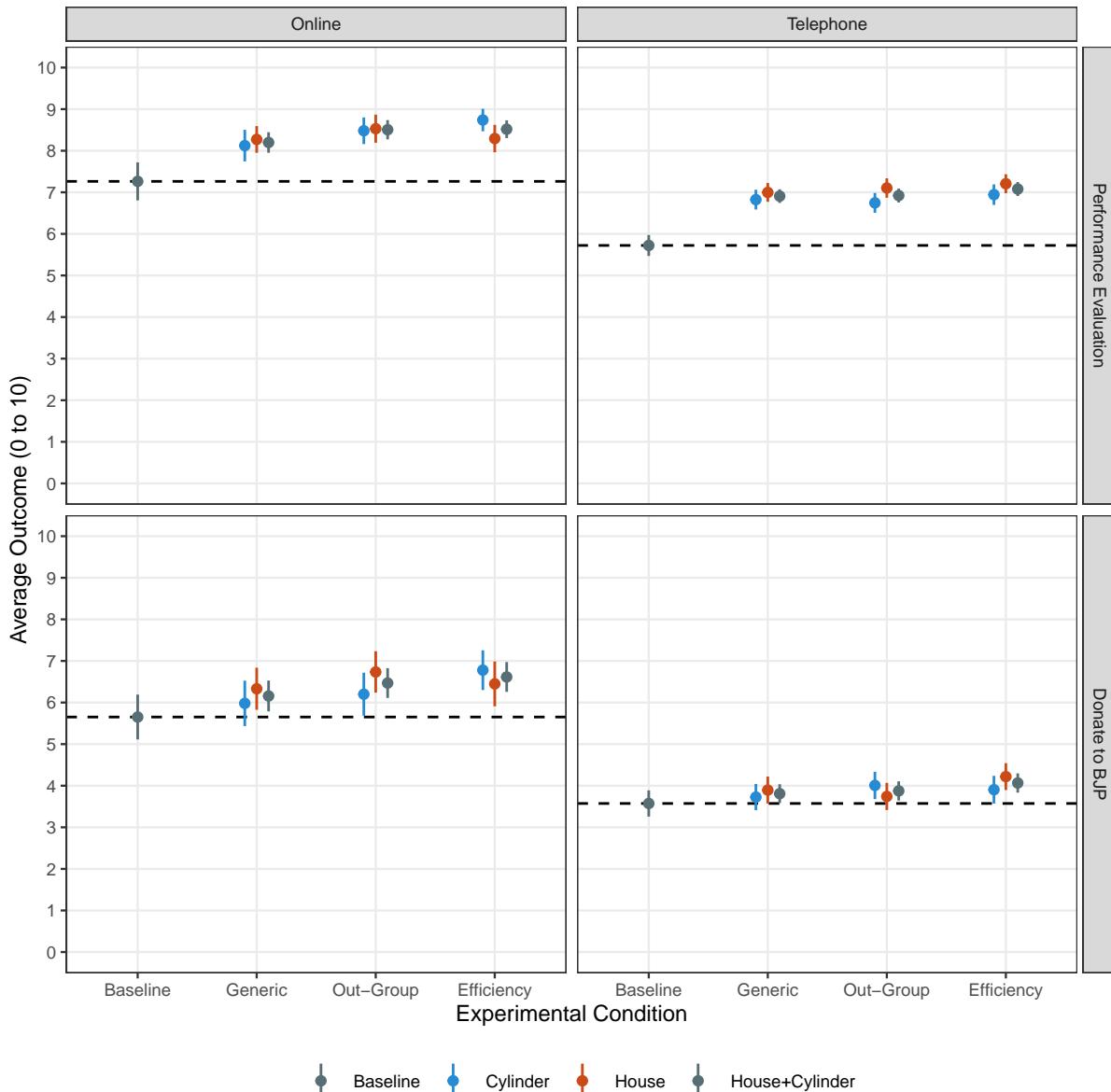
I evaluate the hypotheses by comparing different experimental conditions and estimating difference-in-means. Table 15 describes the test for each hypothesis, specifically the experimental groups being compared. I use ordinary least squares (OLS) regressions with heteroskedasticity-robust (HC₂) standard errors. Column 3 of Table 15 provides the regression specification and parameters of interest for each hypothesis. I reject the null hypothesis of no effect if the two-tailed p value is less than 0.05.

Findings

The survey experiments find that voters are responsive to performance information (H_1), supporters of party do not punish it for distributing benefits to people outside the ethnic core (H_2), non-supporters recognize good performance but do not additionally reward the ruling party for channeling benefits to them (H_3), and there is some evidence of a very modest reward for efficient distribution (H_5). The magnitude of these effects is not larger for the expensive benefit relative to the cheap benefit (H_4 and H_6). Taken together, there are strong incentives for politicians to perform and deliver benefits to voters but not necessarily through rule-based, non-contingent, direct transfers that reduce broker discretion.

Figure 3 shows the average performance evaluation (in the top panel) and money donated to the BJP (in the bottom panel) for each experimental condition. For the treatment conditions, I show the average outcome for respondents randomly assigned to read or hear information about the housing pro-

Figure 3: Group Mean Estimates for Different Experimental Conditions



Note: The figure shows the average outcome along with 95% confidence intervals in different experimental conditions. The top panel reports this information for the attitudinal measure (performance evaluation, 0 to 10 scale). The bottom panel reports this information for the behavioral measure (money donated to the BJP, 0 to 10 scale). For the three treatment groups (*generic*, *out-groups benefited* and *efficiency*), the combined estimate is shown in gray, the estimate for when respondents read/hear information about the housing program (expensive benefit) in orange and the cooking gas cylinder scheme (cheap benefit) in blue. The data plotted in this figure is reported in Table 2.

gram in orange, cooking gas cylinder scheme in blue, and the combined estimate in gray. Focusing on the attitudinal measure (top panel), I find that respondents who were exposed to negative performance information (*baseline* condition) rate the government 7.26 (s.e.= 0.23) out of 10 in the online survey, and 5.72 (s.e.= 0.128) out of 10 in the telephone survey. In the bottom panel, I find that respondents who were exposed to negative performance information, on average, donate 5.65 out of 10 rupees (s.e.= 0.273) to the BJP in the online survey, and 3.57 (s.e.= 0.16) out of 10 rupees in the telephone survey. These baseline figures suggest that the incumbent is pretty popular, even when voters are primed to think about growing income inequality, historic unemployment, and high inflation. Interestingly, online survey respondents in the baseline condition evaluated the ruling party's performance as 1.5 scale units higher than telephone respondents in the same condition, and donated approximately 2 rupees more than telephone respondents in that condition. This expressive support for the ruling party is likely due to the demographic composition of the online sample: younger, more educated, more affluent and urban people also tend to be more supportive of the BJP. Furthermore, 44% of respondents in the telephone survey refused to donate money to any political party. These respondents oppose the ruling party, and are sufficiently dissatisfied with all other opposition parties so as to not donate money to any of them. I can reasonably infer this from observable covariate data on voting intention in the last parliamentary elections. Table 14 in Appendix H shows the proportion of respondents that voted for the ruling party in the prior parliamentary election separately for those that donated money to any party, and those that refused to donate money to any party. In every experimental group, respondents that did not donate to any party consistently supported the ruling party at lower rates than those that donated money to any party. In the baseline condition, for example, 28% (s.e.= 3.7) of people that did not donate money to any party in the experiment claimed to vote for the ruling party in the prior parliamentary election. In contrast, 62% (s.e.= 2.4) of those that donated money to any party claimed to vote for the ruling party in the prior election.

In both experiments there is a large, statistically and substantively significant improvement in performance evaluations and increase in donations to the BJP when respondents read or listen to *any* information about distributive programs. In the top panel, I find that evaluations of the ruling party's

performance improve by over 1 scale point, equal to about 9% of the 0 to 10 scale, when respondents read or listen to any type of positively framed performance information. This is the case whether the information is about a government program that distributes a cheap benefit or an expensive benefit. In the bottom panel, I show that donations to the BJP increase by about 0.5 rupees or roughly 4.5% of the total budget when respondents read or listen to any type of positively framed performance information. Once again, this is the case whether the information is about a cheap or expensive benefit. In the remainder of this section, I compare different experimental groups to evaluate the hypotheses described earlier in the paper.

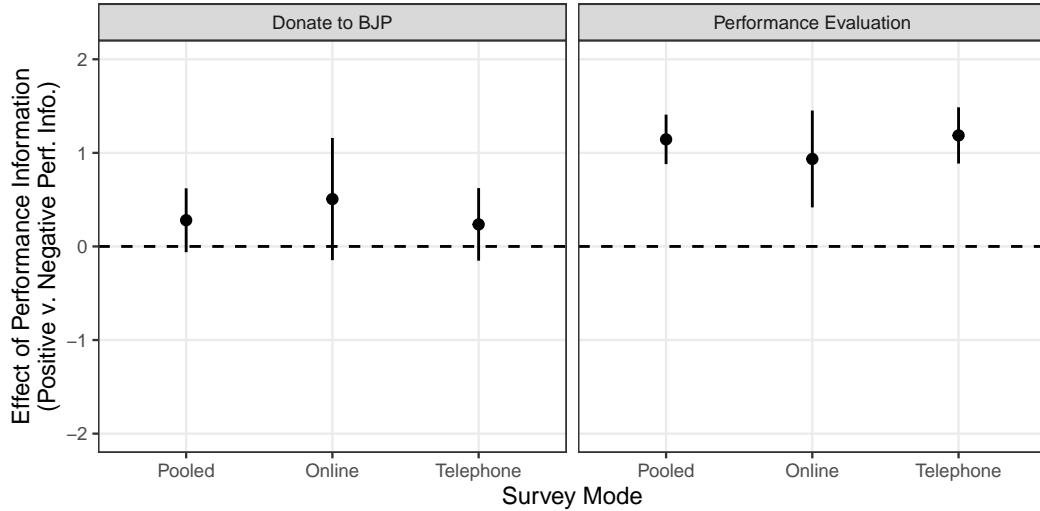
Voters are receptive to performance information

Do Indian voters recognize and reward good performance? These experiments show that voters donate more money to the ruling party and rate its performance as better when they are exposed to positively framed performance information, compared to when they are exposed to negatively framed performance information. For this analysis, I compare the *baseline* and *generic information* conditions. Figure 4 plots the difference in means estimate and 95% confidence interval for each outcome in the two survey experiments.

On the right, I show that the average performance evaluation improves by 1.14 scale units (s.e.= 0.135, $p < 0.001$) in the pooled data, 1.186 scale units (s.e.= 0.153, $p < 0.001$) in the telephone survey, and 0.935 scale units (s.e.= 0.263, $p < 0.001$) in the online survey when respondents learn about the number of people that have benefited from the housing program or cooking gas cylinder scheme. The effect size is pretty similar in both surveys, and is between 8.5% to 11% of the total scale. These are large, substantively meaningful changes in voter beliefs.

On the left, I report that donations to the ruling party increase by 25 to 50 paisa (quarter to half a rupee) when respondents learn about how many people benefited from these government programs. In the pooled data, the difference in means estimate or $\hat{\beta} = 0.28$ (s.e.= 0.174, $p = 0.108$). In the telephone survey, the difference in means estimate or $\hat{\beta} = 0.24$ (s.e.= 0.198, $p = 0.23$). The effect on donations to the ruling party is even larger if we compare baseline to efficiency ($\hat{\beta} = 0.49$, s.e.= 0.199,

Figure 4: Voter Evaluations and Behavior: Positive v. Negative Performance Information



Note: The figure shows difference in means estimates ($\bar{Y}_{\text{Generic}} - \bar{Y}_{\text{Baseline}}$) along with 95% confidence intervals. Hypothesis 1 predicts that these point estimates are positive and statistically distinguishable from 0. The data plotted in this figure is reported in Table 3.

