POLITICAL CLIENTELISM AND CAPTURE:
Theory and an Application[1]

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ABSTRACT

We develop a political economy model where political clientelism co-exists with elite capture and derive its implications for targeting of local government benefits. The model helps explain targeting impacts of gender and caste based political reservations in West Bengal local governments documented by previous empirical studies. We argue these targeting patterns cannot be explained by standard political economy models, or by the presence of either elite capture or clientelism in isolation.

Keywords: clientelism, elite capture, service delivery, government accountability, political reservations

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1 Introduction

The literature on political economy of development describes various distortions in the functioning of electoral democracies. One of these is *elite capture*, wherein politicians are 'captured' by wealthy special interest groups via campaign contributions or bribes to embrace elite-friendly policies, gain preferential treatment in taxes and access to government benefits. This concept has dominated the discussion on the pros and cons of decentralization of public service delivery (2004 World Development Report, Bardhan and Mookherjee (2000), Bardhan (2002), Mansuri and Rao (2013) and Mookherjee (2015)). A substantial empirical literature has focused on ways of measuring elite capture and its consequences for allocation of government expenditures (Araujo et al (2008), Bardhan and Mookherjee (2006a,b), Galasso and Ravallion (2005), Galiani, Gertler and Schargrodsky (2009), Kochhar (2008), Pandey (2010), Acemoglu, Reed and Robinson (2014), Anderson, Francois and Kotwal (2015)). Theoretical models of political economy reasons for the role of historical conditions on long-run development also rely on similar capture-based distortions (Acemoglu, Johnson and Robinson (2001), Acemoglu and Robinson (2008), Banerjee and Iyer (2005), Benabou (2000), Borguignon and Verdier (2000)).

Another important distortion is *political clientelism*, wherein elected officials use discretionary power to limit access to government benefits to recipients voting or expressing political support for their own party (Kitschelt and Wilkinson (2007), Hicken 2011, Dunning et al 2013, Bardhan and Mookherjee (2020)). This results in targeting biases in favor of socio-economic groups exhibiting greater loyalty to political incumbents, more likely to reciprocate with their votes, and those with whom politicians are connected via political intermediaries that mediate and implement such 'deals' (Stokes (2005), Finan and Schechter (2012), Dunning and Nilekani (2013), Calvo and Murillo (2013), Bjorkman (2014)). It causes politicians to favor short-term recurring private transfer programs such as public employment, loans and subsidies at the expense of public goods or private benefits of a long-run nature such as education or health services. In contrast to elite capture, clientelism is often populist and progressive, as elected officials are incentivized to deliver benefits to poorer and more vulnerable socio-economic groups whose votes are 'cheaper to buy'. Theoretical models of clientelism explain mechanisms by which clientelistic exchanges are enforced despite votes cast in secret ballots, as well as resulting implications for targeting of benefits (Stokes (2005), Keefer and Vlaicu (2008), Robinson and Verdier (2013), Sarkar (2014), Bardhan and Mookherjee (2018)). Empirical evidence of clientelism across a range of developing countries is presented by a large

and growing literature (Wantchekon (2003), Stokes (2005), Khemani (2015), Dey and Sen (2016), Bardhan et al (2020), Shenoy and Zimmerman (2020)).

These two literatures on capture and clientelism have proceeded in parallel, with each phenomenon studied in isolation from the other. This gives rise to a number of questions. First, how do they differ in terms of their implications for targeting of benefits or political competition? Second, could capture and clientelism co-exist in the same context? Is there any evidence of such co-existence, and what are its consequences? These are the questions addressed in this paper.

Section 2 develops a theoretical model where capture and clientelism co-exist. The model extends standard static models of probabilistic voting and electoral competition between two parties in the Downsian tradition (Lindbeck and Weibull (1987), Dixit and Londregan (1995) and Grossman and Helpman (1996)). It focuses on the problem of allocating a government benefit consisting of a single private good (such as food, fuel, housing, cash transfers etc.) across diverse citizen groups with varying initial endowments of this good. Elite capture involves the wealthiest of these groups forming a special interest group that contributes to campaign funds of two competing political parties, in exchange for a proposed allocation of the government benefit favored by this group, following the analysis of Grossman and Helpman (1996) and Bardhan and Mookherjee (2000). Clientelism is represented by probabilistic monitoring of voting behavior of each group by each party, followed by selective delivery of benefits conditioned on this information. Each party selects an electoral strategy consisting of a proposed allocation of benefits, and a level of campaign finance which is used to 'persuade' voters. Citizens' voting decisions are based partly on pre-existing loyalties and campaign advertising, and partly on strategic considerations. In order to derive clear predictions, we impose assumptions under which the outcome of this electoral contest results in a unique equilibrium, described by probabilities of either party winning and resulting benefit allocations. These outcomes are characterized by implicit political welfare weights assigned to each voter group by either party, with the resulting welfare distortions represented by deviation of these weights from utilitarian welfare weights.

Comparative statics of the model with respect to underlying parameters of capture (effectiveness of campaign funds in raising votes) and clientelism (vote monitoring probabilities) formalize the contrast of their respective implications for vertical and horizontal equity. Rising capture results in greater vertical inequity in benefit allocations (raising the share allocated to the elite group). In contrast, rising clientelism results in improved vertical equity (lowering the share of elites), but also possibly raising horizontal inequity (discriminating between non-elite groups

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in favor of those that the party in question can monitor more effectively). Both phenomena tend to reduce political competition (raising the vote share of the party ex ante favored by voters), and induce policy divergence (e.g., the policy of the ex ante favored party exhibits greater capture and clientelistic distortions).

