



Exogenous shocks and electoral outcomes

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Abstract

Do voters react to shocks that are beyond the control of politicians? We consider the case of the assassination of a senior politician in India, in the middle of an election. We find that Congress(I), the party of the assassinated leader, gained significantly from this event through increased vote shares and improved likelihood of victory. Sympathy towards Congress(I) and changed perceptions about governing abilities of the contesting parties in the post-assassination environment played crucial roles in determining the final outcomes of the election. Our results imply that even in environments where voters are expected to make their decisions based on prior performance of parties, an unanticipated, random, exogenous event can affect voting behaviour.

Keywords Exogeneous shocks · Assassination · Election outcomes

JEL Classification P16 · D72 · H12

1 Introduction

Elections, whereby citizens elect candidates of their choice to represent them, are an integral feature of any democracy. Choices reflect the opinions and beliefs that people harbour about the contesting candidates. In a model of *retrospective* voting, the behaviour and choices made by voters is based on their evaluations of the performance or capabilities of the different candidates (Downs, 1957; Campbell et al., 1969; Fishbein & Coombs, 1974; Baker & Walter, 1975; Lee et al., 2017). This allows citizens to hold politicians

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accountable and reward or punish them in the ballot box depending on their performance. They can select competent and honest leaders (Fearon, 1999) and sanction poor performance (Ferejohn, 1986).¹ If voters choose to vote retrospectively, any exogenous shock, which is beyond the control of the politician and one which candidates and/or political parties cannot respond to, should not affect voting behaviour.²

There is now, however, a growing literature that finds that such exogenous shocks do affect voting behaviour and electoral outcomes. Examples include both natural disasters (Eriksson, 2016; Celeste Lay, 2009; Healy & Malhotra, 2009; Gasper & Reeves, 2011; Chen, 2013; Cole et al., 2012; Akarca & Tansel, 2016; Gallego, 2018; Klomp, 2020; Masiero & Santarossa, 2021) and (external) economic shocks (Ebeid & Rodden, 2006; Leigh, 2009; Wolfers, 2002; Kayser & Peress, 2012). Even with exogenous shocks like natural disasters, voters can attribute responsibility to the government/incumbent (Ashworth et al., 2018). For example, governments can be blamed for mis-management and lack of preparation, which increases the intensity of the shock; alternatively governments could be rewarded for what is perceived by the voters for doing things right and help cushion the impact of such shocks. More recently the literature has used clean exogenous shocks, where it is plausible that voters cannot attribute responsibility to incumbent governments. This literature investigates how events completely unrelated to public affairs influence voting decisions. Examples include the electoral impact of local football games (Healy et al., 2009; Healy et al., 2010; Fowler & Montagnes, 2015; Miller, 2013; Lee et al., 2017), lottery winnings (Bagues & Esteve-Volart, 2016) and UFO sightings before elections (Kitamura, 2022) as well as those of random events like shark attacks (Achen & Bartels, 2016; Fowler & Hall, 2018) and wolf attacks (Clemm von Hohenberg & Hager, 2022). These events are out of the scope of governments' responsibilities and hence, logically no response would be expected. In this paper, we add to this literature by examining the electoral impacts of an assassination in the middle of an election.

In this paper, we examine the electoral effects of the assassination of Rajiv Gandhi, a senior politician and a party leader, in the middle of the 1991 National Parliamentary elections in India. India is perhaps the only country where elections take place in phases. However, votes are counted and the results are declared only after voting is completed in *all* phases. The entire exercise of conducting elections, assigning constituencies to phases and planning the logistics are carried out by the Election Commission of India or ECI, which is an independent body (Andersen, 1991; Gilmartin, 2009; ECI, 2014; Khalil et al., 2019). The assignment of constituencies to phases is based on logistics, examination schedules, crop harvesting cycles and are orthogonal to prior election outcomes (discussed in more detail in Sect. 3.3). Political parties and candidates cannot influence these assignments. In 1991, the general election in India was planned to be conducted over four phases. After the first two phases, Rajiv Gandhi, the leader of Congress(I), one of the three major parties competing to form the next government, was assassinated. The ECI rescheduled the polling of the remaining two phases (which we call the post-assassination phase): they were held 3 weeks later than originally scheduled. The constituencies that had already voted prior to the assassination (the pre-assassination phase) were not required to vote again. The final results were announced after all phases had completed voting.

¹ See Healy and Malhotra (2013) for a survey of the literature on retrospective voting.

² The idea is aptly summarized by Achen and Bartels (2004, page 8): *to the extent that voters engage in sophisticated attributions of responsibility they should be entirely unresponsive to natural disasters* (an exogenous shock, beyond the control of the politicians).

Did the assassination affect electoral outcomes, particularly the electoral fortunes of Rajiv Gandhi's party, the Congress(I)? The rules of the Indian election system and the election code of conduct, ensured that the contesting candidates (and parties) could not "react" to this shock by announcing new policies, changing their election manifesto, fielding new candidates or choosing when polling can be re-scheduled. However, the political parties were allowed to campaign in the period between the assassination and the rescheduled polling of the remaining phases. The duration of the campaign for the post assassination seats were much longer than it would have been without the assassination. Campaign narratives could be and were changed post-assassination.

Our results show that Congress(I) gained significantly from this event through increased vote shares and improved likelihood of victory. This was in contrast to opinion polls conducted prior to Rajiv Gandhi's assassination which predicted that Congress(I) would lose the elections. The change in outcomes, particularly since parties and candidates were unable to respond in any other way, suggests that the emergence of the sympathy factor due to the assassination and changes in voters' perceptions in the post assassination environment about the governing abilities of different parties involved, played a crucial role in determining the final outcomes of the election. Our results show that even in environments where voters engage in retrospective voting, an unanticipated, random, exogenous event can affect voting behaviour and election outcomes.

Our paper contributes along two dimensions. *First*, it contributes to the small but growing literature on how emotions, and in particular public trauma, can affect election outcomes.³ Rajiv Gandhi's assassination gives us a clean test of how traumatic events can affect election outcomes. *Second*, our results show how in response to an exogenous shock (where attribution of blame is difficult), well-designed campaigns that change narratives, can affect voter perceptions and hence, election outcomes.

The paper that is closest to our approach is Montalvo (2011), who examines whether the Madrid terrorist attack on 11th March, 2004 causally affected electoral outcomes.⁴ Given that the attack happened only three days prior to the election, he is able to divide the voters into two groups: the group that knew about the terrorist attacks before they voted (the domestic voters) and the other group that did not (Spanish nationals abroad). The latter could vote several days prior to the actual date of the election. Montalvo (2011) then uses a difference-in-difference approach to estimate the causal effect of the terrorist attack. To address the possible criticism that Spanish residents abroad are not necessarily a random subset of all Spanish voters, he relies on the assumption of parallel trends. In our case, voters who voted prior to the assassination are a random subset of all voters as the assignment of seats to phases was quasi-random. We show that outcomes in the previous elections did not have a statistically significant effect on phase assignment. Additionally we show that the assumption of parallel pre-trends is also validated (see Sect. 4.1 below).

The rest of the paper is organized as follows. Sect. 2 provides details on the 1991 national parliamentary elections in India. Sect. 3 describes the data, the descriptive statistics and the empirical specification. Our main empirical results (relating to the effect of the assassination on electoral outcomes) are presented in Sect. 4. Potential channels through which the assassination is likely to have affected the electoral outcomes are discussed in

³ Note that when we talk of trauma, we mean trauma associated with public events. Voter behaviour could of course be affected by private events that affect the lives of the voters, which in turn affect voter intentions. See for example Liberini et al. (2017). Jaspersen (2006) argues that cases of political tragedy motivate broader questions about the impact of emotions on electoral outcomes.

⁴ See also (Bali 2007; Montalvo 2012).

Sect. 4.3. Sect. 4.4 presents additional results, including the effect of the assassination on constituency level outcomes (turnout and margin). Finally Sect. 5 concludes.

2 Parliamentary democracy in India and background to the 1991 elections

India has a parliamentary electoral system, and elections to the national parliament (or the Lok Sabha) are typically held once every five years.⁵ Electoral units are called parliamentary constituencies. Each state is divided into several constituencies in proportion to the size of its electorate, resulting in a total of 543 constituencies, each of which elects its Member of Parliament by plurality voting. Elections follow the Westminster structure with the candidate winning the most votes declared the winner. The party (or alliance, or coalition) winning more than half the seats forms the Government.

Given the size of the electorate, elections in India are held in multiple phases. Until 1989, the election was held in two/three phases over four to ten days. From the 1991 election onwards, the number of phases and the total length of the election increased. The assignment of seats to phases (i.e., the schedule of polling) is determined by the Election Commission of India (ECI), which is an autonomous federal authority that is responsible for conducting elections in India. T. N. Seshan, the 10th Chief Election Commissioner of India, implemented several changes to boost the transparency of elections in the country (Gilmartin, 2009). Among the changes introduced was the deployment of federal security forces to stave off violence during elections and maintain impartiality of electoral procedures. The election schedule is typically determined by factors such as logistics (ease of movement of central reserve police force personnel and electoral observers), examination schedules, weather, and crop harvesting cycles etc. (ECI, 2014; Khalil et al., 2019), which are orthogonal to prior election outcomes. The assignment of seats to phases could be thought of as quasi-random. The schedule is often such that different constituencies in the same state can go to the polls in different phases, and this assignment varies across elections. We discuss the details of phase assignment in Sect. 3.3.

This assignment of constituencies to different phases is unique to India. The phased scheduling of elections however, results in lengthening the total duration of the election (ECI, 2014). Importantly, campaigning can continue in seats that have not voted, even if seats nearby have completed voting. Votes are counted and results are announced only after everyone has voted i.e., voting in *all* phases is complete.

2.1 The 1991 national parliamentary elections

Rajiv Gandhi was the Prime Minister of India and Congress(I) was the party in power during the period 1984–1989. While the Congress(I) remained in power for the full term, Rajiv Gandhi's tenure as Prime Minister was tainted by a number of scandals and

⁵ Of course the parliament can be dissolved before the end of its 5-year term if the government collapses because of withdrawal of support from some key members of the ruling coalition of parties. This happened after the 1977, 1989, 1996 and 1998 National Parliamentary elections, with fresh elections in 1980, 1991, 1998 and 1999.

political mis-calculations.⁶ Mr Vishwanath Pratap Singh, an erstwhile senior minister in the Congress(I) government resigned from the party and convened the National Front (NF), a broad national coalition with Janata Dal (JD) being the primary constituent. This national opposition coalition united a rather disparate range of opposition parties (including several regional parties) and it defeated Congress(I) in the 1989 parliamentary elections. However, internal conflicts soon arose within the coalition and ultimately the Parliament was dissolved within 16 months of formation.⁷ The country went to the polls again in May–June 1991. Unlike in 1989, there was no seat sharing arrangement between the non-Congress(I) parties.