$p = 0.01$), and baseline to out-groups benefited ($\hat{\beta} = 0.30$, s.e.= 0.199, $p = 0.13$).⁹ In the online survey, the treatment effect is larger in magnitude but not statistically significant at the 0.05 level because it is estimated less precisely using a smaller sample ($\hat{\beta} = 0.506$, s.e.= 0.331, $p = 0.127$). Once again, the effect on donations is even larger if we compare baseline to efficiency ($\hat{\beta} = 0.96$, s.e.= 0.328, $p = 0.003$), and baseline to out-groups benefited ($\hat{\beta} = 0.82$, s.e.= 0.328, $p = 0.01$). Across specifications and survey modes, the behavioral effect is smaller than the attitudinal shift, and approximately 2% to 4.5% of the total budget available to respondents in pre-registered specifications.

These are substantively meaningful changes in the voters' behavior. In India's 2019 parliamentary election, political parties received donations worth \$910 million, and as Figure 1 and Appendix J show, national parties actively seek and compete for small donations. Even a 2% reallocation of donations in favor of the ruling party because of its distributive policy successes amounts to approximately \$18.2 million. This is equivalent to the legally prescribed campaign budget for 166 parliamentary candidates.

In summary, there is pretty consistent evidence that voters reward political parties for good performance and distributive outcomes. This creates an incentive for parties to deliver benefits, though not

⁹These comparisons are not pre-registered.

necessarily as ruled-based, non-contingent direct transfers. To probe this point further, I now turn to two other conditions that are necessary for programmatic politics to be electorally viable.

No punishment or reward for crossthetic distribution

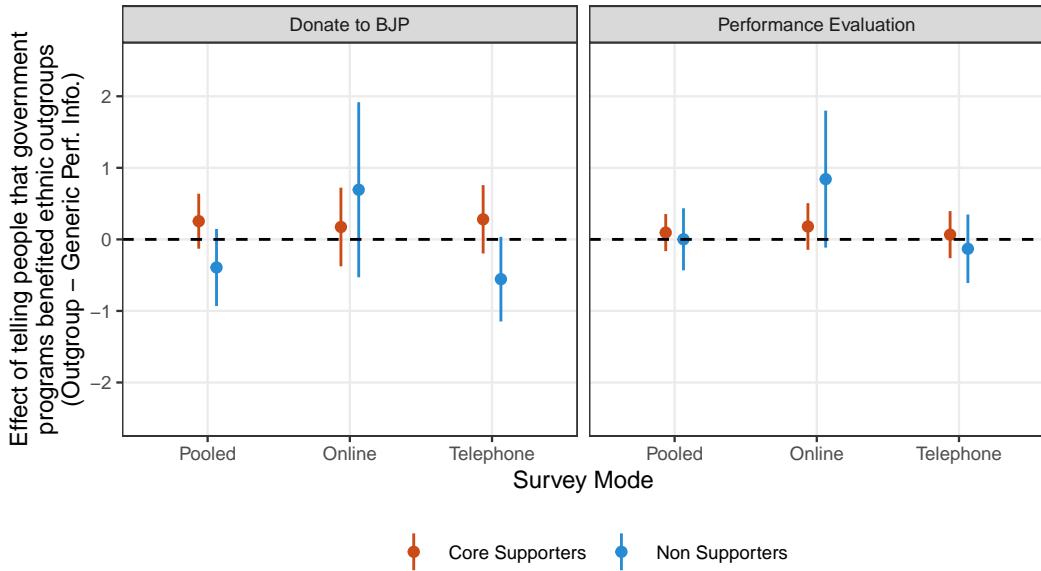
Do supporters of the ruling party punish it for distributing benefits to people outside the party's ethnic core? And do people outside the ethnic core reward this party for channeling benefits to them? These experiments indicate that core supporters do not punish crossthetic distribution, and non-supporters do not reward it. For this analysis, I compare the *generic* and *out-groups benefited* conditions. The latter provides additional information on who benefits from the government program. For example, the *italicized* text in the treatment vignette below is the additional information included in the out-groups benefited condition:

The Modi government has distributed nearly 8 crore gas cylinders *to poor families. A large number of people who have got a cylinder are Muslims, Dalits (SCs), Adivasis (STs). Nearly 3 crore people from the minority community have got a cylinder. Over 3 crore Dalits and Adivasis have got a cylinder.*

Figure 5 shows the impact of such information on voters' performance evaluation and donations to the ruling party. Core supporters do not punish crossthetic distribution. When it comes to performance evaluations, the difference in means estimate ($\hat{\beta}$) is in the wrong direction and statistically insignificant (pooled data: $\hat{\beta} = 0.095$, s.e. = 0.132, $p = 0.72$; telephone survey: $\hat{\beta} = 0.066$, s.e. = 0.168, $p = 0.69$; online survey: $\hat{\beta} = 0.18$, s.e. = 0.166, $p = 0.278$). Similarly for the behavioral outcome, the difference in means estimate is positive and insignificant (pooled data: $\hat{\beta} = 0.254$, s.e. = 0.196, $p = 0.195$; telephone survey: $\hat{\beta} = 0.28$, s.e. = 0.24, $p = 0.25$; online survey: $\hat{\beta} = 0.17$, s.e. = 0.28, $p = 0.536$).

Voters outside the ruling party's ethnic core recognize good performance (see previous section) but do not additionally reward the party for channeling benefits to their ethnic group. There is some evidence of rewarding in the online survey experiment. Non-supporters that read about coethnics substantially benefiting from government programs evaluate the ruling party's performance as better ($\hat{\beta} = 0.84$,

Figure 5: Punishment or Reward for Distributing Outside the Ethnic Core



Note: The figure shows difference in means estimates ($\bar{Y}_{\text{Out-Groups}} - \bar{Y}_{\text{Generic}}$) along with 95% confidence intervals for core supporters (in orange) and non-supporters (in blue). Hypothesis 2 predicts that the point estimates in orange are negative and statistically distinguishable from 0. Hypothesis 3 predicts that the point estimates in blue are positive and statistically distinguishable from 0. The data plotted in this figure is reported in Tables 4 and 5.

s.e. = 0.48, $p = 0.08$) and donate more money to it ($\hat{\beta} = 0.69$, s.e. = 0.62, $p = 0.26$). Even though these treatment effects are in the right direction, they are estimated using a small sample ($n = 128$) and are statistically indistinguishable from 0. In the telephone survey, which has a larger sample of non-supporters, the treatment effect estimates are in the wrong direction and statistically insignificant. For example, non-supporters who learn about government programs benefiting Muslims, Dalits and Tribals evaluate the ruling party's performance as 0.13 scale units worse (s.e. = 0.244, $p = 0.59$), and donate 55 paisa less to it (s.e. = 0.30, $p = 0.07$). Estimates from the pooled data paint a very similar picture. When non-supporters read or hear that government programs benefit Muslims, Dalits and Tribals, they evaluate the ruling party's performance in the same way ($\hat{\beta} = 0.001$, s.e. = 0.221, $p = 0.996$) and donate about the same to the ruling party ($\hat{\beta} = -0.393$, s.e. = 0.275, $p = 0.153$). There is no evidence of additional rewarding.

These findings are robust to an alternative, pre-registered measure of core supporters that factors social status and economic affluence. If anything, the point estimates move closer to zero for both sub-

groups. Table 10 in Appendix E reports the difference in means estimates using this alternative measure. Figure 7 in Appendix E visualizes these results along the lines of Figure 5 above.

Contrary to the initial expectation, punishment and reward are not greater for the expensive benefit. When comparing a cheap and expensive benefit, supporters of the ruling party do not punish their party more strongly for distributing an expensive benefit to people outside the ethnic core. The interaction term in Table 6 (columns 1 and 2) is statistically insignificant. Similarly, non supporters do not reward the ruling party more for distributing an expensive benefit to their ethnic group (see columns 3 and 4 in Table 6).

These results present a mixed picture for programmatic politics. Parties are more likely to adopt rule-based, non-contingent, direct transfers if their supporters do not punish the fact that such distributive policies can end up benefiting ethnically opposed groups. At the same time, parties are less incentivized to pursue such distribution if ethnically opposed voters do not reward it.

Modest reward for efficient implementation

Do voters sufficiently value distributive efficiency and reward it in elections? These experiments indicate that there is a very modest reward for efficiency. The analysis compares the *generic* and *efficiency* conditions. The latter describes specific steps taken by the government to reduce fake claim-making (biometric authentication of beneficiaries), corruption and discretion (direct transfer of money to the beneficiary's bank account). For example, the *italicized* text in the treatment vignette below is the additional information included in the efficiency condition:

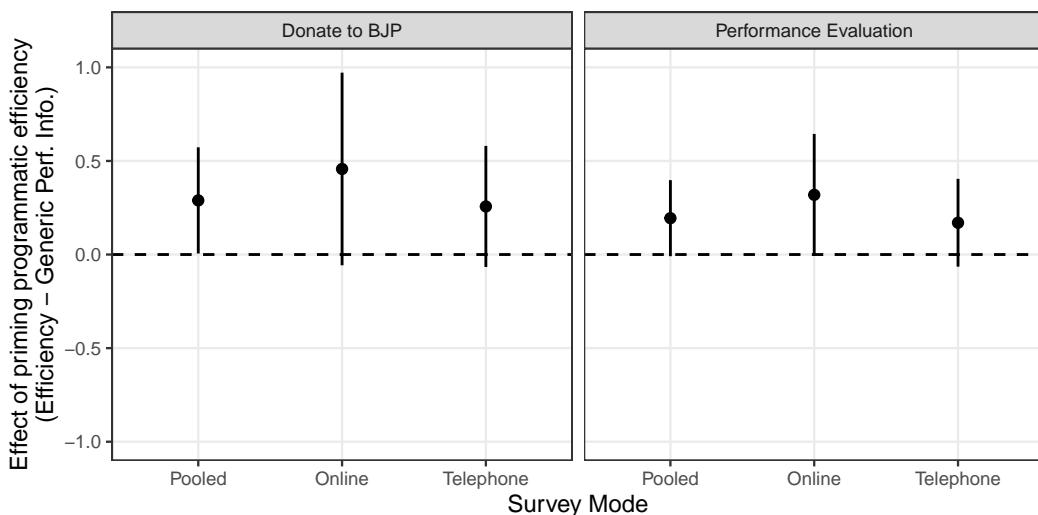
The Modi government has distributed nearly 1 crore 70 lakh houses. *Before giving someone a house, the government verifies people's identity using their fingerprints (Aadhar card)*¹⁰. *This ensures that the same person does not get a house more than once. It also stops some people from using a fake identity to get a house. To reduce corruption, the government directly transfers money for the house into people's bank account. This money is given in installments,*

¹⁰This is a biometric identification issued by India's government to nearly all its residents, and used by it to identify beneficiaries and directly transfer benefits from social welfare programs.

after the person proves that they are using the money to build a house by showing geotagged photographs.