Section 3 uses the model to explain some puzzling results concerning targeting impacts of political reservations of local government mayor (pradhan) positions in West Bengal (Bardhan, Mookherjee and Parra-Torrado (BMP, 2010)).[4] Using data from household surveys concerning private benefits (including workfare, drinking water access, subsidized loans, housing, pensions) received from local governments during 1998-2004, BMP found that reservation of pradhan positions for women (or women belonging to scheduled castes) resulted in a significant decline in the intra-village share of benefits allocated to households belonging to scheduled castes and tribes (SC-ST), among the most disadvantaged in terms of economic and social status.[5] On the other hand, reservations for SC candidates resulted in a significant increase in the SC-ST share. Moreover, villages with higher levels of land inequality and poverty within the SC-ST community were characterized by significantly lower SC-ST share of benefits.

These empirical findings are difficult to explain by standard political economy models such as the Downsian model without any capture or clientelism (as this model predicts reservations would have no impact at all), or the Besley-Coate (1997) citizen-candidate model based on personal policy preferences of elected officials (e.g., why should pradhans elected in a post jointly reserved for a woman-SC candidate exhibit an anti-SC bias?). We show that the results can be explained by the capture-cum-clientelism model along the following lines. Most women elected to reserved positions had no prior political or administrative experience, implying that the effectiveness of both capture and clientelism mechanisms became weaker. If the experience effect was stronger for clientelism, it would end up increasing the regressive bias in the distribution of benefits, resulting in a declining share of the SC-ST group. On the other hand, if the pradhan post was reserved for an SC candidate (without any gender requirement), a male leader of the SC community tended to be elected. Compared to a (typically non-SC) candidate elected to an

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[4]BMP provided a heuristic explanation of these facts based on coexistence of clientelism and capture. The current paper formalizes these arguments by developing a formal model and deriving comparative static predictions that make this explanation precise.

[5]These results pertain to the distribution of private benefits, rather than the allocation of local government expenditures across different public good programs (which was the focus of the well known work of Chattopadhyay and Duflo (2004)).

unreserved position, the SC leader would exercise stronger (resp. weaker) monitoring and enforcement of strategic exchanges with the SC (resp. non-SC) community. This would strengthen clientelistic control over the SC community, weaken it for other communities as well as scope for elite capture — resulting in a higher SC-ST share. Neither clientelism nor capture alone cannot account for all the facts. Capture helps explain why the SC/ST share was smaller in villages with greater land inequality and poverty within SC/ST groups, while clientelism helps explain why the SC/ST share fell as a result of female reservations. Finally, the interaction between clientelism and capture helps explain why this effect of the female reservations was attenuated in high inequality villages.

2 Model

2.1 Agents, Benefits and Preferences

Consider a village where households vary in their endowment of a single consumption good or asset which can be augmented by the local government. The distribution of endowments is represented by μ_i, the proportion of households with endowment ω_i, where $i = 1, \ldots, E$ and $\omega_i \leq \omega_{i+1} < \omega_E$ for all $i \leq E - 2$. E is the wealthiest group, referred to as the elite. The local government can augment the endowment of a group i household with a transfer $q_i \geq 0$, subject to a budget constraint

$$\sum_i \mu_i q_i \leq B \tag{1}$$

where B represents the overall scale of the program determined by upper levels (e.g., block or district) of the government hierarchy.[6] Household i ends up with utility $u(\omega_i + q_i)$, where u which is strictly increasing, differentiable and strictly concave.

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[6]Bardhan et al (2020) study a related model of pure clientelism where B is endogenously determined by upper level officials to maximize the re-election prospects of their respective parties. Such an extension is useful in studying implications of political distortions for inter-village allocations. We abstract from the issue of inter-village allocations in this paper, and focus entirely on intra-village allocations. The main empirical facts relating to the effects of gender and caste based reservations that we discuss later pertain to intra-village benefit share of SC/ST groups.

The utilitarian optimal allocation maximizes

$$\sum_i \mu_i u(\omega_i + q_i) \tag{2}$$

subject to the budget constraint (1) and non-negativity constraints. The utilitarian welfare allocation is maximally progressive: if the program scale B is large enough (bigger than $\omega_E - \sum_i \mu_i \omega_i$), it equalizes consumption across all groups. Otherwise, it allocates the benefit only to the poorest groups $i = 1, \ldots, D < E$ while equalizing consumption among these groups.[7]

The quasi-utilitarian objective with 'political' welfare weight δ_i for group i replaces the objective function (2) by:

$$\sum_i \mu_i \delta_i u(\omega_i + q_i) \tag{3}$$

The quasi-utilitarian optimal allocation discriminates in favor of groups with higher welfare weights, while equalizing consumption within each group. It can involve regressive targeting if welfare weights are rising steeply enough with wealth. In particular, elites may end up receiving some of the benefit if their group has a sufficiently large political welfare weight, even though they may not in the utilitarian optimum. Political economy considerations which distort allocations across the different groups in equilibria of the model will be mirrored by deviations of these political welfare weights from unity. Below we will characterize different equilibria by these deviations, a convenient way of describing the resulting welfare distortions. To keep the analysis simple, we will focus on 'interior' allocations where all groups receive positive transfers, and quasi-utilitarian optimal allocations can be characterized by first-order conditions that take the form of equalities rather than inequalities.