Congress(I), Bharatiya Janata Party (BJP) and JD were the three main contenders to form government post 1991 elections. The main campaign platforms of the three major parties were very different (Andersen, 1991). Hindu nationalism (or *Hindutva*) was the central theme of the BJP, and it was symbolized by the call for construction of the temple at Ayodhya. JD made social justice their central theme, and this took concrete shape in their espousal of the Singh-proposed quota program for backward castes. The Congress(I), for its part, argued that the 16 months of non-Congress rule had led to communal and social strife that undermined national unity and effective administration. Banking on public disgust over widespread turmoil, the party's central theme was that Congress(I) offered the only hope of stability.

2.2 Assassination of Rajiv Gandhi

The 1991 parliamentary elections was scheduled to be held in four phases across the country: 10th May, 20th May, 23rd May and 26th May. However, on the 21st of May, after polling had been completed in the first two phases, Rajiv Gandhi, was assassinated during one of his campaign rallies. The originally scheduled 3rd and 4th phases were postponed to 12th June and 15th June respectively. Importantly, *nothing else could change*: for example, no new candidates could be selected, no changes made to the election manifesto or new policies could be announced by any of the parties. We summarise the timing of the different events in the 1991 election in Fig. 1.

The two phases where the polls were held prior to Rajiv Gandhi's assassination are termed the *pre-assassination* phase and the last two phases scheduled for after the assassination are termed the *post-assassination* phase. Fig. 2 presents the heat map of the pre- and post-assassination constituencies in the 1991 elections.⁸

The assassination was an unexpected (or random) event. There was no particular reason for the attack to happen on this specific day. This random nature of assassination and the quasi-random assignment of seats to phases implies that the estimated impacts of the assassination could be interpreted as causal. Our aim is to examine whether there

⁶ This included a failed and unpopular peace keeping mission in Sri Lanka, an ever-growing terrorism crisis in the country, perceived corruption in defence contracts and a lack of commitment in implementing a uniform civil code.

⁷ Once the NF coalition lost its parliamentary majority, Chandra Sekhar took over as the prime minister, with support from the Rajiv Gandhi led Congress(I). However, Congress(I) soon withdrew their support and Chandra Sekhar became a minority prime minister. BJP and JD were never a part of the Chandra Sekhar led ruling coalition.

⁸ Due to political disturbances, elections were not held in the states of Jammu & Kashmir and Punjab. These were, however, unrelated to Rajiv Gandhi's assassination. The pre-assassination and the post-assassination phases each consisted of 2 phases. See Panel B of Fig. 5 for the assignment of seats to the different phases.

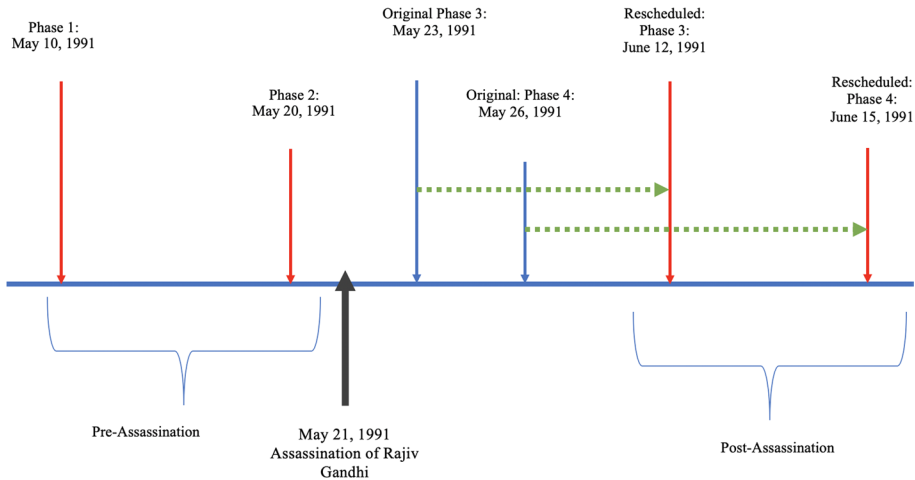


Fig. 1 Timing of elections and assassination

was any significant effect of this shock on voter choices and electoral outcomes. Note that Congress(I) was not *expected* to win. Opinion polls conducted by India Today (India Today–MARG Exit Polls) suggested that if all elections were held on May 20, 1991 (date of phase 2 polls) Congress(I) would only win 190 seats, which would not be sufficient for them to form a majority government (see Fig. 8 in the Appendix).

3 Data, descriptive statistics and empirical specification

3.1 Data

Election reports published by the Election Commission of India provide rich and extensive information about the candidates (including their party, votes received and gender) the size of the overall electorate, the number of electors who voted, and the type of the constituency (whether or not the constituency is reserved) and the date the election was held in that constituency. Using this data we can also compute the turnout rate, the vote shares of each contesting party and candidate and the margin of victory for the winner, which is a measure of political competition. Since we know the exact date the election was held in a particular constituency, we know whether the election was pre- or post-assassination. The constituency boundaries and reservation status of these constituencies remained unchanged over the period 1977–2008.⁹

⁹ In India, the Delimitation Commission is the only legal mechanism for changing constituency boundaries and SC/ST reservation status for seats. There was one in 1972, which defined the constituencies until the next Delimitation Commission in 2008. That gives us consistent constituencies between the 1977 and the 2009 National Parliamentary elections. Delimitation Commissions were originally supposed to be formed after every census, but part of the 42nd Constitutional Amendment delayed the next commission until after the 2001 census. Prior to 1972, Delimitation Commissions were established in 1952 and 1962.

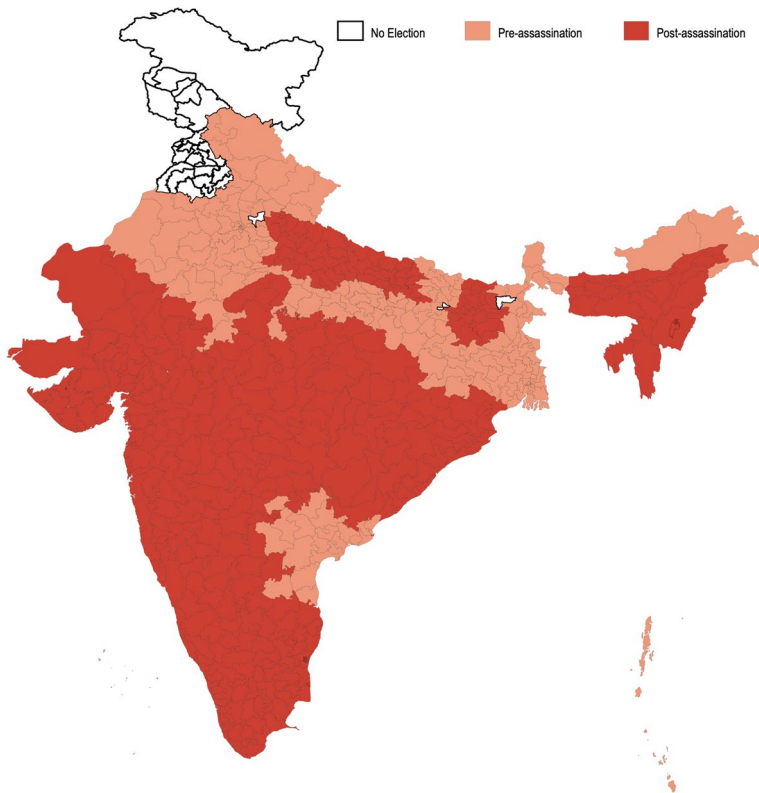


Fig. 2 Pre- and post-assassination phase of polls. national parliamentary elections 1991. Mr Rajiv Gandhi was assassinated on May 21, 1991. Pre-assassination phase consists of polling held on 10th May and 20th. Post-assassination phase consists of polling scheduled for 23rd May and 26th May (ultimately held on 12th June and 15th June). Due of political violence (unrelated to Rajiv Gandhi's assassination), elections were not held in Jammu and Kashmir and Punjab in 1991. Elections were not held in Assam in 1989

3.2 Descriptive statistics

In Indian elections, candidates can be nominated by parties (which might be categorized as National, State-based or Local) or they can stand as independents. Across the two elections in 1989 and 1991, 19.83% of the candidates were nominated by National Parties, 8.57% by State-based parties, 9.43% by Local parties and 62.16% were independent candidates. However, independents received only 4.6% of all valid votes cast, while the Local, State-based and National parties received 2.57%, 21.35% and 71.47% respectively of all votes cast.¹⁰ National parties also won the majority of the seats (81.42%) followed by the State-based parties (16.73%) with others (local parties and independents) winning less than 3% of the seats. Even among the set of National parties, Congress(I), BJP and JD dominated: together, they won 80.54% of the seats and received 68.87% of the votes.

¹⁰ This is the overall or aggregate vote share of a party: it is the number of votes received by a party in all constituencies, as a proportion of all votes cast in the election.

In Fig. 3, we present the overall vote shares of the five party categories (Congress(I), BJP, JD, State-based parties and Others) in 1989 and 1991 (Panel A) and separately for the pre- and post-assassination seats in 1991 (Panel B). Overall Congress(I) and JD experienced a decline in overall vote shares across the two years, matched by a corresponding increase in the vote share of BJP (see Panel A): there was a 3.7 percentage points decline (39.96 \rightarrow 36.26%) in the overall vote share of Congress(I) and a 6.17 percentage points decrease (18.01 \rightarrow 11.84%) in the vote share of JD. When we consider the patterns in Panel B (pre- vs post-assassination), we see that the overall vote share of Congress(I) increased by 7.5 percentage points (31.43 \rightarrow 38.99%), matched by a corresponding decline in the vote share of State-based parties (25.76 \rightarrow 18.86%).

Fig. 4 presents the percentage of seats won by each party (category) and the percentage of seats in which they were runner-up (Position 2) in the pre- and post-assassination seats in 1991. Congress(I) won 21.67% of the seats pre-assassination and this went up to 56.6% in the post-assassination period. This was matched by a fall in the percentage of seats won by the State-based parties (33.89% \rightarrow 11.14%) and JD (19.44% \rightarrow 7.04%).¹¹

Table 1 presents the transition matrix for seats won by the different parties across the 1989 and 1991 elections, separately for the pre- and post-assassination phases. Of the sets of seats Congress(I) won in 1989, they only managed to hold 47.73% (21 out of 44) in the pre-assassination period, with BJP and the State-based parties gaining at the expense of Congress(I): in the pre-assassination period, 32% of the seats won by Congress(I) in 1989 were won by the State-based parties in 1991. The pattern, however, changes completely in the post-assassination period: Congress(I) held on to 82.5% of the seats they won in 1989 and they gained seats that were won by BJP, JD and State-based parties in 1989. Additionally, of the seats that Congress(I) was the runner-up in 1989, they won 14.91% in the pre-assassination period and 43.17% in the post-assassination period.