The additional information consistently has a positive impact on voters' performance evaluation and donations to the ruling party (see Figure 6). In both surveys, the point estimate is positive, though statistically insignificant at the 5% level, indicating that there may be a small reward for distributive efficiency. In the pooled data, respondents that read or hear about efficient implementation of programs rate the ruling party's performance as 0.19 scale units (s.e.= 0.104, $p = 0.061$) better, and donate 0.29 rupees or 29 paisa (s.e.= 0.145, $p = 0.046$) more to the ruling party. In the telephone survey, respondents that hear about the steps taken by the government to reduce fake claim-making, corruption, and discretion rate the ruling party's performance as 0.17 scale units (s.e.= 0.12, $p = 0.155$) better, and donate approximately 0.26 rupees or 26 paisa (s.e.= 0.165, $p = 0.11$) more to the ruling party. These are not very large effects, approximately 1.5% of the total performance scale and 2% of the budget.

Figure 6: Rewards for Distributive Efficiency



Note: The figure shows difference in means estimates ($\bar{Y}_{\text{Efficiency}} - \bar{Y}_{\text{Generic}}$) along with 95% confidence intervals. Hypothesis 5 predicts that the point estimates are positive and statistically distinguishable from 0. The data plotted in this figure is reported in Table 7.

In the online survey, I find a larger effect. Respondents who read about the steps taken by the government to reduce fake claim-making, corruption and discretion rated the ruling party's performance as 0.319 (s.e.= 0.166, $p = 0.054$) scale units better, and donated nearly 45.7 paisa (s.e.= 0.262, $p =$

0.08) more to the ruling party. These effects are statistically significant at the 10% level. They are also substantively more meaningful: approximately 3% of the performance evaluation scale, and 4% of the total donation budget.

Do voters reward efficiency more when an expensive benefit is distributed? Table 8 in Appendix D shows that the interaction term, $\text{House}_i \times \text{Efficient}_i$, is inconsistently estimated and statistically insignificant. In other words, there is no evidence to suggest rewards for efficiency are greater for expensive benefits compared to cheap benefits.

These results show that there is a weak incentive for political parties to pursue direct transfers because voters do not adequately reward distributive efficiency. While voters are aspirational and seek developmental goods and tangible improvements in their living conditions, they are less discerning and concerned about how those benefits reach them. This generates strong incentives for politicians to deliver benefits, though not entirely or primarily as rule-based, non-contingent, direct transfers.

Discussion

A May 2022 piece in the *The Economist* identifies four pillars that support India's economic transformation, one of them a "high-tech welfare safety-net for the hundreds of millions left behind". The publication notes:

[T]he fourth pillar [is] digital welfare, with payments for some 300 schemes for needy Indians, from job support to fertiliser subsidies, sent straight to people's bank accounts. This cuts out bureaucrats and allows spending on a staggering scale. In the year to March, payments reached \$81bn, or 3% of GDP, up from 1% four years earlier. Payments have totalled \$270bn since 2017. Roughly 950m people have benefited, at an average of \$86 per person per year. That makes a difference to struggling households: India's extreme poverty line is about \$250 per person per year at market exchange rates. Mr Modi has not managed to initiate a national jobs boom, but he has created a national safety-net of sorts. ([Economist 2022](#))

While rule-based, non-contingent, direct transfers can fuel India's economic transformation, it is less clear

how they will alter its political landscape. The findings in this paper point to a critical piece in any transition to programmatic politics: voter concern for *process* and *efficient implementation*, not just delivery of benefits. Until this happens, politicians will have weak electoral incentives to pursue programmatic distribution even in the presence of conducive structural factors like urbanization, economic affluence and mobility, greater political competition, direct communication with voters, and effective credit claiming. Future work in this area can look at why some voters reward distributive efficiency and others don't. Can educational interventions and awareness campaigns durably build public opinion against clientelism and in favor of rule-based, non-contingent, direct transfers? Do perceptual screens like ethnicity and partisanship determine how much importance voters give to distributive processes and efficient implementation? Does formalization and "paying into system" (wide direct taxpayer base) create a sense of stakeholdership necessary for voters to value process and distributive efficiency?

A second strand of research can probe implications for political parties. How do parties allocate finite resources to different kinds of benefits and delivery mechanisms? In a companion paper, I find that an optimal strategy involves distributing cheap benefits through brokers or party intermediaries, and directly transferring expensive benefits. This kind of mixed strategy assumes that parties need to keep brokers engaged because they need them to disseminate their ideology, claim credit, or convert latent good will from distributive programs into votes. This, of course, leads to the question whether some parties are better placed to mix distributive strategies than others? Do ideology, mobilization structure, or candidate selection procedure constrain or enable mixing? These and many related questions can motivate future work in this area.

References

- Adida, Claire, Jessica Gottlieb, Eric Kramon, and Gwyneth McClendon. 2017. “Reducing or Reinforcing In-Group Preferences? An Experiment on Information and Ethnic Voting.” *Quarterly Journal of Political Science* 12(4): 437–477.
- Adida, Claire L., Nathan Combes, Adeline Lo, and Alex Verink. 2016. “The Spousal Bump: Do Cross-Ethnic Marriages Increase Political Support in Multiethnic Democracies?” *Comparative Political Studies* 49(5): 635–661.
- Arriola, Leonardo R. 2013. “Capital and Opposition in Africa: Coalition Building in Multiethnic Societies.” *World Politics* 65(2): 233–272.
- Arriola, Leonardo R., Donghyun Danny Choi, Matthew K. Gichohi, and Ken Ochieng Opalo. 2020. “Do Voters Respond to Cross-Ethnic Campaigning in Divided Societies?” Unpublished paper, University of California, Berkeley.
- Auerbach, Adam, and Tariq Thachil. 2018. “How Clients Select Brokers : Competition and Choice in India’s Slums.” *American Political Science Review* 112(4): 775–791.
- Auerbach, Adam Michael. 2020. *Demanding Development: The Politics of Public Goods Provision in India’s Urban Slums*. Cambridge: Cambridge University Press.
- Bolsen, Toby, James N. Druckman, and Fay Lomax Cook. 2014. “The Influence of Partisan Motivated Reasoning on Public Opinion.” *Political Behavior* 36(2): 235–262.
- Burgess, Robin, Remi Jedwab, Edward Miguel, Ameet Marjoria, and Gerard Padro i Miquel. 2015. “The Value of Democracy: Evidence from Road Building in Kenya.” *American Economic Review* 105(6): 1817–1851.
- Carlson, Elizabeth. 2016. “Finding Partisanship Where We Least Expect it: Evidence of Partisan Bias in a New African Democracy.” *Political Behavior* 38(1): 129–154.
- Chandra, Kanchan. 2004. *Why Ethnic Parties Succeed: Patronage and Ethnic Head Counts in India*. Cambridge: Cambridge University Press.
- Chubb, Judith. 1982. *Patronage, Power, and Poverty in Southern Italy*. Cambridge: Cambridge University Press.
- Conroy-Krutz, Jeffrey. 2013. “Information and Ethnic Politics in Africa.” *British Journal of Political Science* 43(2): 345–373.
- De La O, Ana L. 2013. “Do Conditional Cash Transfers Affect Electoral Behavior? Evidence from a Randomized Experiment in Mexico.” *American Journal of Political Science* 57(1): 1–14.
- Economist, The. 2022. “India is likely to be the world’s fastest-growing big economy this year.”
- Ejdemyr, Simon, Eric Kramon, and Amanda Lee Robinson. 2018. “Segregation, Ethnic Favoritism, and the Strategic Targeting of Local Public Goods.” *Comparative Political Studies* 51(9): 1111–1143.

- Fiske, Susan T., Amy J.C. Cuddy, and Peter Glick. 2007. "Universal Dimensions of Social Cognition: Warmth and Competence." *Trends in Cognitive Sciences* 11(2): 77–83.
- Gadjanova, Elena. 2021. "Status-quo or Grievance Coalitions: The Logic of Cross-ethnic Campaign Appeals in Africa's Highly Diverse States." *Comparative Political Studies* 54(3-4): 652–685.
- Graham, Matthew, and Shikhar Singh. 2022. "Partisan Selectivity in Blame Attribution: Evidence from the COVID-19 Pandemic." Unpublished paper, . <https://doi.org/10.31235/osf.io/t8xar>
- Ichino, Nahomi, and Noah L. Nathan. 2013. "Crossing the Line: Local Ethnic Geography and Voting in Ghana." *American Political Science Review* 107(2): 344–361.
- Imai, Kosuke, Gary King, and Carlos Velasco Rivera. 2020. "Do Nonpartisan Programmatic Policies Have Partisan Electoral Effects? Evidence from Two Large-Scale Experiments." *The Journal of Politics* 82(2): 714–730.
- Kadt, Daniel de, and Evan S. Lieberman. 2017. "Nuanced Accountability: Voter Responses to Service Delivery in Southern Africa." *British Journal of Political Science* 50: 185–215.
- Kahan, Dan M. 2016. "The Politically Motivated Reasoning Paradigm, Part 1: What Politically Motivated Reasoning Is and How to Measure It." *Emerging Trends in the Social and Behavioral Sciences*, 1–16.
- Kramon, Eric, and Daniel N Posner. 2016. "Ethnic Favoritism in Education in Kenya." *Quarterly Journal of Political Science* 11: 1–58.
- Kunda, Ziva. 1990. "The case for motivated reasoning." *Psychological Bulletin* 108(3): 480–498.
- Labonne, Julien. 2013. "The local electoral impacts of conditional cash transfers: Evidence from a field experiment." *Journal of Development Economics* 104: 73–88.
- Larreguy, Horacio, John Marshall, and Laura Trucco. 2018. "Breaking Clientelism or Rewarding Incumbents? Evidence from an Urban Titling Program in Mexico." Unpublished paper, . https://scholar.harvard.edu/files/jmarshall/files/corett_v18.pdf
- Levitsky, Steven. 2007. "From populism to clientelism? The transformation of labor-based party linkages in Latin America." In *Patrons, Clients and Policies: Patterns of Democratic Accountability and Political Competition*, eds. Herbert Kitschelt, and Steven I. Wilkinson. Cambridge University Press , 206–226.
- Magaloni, Beatriz, Alberto Diaz-Cayeros, and Federico Estvez. 2007. "Clientelism and portfolio diversification: a model of electoral investment with applications to Mexico." In *Patrons, Clients and Policies: Patterns of Democratic Accountability and Political Competition*, eds. Herbert Kitschelt, and Steven I. Wilkinson. Cambridge University Press , 182–205.
- Manacorda, By Marco, Edward Miguel, and Andrea Vigorito. 2011. "Government Transfers and Political Support." *American Economic Journal: Applied Economics* 3(July): 1–28.
- Mares, Isabela, and Lauren E. Young. 2019. *Conditionality and Coercion: Electoral Clientelism in Eastern Europe*. New York: Oxford University Press.