2.2 Elections and Voting

There are two parties denoted L and R. We model each party in a Downsian fashion: they seek power for its own sake, and have no personal or ideological preferences over policies. Each party seeks to maximize its probability of being elected, and therefore its share of votes cast.

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[7]The equalized consumption level among the poor equals $c_D \equiv \frac{B}{F_D} + E[\omega_i | i \leq D] < \omega_{D+1}$ where F_D denotes the fraction of households in groups $i = 1, \ldots, D$.

Each party's electoral policy consists of a level of fundraising for the campaign, and an electoral platform which is a set of proposed transfers. Electoral funds are raised from an elite special interest group following a process of negotiation along the lines of Grossman and Helpman (1996). The *policy* π^p of party p is denoted by a campaign finance level C^p, and an electoral platform consisting of feasible allocation of transfers $\{q_i^p\}$ satisfying : $\sum_i \mu_i q_i^p \leq B, q_i^p \geq 0$ for all i. Let Π denote the set of all policies.

Voting behavior is subject to a number of different influences:

(a) Loyalties and Campaign Spending: Voters have *ex ante* loyalties to the two parties, the result of past history. They often care about candidate characteristics such as their gender, caste and personal reputation. They are also subject to various means of persuasion via electoral campaign meetings and advertisements organized by the two parties. These affect voting propensities which are heterogenous both within and across groups. A group-i voter's *ex ante* propensity ϵ_i to vote for the L candidate is drawn from a uniform distribution centered at l_i over a range of width $\frac{1}{\sigma_i}$ (so it has a constant density of σ_i). This distribution is shifted to the right by $H(C^L - C^R)$, where C^L, C^R denote campaign spending by parties L, R respectively, and H is a parameter of effectiveness of campaign finances in mobilizing votes, as in Grossman-Helpman (1996). Campaign funds are raised from a lobby representing the elite group, in exchange for tailoring the proposed benefit allocation in its favor. This is how the party gets 'captured' by the elite. The parameter H will end up determining the extent of local elite capture. We shall refer to it as the 'capture' parameter. Besides the campaign management skill of the candidates, it depends on wealth inequality and poverty within the village (e.g., because a poorer and less educated citizenry is less informed about public affairs, more amenable to persuasion, and considerations based on historical loyalty, social identity and candidate 'image').[8]

The parameter l_i represents the mean loyalty of group-i voters to party L, formed on the basis of historical, ethnic or gender identity. σ_i represents the extent to which voters in group i are amenable to 'swing'. It is assumed small enough (i.e., the range of loyalties is large enough) to ensure that both parties obtain positive vote shares.

The remaining set of influences pertain to voters that are politically 'aware', 'engaged' and strategic:

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[8]See Bardhan and Mookherjee (2000) for further elaboration of this point.

(b) Non-Instrumental Voting: In standard probabilistic voting models, households are presumed to vote based on a comparison of their expected utilities under the policies espoused by the two parties. A voter from group i will be more inclined to vote for L when $N_i^L - N_i^R$ is larger, where $N_i^p \equiv u(\omega_i + q_i^p)$. In a large population no voter expects to be instrumental, i.e., make a difference to the outcome of the election. One interpretation of voting behavior is that voters seek to 'express' their personal evaluation of the issues. In the remote event that their vote is pivotal, this way of voting would be consistent with their preferences over the outcome of the election.

(c) Instrumental Voting: In a clientelistic setting, parties have the capacity to condition the delivery of transfers to any household depending on how it votes. Specifically, *party p clientelism* involves party p withholding private transfers to a group-i voter with a probability z_i^p if this voter does not vote for party p, conditional on party p being elected. z_i^p is a parameter representing the strength of party p's clientelistic control over voters in group i. The enforcement of such a strategy is fraught with difficulty with a secret ballot. The literature on clientelism has described a number of ways that this is resolved in practice. We therefore abstract from the information and enforcement required for the implementation of these clientelistic strategies. It is plausible that the extent of clientelistic control depends on how well-organized the party 'machinery' is, and how skilled electoral candidates are in managing their respective party machines.[9]

Each voter therefore perceives that his entitlement to transfers promised in the electoral platform of a given party could be jeopardized if he did not vote for that party. Accordingly voting has an instrumental impact on his own expected utility, even if it has no impact on the overall electoral outcome. This provides a third source of motivation for voting, as we now describe.

Focusing for the time being on the instrumental motive alone, a voter in group i obtains an expected utility of

$$I_i^L \equiv \gamma_L u(\omega_i + q_i^L) + (1 - \gamma_L)[z_i^R u(\omega_i) + (1 - z_i^R)u(\omega_i + q_i^R)] \tag{4}$$

of voting for party L where γ_L denotes the voters' probability assessment that party

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[9]Sarkar (2014) and Bardhan and Mookherjee (2018) describe how pre-election rallies organized by rival political parties represent a mechanism by which citizens 'reveal' their political loyalties to party operatives. Specifically, parties can condition distribution of post-electoral benefits on attendance of citizens in their respective political rallies. This induces citizens to attend the rally of the party they intend to vote for in the election.