Table 2 presents the descriptive statistics at the constituency level: average vote share of the different parties (conditional on contesting), the average turnout and margin of victory (measure of competitiveness). Vote share of party p in constituency c is defined as the total number of votes received by the party (candidate) in this constituency as a proportion of the total number valid votes cast in the constituency. For state-parties and others (local parties and independents) vote share is defined as the aggregate of votes received by all state-party candidates and others, again as a proportion of the total number of valid votes cast in the constituency. Columns 1–3 of Table 2 presents the average vote shares in 1989 and 1991. Vote share (conditional on contesting) of Congress(I), BJP and JD are all significantly lower in 1991, compared to 1989, with JD experiencing the largest decline (21 percentage points or 50% of the 1989 average). Turnout percentage is significantly lower in 1991 relative to 1989, there is no difference in the average competitiveness of the elections.

In Columns 4–6 of Table 2 we restrict the sample to the 1991 elections. Column 4 presents the average vote shares of the different parties, the turnout percentage and margin percentage for the pre-assassination seats; column 5 presents the corresponding averages for the post-assassination seats. The difference (post–pre assassination) are presented in Column 6. Relative to the pre-assassination seats, Congress(I) vote shares are 11.15 percentage points (or 35%) higher in the post-assassination seats; matched with a 8.73 percentage points (or 32.7%) reduction in the vote share of JD, a 3.93 percentage points (17%)

¹¹ Fig. 9, in the Appendix, presents the position distribution of the three main parties in the 1989 and 1991 elections (Panel A) and in the pre- and post-assassination seats in 1991 (Panel B). Two results are worth noting. *First*, Congress(I) won more seats in 1991, the opposite is true for BJP and JD. *Second*, across the pre- and post-assassination seats in 1991, Congress(I) won more seats in the post-assassination phase; BJP's likelihood of winning did not change while there was a large fall in JD's likelihood of winning.

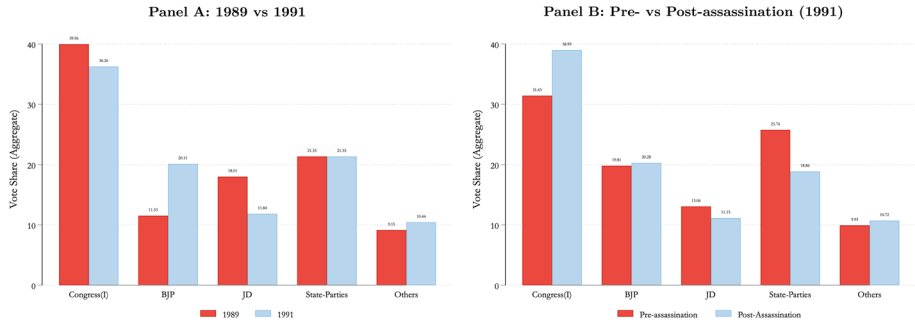


Fig. 3 Overall vote share by parties in the two elections. Total votes received by party (across all constituencies) as a proportion of total number of votes cast presented

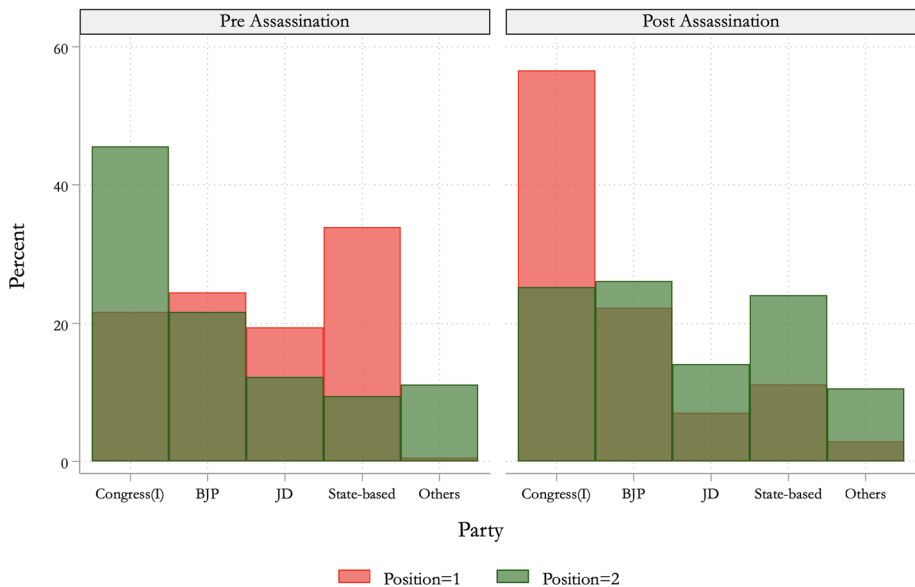


Fig. 4 Distribution of position 1991. pre- and post-assassination phases. Distribution of position in the pre- and post-assassination phases of the 1991 National Elections presented. Position 1 denotes winner

decline for BJP and a 3.8 percentage points (14%, though not statistically significant) drop in vote share of State-based parties. Turnout percentage is significantly lower in the post-assassination seats compared to the pre-assassination seats, though the margin of victory is greater i.e., seats appear to have become less competitive in the post-assassination period.¹²

¹² We can think of the set-up as one where voters choose between one of the following alternatives: Congress(I), BJP, JD, State-based parties and others. This can be modelled using the McFadden’s Generalized Conditional Logit Choice model. Fig. 10, in the Appendix, presents the estimated marginal effects of winning in the pre- and post-assassination seats (and the corresponding 90% confidence intervals) using this framework. Consistent with the descriptive statistics presented in Panel B of Fig. 3, there is a large and statistically significant increase in the likelihood of Congress(I) winning in the post-assassination seats; matched by a reduction in seats won by JD and the state-based parties.

Table 1 Seat transition: 1989→1991

Winner 1989	Winner 1991					
	Congress(I)	BJP	JD	State-based	Others	Total
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Pre-assassination</i>						
Congress(I)	21 (47.73)	6 (13.64)	3 (6.82)	14 (31.82)	0 (0.00)	44
BJP	3 (13.04)	13 (56.52)	4 (17.39)	3 (13.04)	0 (0.00)	23
JD	12 (19.35)	22 (35.48)	27 (43.55)	1 (1.61)	0 (0.00)	62
State-parties	2 (4.35)	2 (4.35)	0 (0.00)	42 (91.30)	0 (0.00)	46
Others	1 (20.00)	1 (20.00)	1 (20.00)	1 (20.00)	1 (20.00)	5
<i>Post-assassination</i>						
Congress(I)	123 (82.55)	14 (9.40)	0 (0.00)	10 (6.71)	2 (1.34)	149
BJP	28 (45.90)	31 (50.82)	1 (1.64)	1 (1.64)	0 (0.00)	61
JD	25 (32.05)	24 (30.77)	22 (28.21)	2 (2.56)	5 (6.41)	78
State-based	6 (22.22)	2 (7.41)	1 (3.70)	18 (66.67)	0 (0.00)	27
Others	3 (25.00)	3 (25.00)	0 (0.00)	5 (41.67)	1 (8.33)	12

Total (column 6) denotes the total number of seats won by the different party categories in the Pre- and Post-assassination phases in 1989. Pre- and Post-assassination defined as in 1991. Others includes seats won by local party and independent candidates. Figures in parenthesis denote the proportion relative to the total won by the party in 1989

3.3 Phase assignment

In India, elections are held in phases and assignment of seats (constituencies) to phases is quasi-random.¹³ We show that the assignment of seats to phases is quasi-random in a number of different ways. *First*, in Table 3, we present the transition matrix of phase assignment across the 1989 and 1991 parliamentary elections.¹⁴ Of the 226 constituencies that had been assigned to Phase 1 in 1989, 10 (or 4.42%) were assigned to Phase 1 in 1991, 74

¹³ There is no lottery; rather it is driven by logistics of movement of election staff and security personnel, examination schedules, crop harvesting times and is unrelated to previous election outcomes in the constituency.

¹⁴ The number of phases is not the same across elections. The 1989 parliamentary elections were held in three phases: November 22 (Phase 1), November 24 (Phase 2) and November 26 (Phase 3). The 1991 elections on the other hand had four phases (see Table 3).

Table 2 Descriptive statistics

	1989 versus 1991			Pre- versus Post-Assassination (1991)		
	1989 (1)	1991 (2)	Difference (3 = 2–1)	Pre-assassination (4)	Post-assassination (5)	Difference (6=5–4)
<i>Panel A: Vote Share Percentage</i>						
Congress(I)	40.887 (10.977)	38.740 (15.394)	– 2.147**	31.592 (14.429)	42.749 (14.455)	11.157***
BJP	29.020 (21.438)	24.620 (16.479)	– 4.400***	22.184 (15.003)	26.116 (17.177)	3.932**
JD	41.567 (17.433)	20.762 (16.800)	– 20.805***	26.685 (17.018)	17.956 (15.985)	– 8.729***
State-parties	24.132 (24.358)	24.634 (23.120)	0.503	26.996 (21.451)	23.200 (24.007)	– 3.796
Others	10.042 (13.434)	11.091 (13.850)	1.049	10.806 (12.870)	11.239 (14.349)	0.433
<i>Panel B: constituency level outcomes</i>						
Margin percentage	15.384 (11.634)	14.316 (12.469)	– 1.067	12.329 (11.525)	15.365 (12.833)	3.036***
Turnout percentage	60.617 (11.032)	55.358 (11.732)	– 5.259***	58.165 (12.788)	53.876 (10.865)	–4.288***
Number of con-stituencies	507	521		180	341	

In 1989, elections were held in 507 constituencies (no elections in Jammu and Kashmir, Punjab and Assam). In 1991, elections were held in 521 constituencies (no elections in Jammu and Kashmir and Punjab). Vote share denotes average percentage of votes received (conditional on contesting). In columns 4 and 5, the sample is restricted to the 1991 elections. Others includes local party and independent candidates. Standard deviations are presented in parenthesis. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

(or 32.74%) in Phase 2, 50 (or 22.12%) in Phase 3, 87 (or 38.50%) in Phase 4. We see similar variation in phase assignment for seats assigned to Phases 2 and 3 in 1989.¹⁵

Second, in Table 4 we present the OLS regression results on the phase a constituency is assigned to (columns 1 and 2) and whether a constituency is assigned to the post-assassination phase in 1991 (columns 3 and 4) based on election outcomes in 1989. In columns 1 and 3, we include dummies for the party of the incumbent (the reference category is whether the incumbent is from a local party or an independent) and the lagged percent turnout and the lagged margin of victory. In columns 2 and 4 we also include the lagged Congress(I) vote share as an additional control.¹⁶

¹⁵ Seats were *not* assigned—randomly or otherwise—to not having elections in 1991. In 1989, no elections were held in the state of Assam. In 1991, no elections were held in the states of Jammu and Kashmir. This was because of political violence in these states, unrelated to Rajiv Gandhi's assassination. We included seats in which elections were not held in 1989 or in 1991 in order to get a full picture of assignment of different seats to phases. What is important is the transition of seats from Phases 1, 2 and 3 in 1989 to Phases 1, 2, 3 and 4 in 1991.