- McClendon, Gwyneth H. 2016. "Race and Responsiveness: An Experiment with South African Politicians." *Journal of Experimental Political Science* 3(1): 60–74.
- Pop-Eleches, Cristian, and Grigore Pop-Eleches. 2012. "Targeted Government Spending and Political Preferences." *Quarterly Journal of Political Science* 7(3): 285–320.
- Posner, Daniel. 2005. *Institutions and Ethnic Politics in Africa*. Cambridge: Cambridge University Press.
- Putnam, Robert D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, New Jersey: Princeton University Press.
- Stokes, Susan C., Thad Dunning, Marcelo Nazareno, and Valeria Brusco. 2013. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. New York: Cambridge University Press.
- Taber, Charles S., and Milton Lodge. 2006. "Motivated skepticism in the evaluation of political beliefs." *American Journal of Political Science* 50(3): 755–769.
- Tajfel, Henri. 1974. *Social Identity and Intergroup Behaviour*. Cambridge, U.K.: Cambridge University Press.
- Thachil, Tariq. 2014. *Elite Parties, Poor Voters: How Social Services Win Votes in India*. New Delhi: Cambridge University Press.
- Weghorst, Keith, and Steffan Lindberg. 2013. "What Drives the Swing Voter in Africa?" *American Journal of Political Science* 57(3): 717–734.
- Weitz-Shapiro, Rebecca. 2012. "What Wins Votes: Why Some Politicians Opt Out of Clientelism." *American Journal of Political Science* 56(3): 568–583.
- Wilkinson, Steven. 2007. "Explaining Changing Patterns of Party-Voter Linkages in India." In *Patrons, Clients and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge: Cambridge University Press, 110–140.
- Zucco Jr., Cesar. 2013. "When Payouts Pay Off: Conditional Cash Transfers and Voting Behavior in Brazil 2002–10." *American Journal of Political Science* 57(4): 810–822.

Appendix to

Do Voters Reward Programmatic Distribution? Evidence from Survey Experiments in India

Shikhar Singh

June 18, 2022

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A Survey Details

A.I Overview

Online Survey

Platform: Lucid

Dates: April 20-27, 2022.

Sample size: 1,047.

Screeners: Captcha Verification, Attention Check.

Consent: Subjects read an IRB-approved consent form, then voluntarily consented to participate in a research study.

Compensation: \$1 for completing a five minute survey. As the vendor does not set any standard rate, this amount was chosen to exceed the hourly minimum wage in India and the United States.

Treatments and outcomes: See Appendix B.

No deception: As indicated in the IRB protocol, no deception was involved.

Telephone Survey

Platform: CVoter

Dates: April 18-May 5, 2022.

Sample size: 5,350.

Screeners: None.

Consent: Enumerators read out an IRB-approved consent script and proceeded with the interview only if the subject verbally consented to participate in the study.

Compensation: The treatment vignettes and outcome questions were part of a larger, periodic omnibus survey. CVoter does not compensate respondents for participating in these surveys.

Treatments and outcomes: See Appendix B.

No deception: As indicated in the IRB protocol, no deception was involved.

A.2 Sample Characteristics

Table 1: Sample Characteristics

Variable	Telephone(n=5350)				Online(n=1047)			
	Mean	Min	Max	Missing	Mean	Min	Max	Missing
Age	39.327	18	90	0	35.203	19	86	0
Female	0.534	0	1	0	0.477	0	1	0
Education (0-7)	3.422	0	7	1366	5.626	0	7	0
Household Income (0-7)	2.994	0	7	1366	5.347	0	7	0
Urbanness (0 to 2)	0.579	0	2	0	1.605	0	2	0
Voted	0.765	0	1	1379	0.907	0	1	3
Voted BJP	0.572	0	1	1379	0.739	0	1	17
General	0.293	0	1	1368	0.625	0	1	19
OBC	0.325	0	1	1368	0.299	0	1	19
Minority	0.186	0	1	1368	0.152	0	1	0
SC	0.151	0	1	1368	0.067	0	1	19
ST	0.046	0	1	1368	0.010	0	1	19

B Survey Questionnaire

B.I Treatment Vignettes

Baseline Condition (Negatively Framed Performance Information)

India's economy is not doing well. Last year, the income of 84% of households declined but rich people became richer. The wealth of the 100 richest people in India increased from Rs. 23 lakh crore in March 2020 to Rs. 53 lakh crore in November 2021. The 100 richest people now have as much money as 55 crore poorest Indians. Over 7 out of 100 Indians do not have a job. Unemployment is the highest in 30 years. Prices are also rising, with 1 liter of petrol costing close to 100 rupees.

Generic Condition (Positively Framed Performance Information)

Cheap Benefit: The Modi government has distributed nearly 8 crore gas cylinders.

Expensive Benefit: The Modi government has distributed nearly 1 crore 70 lakh houses.

Out-groups Benefited Condition

Cheap Benefit: The Modi government has distributed nearly 8 crore gas cylinders to poor families. A large number of people who have got a cylinder are Muslims, Dalits (SCs), Adivasis (STs). Nearly 3 crore people from the minority community have got a cylinder. Over 3 crore Dalits and Adivasis have got a cylinder.

Expensive Benefit: The Modi government has distributed nearly 1 crore 70 lakh houses to poor families. A large number of people who have got a house are Muslims, Dalits (SCs) and Adivasis (STs). About 22 lakh Muslims have got a house. Nearly 40 lakh Dalits and 36 lakh Adivasis have got a house.

Efficiency Condition

Cheap Benefit: The Modi government has distributed nearly 8 crore gas cylinders. Before giving someone a cylinder, the government verifies people's identity using their fingerprints (Aadhar card). This ensures that the same person does not get a free cylinder more than once. It also stops some people from using a fake identity to get a free cylinder. To reduce corruption, the government directly transfers money for refilling the cylinder into people's bank account.

Expensive Benefit: The Modi government has distributed nearly 1 crore 70 lakh houses. Before giving someone a house, the government verifies people's identity using their fingerprints (Aadhar card). This ensures that the same person does not get a house more than once. It also stops some people from using a fake identity to get a house. To reduce corruption, the government directly transfers money for the house into people's bank account. This money is given in installments, after the person proves that they are using the money to build a house by showing geotagged photographs.

B.2 Outcome Measures

Attitudinal Measure

How do you rate the performance of the Modi government on a scale of 0 to 10, where 0 is very poor and 10 is very good?

Behavioral Measure

If you had to donate 10 rupees to a political party, who would you give the money to: BJP, Congress, or [major state party/parties]? You can give all of the money to one party, or give some of the money to a party and the remaining money to other parties. How much will you give to each of these parties?

Open-ended Measure (Online Survey Only)

How do you decide who to vote for in national elections? In a few words tell us what factors or things matter the most to you when you decide who to support in the Lok Sabha elections.

C Average Outcome Estimates

The table below reports estimates of the average outcome in each experimental condition. Column 1 describes the data source (online or telephone survey). Column 2 states the outcome variable name. Column 3 mentions the type of performance information to which respondents were randomly assigned. Column 4 mentions the government program about which performance information is randomly presented to the respondent. Columns 5 and 6 present the average value of the outcome in that experimental group, along with the HC2 robust standard error. Column 7 states the number of observations in each experimental condition.

Table 2: Group Means and Uncertainty Estimates

Mode	Outcome	Perf Info	Govt. Program	Average	SE	N
Online	Donate to BJP	Baseline	Baseline	5.651	0.273	152
Online	Donate to BJP	Efficiency	Cylinder	6.779	0.242	149
Online	Donate to BJP	Efficiency	House	6.449	0.273	147
Online	Donate to BJP	Generic	Cylinder	5.980	0.276	147
Online	Donate to BJP	Generic	House	6.331	0.256	151
Online	Donate to BJP	Out-Group	Cylinder	6.200	0.262	150
Online	Donate to BJP	Out-Group	House	6.735	0.252	151
Online	Perf. Evaluation	Baseline	Baseline	7.263	0.231	152
Online	Perf. Evaluation	Efficiency	Cylinder	8.738	0.137	149
Online	Perf. Evaluation	Efficiency	House	8.293	0.167	147
Online	Perf. Evaluation	Generic	Cylinder	8.122	0.192	147
Online	Perf. Evaluation	Generic	House	8.272	0.162	151
Online	Perf. Evaluation	Out-Group	Cylinder	8.480	0.162	150
Online	Perf. Evaluation	Out-Group	House	8.530	0.171	151
Telephone	Donate to BJP	Baseline	Baseline	3.573	0.161	765
Telephone	Donate to BJP	Efficiency	Cylinder	3.904	0.169	743
Telephone	Donate to BJP	Efficiency	House	4.218	0.165	785
Telephone	Donate to BJP	Generic	Cylinder	3.726	0.161	794
Telephone	Donate to BJP	Generic	House	3.895	0.165	768
Telephone	Donate to BJP	Out-Group	Cylinder	4.007	0.168	748
Telephone	Donate to BJP	Out-Group	House	3.742	0.166	747
Telephone	Perf. Evaluation	Baseline	Baseline	5.723	0.128	746
Telephone	Perf. Evaluation	Efficiency	Cylinder	6.944	0.126	730
Telephone	Perf. Evaluation	Efficiency	House	7.206	0.116	771
Telephone	Perf. Evaluation	Generic	Cylinder	6.824	0.121	779
Telephone	Perf. Evaluation	Generic	House	6.997	0.115	745
Telephone	Perf. Evaluation	Out-Group	Cylinder	6.746	0.121	735
Telephone	Perf. Evaluation	Out-Group	House	7.103	0.119	720
Online	Donate to BJP	Efficiency	House+Cylinder	6.615	0.182	296

Table 2: Group Means and Uncertainty Estimates (*continued*)

Mode	Outcome	Perf Info	Govt. Program	Average	SE	N
Online	Donate to BJP	Generic	House+Cylinder	6.158	0.188	298
Online	Donate to BJP	Out-Group	House+Cylinder	6.468	0.182	301
Online	Perf. Evaluation	Efficiency	House+Cylinder	8.517	0.108	296
Online	Perf. Evaluation	Generic	House+Cylinder	8.198	0.125	298
Online	Perf. Evaluation	Out-Group	House+Cylinder	8.505	0.118	301
Telephone	Donate to BJP	Efficiency	House+Cylinder	4.066	0.118	1528
Telephone	Donate to BJP	Generic	House+Cylinder	3.809	0.115	1562
Telephone	Donate to BJP	Out-Group	House+Cylinder	3.875	0.118	1495
Telephone	Perf. Evaluation	Efficiency	House+Cylinder	7.079	0.086	1501
Telephone	Perf. Evaluation	Generic	House+Cylinder	6.909	0.084	1524
Telephone	Perf. Evaluation	Out-Group	House+Cylinder	6.922	0.085	1455

D Treatment Effect Estimates

D.1 Hypothesis 1

According to the pre-analysis plan, I evaluate this hypothesis by comparing respondents assigned to read/listen to positively framed performance information (*generic* condition) and negatively framed performance information (*baseline* condition). I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{Generic}_i) + \epsilon_i \quad (1)$$

where Hypothesis 1 predicts $\beta_1 > 0$. The results are presented in Table 3.

Table 3: Are voters receptive to performance information?

	Performance Evaluation			Donation to BJP		
	Pooled	Telephone	Online	Pooled	Telephone	Online
Treatment Effect	1.144*** (0.135)	1.186*** (0.153)	0.935*** (0.263)	0.280 (0.174)	0.236 (0.198)	0.506 (0.331)
Control Group Mean		5.723*** (0.128)	7.263*** (0.231)		3.573*** (0.161)	5.651*** (0.273)
Adj. R ²	0.050	0.027	0.030	0.036	0.000	0.003
Num. obs.	2720	2270	450	2777	2327	450

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

D.2 Hypothesis 2

According to the pre-analysis plan, I evaluate this hypothesis by comparing core supporters assigned to the *out-groups benefited* condition and *generic information* condition. I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{Out Groups Benefited}_i) + \epsilon_i \quad (2)$$

where Hypothesis 2 predicts $\beta_1 < 0$. The results are presented in Table 4.