L will win the election. The corresponding expected utility of voting for party R is:

$$I_i^R \equiv \gamma_L[z_i^L u(\omega_i) + (1 - z_L^i)u(\omega_i + q_i^L)] + (1 - \gamma_L)u(\omega_i + q_i^R) \tag{5}$$

Accordingly she will be more inclined to vote for party L on instrumental grounds when

$$I_i^L - I_i^R \equiv \gamma_L z_i^L[u(\omega_i + q_i^L) - u(\omega_i)] - (1 - \gamma_L)z_i^R[u(\omega_i + q_i^R) - u(\omega_i)] \tag{6}$$

is larger.

We now describe how each household votes, as a result of the confluence of all of the above considerations. Actual voting behavior blends non-instrumental and instrumental voting motives with weights $\theta \in (0,1)$ and $1 - \theta$ respectively, to which are added the effects of loyalty and persuasive content of the respective campaigns.[10] Household i with loyalty ϵ_i towards party L votes for L if and only if

$$\theta[N_i^L - N_i^R] + (1 - \theta)[I_i^L - I_i^R] + h[C^L - C^R] + \epsilon_i > 0 \tag{7}$$

The resulting vote share of L will be

$$S_L(\gamma^L; \pi^L, \pi^R) \equiv \quad \tfrac{1}{2} + \sum_i \mu_i \sigma_i l_i + h(C^L - C^R) + \sum_i \mu_i \sigma_i \{\theta[u(\omega_i + q_i^L) - u(\omega_i + q_i^R)] $$
$$+ (1 - \theta)\big(\gamma_L z_i^L[u(\omega_i + q_i^L) - u(\omega_i)] - (1 - \gamma_L)z_i^R[u(\omega_i + q_i^R) - u(\omega_i)]\big)\}$$

where $h \equiv H \sum_i \mu_i \sigma_i$. A rise in H, the effectiveness of campaign spending, results in a equiproportionate rise in h, since μ_i and σ_i are fixed parameters. Hence in what follows we can equivalently refer to h as the capture parameter.

Note that the instrumental motive will depend on voters' assessment of the likelihood γ_L of the election's outcome. This reflects the forward-looking nature of voters. Voters will be more willing to 'sell' their vote to the party that is more likely to win. Hence voters have to 'pick winners', a feature absent from non-instrumental voting. It implies that the model has to be closed by specifying how voters form these beliefs. We shall look for equilibria in which these beliefs are self-confirming.

S_L affects but does not entirely determine election outcomes. There is some aggregate uncertainty represented by a random variable χ reflecting vote counting errors, randomness in voter turnout such that party L wins if and only if $S_L + \chi > 0$. This induces a smooth monotone relationship between vote shares and probability

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[10]Alternatively a fraction θ of voters within each group are not subject to clientelistic control of either party: this will generate the same expression for vote shares.

of winning: party L wins with a probability $\phi(S_L)$, where ϕ is a strictly increasing, smooth function mapping $[0, 1]$ to itself. Moreover, there is a finite upper bound $\bar{\phi}'$ to the slope of this function. The existence of some aggregate uncertainty regarding the outcome of the election will generate this property.

We close the model by requiring voters' beliefs regarding the probability of L winning to be self-fulfilling. Given electoral policies (π^L, π^R), the *equilibrium probability of party L winning* $\gamma_L \equiv \gamma(\pi^L, \pi^R)$ is a fixed point of the function $\phi(S_L(.; \pi^L, \pi^R))$:

$$\gamma_L = \phi(S_L(\gamma_L; \pi^L, \pi^R)) \tag{8}$$

In general there could be multiple equilibria of a 'sunspot' variety: higher expectations of party L could be self-fulfilling. To simplify the analysis we abstract from such phenomena, by assuming that[11]

$$\bar{\phi}' < \frac{1}{2(1 - \theta)[u(\omega_1 + B) - u(\omega_1)] \sum_j \mu_j \sigma_j}. \tag{9}$$

This can be viewed as imposing a minimum degree of electoral uncertainty. It implies that (8) is a contraction mapping, ensuring existence of a unique fixed point.

2.3   Pure Clientelism: $h = 0$

We start by considering the special case where $h = C^L = C^R = 0$, i.e., electoral policies do not include campaign mobilization as a way of raising votes, and accordingly there is no scope for special interest capture. This enables us to focus on understanding the implications of clientelism in isolation from capture. This also helps define outside options of the parties when they negotiate with special interest groups, when we consider the full-blown model in the next section.

Proposition 1 *Assume $h = C^L = C^R = 0$. There is a unique equilibrium which is characterized as follows. In this equilibrium, party p selects transfers $\{q_i^p\}$ which*

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[11]See Sarkar (2014) and Bardhan and Mookherjee (2018) for versions of the clientelism model where this condition does not hold and multiple equilibria exist.

maximizes the quasi-utilitarian welfare function

$$\sum_i \mu_i \sigma_i [\theta + (1-\theta)\gamma_p z_i^p] u(\omega_i + q_i) \tag{10}$$

over the set of feasible allocations, taking as given γ_p, the equilibrium probability of party p winning.