¹⁶ Note that since Congress(I) did not compete in all the constituencies in 1989, the estimating sample size is smaller. We are unable to control for lagged vote share of BJP, JD or state-based parties as the sample size falls considerably when we include these variables as additional controls.

Table 3 Phase transition.
1989→1991

	Phase 1989 ↓		Phase 1991				Total
	1	2	3	4	No election		
1	10 (4.42)	74 (32.74)	50 (22.12)	87 (38.50)	5 (2.21)	226	
2	0 (0.00)	79 (29.81)	68 (25.66)	115 (43.40)	3 (1.13)	265	
3	0 (0.00)	17 (44.74)	7 (18.42)	0 (0.00)	14 (36.84)	38	
No election	0 (0.00)	0 (0.00)	14 (100)	0 (0.00)	0 (0.00)	14	
Total	10	170	139	202	22	543	

The cells denote the number of constituencies in each Phase 1989–Phase 1991 combination. The figures in parenthesis denote the proportion of constituencies in each cell as a proportion of constituencies assigned to the relevant phase in 1989. Election dates in 1989: November 22 (Phase 1), November 24 (Phase 2), November 26 (Phase 3). Election dates in 1991: May 10 (Phase 1), May 20 (Phase 2), June 12 (Phase 3), June 15 (Phase 4). No election denotes constituencies where elections were not held in 1989 or in 1991

The results presented in column 1 shows that with the exception of lagged turnout percentage, none of the election outcomes in 1989 are correlated with phase assignment; once we control for lagged Congress(I) vote share, a state-based party being an incumbent is associated with a statistically significant reduction in the likelihood that the constituency is assigned to a later phase. The results in columns 3 and 4 are similar. Neither the lagged vote share of Congress(I), nor having Congress(I) as the incumbent is correlated with the likelihood that the constituency is correlated with phase assignment (or post-assassination phase assignment) in the 1991 National Parliamentary elections.

Third, in Fig. 5 we present the heat map of the distribution of seats in the 1989, 1991 and 1996 National Parliamentary elections by phase of polls. There is considerable variation in phase assignment across elections and different parts of the country go to polls in different phases across elections. *Finally*, Fig. 11 in the Appendix presents, using a Sankey diagram, the phase transition across the national parliamentary elections in 1989, 1991, 1996 and 1998. This figure is an extended version of Table 3, where we considered the phase transition between 1989 and 1991. This figure confirms the variation in phase assignment across election and there is no systematic pattern of how constituencies are assigned to phases across the different elections.

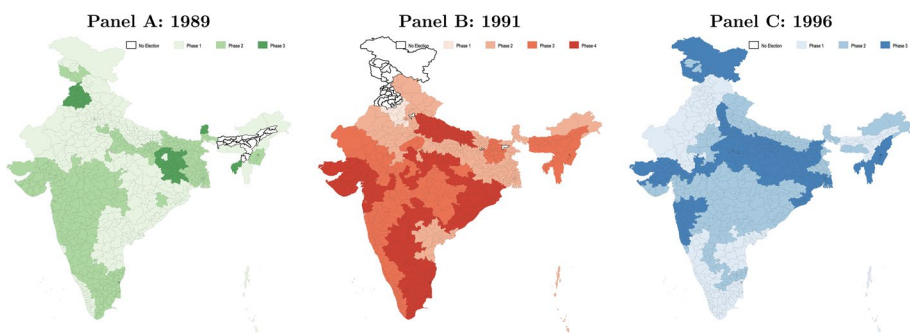
3.4 Empirical specification

To estimate the impact of Rajiv Gandhi's assassination on political outcomes for the different parties we use a difference-in-difference framework. The treatment seats in this case are the constituencies that voted in the post-assassination phase while the seats that voted in the pre-assassination phases are the control seats. We estimate the following regression

Table 4 Lagged constituency level outcomes and phase assignment in 1991

	Phase (1)	Phase (2)	Post-assassination (3)	Post-assassination (4)
Congress(I) incumbent	0.235 (0.217)	- 0.039 (0.150)	0.051 (0.131)	- 0.106 (0.106)
BJP incumbent	0.023 (0.251)	- 0.080 (0.232)	- 0.030 (0.138)	- 0.092 (0.122)
JD incumbent	- 0.180 (0.226)	- 0.247 (0.195)	- 0.207 (0.123)	- 0.253** (0.106)
State-based party incumbent	- 0.223 (0.278)	- 0.592*** (0.182)	- 0.322* (0.173)	- 0.521*** (0.159)
Lagged congress(I) vote share		0.012 (0.010)		0.007 (0.004)
Lagged turnout	- 0.015** (0.007)	- 0.016*** (0.005)	- 0.004 (0.005)	- 0.005 (0.004)
Lagged margin of Victory	0.006 (0.007)	0.003 (0.006)	0.004 (0.003)	0.002 (0.003)
Constant	3.826*** (0.463)	3.628*** (0.566)	0.902** (0.341)	0.804** (0.353)
R^2	0.081	0.118	0.102	0.148
Number of constituencies	507	491	507	491

OLS regression results presented. Dependent variable in columns 1 and 2 is the phase the constituency was assigned to in 1991. Dependent variable in columns 3 and 4 denote that the constituency was assigned to phases 3 or 4 (post-assassination phase). Sample includes Parliamentary elections in 1989 and 1991 where elections were held in both years. In columns 2 and 4, sample is restricted to constituencies in which Congress(I) nominated a candidate in both years. State clustered standard errors in parenthesis. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

**Fig. 5** Phases of election. national parliamentary elections in 1989, 1991 and 1996

$$y_{pcst} = \beta_0 + \beta_1 \text{Year 1991} + \beta_2 \text{Post-assassination} + \beta_3 (\text{Year 1991} \times \text{Post-assassination}) + \gamma \mathbf{X}_{cst} + \mu_s + \varepsilon_{pcst} \quad (1)$$

y_{pcst} denotes the electoral outcome of party p in constituency c in state s in year t ; Year 1991 is a dummy variable that takes the value of 1 if the election year is 1991 and 0 otherwise; Post-assassination is a dummy that takes the value of 1 if the constituency is a post-assassination constituency. The effect of the assassination on electoral outcomes is given by $\hat{\beta}_3$ (the difference-in-difference estimate). \mathbf{X}_{cst} includes a set of constituency level controls that include whether the constituency is reserved (SC reserved or ST reserved) and the number of candidates standing for election in the relevant constituency. The reservation status of the constituency does not change over the two election rounds. μ_s includes a set of state fixed effects.

Here, $\hat{\beta}_1$ gives us the difference in outcomes for the pre-assassination constituencies in 1991 vs 1989; $\hat{\beta}_1 + \hat{\beta}_3$ gives us the difference in outcomes for the post-assassination constituencies in 1991 vs 1989; $\hat{\beta}_2$ gives us the difference in outcomes in between the post- and pre-assassination constituencies in 1989; and $\hat{\beta}_2 + \hat{\beta}_3$ gives us the difference in outcomes between the post- and pre-assassination constituencies in 1991.

Note that the DID specification in Eq. (1) can be written as a (2×2) two way fixed effects (TWFE) specification as follows:

$$y_{pcst} = \alpha_0 + \alpha_1(\text{Year 1991} \times \text{Post-assassination}) + \gamma \mathbf{X}_{cst} + \mu_s + \theta_t + \eta_c + \varepsilon_{pcst} \quad (2)$$

$$t = 1989, 1991; s = 1, \dots, S$$

where θ_t and η_c denote time and constituency fixed effects respectively. Under the assumptions of parallel trends and no anticipatory effects and given a 2×2 design, Wooldridge (2021, Corrolary 5.1) and Roth et al. (2023, Section 2) show that, $\hat{\beta}_3 = \hat{\alpha}_1$. We discuss the assumption of parallel trends in Sect. 4.1. There is unlikely to be any anticipatory effects: the assassination was an unexpected (or random) event; there was no particular reason for the attack to happen on this specific day.

4 Results

4.1 Parallel trends

Before presenting the results, we examine the trends in Congress(I) vote shares and also the the likelihood of Congress(I) winning, which relates to the identifying assumption of the DID design. We want to rule out the possibility that in the absence of the assassination, the vote share of and the likelihood of winning for Congress(I) would be different across the pre- and post-assassination seats. We do this in two ways.

First, we include data from the 1984 elections. Panels A and B of Fig. 6 present the difference in Congress(I) vote share and the difference in the likelihood of Congress(I) winning between the post- and pre-assassination seats in each of the three elections (1984, 1989 and 1991) along with the corresponding 90% confidence interval. These are estimates from year specific regressions of Congress(I) vote share (Panel A) and the likelihood of Congress(I) winning (Panel B) on a post-assassination dummy, defined by the categorization of seats in the 1991 Parliamentary elections, controlling for state fixed effects, reservation status of the constituency and the number of candidates contesting in the elections. Standard errors are clustered at the state level. In both panels, the post-assassination dummy is positive and statistically significant for 1991; for the other two years, it is never statistically significantly different from 0.

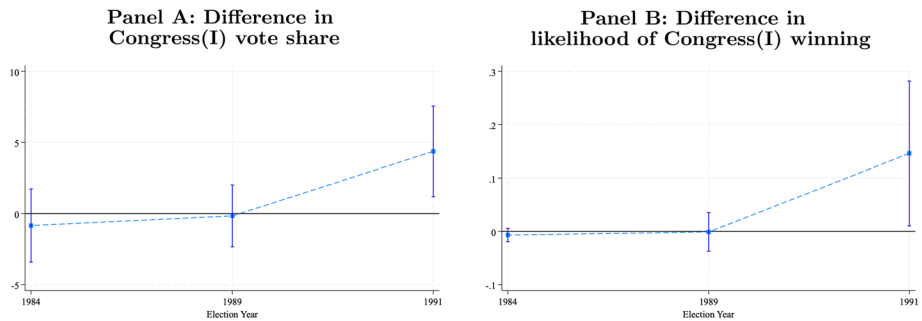


Fig. 6 Congress(I) difference in vote share and likelihood of victory in the seats designated as pre- and post-assassination: 1984, 1989 and 1991. Panels A and B present the difference in Congress(I) vote shares and in the likelihood of Congress(I) victory between post- and pre-assassination seats (and the 90% confidence interval) in each election. These are estimates from year specific regressions of Congress(I) vote share and Congress(I) winning on a post-assassination dummy, controlling for state fixed effects, reservation status of constituency and number of candidates. Standard errors are clustered at the state level. Pre- and post-assassination defined by the categorization of seats in the 1991 Parliamentary elections

Second, we take as given the assignment of seats as of 1991 but assume that instead of the assassination happening in 1991, the event happened in 1989, i.e., assume that the (assigned) pre- and post-assassination phases in 1989 was punctuated by the assassination. We estimate a regression that is similar to Eq. (1), except now we compare the vote shares of (column 1) and the likelihood of winning (column 2) for Congress(I) in the 1984 and the 1989 elections. The results presented in Table 5 show that the difference in difference estimate is not statistically significant in either Column 1 or Column 2.