Table 4: Do core supporters punish crosstheticnic distribution?

	Performance Evaluation			Donation to BJP		
	Pooled	Telephone	Online	Pooled	Telephone	Online
Treatment Effect	0.095 (0.132)	0.066 (0.168)	0.180 (0.166)	0.254 (0.196)	0.280 (0.243)	0.173 (0.280)
Control Group Mean		7.619*** (0.119)	8.502*** (0.111)		5.704*** (0.174)	6.608*** (0.199)
Adj. R ²	0.020	-0.001	0.000	0.007	0.000	-0.001
Num. obs.	1830	1370	460	1870	1410	460

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

D.3 Hypothesis 3

According to the pre-analysis plan, I evaluate this hypothesis by comparing non-supporters assigned to the *out-groups benefited* condition and *generic information* condition. I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{Out Groups Benefited}_i) + \epsilon_i \quad (3)$$

where Hypothesis 3 predicts $\beta_1 > 0$. The results are presented in Table 5.

Table 5: Do non-supporters reward crosstheticnic distribution?

	Performance Evaluation			Donation to BJP		
	Pooled	Telephone	Online	Pooled	Telephone	Online
Treatment Effect	0.001 (0.221)	-0.131 (0.244)	0.842 (0.483)	-0.393 (0.275)	-0.556 (0.302)	0.694 (0.618)
Control Group Mean		7.035*** (0.167)	7.060*** (0.380)		4.368*** (0.209)	4.552*** (0.442)
Adj. R ²	0.000	-0.001	0.015	0.004	0.003	0.002
Num. obs.	943	815	128	981	853	128

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

D.4 Hypothesis 4

According to the pre-analysis plan, I evaluate this hypothesis by comparing respondents assigned to the *out-groups benefited* condition and *generic information* condition. I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{House}_i) + \beta_2(\text{Out Groups}_i) + \beta_3(\text{House}_i \times \text{Out Groups}) + \epsilon_i \quad (4)$$

where $\text{House}_i = 1$ for respondents assigned to information on the housing program and 0 if they are assigned to information on the cooking gas cylinder scheme; and $\text{Out-groups}_i = 1$ if the respondent is assigned to the *out-groups benefited* condition, and 0 if they are assigned to *generic* information. Hypothesis 4 predicts that $\beta_3 < 0$ for core supporters and $\beta_3 > 0$ for non supporters. The results are presented in Table 6.

Table 6: Benefit Size and the Reward or Punishment for Crossthetic Distribution

	Core Supporters		Non Supporters	
	Perf Eval	Donation	Perf Eval	Donation
House	0.227 (0.187)	0.130 (0.281)	0.587 (0.306)	0.358 (0.383)
Outgroups Benefited	0.172 (0.193)	0.326 (0.277)	0.050 (0.315)	-0.353 (0.382)
House x Outgroups Benefited	-0.152 (0.265)	-0.142 (0.392)	-0.126 (0.440)	-0.101 (0.550)
Adj. R ²	0.019	0.006	0.004	0.003
Num. obs.	1830	1870	943	981
Study FE	Yes	Yes	Yes	Yes

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

D.5 Hypothesis 5

According to the pre-analysis plan, I evaluate this hypothesis by comparing respondents assigned to the *efficiency* condition and *generic information* condition. I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{Efficiency}_i) + \epsilon_i \quad (5)$$

where Hypothesis 5 predicts $\beta_1 > 0$. The results are presented in Table 7.

Table 7: Do voters reward efficient implementation?

	Performance Evaluation			Donation to BJP		
	Pooled	Telephone	Online	Pooled	Telephone	Online
Treatment Effect	0.194 (0.104)	0.170 (0.120)	0.319 (0.166)	0.289* (0.145)	0.257 (0.165)	0.457 (0.262)
Control Group Mean		6.909*** (0.084)	8.198*** (0.125)		3.809*** (0.115)	6.158*** (0.188)
Adj. R ²	0.026	0.000	0.005	0.041	0.000	0.003
Num. obs.	3619	3025	594	3684	3090	594

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

D.6 Hypothesis 6

According to the pre-analysis plan, I evaluate this hypothesis by comparing respondents assigned to the *efficiency* condition and *generic information* condition. I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{House}_i) + \beta_2(\text{Efficiency}_i) + \beta_3(\text{House}_i \times \text{Efficiency}_i) + \epsilon_i \quad (6)$$

where $\text{House}_i = 1$ for respondents assigned to information on the housing program and 0 if they are assigned to information on the cooking gas cylinder scheme; and $\text{Efficiency}_i = 1$ if the respondent is assigned to the *efficiency* condition, and 0 if they are assigned to *generic* information. I expect $\beta_3 > 0$. The results are presented in Table 8.

D.7 Hypothesis 7

According to the pre-analysis plan, I evaluate this hypothesis by comparing respondents assigned to the *efficiency* condition and *out-groups benefited* condition. I estimate the following ordinary least squares regression:

$$Y_i = \beta_0 + \beta_1(\text{House}_i) + \beta_2(\text{Efficiency}_i) + \beta_3(\text{House}_i \times \text{Efficiency}_i) + \epsilon_i \quad (7)$$

where $\text{House}_i = 1$ for respondents assigned to information on the housing program and 0 if they are assigned to information on the cooking gas cylinder scheme; and $\text{Efficiency}_i = 1$ if the respondent is assigned to the *efficiency* condition, and 0 if they are assigned to *out-groups benefited* condition. I expect $\beta_2 > 0$ and $\beta_3 > 0$. The results are presented in Table 9.

Table 8: Benefit Size and the Reward for Efficiency

	Perf Eval	Donation
House	0.168 (0.146)	0.197 (0.203)
Efficient Distrib.	0.203 (0.151)	0.280 (0.204)
House x Efficient Distrib.	-0.024 (0.207)	0.012 (0.289)
Adj. R ²	0.026	0.041
Num. obs.	3619	3684
Study FE	Yes	Yes

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Table 9: Do core supporters net-reward programmatic distribution

	Perf Eval	Donation
House	0.076 (0.187)	-0.013 (0.274)
Efficient Distrib.	0.157 (0.185)	-0.106 (0.272)
House x Efficient Distrib.	0.016 (0.259)	0.334 (0.384)
Adj. R ²	0.017	0.009
Num. obs.	1857	1894
Study FE	Yes	Yes

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

E Alternative Measure of Core Supporters

This section presents results for Hypotheses 2 and 3 using an alternative measure of core supporters presented in the pre-analysis plan. This measure factors social status and economic affluence.

According to the pre-analysis plan:

A respondent is classified as a core supporter when:

They do not identify as Muslim, Christian, Sikh, Buddhist or Parsi (i.e. they identify as Hindu, Jain, No Religion or Other) AND any one of the following is applicable (depending on which of these are measured in the survey):

1. They belong to the following caste groups: General/ Upper Caste, OBC
2. They identify as middle or upper class
3. Their annual household income is greater than or equal to 200,000 rupees. The Center for Monitoring Indian Economy (CMIE) uses this income threshold to classify middle class. This roughly translates to a monthly household income of 17,000 rupees or more. I use a coarsened measure of monthly household income: respondents reporting a monthly household income of 20,000 to 50,000 (= 5 on the scale) or higher (6 or 7 on the scale) will satisfy this condition.
4. They are highly educated (i.e. graduate = 5, post graduate = 6, professional degrees and higher research = 7 on the education scale).

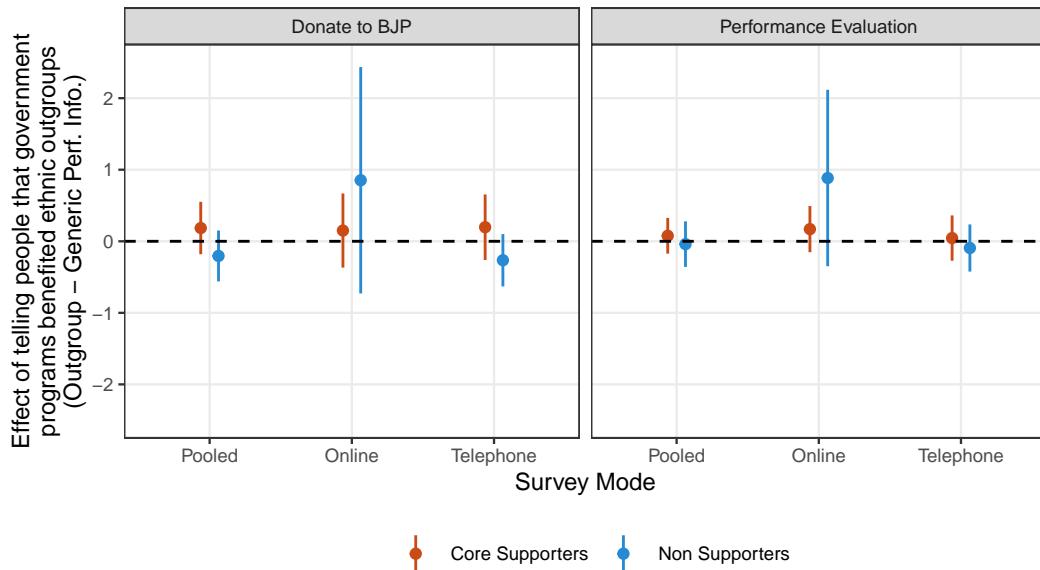
All others are classified as *non-supporters* or *periphery* voters.

E.1 Rewards or Punishment for Crossthetic Distribution

Table 10: Hypotheses 2 and 3 (Alternative Measure of Core Supporters)

Mode	Outcome Type	Subgroup	DIM	SE	p	CI(L)	CI(H)
Online	Donate to BJP	Core Supporters	0.150	0.264	0.570	-0.368	0.668
Online	Donate to BJP	Non Supporters	0.853	0.795	0.287	-0.730	2.435
Online	Perf. Evaluation	Core Supporters	0.170	0.164	0.301	-0.153	0.493
Online	Perf. Evaluation	Non Supporters	0.884	0.620	0.158	-0.349	2.117
Telephone	Donate to BJP	Core Supporters	0.197	0.233	0.400	-0.261	0.655
Telephone	Donate to BJP	Non Supporters	-0.265	0.186	0.155	-0.631	0.101
Telephone	Perf. Evaluation	Core Supporters	0.045	0.161	0.782	-0.272	0.361
Telephone	Perf. Evaluation	Non Supporters	-0.094	0.168	0.577	-0.423	0.236
Pooled	Donate to BJP	Core Supporters	0.185	0.187	0.323	-0.182	0.552
Pooled	Donate to BJP	Non Supporters	-0.205	0.182	0.259	-0.561	0.151
Pooled	Perf. Evaluation	Core Supporters	0.077	0.127	0.547	-0.173	0.326
Pooled	Perf. Evaluation	Non Supporters	-0.040	0.162	0.805	-0.359	0.279

Figure 7: Punishment or Reward for Distributing Outside the Ethnic Core



Note: The figure shows difference in means estimates ($\bar{Y}_{\text{Out-Groups}} - \bar{Y}_{\text{Generic}}$) along with 95% confidence intervals for core supporters (in orange) and non-supporters (in blue). Hypothesis 2 predicts that the point estimates in orange are negative and statistically distinguishable from 0. Hypothesis 3 predicts that the point estimates in blue are positive and statistically distinguishable from 0. The data plotted in this figure is reported in Table 10.