Proof: (9) ensures that the mapping $\phi(S_L(.; \pi^L, \pi^R))$ is a contraction, therefore it has a unique fixed point. The Implicit Function Theorem ensures that the equilibrium probability $\gamma_L(\pi^L, \pi^R)$ that party L wins is a smooth function of policy choices π^L, π^R of the two parties. The derivative of this with respect to private transfer to group i by L is:

$$\frac{\partial \gamma_L}{\partial q_i^L} = J^L \mu_i \sigma_i \{\theta + (1-\theta)\gamma_L z_i^L\} u'(\omega_i + q_i^L) \tag{11}$$

where

$$J^L \equiv \frac{\phi'(S_L)}{1 - \phi'(S_L)(1-\theta)\sum_j \mu_j \sigma_j [z_j^L(u(\omega_j + q_j^L) - u(\omega_j)) + z_j^R(u(\omega_j + q_j^R) - u(\omega_j))]} \tag{12}$$

(9) assures us that the denominator of (12) is positive. Hence (11) has the same sign as $[\mu_i \sigma_i \{\theta + (1-\theta)\gamma_L z_i^L\} u'(\omega_i + q_i^L)]$, implying that in equilibrium party L chooses a benefit allocation which maximizes a quasi-utilitarian welfare function which assigns a welfare weight of $\delta_i = \mu_i \sigma_i \{\theta + (1-\theta)\gamma_L z_i^L\}$ to group i. A similar argument applies to party R. ∎

Proposition 1 implies that the welfare weight assigned by party p to private transfers to voters of type i equals $\sigma_i [\theta + (1-\theta)z_i^L \gamma_L]$, the sum of the non-instrumental and instrumental voting effects, weighted by the extent σ_i that voters of type i are amenable to 'swing'.

It has the following implications. As a benchmark consider first the case where there is no clientelism: $z_i^p = 0$ for all i, p. If all voter groups are equally amenable to swing ($\sigma_i = \sigma_j$, for all i, j), both parties converge to the utilitarian welfare optimal policy. As is well-known, policy distortions arise when the swing propensity varies across voter groups, whereupon those with higher swing propensities are more favored. However, policy convergence continues to obtain in this case.

The probability that party L wins is then determined by intrinsic loyalties of voter groups:

$$\gamma_L^* = \phi(\frac{1}{2} + \sum_i \mu_i \sigma_i l_i) \tag{13}$$

Without loss of generality suppose party L commands greater loyalty on average: $\sum_i \mu_i \sigma_i l_i > 0$ and is thus more likely to win: $\gamma_L^* > \frac{1}{2}$.

Against this benchmark we can evaluate the implications of clientelism. Suppose that the clientelistic control parameters z_i^p are non-zero. Party p assigns welfare weight $\sigma_i[\theta + (1-\theta)\gamma_p z_i^p]$ to group i. This results in an additional policy distortion if and only if voter groups vary in the extent to which they are subject to clientelistic control: i.e., z_i^p varies with i. If z_i^p is independent of i, both parties continue to assign the same relative welfare weight $\frac{\sigma_i}{\sigma_j}$ to groups i and j, whence equilibrium policies are unaffected by clientelism. If both parties exercise the same clientelistic control, vote shares are also unaffected and party L continues to win with probability γ_L^*. If party L exercises more (resp. less) control, its vote share increases and the contest becomes more (resp. less) lop-sided.

But with **non-uniform clientelistic control** where z_i^p varies with i, groups more amenable to clientelistic control receive a higher welfare weight. Moreover, if one party is more favored to win the election, its promised transfers will be more effective in raising votes – it will then be more inclined to provide such favorable treatment, which reinforces its chances of winning even further. Even if both parties have the same capacity to engage in clientelism (i.e., $z_i^L = z_i^R = z_i$ for all i), party L (which commands higher voter loyalty) will exhibit a stronger clientelistic distortion, skewing allocations more in favor of groups with high z_i. Hence policy convergence will no longer obtain. Moreover the scope for clientelistic transfers will reinforce party L's electoral advantage, making the political contest even more lop-sided (i.e., L will win with probability higher than γ_L^*).

2.4 Capture-cum-Clientelism

Now we introduce campaign finance provided to the parties by local elites which enable capture, *a la* Grossman-Helpman (1996). Suppose the wealthiest group E funds a lobby which negotiates with each party to modify their proposed allocation in exchange for contributions to their campaign funds. The parameter h is positive, which implies that parties are able to use campaign funds to mobilize more

votes. They are therefore willing to deviate from the allocation they propose in the pure clientelism case as long as the loss of votes resulting from that deviation is compensated by the additional votes generated by the campaign contributions.

As in the Grossman-Helpman theory, we assume that: (a) utility is quasi-linear: the elite group's utility equals $u(\omega_E + q_E) - C$ where C denotes the campaign contribution; (ii) the lobby makes a take-it-or-leave-it offer of a policy proposal to each party, and (iii) the *influence* rather than *electoral* motive for campaign finance is operative, i.e., the parties' participation constraints are binding at the optimum. Condition (iii) implies the vote shares will be unaffected by the deal offered by the elite interest group. Hence party p will win with the same probability as in the equilibrium of the no-capture case studied in Proposition 1, denoted by $\hat{\gamma}_p$.