4.2 Assassination effects

Our primary aim is to investigate whether the assassination affected the vote shares and the winning probabilities of the different parties. These results are presented in Sects. 4.2.1 and 4.2.2. In Sect. 4.3 we provide possible explanations for these results. In Sect. 4.4 we present additional results on the effect of the assassination: robustness to alternative specifications (Sect. 4.4.1), falsification tests (Sect. 4.4.2) that ensure that we are not erroneously rejecting the null hypothesis of no assassination effect and effects on constituency level outcomes (Sect. 4.4.3).

Our focus will primarily be on the effect of the assassination of Rajiv Gandhi on Congress(I)'s performance: did the unexpected assassination of Rajiv Gandhi lead to changes in electoral fortunes of the Congress(I) in the 1991 general elections? However, for the sake of completeness, we will discuss some of the key results pertaining to the effects of the assassination on the vote shares and likelihood of victory BJP, JD, State-parties and others.

4.2.1 Vote share

The regression results for the vote shares of the different parties are presented in Table 6. Our estimating equation is given by Eq. (1), with the outcome variable defined as the vote share of party p in constituency c in state s in election year t . We include as additional

Table 5 What if assassination happened in 1989?

	Vote share congress(I) (1)	Congress(I) win (2)
Year 1989	-12.058*** (4.069)	- 0.456** (0.183)
Post-assassination	- 0.844 (1.547)	- 0.031 (0.058)
Year 1989 × post-assassination	1.369 (3.124)	0.089 (0.134)
SC reserved	1.127 (0.776)	0.008 (0.033)
ST reserved	3.691** (1.618)	0.167*** (0.046)
Number of candidates	- 0.019 (0.078)	0.003 (0.003)
Constant	51.974*** (1.783)	0.747*** (0.082)
Number of constituencies	1,008	1,048

OLS regressions presented. Post-assassination seats denote seats in 1989 assigned as post-assassination as defined for the 1991 elections. Dependent variable in Column 1 is the number of votes received by the party as a proportion of the total number of valid votes cast in the constituency. Dependent variable in Column 2 takes the value of 1 if the relevant party wins the seat; 0 otherwise. Standard errors, clustered at the state level in parentheses. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

controls the reservation status of the seat (SC reserved, ST Reserved) and the number of candidates contesting in the seat. Standard errors are clustered at the state level. Regressions control for state fixed effects. This implies that that the identification of the effects of the assassination is driven by within state variation in the timing of elections, i.e., driven by the states that had constituencies voting in both the pre- and post-assassination phases.

Clearly, Congress(I) benefited from Rajiv Gandhi's assassination in terms of a large increase in vote share: the difference-in-difference estimate in column 1 is positive and statistically significant to the extent of 7.4 percentage points. Note that while neither are statistically significant, the assassination has a negative effect on the vote share of both JD and BJP (see columns 2 and 3).

Relative to the 1989 counterparts, Congress(I) vote share in 1991 is a statistically significant 6.5 percentage points (or 17% relative to the 1989 pre-assassination average) lower in the pre-assassination seats (captured by the Year 1991 dummy), but there is no difference in the difference in vote shares in the post-assassination seats across the two elections. These results suggest that far from becoming the winning party, in the absence of assassination, Congress(I) could very well have gone on to lose the election. Turning to the corresponding patterns for JD: we see that relative to its 1989 counterparts, the vote share for JD in 1991, is 16.4 percentage points and 18.4 percentage points lower in the pre- and post-assassination seats respectively: these are large effects at 36% and 47% of the corresponding averages in 1989. BJP vote shares remained stable across the two elections. Note that the coefficient estimate of the Post-assassination dummy is never statistically significant, i.e., there is no difference between the post- and

Table 6 Assassination and Vote share

	Congress(I) (1)	BJP (2)	JD (3)	State-parties (4)	Others (5)
Year 1991	-6.525** (2.481)	0.120 (4.927)	-16.455*** (5.045)	0.883 (1.927)	1.962 (2.141)
Post-assassination	-1.547 (1.747)	1.494 (4.814)	-0.858 (7.416)	-0.951 (2.818)	3.316 (3.405)
Year 1991 × post-assassination	7.386*** (1.644)	-2.016 (4.089)	-1.969 (6.130)	-1.141 (3.118)	-2.557 (2.944)
SC reserved	-0.250 (0.744)	0.748 (0.948)	-0.580 (1.519)	0.044 (1.623)	-1.556* (0.888)
ST reserved	3.651** (1.666)	-2.021 (3.133)	-4.489 (3.981)	2.131 (3.279)	2.165 (2.879)
Number of candidates	-0.025 (0.062)	0.041 (0.095)	-0.115 (0.077)	-0.183** (0.088)	0.054 (0.075)
Constant	41.811*** (1.755)	25.312*** (4.909)	42.683*** (6.173)	27.450*** (2.332)	7.540*** (1.885)
Mean Pre-assassination 1989	38.20	25.16	45.44	25.71	8.813
<i>Difference estimates</i>					
Post-assassination: 1991–1989	0.861 (2.368)	-1.896 (2.219)	-18.42*** (4.716)	-0.259 (2.384)	-0.596 (2.263)
1991: Post–Pre-assassination	5.839*** (1.658)	-0.522 (2.526)	-2.827 (5.162)	-2.093 (3.788)	0.758 (3.985)
R^2	0.588	0.631	0.575	0.567	0.264
Number of constituencies	977	680	541	782	1,019

OLS regressions presented. Post-assassination seats denote seats in 1989 assigned as post-assassination as defined for the 1991 elections. Dependent variable in Column 1 is the number of votes received by the party as a proportion of the total number of valid votes cast in the constituency. Dependent variable in Column 2 takes the value of 1 if the relevant party wins the seat; 0 otherwise. Standard errors, clustered at the state level in parentheses. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

pre-assassination seats in 1989: this is expected because for 1989 the (pre- and post-) categorization is a purely theoretical construct.

4.2.2 Likelihood of winning

In Table 7 we present the regression results for the effect of assassination on the likelihood of Congress(I), BJP, JD, State-parties and others winning the seat where the outcome variable is V_{pcst} , which takes the value of 1 if party p is the winner in constituency c in state s in election year t .

The results in column 1 of Table 7 show that the assassination effect has a large and (weakly) statistically significant 13.8 (p -value = 0.102) percentage points increase in the likelihood of Congress(I) winning. This is driven by a 14 percentage points (or 33% relative to the pre-assassination average in 1991) increase in the likelihood of Congress(I) winning in the post-assassination seats. It is also worth noting that the likelihood of Congress(I) winning in the post-assassination seats in 1991 is 11 percentage points

Table 7 Assassination and likelihood of victory

	Congress(I) (1)	BJP (2)	JD (3)	State-parties (4)	Others (5)
Year 1991	-0.028 (0.077)	0.105 (0.088)	-0.140* (0.072)	0.085 (0.062)	-0.021** (0.009)
Post-assassination	0.002 (0.045)	0.041 (0.058)	-0.039 (0.065)	-0.020 (0.030)	0.016 (0.020)
Year 1991 × post-assassination	0.138 (0.082)	-0.074 (0.073)	-0.018 (0.071)	-0.056 (0.053)	0.010 (0.017)
SC reserved	0.020 (0.029)	-0.002 (0.019)	0.030 (0.028)	-0.033 (0.028)	-0.014*** (0.003)
ST reserved	0.254*** (0.067)	-0.157 (0.102)	-0.113 (0.087)	-0.011 (0.050)	0.026 (0.034)
Number of candidates	0.000 (0.001)	0.002 (0.001)	-0.002 (0.001)	-0.000 (0.001)	-0.000 (0.000)
Constant	0.357*** (0.052)	0.130** (0.061)	0.322*** (0.070)	0.165*** (0.022)	0.027** (0.011)
Mean Pre-1989	0.413	0.198	0.194	0.167	0.0272
<i>Difference estimates</i>					
Post-assassination: 1991–1989	0.110 (0.0739)	0.0310 (0.0983)	-0.158*** (0.0552)	0.0286 (0.0225)	-0.0116 (0.0156)
1991: Post–Pre-assassination	0.140** (0.0558)	-0.0327 (0.0535)	-0.0571 (0.0517)	-0.0757 (0.0677)	0.0257 (0.0213)
R^2	0.391	0.297	0.366	0.402	0.154
Number of constituencies	1,028	1,028	1,028	1,028	1,028

OLS regression results presented. Dependent variable takes the value of 1 if the relevant party wins the seat; 0 otherwise. Others include: other national parties, local parties and independents. Regressions include state fixed effects. Standard errors, clustered at the state level in parentheses. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

higher than in the same seats in 1989, though the effect is not statistically significant. The patterns for JD, on the other hand, are quite different: JD experienced a significant reduction in the likelihood of winning a seat in both the pre- and post-assassination seats in 1991, relative to the corresponding averages in 1989, with vote shares going down more in the post-assassination phases.

4.2.3 Perceptions

One issue with the aggregate data of the kind we use in this paper is that we are unable to identify micro details of voting patterns. However, India Today commissioned three nation-wide exit polls (India Today–Marg exit polls) during the 1991 parliamentary elections. This was the first time a proper exit poll was conducted in India. The first such poll was carried out on May 20 ($n = 48,299$), the day before Rajiv Gandhi was assassinated; the second and the third polls were conducted post assassination, on June 12 ($n = 25,140$) and June 15 ($n = 16,566$) in 72 constituencies spread across the country. India Today published some broad descriptives on how preferences changed between the pre- and

post-assassination phase (see <https://www.Indiatoday.in/magazine/cover-story/story/19910715-exit-poll-rajiv-gandhi-assassination-resulted-in-distinct-swing-in-favour-of-congressi-814550-1991-07-14>) Women were 12.2 percentage points (38.7%) more likely to vote for Congress(I) in the post-assassination phase compared to the pre-assassination phase. For men the corresponding increase is 7.3 percentage points (22.6%). They also report that the swing to the Congress(I) was considerably higher in the rural areas (relative to the urban areas). Muslim voters swung heavily in favour of Congress(I) in the post-assassination period. Upper caste voters, on the other hand, were less likely to swing towards Congress(I). As of 1991, the main vote bank of the BJP were the Upper Caste and Urban voters and this meant that BJP votes were significantly less affected by the assassination. We return to this in Sect. 4.3 below.