F Randomization Check

The statistical models section in the pre-analysis plan specifies the procedure to check for randomization. The basic idea is to check whether covariates jointly predict treatment assignment using a multinomial regression. This involves estimating a goodness of fit measure (like the Akaike Information Criterion or AIC) for a model in which the categorical treatment assignment variable Z_i is regressed on covariates like female, age, education, urbanness, ethnicity, monthly household income, turnout in parliamentary election, and vote choice in the prior parliamentary election. I then conduct randomization inference on this test statistic to obtain a p-value that tells us the probability of observing this test statistic or more extreme under the null hypothesis that covariates are not jointly predictive of treatment assignment. If randomization is done correctly, we will most likely *fail* to reject this null hypothesis (i.e. $p > 0.05$).ⁱⁱ

Parametric Test

I conduct an analysis of variance (ANOVA) test that compares the fit of two models: a multinomial regression in which Z_i (treatment assignment vector) is regressed on covariates, and a multinomial regression in which Z_i is regressed on a constant.

$$\text{Model 1: } Z_i \sim \sum_{k=1}^K \beta_k X_k$$

$$\text{Model 2: } Z_i \sim 1$$

ANOVA compares the two regression models, and evaluates the joint predictive power of all the covariates $X_1 \cdots X_K$. The null hypothesis is that $\beta_1 = \beta_2 = \cdots = \beta_K = 0$ (i.e. the covariates do not jointly predict any variation in Z_i).

Randomization Inference

I obtain the distribution of the test statistic (AIC) under the null hypothesis using 5,000 hypothetical random assignments generated by `randomizr` in R. Let the observed test statistic or AIC in Model 1 above be $\widehat{\text{AIC}}_{\text{obs}}$. I calculate a two-tailed p-value which is $2 \times \min(p^{\text{lower}}, p^{\text{upper}})$. Note that the lower tail p-value here is approximately the same as the p-value from the ANOVA test.

F.1 Online Survey

Table II reports the results from the Analysis of Variance (ANOVA). I fail to reject this null hypothesis ($p = 0.805$).

ⁱⁱA p-value less than 0.05 does not necessarily imply that treatment is not randomly assigned. In 5% of cases covariate imbalance can occur by chance, even when the researcher randomizes treatment assignment.

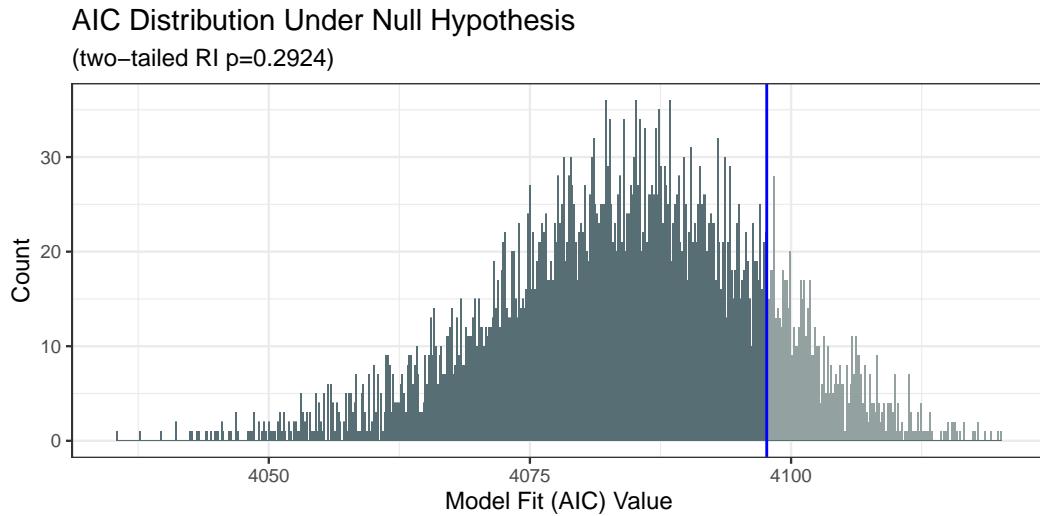
Table II: Online Survey: ANOVA ($Z \sim \text{Covariates}$ v. $Z \sim I$)

Likelihood Ratio	Degrees of Freedom	Pr(Chi)
67.125	78	0.805

Randomization Inference

Figure 8 shows the distribution of the test statistic under the null hypothesis using 5,000 hypothetical random assignments. The blue line shows the observed test statistic or AIC in the data. I report a two-tailed p-value which is $2 \times \min(p^{\text{lower}}, p^{\text{upper}})$. This p-value is 0.29. I am unable to reject the null hypothesis.

Figure 8: Randomization Check (Online Survey)



Note: Frequency distribution of the test statistic (AIC). The observed test statistic, $\widehat{\text{AIC}}_{\text{obs}}$, is shown using the blue line. The density below the blue line (p^{lower}) is shaded dark gray. The density above the blue line (p^{upper}) is shaded light gray.

F.2 Telephone Survey

Table I2 reports the results from the Analysis of Variance (ANOVA). I fail to reject this null hypothesis ($p = 0.853$).

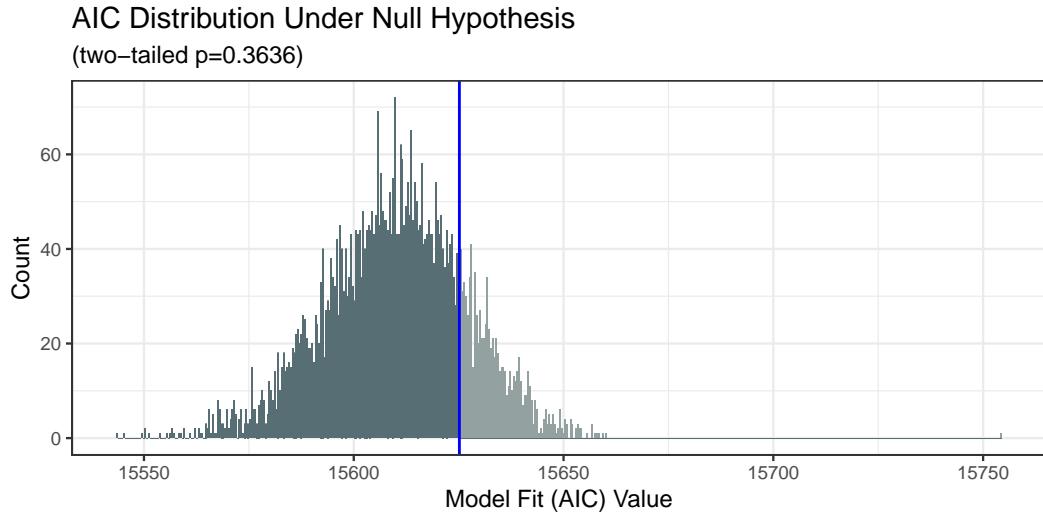
Table I2: Telephone Survey: ANOVA ($Z \sim \text{Covariates}$ v. $Z \sim I$)

Likelihood Ratio	Degrees of Freedom	Pr(Chi)
126.27	144	0.853

Figure 9 shows the distribution of the test statistic under the null hypothesis using 5,000 hypothetical

random assignments. The blue line shows the observed test statistic or AIC in the data. I report a two-tailed p-value which is $2 \times \min(p^{\text{lower}}, p^{\text{upper}})$. This p-value is 0.36. I fail to reject the null hypothesis.

Figure 9: Randomization Check (Telephone Survey)



Note: Frequency distribution of the test statistic (AIC). The observed test statistic, $\widehat{\text{AIC}}_{\text{obs}}$, is shown using the blue line. The density below the blue line (p^{lower}) is shaded dark gray. The density above the blue line (p^{upper}) is shaded light gray.

G Missingness in Outcomes

The pre-analysis plan specifies that missingness in any outcome will be dealt with in the following way:

We will check if missingness in the outcomes is correlated with treatment assignment. If the F-statistic in the ordinary least squares regression $\text{Missing}_i \sim Z_i$ is statistically significant ($p \leq 0.05$), we will estimate extreme value bounds for that outcome. In this regression specification, Missing_i is an indicator variable that takes a value 1 if there is missing data for that outcome for subject i , otherwise 0. Z_i is a categorical variable with seven levels that indicates the respondent's treatment assignment.

If missingness is uncorrelated with treatment assignment, the pre-analysis plan states that we “drop observations from a regression analysis if they have missing values for any variable in that regression specification”.

Table 13 reports the F-statistic and associated p-value from an ordinary least squares regression, $\text{Missing}_i \sim Z_i$, for each outcome in the online and telephone survey. As Table 13 shows, there is missing data for only one outcome (attitudinal measure in the telephone survey). Treatment assignment is *not* jointly predictive of missingness in that outcome.

Table 13: Testing for Asymmetric Missingness in Outcomes

Mode	Outcome	Missing	F Statistic	p value
Telephone	Perf Eval	124	1.526 (df=6,5343)	0.165
Telephone	Donation	0	NA (df=6,5343)	NA
Online	Perf Eval	0	NA (df=6,1040)	NA
Online	Donation	0	NA (df=6,1040)	NA

H Donating to Parties and Support for Ruling Party

This section explores why 44% of respondents in the telephone survey refused to donate money to any political party. I contend that respondents who do not want to donate to any political party are a particular type of opposition voter: they do not support the ruling party but are dissatisfied with all the opposition parties. To probe this point further, I estimate the proportion of BJP voters among those that donated money to any party, and those that refused to donate money to any party. I use a covariate that measures vote choice in the prior parliamentary election for this purpose. I do so separately for each experimental condition. Table 14 shows that fewer than 30% of those that refused to donate money to any party report voting for the BJP in the prior parliamentary election. Over 60% of those that donated to any party report voting for the BJP in the prior election. This difference in support for the ruling party is observed across experimental conditions.