If the probability of party p winning is held constant at $\hat{\gamma}_p$, the objective of party p effectively reduces to the component of the vote share S_L that depends on its own electoral policy $\pi^p = (\{q_i^p\}, C^p)$, which equals

$$V^p(\pi^p) \equiv hC^p + \sum_i \mu_i \sigma_i \{\theta + (1 - \theta)\hat{\gamma}_p z_i^p\} u(\omega_i + q_i^p) \qquad (14)$$

and the participation constraint for party p reduces to

$$V^p(\pi^p) \geq V^p(\hat{\pi}^p) \qquad (15)$$

where $\hat{\pi}^p$ denotes $(\{\hat{q}_i^p\}, \hat{C}^p = 0)$ the equilibrium policy of p in the no-capture case. The reason is that in the absence of any deal between party p and the interest group, the former will receive no campaign contributions and would choose the no-clientelism equilibrium allocation policy $\{\hat{q}_i^p\}$ described in Proposition 1 to maximize its chances of winning. Constraint (15) therefore reduces to

$$C^p \geq C^p(\{q_i^p\}) \equiv h^{-1} \sum_i \mu_i \sigma_i \{\theta + (1 - \theta)z_i^p \hat{\gamma}^p\} [u(\omega_i + q_i^p) - u(\omega_i + \hat{q}_i^p)] \qquad (16)$$

$C^p(\{q_i^p\})$ represents the minimum campaign contribution necessary to persuade party p to agree to select the allocation $\{q_i^p\}$.

The elite will propose the following electoral platforms $(\{q_i^L\}, \{q_i^R\})$ combined with campaign contributions (C^L, C^R) to the two parties to maximize the expected utility of its members :

$$\mu_E[\hat{\gamma}_L u(\omega_E + q_E^L) + (1 - \hat{\gamma}_L)u(\omega_E + q_E^R)] - C^L - C^R \qquad (17)$$

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subject to constraint (16) for both p. With both participation constraints binding ($C^p = C^p(\{q_i^p\})$), vote shares and thus the probability of winning will remain the same as in the no-capture case. Upon substituting $C^p = C^p(\{q_i^p\})$, the interest group's problem reduces to choosing allocations ($\{q_i^L, q_i^R\}$) to maximize

$$\sum_{p=L,R} [\sum_i \mu_i \sigma_i [\{\theta + (1-\theta)\hat{\gamma}_p z_i^p\} u(\omega_i + q_i^p)] + \mu_E h \hat{\gamma}^p u(\omega_E + q_E^p)] \qquad (18)$$

Proposition 2 *When clientelism and capture are both present, the equilibrium allocation $\{q_i^p\}$ of party p maximizes*

$$\sum_i \mu_i \sigma_i [\{\theta + (1-\theta)\hat{\gamma}_p z_i^p\} u(\omega_i + q_i^p)] + \mu_E h \hat{\gamma}^p u(\omega_E + q_E^p) \qquad (19)$$

over the set of feasible allocations, provided only the influence motive operates (i.e., party participation constraints bind).

Hence capture raises the welfare weight of the elite group E in party p's objective by $h\hat{\gamma}^p$, while leaving the welfare weights of all other groups unchanged. The welfare weights for different groups are as follows:

$$\begin{aligned}
\delta_i &= \sigma_i \{\theta + (1-\theta)\hat{\gamma}_p z_i^p\} \quad \text{for all } i \neq E \\
\delta_E &= \sigma_i \{\theta + (1-\theta)\hat{\gamma}_p z_E^p\} + h\hat{\gamma}_p
\end{aligned} \qquad (20)$$

These expressions summarize the political distortions arising from three different sources: swing voters (σ_i), clientelism (z_i^p) and capture (h). Observe that the distortions resulting from clientelism and capture for the more 'popular' party L are compounded by lack of political competition (represented by how high $\hat{\gamma}_L$ is), and party L is more susceptible to these distortions.

We now describe implications of capture and clientelism for benefit targeting patterns.

Corollary: *(i) A rise in capture (i.e., h) raises the share of the elite group and reduces the share of all other groups.*

(ii) If clientelism is uniform across all groups: $z_i^p = z_j^p = z^p$ for all i, an increase in clientelism (i.e., z^p) lowers the share of the elite group and raises the share of all other groups.

(iii) If z_i^p rises while all other parameters are unchanged, the share of group i rises and every other group falls.

Proof: (i) A rise in h raises δ_E while leaving the welfare weight of every other group unchanged. Hence $\frac{u'(\omega_i + q_i^P)}{u'(\omega_j + q_j^P)}$ is unchanged for every pair of non-elite groups $i, j \neq E$, implying that q_i^p and q_j^p must move in the same direction. We claim they must all fall. Suppose otherwise, and they all rise (or remain unchanged). The budget constraint requires q_E^p to fall (or remain unchanged). Then $\frac{u'(\omega_i + q_i^P)}{u'(\omega_E + q_E^P)}$ must fall (or remain unchanged). Since this ratio equals $\frac{\delta_E}{\delta_i}$ we obtain a contradiction. (ii) Given a common $z_i^p = z^p$, it follows that for any $i \neq E$:

$$\frac{\delta_E}{\delta_i} = \frac{h\hat{\gamma}_p}{\sigma_i\{\theta + (1-\theta)\hat{\gamma}_p z^p\}} + \frac{\sigma_E}{\sigma_i} \tag{21}$$

falls as z^p rises. (iii) is obvious as a rise in z_i^p for some group i while all other groups is unchanged raises δ_i while leaving δ_j unchanged for all other groups. ∎

Corollary (i) states that a rise in capture makes transfers more regressive: raising the share of the elite and lowering it for all non-elites. (ii) states that if clientelistic control is uniform across all groups, a rise in clientelism has the opposite effect: transfers become more progressive. The third corollary examines the effect of non-uniform clientelism, which raises the share of groups over which parties exercise greater clientelistic control.