4.3 Potential explanations for our results

What are the possible explanations for the effect of the assassination? We provide two possible explanations, both of which could have contributed towards a shift in voter preferences towards Congress(I).

4.3.1 Sympathy

The assassination increased sympathy for Congress(I) and this is evident from the media reports from immediately after the assassination. India Today (June 15, 1991, before the elections were complete and results had been announced) wrote (see <https://www.IndiaToday.in/magazine/cover-story/story/19910615-reports-from-states-suggest-sympathy-factor-likely-to-help-congressi-in-coming-elections-814459-1991-06-15>):

Rajiv Gandhi has gone. His death now looms large over the election scene. Politics has now shifted from issues to the sympathy factor. It is now the Congress(I)'s Rajiv card versus the BJP's Ram and the National Front's Mandal cards. If the sympathy factor works, the Congress(I) will gain dramatically.

Similarly on 23rd May, two days after Rajiv Gandhi's assassination, the Los Angeles Times wrote (see <https://www.latimes.com/archives/la-xpm-1991-05-23-mn-3246-story.html>):

... sympathy vote may bring Gandhi's party the majority he wasn't expected to win.

Finally, Rudolph (1993) in his analysis of the 1991 election argues,

Rajiv Gandhi ... won Congress's greatest electoral victory with the help of a sympathy vote.

The ECI allowed political campaigning during three weeks following the assassination and Congress(I)'s campaign was geared towards generating sympathy within the electorate. There was little discussion of Rajiv Gandhi's achievements and failures as a former prime minister. The direct cause of the assassination was retribution, by the Sri Lankan Tamil rebels, against the Rajiv Gandhi's decision to send a peace keeping force to Sri Lanka to help the Sinhalese government against the Tamil rebels. This was conveniently forgotten even though in India as well it was viewed as a bad policy. The slogan "*Maa bete ka yeh balidan, yaad kare gaa Hindustan*" (India will remember the sacrifices of the mother

and the son—Indira Gandhi and Rajiv Gandhi) was be used extensively.¹⁷ Rajiv Gandhi's funeral (on May 24) was telecast live on Doordarshan, the national broadcaster and the only channel available, which further fuelled the sympathy wave. The other parties (BJP and JD) could not campaign on the basis of Rajiv Gandhi's poor record as Prime Minister (see footnote 6), which they emphasized and campaigned effectively on, during the pre-assassination phase. They acknowledged that there was a sympathy wave.

4.3.2 Perceptions about the governing abilities of the different parties

Did the assassination affect voters' perception about the governing abilities of the different parties? Consider first, the effect of the assassination on perceptions about the governing abilities of Congress(I). In the pre-assassination period, other parties, including BJP and JD campaigned extensively and successfully on Rajiv Gandhi's poor record in terms of governance during his term in office (1984–1989). The success of this strategy in the pre-assassination phase suggests that voters possibly did not have high perception about the governing abilities of a Rajiv Gandhi led government (did not rate a Rajiv Gandhi led government highly). The assassination could mean that a Congress(I) government without Rajiv Gandhi would be better at governing, thus providing additional information to the voters about the ability of the party.

On May 29th, Mr. PV Narasimha Rao was elected as the President of Congress(I) (once Mrs Sonia Gandhi, Rajiv Gandhi's wife refused the position). While it was accepted that there might be other contenders for the post of Prime Minister, being elected the party president meant that Narasimha Rao was the front-runner. Having previously held important portfolios like Home Affairs, External Affairs and Human Resource Development, he had a considerable experience in government. It was, thus, expected (and accepted) that both Congress(I) and a potential government formed by the party would be led by a competent leader outside the Nehru-Gandhi family, for the first time since 1966.¹⁸ It is possible that people voted for Congress(I) because they liked the idea of the end of dynastic politics (Baru (2019, Page 63)).¹⁹ This also meant that the, BJP and JD were unable to criticize Congress(I) for fostering dynastic politics, as they did pre-assassination.

What about the opposition? There are different ways in which voters perception about BJP and JD could have been adversely affected, post-assassination. *First*, in Indian politics until 1991, Congress(I) had typically been associated with stability. Between 1947 and 1991, Indian National Congress / Congress(I) had lost two national elections (in 1977 and 1989). However, in both these cases, because of conflicts between the different members of the ruling coalition, the parliament was dissolved before the term was finished, forcing the country to go to polls early. Post-assassination, this possibly convinced the voter of the Congress(I) argument that *only* they could provide stability: they became less convinced that BJP or JD would be able to provide this stability if voted into power. *Second*, post 1989, the JD led

¹⁷ See India Today (<https://www.Indiatoday.in/magazine/cover-story/story/19910615-reports-from-states-suggest-sympathy-factor-likely-to-help-congressi-in-coming-elections-814459-1991-06-15>). Indira Gandhi, another former prime minister of India and Rajiv Gandhi's mother, was assassinated in 1984.

¹⁸ John Kenneth Galbraith, ambassador to India during John F. Kennedy's administration, observed that, ... at least for now, Mr. Gandhi's death marks the end of a political dynasty. "The great grandfather, grandfather, mother and now Rajiv were the dynasty. At least for the short run, this is the end.". See https://www.wsj.com/public/resources/documents/Rajiv.Gandhi.death.pdf?mod=article_inline (Wall Street Journal, May 22, 1991.)

¹⁹ Baru (2019), Page 63 writes: *PV's election as party leader showed that there could still be life beyond a single family for India's oldest political party.*

coalition reduced Rajiv Gandhi's security cover (Seshan, 2023). Voters might have viewed this action as contributing to Rajiv Gandhi's assassination, even though it was accepted that neither BJP or JD were responsible for the assassination. *Finally*, the policy platforms that BJP and JD campaigned on could have raised concerns among different sub-sections of the population. On one hand, JD's policies on social justice and the quota program for backward castes could have raised concerns among the higher caste groups. On the other hand, the Hindu nationalism that was a central theme of the BJP alienated the largest minority in the country—the Muslims. It is possible that these issues became more salient post-assassination: the affected population groups, including the minorities became more worried about law and order should BJP or JD or a coalition involving these parties come to power.

Available data, however, does not allow us to conclusively identify the channel. It is likely that both played a role.

4.4 Additional empirical results

We discuss in this section several additional results relating to Rajiv Gandhi's assassination. The purpose of these additional analyses is to better understand the effects of the assassination.

4.4.1 Robustness of our main results

In this section we examine the robustness of our key results (presented in Tables 6 and 7) to alternative (econometric) specifications and the use of weights.

First, recall in our primary empirical specification we include reservation status of the constituency and the number of candidates standing for election in the relevant constituency as additional controls. We also run the corresponding regressions without including these additional controls. These results, presented in Table 9, in the Appendix (Panel A for vote shares and Panel B for the likelihood of the party winning), show that our key results on the effect of assassination on the vote share and the likelihood of victory of the different parties are not qualitatively affected by the exclusion of these additional controls.

Second, we control for state fixed effects in our primary specification. We examine the robustness of our results by instead including constituency fixed effects. Note that in this case we are unable to include the Post-assassination dummy as an additional regressor. The regression results, presented in Table 10, in the Appendix, show again that the results are qualitatively similar.

Third, we present regression results weighted by the number of electors (which is the number of registered voters in the constituency) The regression results are presented in Table 11, in the Appendix. These results are very similar to those presented in Tables 6 and 7.

Finally, Table 12, in the Appendix, presents the regression results without any state fixed effects. These are less conservative estimates and allow for variation across states. The results are again similar to those presented in Tables 6 and 7.

4.4.2 Placebo tests

We want to ensure that we are not erroneously rejecting the null hypothesis of no assassination effect. An intuitive and simple way to test this is to randomly re-assign constituencies

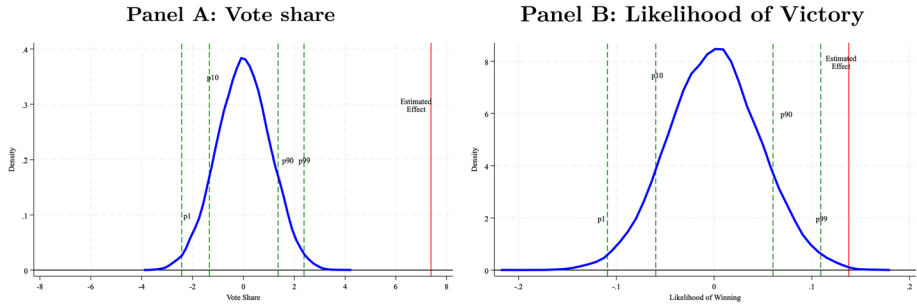


Fig. 7 Simulated assassination effect. Congress(I). Dependent variable in Panel A is vote share of Congress(I) in constituency c in state s in year t . Dependent variable in Panel B is the likelihood of Congress(I) winning in constituency c in state s in year t . Regression specification given by Eq. (1). The true and simulated effects of $\hat{\beta}_3$ (assassination effect) are presented. Distribution of simulated effects based on 10000 bootstrapped estimates. The true estimate of $\hat{\beta}_3$ (estimated effect of the assassination) is denoted by the solid vertical line (see column 1 of Tables 6 and 7). The vertical dashed lines mark the $p(1)$, $p(10)$, $p(90)$ and $p(99)$ of the simulated distribution

to pre-assassination and post-assassination constituencies to create “fake” assassination effects. We essentially implement a set of placebo/falsification tests.

We compare the estimated effect of $\hat{\beta}_3$ from our main specification (given by Eq. (1)) to a simulated distribution of $\hat{\beta}_3$, which we obtain in the following manner. First, we reallocate constituencies to the two groups (pre- and post-assassination or control and treatment seats) randomly, but ensuring that the sample sizes of our new groups match that of our baseline specification. Second, we estimate our assassination effect using these new pre- and post-assassination groups and save the estimates. Finally, we repeat this exercise 10,000 times and save the estimates from each iteration. If in our main results, we were erroneously rejecting the null hypothesis that our coefficient of interest is equal to 0 (i.e., we were attributing a positive assassination effect that does not exist in reality), the placebo coefficients should be very close to the true coefficient. Fig. 7 presents the probability density function of the 10,000 placebo point estimates of $\hat{\beta}_3$: In Panel A, the dependent variable is the vote share of Congress(I) while in Panel B the dependent variable is the likelihood of Congress(I) winning the seat. The distributions are always centered around 0. In Panel A, point estimates generated by the falsification test for $\hat{\beta}_3$ are always less than the true estimates in all cases respectively. In Panel B, the point estimates generated by the falsification test for $\hat{\beta}_3$ are less than the true estimates in 99.92% of cases respectively. The estimated assassination effects are not obtained by chance and we are therefore not erroneously rejecting the corresponding null hypotheses.