Table 14: Donating to Parties and Support for Ruling Party

Donation	Treatment	Average	SE	CI(Low)	CI(High)	N
Donated to Parties	Baseline	0.622	0.024	0.575	0.668	423
Donated to Parties	Efficiency	0.661	0.016	0.630	0.693	871
Donated to Parties	Generic	0.677	0.016	0.645	0.708	851
Donated to Parties	Out-Group	0.679	0.016	0.647	0.711	810
Refused to Donate	Baseline	0.282	0.037	0.209	0.355	149
Refused to Donate	Efficiency	0.274	0.027	0.221	0.328	270
Refused to Donate	Generic	0.329	0.028	0.275	0.383	292
Refused to Donate	Out-Group	0.315	0.027	0.262	0.367	305

I Pre Analysis Plan

Crosswalk to Pre-Analysis Plan

Table 15: Hypotheses, Pre-Registered Tests, Results

Hypothesis	Comparison	Empirical Specification	Result
H_1	Generic (positively framed performance information) v. Baseline (negatively framed performance information)	$Y_i \sim \beta_0 + \beta_1(\text{Generic})$, where $\beta_1 > 0$	Table 3
H_2, H_3	Out-groups Benefited v. Generic	$Y_i \sim \beta_0 + \beta_1(\text{Out Groups})$, where $\beta_1 < 0$ for core supporters and $\beta_1 > 0$ for non supporters.	Tables 4, 5
H_4	Out-groups Benefited v. Generic	$Y_i \sim \beta_0 + \beta_1(\text{House}) + \beta_2(\text{Out Groups}) + \beta_3(\text{House} \times \text{Out Groups})$, where $\text{House} = 1$ if assigned to information on the housing program and 0 for information on the cooking gas cylinder scheme; and $\text{Outgroups} = 1$ if assigned to the <i>out-groups benefited</i> condition, and 0 if assigned to <i>generic</i> information. $\beta_3 < 0$ for core supporters and $\beta_3 > 0$ for non supporters.	Table 6
H_5	Efficiency v. Generic	$Y_i \sim \beta_0 + \beta_1(\text{Efficiency})$, where $\beta_1 > 0$.	Table 7
H_6	Efficiency v. Generic	$Y_i \sim \beta_0 + \beta_1(\text{House}) + \beta_2(\text{Efficiency}) + \beta_3(\text{House} \times \text{Efficiency})$, where $\text{House} = 1$ if assigned to information on the housing program and 0 if assigned to information on the cooking gas cylinder scheme; and $\text{Efficiency} = 1$ if assigned to the <i>efficiency</i> condition, and 0 if assigned to <i>generic</i> information. I expect $\beta_3 > 0$.	Table 8
H_7	Efficiency v. Out-groups Benefited (core supporters only)	$Y_i \sim \beta_0 + \beta_1(\text{House}) + \beta_2(\text{Efficiency}) + \beta_3(\text{House} \times \text{Efficiency})$, where $\text{House} = 1$ if assigned to information on the housing program and 0 if assigned to information on the cooking gas cylinder scheme; and $\text{Efficiency} = 1$ if assigned to the <i>efficiency</i> condition, and 0 if assigned to <i>out-groups benefited</i> condition. I expect $\beta_2 > 0$ and $\beta_3 > 0$	Table 9

Voter Perceptions of Cross-ethnic Programmatic Distribution

Embargoed registration ▾ Updates ▾

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Metadata

Study Information



Hypotheses

H1: Voters will donate more money to the ruling party and rate its performance as better when they are exposed to positively framed performance information, compared to when they are exposed to negatively framed performance information.

H2: Core supporters will punish the ruling party for diverting resources to other ethnic groups. Specifically, treated subjects (core supporters who are informed that government programs have benefited a large number of people outside the ruling party's ethnic core) will donate less money to the ruling party and be more critical of its performance compared to control subjects (core supporters who are given generic information about government programs).

H3: Non-supporters will reward the ruling party for diverting resources to their ethnic groups and away from core supporters. Specifically, treated subjects (non-supporters who are informed that government programs have benefited a large number of people outside the ruling party's ethnic core) will donate more money to the ruling party and be less critical of its performance compared to control subjects (non-supporters who are given generic information about government programs).

H4: Core supporters will punish the party more strongly for distributing an expensive benefit to people outside the ethnic core compared to when the party distributes a cheap benefit. Non-supporters will reward the party more for distributing an expensive benefit compared to a cheap benefit.

H5: Voters will reward efficiency. Specifically, treated subjects (voters who are given information on program implementation) will donate more money to the ruling party and be less critical of its performance compared to control subjects (voters who are given generic information about government programs).

H6: Voters are more likely to reward the party for programmatic distribution when the benefit is expensive and has a large budgetary allocation compared to when the benefit is cheap and has a small budgetary allocation.

H7: Among core supporters of a party, the reward for programmatic efficiency significantly exceeds the punishment for distributing benefits outside the ethnic core.

Design Plan

Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

Blinding

For studies that involve human subjects, they will not know the treatment group to which they have been assigned.

Is there any additional blinding in this study?

No response

Study design

Survey experiment, administered online or via telephone, that randomly assigns participants to see information vignettes. In the baseline condition (Z0), participants read/hear negative valence performance information about the ruling party. In two placebo control groups, they read/hear generic information about one of two government programs: one that distributes a \$10 cooking gas cylinder (Z1), another that gives a \$2000 house (Z4). In the "out-groups benefited" condition, respondents read/hear generic information about a government program (cylinder in Z2, houses in Z5) and are also informed that this program disproportionately benefits people outside the ruling party's ethnic core, namely Muslims, Dalits (SCs), and Tribals (STs). Finally, respondents in the "efficiency" condition receive generic information about a program and implementational details that describe specific steps taken by the government to reduce fake claim-making (biometric authentication of beneficiaries), and corruption (direct transfer of money to bank accounts). Z3 provides such information for the cooking gas cylinder scheme, Z6 for the housing program.

Immediately after this, we ask respondents to rate the government's performance, and donate 10 rupees to political parties (BJP, Congress, major state party/parties in respondent's state). Participants can give all the money to one party or split it between the parties. We are interested in the amount of money donated to the ruling party, BJP. The online survey ends with an open-ended question on "how [participants] decide who to vote for in national elections?". A research assistant blind to the study's hypotheses will code responses as 1 if they only mention performance, developmental work, and distributive policies; 0.5 if they mention these considerations but also other factors; and 0 if they only mention other factors.

The survey questionnaire and randomization scheme is attached.

- Survey Questionnaire.pdf (<https://osf.io/project/3hr5p/files/osfstorage/625f728e6ac2a703174a9f48>)

Randomization

Each respondent is assigned with equal probability to one of seven experimental conditions. For the online survey, I will check "evenly present elements" in Qualtrics' randomizer function.

Sampling Plan

Existing Data

Registration prior to creation of data

Explanation of existing data

No response

Data collection procedures

For the online survey:

Subjects will be recruited on Lucid. We will pay \$1 for every completed survey response. Actual compensation

(money or points) will depend on the survey vendor through which the participant enters the survey. Eligibility will be limited to respondents located in India. In order for the sample to be representative of the population, we will place gender, age, and region quotas based on screening questions available in Lucid Marketplace. We will "screen out" respondents who: (1) fail the Captcha verification process; (2) fail a pre-randomization attention check question; (3) select "I do not live in India" in the "which state do you currently reside in" question; and (4) do not consent to participate in the study. All other respondents will advance to the survey, and be randomly assigned to one of seven information vignettes.

For the telephone survey:

I will engage a survey company, CVoter, that conducts telephone surveys in India using the random digit dialing method. CVoter will add my questions to their omnibus surveys and make available a dataset containing responses to these questions and subjects' background information. A detailed note on CVoter's methodology (random digit dialing and computer assisted telephone interviewing or CATI), along with their quality control and enumerator training procedures are provided below. Like the online survey, respondents will be randomly assigned to hear one of seven information vignettes and then asked two outcome questions.

- CVoter CATI Methodology Note.pdf (<https://osf.io/project/3hr5p/files/osfstorage/625f728e6ac2a703174a9f4c>)
- Power Calculations.pdf (<https://osf.io/project/3hr5p/files/osfstorage/625f728e6ac2a703174a9f4a>)

Sample size

1,050 for the online survey. 3,000 for the telephone based survey.

Sample size rationale

A budget constraint determined the sample size. Within that constraint, I ensured that the research design is adequately powered to detect effects from a pilot survey experiment conducted in March 2022. The power calculation figure, along with an explanation, is attached.

Stopping rule

For the online survey: I will field the survey on Lucid Marketplace, allowing people in batches to take the survey, excluding previous respondents from new launches. I will keep the survey link active till approximately 1,050 people have completed the survey.

For the telephone survey: CVoter will provide approximately 3,000 responses to my survey questions. The exact sample size will be contingent on the contact rate.

Variables

Manipulated variables

The study randomly assigns respondents to read/listen to information vignettes. In the baseline condition (Z0), participants read/hear negative valence performance information about the ruling party. In two placebo control groups, they read/hear generic information about one of two government programs: one that distributes a \$10 cooking gas cylinder (Z1), another that gives a \$2000 house (Z4). In the "out-groups benefited" condition, respondents read/hear generic information about a government program (cylinder in Z2, houses in Z5) and are also informed that this program disproportionately benefits people outside the ruling party's ethnic core, namely Muslims, Dalits (SCs), and Tribals (STs). Finally, respondents in the "efficiency" condition receive generic information about a program and implementational details that describe specific steps taken by the government to reduce fake claim-making (biometric authentication of beneficiaries), and corruption (direct transfer of money to bank accounts). Z3 provides such information for the cooking gas cylinder scheme, Z6 for the housing program. The survey questionnaire contains each information vignette.

- Survey Questionnaire.pdf (<https://osf.io/project/3hr5p/files/osfstorage/625f728e6ac2a703174a9f48>)

Measured variables

Outcome Measures (H1 to H7):

- 1) How do you rate the performance of the Modi government on a scale of 0 to 10; where 0 is very poor and 10 is very good?
- 2) If you had to donate 10 rupees to a political party, who would you give the money to: BJP, Congress, or [major state party/parties]? You can give all of the money to one party, or give some of the money to a party and the remaining money to other parties. How much will you give to each of these parties? (Numeric variable capturing the amount given to the BJP, defined between 0 and 10)
- 3) How do you decide who to vote for in national elections? In a few words tell us what factors or things matter the most to you when you decide who to support in the Lok Sabha elections. (A research assistant blind to the study's hypotheses will code responses as 1 if they only mention performance, developmental work, and distributive policies; 0.5 if they mention these considerations but also other factors; and 0 if they only mention other factors.)

Covariates:

- 1) What is your age? / What year were you born in?
- 2) What is your gender? (1 = Male, 2 = Female)
- 3) Up to what level have you studied? (0 = Not Literate (Cannot read or write), 1 = Non-formal education (can read and write), 2 = Up to primary level, 3 = Up to high school, 4 = Higher Secondary, 5 = Up to graduation, 6 = Up to Post-Graduate, 7 = Professional Degree)
- 4) What is your religion? (Hindu, Muslim, Christian, Sikh, Buddhist, Jain, Parsi, No religion, Others)
- 5) What caste group do you belong to? (SC, ST, OBC, General)
- 6) What is your main occupation? (1 = Student/ Unemployed, 2 = Housewife, 3 = Land owning farmer, 4 = Landless agricultural labor, 5 = Semi government/ Contractual government jobs, 6 = Government service, 7 = Private Sector Service, 8 = Business/ Self-employed, 9 = General Labor, 0 = Others)
- 7) Many people talk about class nowadays, and use terms like lower class, middle class or upper class. In your opinion, compared to other households, the household you live in currently belongs to which class – lower class, middle class, or upper class? (Lower class, Middle class, Upper class).
- 8) Do you live in a village, town, or city? (Village, Town (50,000 to 5 lakh people), City (More than 5 lakh people))
- 9) What is your family's income in one month? (1 = Less than 3000, 2 = 3000 to 6000, 3 = 6000 to 10,000, 4 = 10,000 to 20,000, 5 = 20,000 to 50,000, 6 = 50,000 to 1 Lakh, 7 = More than 1 Lakh, 0 = Can't Say)
- 10) Did you vote in the 2019 Lok Sabha elections? (1 = I am sure I voted, 0 = I did not vote)
- 11) Which political party did you support in the 2019 Lok Sabha elections? (1 = BJP, 0 = Any other party or prefer not to answer).
(Telephone version: Whom did you vote for in the 2019 Lok Sabha Elections? Coded from party list, 0 = Did not vote, 98 = Not listed in voter list, 99 = Don't know/ Can't say, 999 = NOTA. To be recoded as 1 = BJP, 0 = Any other party or did not vote or not listed in voter list or don't know/ can't say or NOTA)
- 12) Location (Assembly Constituency, State, Region).