3   Explaining Observed Impacts of Political Reservations in West Bengal

Recall the principal findings of Bardhan, Mookherjee and Parra-Torrado (BMP) (2010) from the West Bengal experience concerning the intra-village share of SC/ST groups of benefits disbursed by local governments:

Fact 1: *The SC/ST share was smaller in villages with greater land inequality and/or higher landlessness among SC/ST groups.*

Fact 2: *The SC/ST share fell in villages where the position of GP pradhan was reserved for a female candidate, or for a joint female-SC/ST candidate.*

Fact 3: *The SC/ST share rose in villages where the position of GP pradhan was reserved for an SC candidate.*

Fact 4: *The negative impact of the women reservation on the SC/ST share was attenuated in villages with greater land inequality and/or higher SC/ST landlessness.*

We interpret these facts through the lens of the model developed in the previous section. In particular, we depart from Chattopadhyay and Duflo (2004) by not explaining these results by policy preferences of the elected candidates, owing to Fact 2: it is not obvious why women should have an anti-SC/ST bias. In particular, one would not expect women SC/ST candidates to exhibit a bias against SC/ST households.

We can reject the hypothesis that neither capture or clientelism was present. Otherwise, both parties would converge to the same policy platforms, characterized by welfare weight of σ_i for group i, which would be unaffected by gender or caste-based reservations, contrary to Facts 2 and 3.

Fact 1 indicates the presence of capture ($h > 0$), under the plausible assumption that poorer groups are more vulnerable to clientelistic control (i.e., z_i^p is non-increasing in ω_i). The reason is the following. If capture were absent ($h = 0$), we would have a case of pure clientelism. In a village with higher inequality (and/or poverty among SC/STs), the endowment of the SC/ST group would be smaller and of the elite group would be larger. Both the direct effect of the change in endowments and the associated variation in clientelistic control would imply a higher share of SC/ST groups in villages with higher inequality, contrary to Fact 1.

BMP found the impact of the women reservations (Fact 2) was stronger when women pradhans elected to a reserved seat had no prior political experience. Moreover, most women elected were on reserved posts. This suggests that gender reservations exercised an impact on allocations by lowering political experience of the pradhan. Lack of experience would be likely to lower clientelistic control (z_i^p) which requires access to information about voter characteristics and behavior, and the capacity to administer selective rewards and punishments. Campaign mobilization efforts of the party would also become less effective, which would lower the capture parameter h. Hence we would expect a simultaneous weakening of clientelism and capture. Corollaries (i) and (ii) indicate these would exert opposite effects on the share of non-elite groups, suggesting that Fact 2 would be observed if the clien-

telism effect dominates. Part (a) of the following result confirms this conjecture. Intuitively, clientelism induces progressive targeting, while capture induces regressive targeting, and we can explain the observed impact of gender reservations if they weaken clientelism more than capture. In particular, a pure capture model would not be able to explain Fact 2.[12] Therefore explaining Facts 1 and 2 at the same time require capture and clientelism to co-exist.

Part (b) considers the case of SC reservations, which usually tend to elect a male leader of the SC group (unless the pradhan position is jointly reserved for a woman SC candidate, in which case Fact 2 applies). This would likely be associated with superior clientelistic control over the SC group, while control over other groups as well as effectiveness of campaign management (i.e., h) is lower compared to an unreserved (typically non-SC candidate). It then follows from Corollary (iii) that the SC-ST benefit share would rise.

Proposition 3 *(a) Suppose women elected to a reserved pradhan position are less experienced, resulting in a drop in z_i^p to $\tilde{z}_i^p = \phi z_i^p$ for all i, where $\phi \in (0,1)$, and in a drop in h which is sufficiently small. If in addition the elite group is less or equally vulnerable to clientelistic control than other groups ($z_E^p \leq z_i^p$ for all i), women reservations would cause the SC/ST share of benefits to decline.*

(b) Suppose an SC person elected to a SC-reserved pradhan position results in an increase in clientelistic control over the SC community, while control over all other communities as well as h falls or remains unchanged. Then SC reservations will cause the SC/ST share of benefits to increase.

Proof: (a) Consider first the case where h remains unchanged. Then reserving the pradhan post for a woman would cause the welfare weight of the elite group relative to any other group i to equal

$$\frac{\delta_E}{\delta_i} = \frac{h\hat{\gamma}_p}{\sigma_i\{\theta + (1-\theta)\hat{\gamma}_p\phi z_i^p\}} + \frac{\sigma_E\{\theta + (1-\theta)\hat{\gamma}_p\phi z_E^p\}}{\sigma_i\{\theta + (1-\theta)\hat{\gamma}_p\phi z_i^p\}} \qquad (22)$$

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[12] A pure capture model with no clientelism ($z_i^p = 0$ for all i) would predict that women reservations would lower the relative elite-nonelite welfare weight $\frac{\delta_E}{\delta_i} = \frac{h\hat{\gamma}^p + \theta\sigma_E}{\theta\sigma_i}$, and hence raise the SC-ST share.