4.4.3 Effects on constituency level outcomes

We next consider a set of constituency level outcomes: turnout percentage and margin of victory in constituency c in state s in election year t . Turnout percentage denotes the proportion of electorates who cast their vote. Margin of victory is the difference between the vote share of the first and second placed candidates as a proportion of the vote share of the winner (first placed candidate). The regression specification is given by

Table 8 Assassination and Constituency Level Outcomes

	Turnout (%) (1)	Margin (%) (2)
Year 1991	-3.223*** (1.014)	-1.892 (1.890)
Post-assassination	2.461 (1.669)	0.462 (2.589)
Year 1991 × Post-assassination	-2.675** (1.250)	1.434 (2.161)
SC reserved	-1.309* (0.698)	0.806 (1.166)
ST reserved	-8.573*** (1.316)	0.442 (1.573)
Number of candidates	-0.139*** (0.041)	-0.013 (0.088)
Constant	61.696*** (1.586)	15.062*** (1.684)
Number of constituencies	1,028	1,028
Mean Pre- 1989	59.41	3.88
<i>Difference sstimates</i>		
Post-assassination: 1991–1989	-5.899*** (1.273)	-0.458 (1.937)
1991: post–pre-assassination	-0.214 (1.294)	1.896 (1.954)

OLS regression results presented. In column 1 the outcome variable Turnout percentage denotes the proportion of electorates who cast their vote. In column 2 the outcome variable Margin of victory is the difference between the vote share of the first and second placed candidates as a proportion of the vote share of the winner (first placed candidate). Regressions include state fixed effects. Standard errors, clustered at the state level in parentheses. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

$$y_{cst} = \beta_0 + \beta_1 \text{Year 1991} + \beta_2 \text{Post-assassination} + \beta_3(\text{Year 1991} \times \text{Post-assassination}) + \gamma \mathbf{X}_{cst} + \mu_s + \varepsilon_{cst} \quad (3)$$

Table 8 presents the effects of the assassination on constituency level outcomes: turnout percentage (column 1) and the margin of victory (column 2).

The regression results presented in column 1 indicate that the assassination resulted in a statistically significant 2.67 percentage points lower turnout, though the reduction in turnout is less than the increase in Congress(I) vote share as a result of the assassination. It is possible that some JD and BJP supporters possibly chose not to vote. Consider a voter who has a preference for a particular political party. The incentive of this voter to vote is directly proportional to the probability with which she believes that her preferred candidate will win. Following the assassination, a voter who was not in favour of Congress(I) saw a slim chance of her preferred candidate winning and had a lower incentive to vote. However, even if we assume that all these absent voters would have voted for parties other than Congress(I), that would have not changed the results. Congress(I)

benefitted from either a shift on the part of undecided voters who now choose to vote for Congress(I) or voters who would otherwise have not voted, choosing to turn up and vote for Congress(I). Available data does not allow us to separate out which of the two effects are driving these results,²⁰

However, we do not find any evidence that the assassination of Rajiv Gandhi had an effect on the extent of political competition. As the results in column 2 show, the assassination does not have a statistically significant effect on the margin of victory.

5 Conclusion

In a model of retrospective voting, where voters make their decisions based on prior performance of the contesting candidates, any exogenous shock which is beyond the control of the politician, and to which candidates and political parties cannot respond to, should not affect voting behaviour. However, there is now increasing evidence that exogenous events like natural disasters do lead to a voter response: governments can be blamed for mis-management or rewarded for doing things right. The literature is now increasingly focussing on how events unrelated to public affairs influence election outcomes. In this paper, we add to this literature by examining the effects of a political assassination, which happened in the middle of an election.

We examine the effects of the assassination of Rajiv Gandhi, a former prime minister of India and one of the leading contenders to the post of prime minister. This unanticipated event happened between different phases of the 1991 National Parliamentary election. The Election Commission of India, a semi-independent authority that conducts the elections in India ruled that no new elections would be conducted in the seats that had already completed voting (the pre-assassination seats); and in the seats that had not voted prior to the assassination, voting was postponed by 3 weeks. The parties were unable to change candidates or announce new policies (i.e., this was a non-responing shock); but they were allowed to campaign in the post-assassination seats.

We find that Congress(I), Rajiv Gandhi's party performed poorly in the pre-assassination seats and were on their way to losing the election. However, the assassination changed voter behaviour. Using a difference-in-difference framework we find that that the assassination resulted in an increase in the vote share of Congress(I) and an increase in the likelihood of Congress(I) winning. Ultimately Congress(I) formed government and was the ruling party for the full term of 5 years (until the next election in 1996).

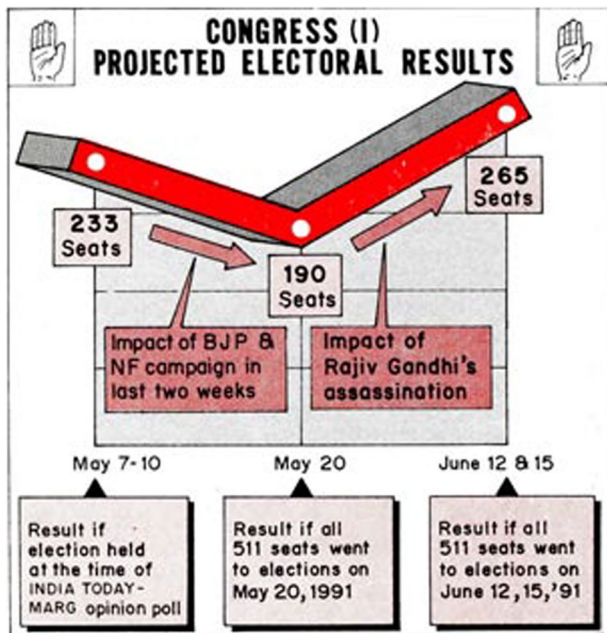
²⁰ Marsh (2023) using data from the US finds that traumatic events decrease turnout in the next election by about 0.5 to 3.7 percentage points (effects are statistically significant). Our results on the effect of the assassination on turnout, while from a very different environment is similar (at 2.68 percentage points). Marsh (2023) also has predictions and results to geographic and temporal proximity of the traumatic event and turnout. The geographic proximity question is not particularly relevant in our case as Rajiv Gandhi's assassination was a *national event* affecting the entire population. To examine whether temporal proximity is important, we estimate an extended version of Eq. (3), where instead of including a Post-assassination dummy and an interaction term (Year 1991 \times Post-assassination), we include Phase 3 and Phase 4 dummies and the corresponding interactions with Year 1991. The effect of the assassination in Phase 3 is greater than that in Phase 4, but the difference is not statistically significant.

Our results show that well-designed campaigns, by changing narratives, can affect voter perceptions and hence election outcomes even when the shock is exogenous and attribution of blame is difficult. While in the pre-assassination period BJP and JD could campaign on Rajiv Gandhi's poor record as prime minister (a message that resonated with voters), in the post-assassination phase Congress(I) controlled the narrative, campaigning on sympathy and Congress(I)'s record on stability. This, in turn, changed voter perceptions about the governing ability of the competing parties. The final electoral effects were driven by a combination of sympathy and (resulting) changes in voter perceptions about what the different parties would bring if they formed government. Our paper shows that even in environments where voters are expected to make their decisions based on prior performance of parties, an unanticipated, random, exogenous event can have electoral consequences.

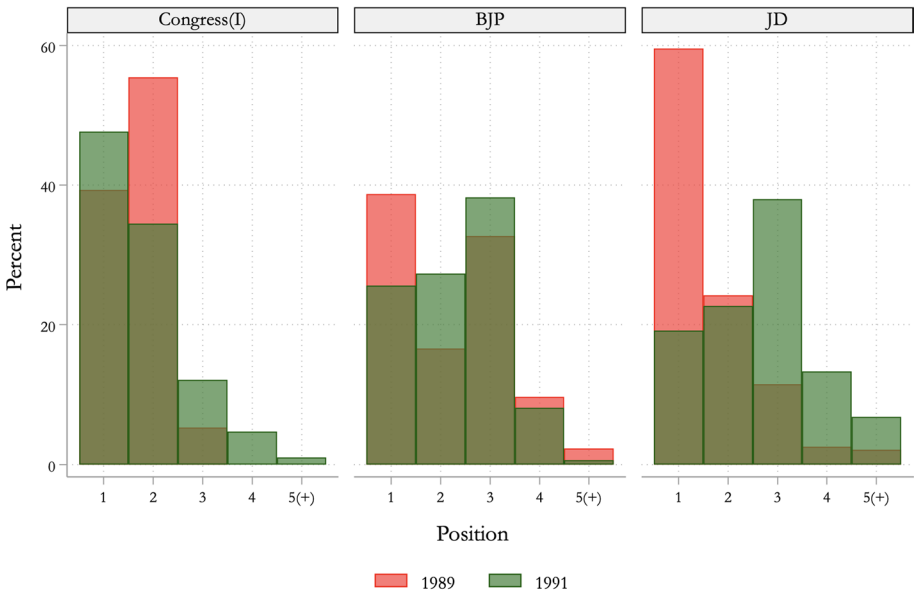
Appendix A

See Figs. 8, 9, 10, 11 and Tables 9, 10, 11, 12.