- Survey Questionnaire.pdf (<https://osf.io/project/3hr5p/files/osfstorage/625f728e6ac2a703174a9f48>)

Indices

Identifying core supporters:

The primary measure for identifying core supporters will be ethnicity: respondents that identify as Hindu General/ Upper Caste, Hindu OBC and Jain will be coded "core supporters", respondents from all other ethnic categories (Hindu SC, Hindu ST, Muslim, Sikh, Christian, Parsi, and Buddhist) will be treated as "non-supporters".

For robustness, I will also use a multidimensional measure that considers social status and economic affluence. In this measure, a respondent is classified as a core supporter when:

1. They do not identify as Muslim, Christian, Sikh, Buddhist or Parsi (i.e. they identify as Hindu, Jain, No Religion or Other)

AND any one of the following is applicable (depending on which of these are measured in the survey):

1. They belong to the following caste groups: General/ Upper Caste, OBC
2. They identify as middle or upper class
3. Their annual household income is greater than or equal to 200,000 rupees. The Center for Monitoring Indian Economy (CMIE) uses this income threshold to classify middle class. This roughly translates to a monthly household income of 17,000 rupees or more. I use a coarsened measure of monthly household income: respondents reporting a monthly household income of 20,000 to 50,000 (=5 on the scale) or higher (6 or 7 on the scale) will satisfy this condition.
4. They are highly educated (i.e. graduate = 5, post graduate = 6, professional degrees and higher research = 7 on the education scale).

All others are classified as "non-supporters" or "periphery" voters.

No files selected

Analysis Plan

Statistical models

The statistical tests of our hypotheses will use ordinary least squares regression, with heteroskedasticity-robust (HC2) standard errors. Most of our tests are for differences in means. We will visualize the results of these tests by plotting the means themselves.

For H1: $Y = b_0 + b_1 * Z$, where Z is a treatment indicator that takes a value of 1 for respondents assigned to generic information about government programs (Z1 and Z4 conditions) and 0 for respondents assigned to read negative performance information (Z0). Y is the outcome variable (performance evaluation or money donated to the BJP). The data will be subsetted to respondents in three experimental conditions (Z0, Z1, Z4). We are interested in b_1 , the estimate of the average treatment effect.

For H2 and H3: $Y = b_0 + b_1 * Z$, where Z is a treatment indicator that takes a value of 1 for respondents assigned to the "out-groups benefited" condition (Z2 and Z5), and 0 for those assigned to receive generic information about government programs (Z1 and Z4). Y is the outcome variable (performance evaluation or money donated to the BJP). The data will be subsetted to respondents in four experimental conditions (Z1, Z2, Z4, Z5). We are interested in b_1 . For H2, I will subset to core supporters and expect $b_1 < 0$. For H3, I will subset to non-supporters (all respondents not considered "core supporters") and expect $b_1 > 0$.

For H4: $Y = b_0 + b_1 * (\text{House}) + b_2 * (\text{Outgroups Benefited}) + b_3 * (\text{House}) * (\text{Outgroups Benefited})$, where House = 1 for respondents assigned to information on the housing program (Z4 and Z5) and 0 if they are assigned to information on the cooking gas cylinder scheme (Z1 and Z2); Outgroups Benefited = 1 if the respondent is assigned to the "out-groups benefited" condition (Z2 and Z5), and 0 if they are assigned to generic information (Z1 and Z4). Y is the outcome variable. I will subset the data to respondents in four experimental conditions (Z1, Z2, Z4, Z5), and run the analysis separately for core supporters and non-supporters. We are interested in b_3 . Per H4, $b_3 < 0$ for core supporters and $b_3 > 0$ for non-supporters (i.e. the penalty or reward for cross-ethnic distribution is larger for the expensive benefit).

For H5: $Y = b_0 + b_1 * Z$, where Z is a treatment indicator that takes a value of 1 for respondents assigned to the "efficiency" condition (Z3 and Z6), and 0 for those assigned to receive generic information about government

programs (Z1 and Z4). Y is the outcome variable (performance evaluation or money donated to the BJP). I will subset the data to respondents in four experimental conditions (Z1, Z3, Z4, Z6). We are interested in b1 and expect $b_1 > 0$ for core supporters and non-supporters.

For H6: $Y = b_0 + b_1 * (\text{House}) + b_2 * (\text{Efficiency}) + b_3 * (\text{House}) * (\text{Efficiency})$, where House = 1 for respondents assigned to information on the housing program (Z4 and Z6) and 0 if they are assigned to information on the cooking gas cylinder scheme (Z1 and Z3); Efficiency = 1 if the respondent is assigned to the "efficiency" condition (Z6 and Z3), and 0 if they are assigned to generic information (Z1 and Z4). Y is the outcome variable. I will subset the data to respondents in four experimental conditions (Z1, Z3, Z4, Z6). We are interested in b3, and expect $b_3 > 0$ for core supporters and non-supporters (i.e. both groups reward efficiency in distribution more when there is an expensive benefit).

For H7: $Y = b_0 + b_1 * (\text{House}) + b_2 * (\text{Efficiency}) + b_3 * (\text{House}) * (\text{Efficiency})$, where House = 1 for respondents assigned to information on the housing program (Z5 and Z6) and 0 if they are assigned to information on the cooking gas cylinder scheme (Z2 and Z3); Efficiency = 1 if the respondent is assigned to the "efficiency" condition (Z6 and Z3), and 0 if they are assigned to the out-groups benefited condition (Z2 and Z5). Y is the outcome variable. I will subset the data to core supporters, and respondents in four experimental conditions (Z2, Z3, Z5, Z6). H7 posits that $b_2 > 0$ and $b_3 > 0$ for core supporters (i.e. core supporters reward programmatic efficiency more than they punish distribution to out-groups; and that net rewards are greater for the expensive benefit).

Pooled Analysis: For each hypothesis above, I will pool data from the online and telephone surveys. This analysis will have the same regression specification as above but with the addition of study fixed effects (Telephone = 0, Online = 1) so that all comparisons are within-study.

Covariate for Precision: To get more precise estimates, I will include the respondent's state or province as a covariate in each specification.

Randomization Check: I will check whether covariates jointly predict treatment assignment using a multinomial regression. This involves the following steps:

Step 1: Estimate a goodness of fit measure (like the AIC) using a multinomial regression (multinom function in the nnet package). The categorical treatment assignment variable Z (which has 7 levels) is regressed on covariates: female, age, education (0 to 7), social class (0,1 or 2), urbanness (0, 1 or 2), religion and caste community, monthly household income (0 to 7), turnout in prior parliamentary election (0 or 1), and ruling party supporter or voter in prior parliamentary election (0 or 1).

Step 2: Conduct randomization inference on this test statistic to get a p value (i.e. the probability of obtaining the test statistic from Step 1 or more extreme under the null hypothesis that covariates jointly do not predict treatment assignment).

Step 3: I will not reject the null hypothesis if the p value from randomization inference is larger than 0.05.

No files selected

Transformations

No response

Inference criteria

Each hypothesis will be evaluated using a two-tailed t-test. We will use $p = 0.05$ as the threshold to determine statistical significance. The t-statistic and associated p value will be generated using lm_robust or difference_in_means from the estimatr package in R.

Data exclusion

We will drop observations from a regression analysis if they have missing values for any variable in that regression specification. In the online survey, we will also exclude any respondents who leave the survey two or more times during the pre-treatment questions, as detected by an embedded JavaScript.

Missing data

We will check if missingness in the outcomes is correlated with treatment assignment. If the F-statistic in the ordinary least squares regression $\text{Missing} \sim Z$ is statistically significant ($p \leq 0.05$), we will estimate extreme value bounds for that outcome. Here, Missing is an indicator variable that takes a value 1 if there is missing data for that outcome, else 0. Z is a categorical variable with 7 levels that indicates the respondent's treatment assignment.

Exploratory analysis

No response

Other

Other

No response

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J Evidence of Parties Seeking Small Donations

J.I Narendra Modi's Tweet

On December 25, 2021, BJP leader and India's Prime Minister, Narendra Modi encouraged citizens to donate money to his party by sharing a screenshot of his own small donation to the party fund.

Figure 10: Modi's Donation to the Party Fund

Narendra Modi

@narendramodi

I have donated Rs. 1,000 towards the party fund of the Bharatiya Janata Party.

Our ideal of always putting Nation First and the culture of lifelong selfless service by our cadre will be further strengthened by your micro donation.

Help make BJP strong. Help make India strong.

BHARATIYA JANATA PARTY
Central Office

6 A, Pandit Deen Dayal Upadhyaya Marg, New Delhi - 110002

No. DOTXN25106600091640371972 Date - 25/12/2021

Received with thanks from Sh./Smt./M/s _____ Narendra Modi _____

Email _____ Mobile _____

Donated INR 1000 on 25/12/2021 12:25:33 pm

Cause For Donation: Party Fund

Amount INR 1000

Donations to the Party are exempt from Income Tax u/s 80GGB for Companies and u/s 80 GGC for Others as per Income Tax Act, 1961

PAN No.: _____ Regn. No.: 56/R/1/B9 Dt. 19 Sept. 1989

3:10 AM · Dec 25, 2021 · Twitter for iPhone

9,680 Retweets 1,272 Quote Tweets 48.8K Likes

J.2 Donation Web Pages

India's two main parties, the BJP and Congress, have setup websites to facilitate small donations to the party. Below are the websites on which Indian citizens can donate to these parties.



MICRO-DONATE FOR A NEW INDIA
**SUPPORT BJP WITH YOUR
MICRO-DONATION**

Choose an Amount

₹ 5 ₹ 50 ₹ 100 (selected)
₹ 500 ₹ 1000

Enter your details below

Name *
Name

Number *
Number

Email *
Email

State *
--Please select your state--

Cause for donation
Party Fund

Who Inspired You
Who inspired you

Referral Code
Enter Referral Code. ex. ABC123-F

I declare that I am an Indian Citizen and I am making this contribution to the BJP out of my free will, from income legally earned/owned by me. The details that I have provided above are true and nothing has been misrepresented.



Indian National Congress

Donate to the party

Join Indian National Congress movement for change.
Contribute for better future of the nation.

Share this on:



Terms & Conditions:

AGREE TO TERMS:

I ACCEPT THE FOLLOWING TERMS AND CONDITIONS:

- I Declare that I am a citizen of India.
- I am above the age of 18 years.
- I am making this contribution voluntarily from my own personal bank account or credit card and out of funds generated legally owned by me in India.
- I further declare that the said contribution is being made by me on my own volition without any undue influence, coercion, promise, or solicitation of any kind.
- I also declare that my voluntary contribution is fully compliant with norms and stipulations of the Foreign Contribution (Regulation) Act, 2010 (FCRA).
- The details I have provided above are true to the best of my knowledge and nothing has been concealed or misrepresented.
- I agree to be contacted by the Congress Party, its frontal organizations, affiliates, and partners.
- I have read and accept the above Terms & Conditions.

FOR CHEQUE PAYMENT:

Payment Details

Amount

₹ Enter Amount

Email

Phone

Name

City

PAN Number

Address

Pin Code

State

--Select--

Date of Birth *

The cheque has to be drawn in favour of "President, All India Congress Committee" and sent to: The Office of the Treasurer, All India Congress Committee, 24, Akbar Road, New Delhi – 110011.

Please note: Your voluntary contribution to Indian National Congress, a political party is 100% deductible under the section 80GGB / 80GGC of the Income Tax, 1961.

You agree to share information entered on this page with Indian National Congress (owner of this page) and Razorpay, adhering to applicable laws.

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