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The first term on the RHS is decreasing in ϕ, while $z_E^p \leq z_i^p$ implies the second term on the RHS is decreasing in ϕ. Therefore women reservation causes $\frac{\delta_E}{\delta_i}$ to rise for every $i \neq E$, which leads the share of each non-elite group to fall. The same result obtains if gender reservations lower h, but this change is sufficiently small.

(b) follows since the assumptions imply that $\frac{\delta_i}{\delta_j}$ rises for all $j \neq i$, where i denotes the SC group. ∎

Next, consider the question whether the model can also explain Fact 4. Suppose gender reservations leave h unchanged and only alter the clientelistic parameters. Conversely suppose higher inequality raises h but leaves clientelistic control parameters unchanged. Also for simplicity consider the case where every non-elite group $i \neq E$ has the same clientelistic control parameter z_N^p, so the relative welfare weight of two non-elite groups $\frac{\delta_i}{\delta_j} = \frac{\sigma_i}{\sigma_j}$ is unaffected by the reservation. If $u(c) = \log c$, we obtain the following expression for q_i^p as a function of the relative welfare weight $\frac{\delta_E}{\delta_i}$ of groups E and i for any $i \neq E$:

$$q_i^p = \frac{\omega_E + \frac{B}{\mu_E} + \frac{1}{\mu_E}\sum_{j\neq E}\{\mu_j\frac{\sigma_i}{\sigma_j}\omega_i - \omega_j\} - w_i\frac{\delta_E}{\delta_i}}{\frac{1}{\mu_E}\sum_{j\neq E}\mu_j\frac{\sigma_i}{\sigma_j} + \frac{\delta_E}{\delta_i}} \tag{23}$$

We see that the allocation to the non-elite group i is decreasing and convex in $\frac{\delta_E}{\delta_i}$. Since $\frac{\delta_E}{\delta_i}$ is increasing in h, it follows that the negative impact of the gender reservation on the allocation to the non-elite group would be attenuated in villages with a higher value of h. Intuitively, in high inequality villages, the SC/ST share is smaller to begin with owing to greater elite capture. When the pradhan post is reserved for a woman, there is less scope for the share to fall even further. This is an instance where a fact is explained by the *interaction* between capture and clientelism.

4   Concluding Comments

We have presented a theory of political clientelism-cum-capture, which generates a number of testable implications for allocation of government benefits. To keep the analysis simple and tractable, the model deliberately abstracted from presence of public goods, possibility of multiple equilibria, commitment problems or other

dynamic considerations.[13] The empirical evidence relating to targeting patterns and the impact of political affirmative action programs from rural West Bengal is consistent with the predictions of the model. We argued these empirical patterns are difficult to reconcile with standard models of redistributive politics, such as Downsian, citizen candidate, elite capture theories, or combinations of these. They can be explained by the theory of clientelism-cum-capture: reserving pradhan posts for women resulted in a decrease in clientelism (and perhaps also capture) owing to the political inexperience of women elected to these posts. In contrast, the SC reservations resulted in increased clientelism and reduced scope for elite capture. This hypothesis suggests that the adverse effect of women reservations on targeting shares of SC/ST and female-headed households will decline over time as elected women candidates gain political experience (an issue explored by Beaman et al (2008)), while the positive effects of the SC reservations will endure.[14]

This interpretation of the evidence suggests that targeting ratios alone cannot serve as a reliable measure of welfare effects. On the face of it the reservations of pradhan positions for women were associated with a decline in targeting performance of local governments measured by proportion of benefits flowing to poor and vulnerable groups within the village. At the same time reservations for SC/ST candidates were associated with an improvement in targeting. However, if our hypothesis is true that the effects of the women reservations resulted from a decline in clientelism and capture owing to the inexperience of elected women officials, the decline in targeting ratios represented a reduction in political distortions, and may thus have resulted in a net welfare improvement. For instance, owing to clientelistic distortions the equilibrium allocation in the absence may have involved an excessive allocation of benefits to specific SC/ST groups, at the expense of more needy groups.[15] Conversely, the increased targeting to SC/ST groups as a result of

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[13]These issues are discussed in some detail in Bardhan and Mookherjee (2018).

[14]However, the specific mechanism described in Beaman et al (2008) is different, based on greater credibility of women leaders in the eyes of local citizens as the former spend more time in office.

[15]This is illustrated by Ruud (1999)'s ethnographic account of two West Bengal villages in Bardhaman district. Ruud shows how the Left Front forged a close relationship with a particular scheduled caste, the *bagdis*, favoring them in the distribution of land titles and subsidized IRDP loans disproportionate to their demographic shares, while other scheduled castes such as the *muchis* received substantially less. The *bagdis* received 23-24% of land titles and IRDP loans, while comprising only 7.6% of the village population; *muchis* and scheduled tribes (*santals*) received between 5–7% while comprising 5% of the population each. As a result the *bagdis* almost

the SC/ST reservations may be a manifestation of welfare losses resulting from an enhancement of this misallocation.

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doubled their (per household) ownership of agricultural land over the past three decades, and controlled by the 1990s nearly the same amount of land as the previous dominant caste, the *aguris*. Both these groups owned approximately 29% of land in the village by 1993, in contrast to 14% and 47% respectively in 1960. The *muchis* owned less than 3% of the land, both in 1960 and 1993.

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