Fig. 8 Exit Polls. India Today–Marg Exit Polls 1991. See <https://www.Indiatoday.in/magazine/cover-story/story/19910715-exit-poll-rajiv-gandhi-assassination-resulted-in-distinct-swing-in-favour-of-congressi-814550-1991-07-14> India Today



Panel A: 1989 vs 1991



Panel B: 1991. Pre vs Post-assassination

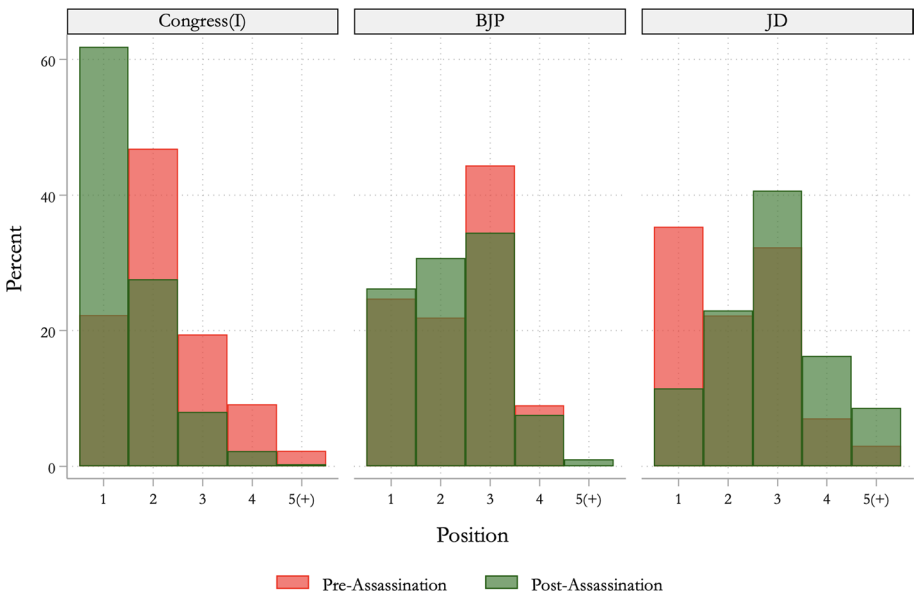


Fig. 9 Position distribution. Distribution of Position for Congress(I), BJP and JD in 1989 and 1991 (Panel A) and in Pre- vs Post-assassination seats in 1991 (Panel B). Position 5 and higher are categorized as 5(+)

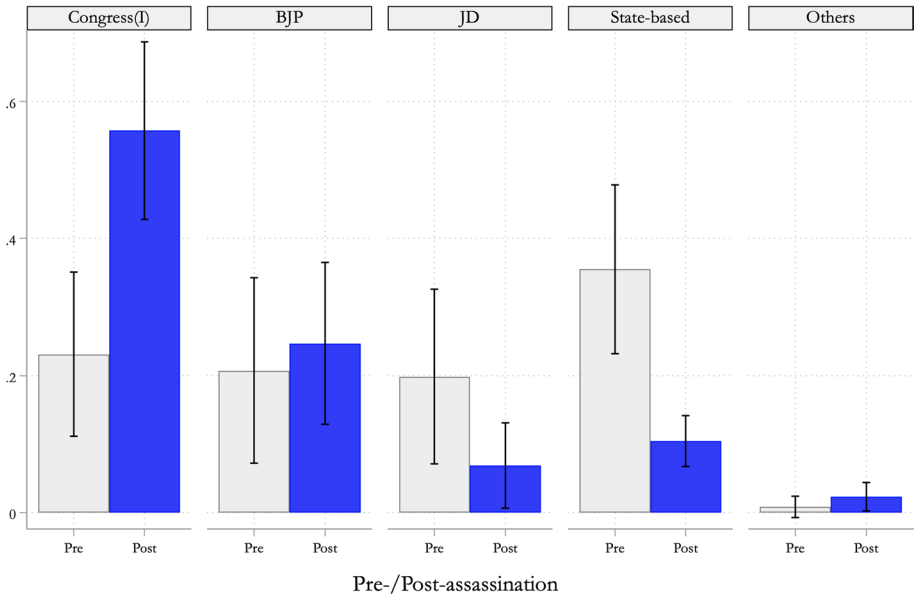


Fig. 10 Marginal effects of post-assassination from generalized conditional logit choice model. Marginal Effects of from McFadden’s Generalized Conditional Logit Choice model (McFadden, 1974; Green, 2018) and the corresponding 90% confidence intervals presented. Sample restricted to 1991 parliamentary elections. Standard errors clustered at the state level

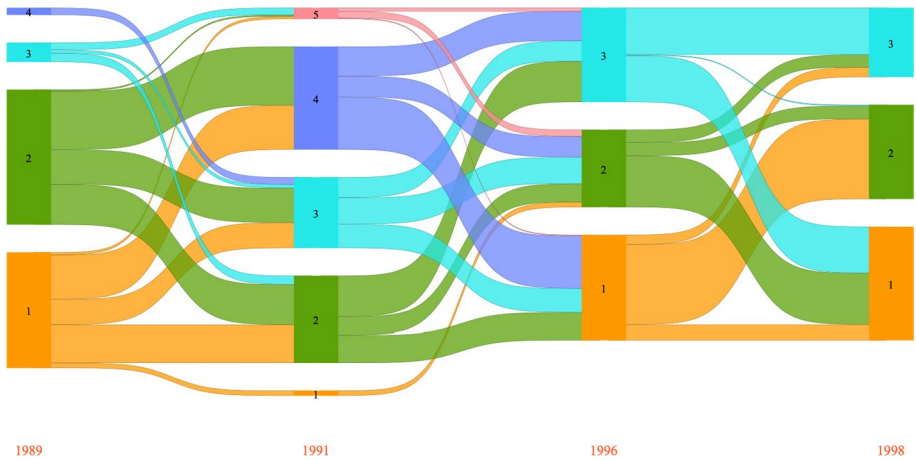


Fig. 11 Phase transition 1989→1991→1996→1998. Sankey plot. Phase Transition across elections 1989→1991→1996→1998 presented. Number of phases vary across elections

Table 9 Robustness 1: no additional controls

	Congress(I)	BJP	JD	State-parties	Others
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: vote shares</i>					
Year 1991	-6.706*** (2.266)	0.460 (4.784)	-17.188*** (4.980)	-0.542 (1.760)	2.316 (1.700)
Post-assassination	-1.511 (1.624)	1.549 (4.726)	-0.678 (7.079)	-0.940 (2.696)	3.437 (3.449)
Year 1991 × Post-assassination	7.456*** (1.655)	-2.205 (4.025)	-1.854 (5.895)	-0.435 (3.129)	-2.647 (2.882)
Constant	41.763*** (1.671)	25.722*** (4.551)	40.628*** (5.556)	25.387*** (1.847)	8.009*** (2.362)
R-squared	0.583	0.629	0.571	0.562	0.259
Number of constituencies	977	680	541	782	1,019
<i>Difference estimates</i>					
Post-assassination: 1991–1989	0.751 (2.201)	-1.744 (2.170)	-19.04*** (4.641)	-0.977 (2.197)	-0.331 (2.176)
1991: post–pre-assassination	5.945*** (1.495)	-0.655 (2.310)	-2.532 (5.033)	-1.375 (3.907)	0.790 (4.052)
<i>Panel B: likelihood of victory</i>					
Year 1991	-0.028 (0.081)	0.117 (0.085)	-0.150* (0.074)	0.083 (0.062)	-0.022*** (0.008)
Post-assassination	0.001 (0.049)	0.040 (0.054)	-0.042 (0.065)	-0.016 (0.030)	0.017 (0.021)
Year 1991 × Post-assassination	0.138 (0.083)	-0.077 (0.073)	-0.015 (0.072)	-0.056 (0.053)	0.010 (0.017)
Constant	0.381*** (0.047)	0.139** (0.064)	0.302*** (0.062)	0.154*** (0.021)	0.024 (0.015)
R-squared	0.375	0.285	0.360	0.401	0.151
Number of constituencies	1,028	1,028	1,028	1,028	1,028
<i>Difference estimates</i>					
Post-assassination: 1991–1989	0.110 (0.0720)	0.0398 (0.0962)	-0.165*** (0.0566)	0.0275 (0.0200)	-0.0122 (0.0144)
1991: post–pre-assassination	0.139** (0.0620)	-0.0372 (0.0520)	-0.0567 (0.0508)	-0.0721 (0.0667)	0.0275 (0.0226)

OLS regressions presented. Panel A: Dependent variable is the number of votes received by the party as a proportion of the total number of valid votes cast in the constituency. Panel B: Dependent variable takes the value of 1 if the relevant party wins the seat; 0 otherwise. Standard errors, clustered at the state level in parentheses. Regressions include state fixed effects. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 10 Robustness 2: Constituency Fixed Effects

	Congress(I) (1)	BJP (2)	JD (3)	State-Parties (4)	Others (5)
<i>Panel A: vote shares</i>					
Year 1991	-6.719*** (2.140)	4.292 (3.609)	-16.974*** (3.748)	-0.582 (1.956)	2.376 (2.505)
Year 1991 × Post-assassination	7.467*** (1.625)	-4.322 (3.094)	-1.691 (4.774)	-1.225 (2.866)	-2.713 (3.059)
Number of candidates	-0.031 (0.079)	-0.077 (0.162)	0.125 (0.205)	-0.067 (0.107)	0.010 (0.141)
Constant	41.567*** (1.505)	30.037*** (2.421)	40.855*** (2.992)	29.304*** (1.211)	9.790*** (1.608)
R-squared	0.855	0.852	0.780	0.927	0.692
Number of constituencies	940	420	422	658	998
<i>Panel B: likelihood of victory</i>					
Year 1991	-0.021 (0.068)	0.103 (0.085)	-0.144* (0.078)	0.081 (0.058)	-0.019*** (0.006)
Year 1991 × Post-assassination	0.136 (0.080)	-0.073 (0.073)	-0.017 (0.072)	-0.055 (0.051)	0.009 (0.017)
Number of candidates	-0.001 (0.002)	0.002** (0.001)	-0.001 (0.003)	0.000 (0.003)	-0.001 (0.001)
Constant	0.393*** (0.051)	0.141*** (0.046)	0.287*** (0.039)	0.139*** (0.037)	0.040*** (0.008)
R-squared	0.746	0.657	0.725	0.829	0.569
Number of constituencies	1,014	1,014	1,014	1,014	1,014

OLS regressions presented. Panel A: Dependent variable is the number of votes received by the party as a proportion of the total number of valid votes cast in the constituency. Panel B: Dependent variable takes the value of 1 if the relevant party wins the seat; 0 otherwise. Standard errors, clustered at the state level in parentheses. Regressions include constituency fixed effects. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 11 Robustness 3: Weighted Regressions

	Congress(1)	BJP	JD	State-Parties	Others
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: vote shares</i>					
Year 1991	-6.682** (2.500)	-0.079 (4.969)	-16.622*** (5.209)	0.704 (1.883)	2.226 (2.103)
Post-assassination	-1.664 (1.848)	1.564 (4.856)	-0.965 (7.340)	-1.140 (2.977)	3.199 (3.419)
Year 1991 × Post-assassination	7.481*** (1.720)	-1.852 (4.220)	-1.703 (6.197)	-0.718 (3.076)	-2.723 (2.893)
SC reserved	-0.224 (0.765)	0.739 (0.877)	-0.505 (1.503)	0.088 (1.527)	-1.653* (0.892)
ST reserved	3.586** (1.708)	-1.744 (3.064)	-3.876 (3.739)	2.332 (3.174)	1.470 (2.723)
Number of candidates	-0.036 (0.064)	0.058 (0.098)	-0.102 (0.075)	-0.179* (0.088)	0.038 (0.071)
Constant	42.060*** (1.858)	25.086*** (5.009)	42.620*** (6.243)	27.958*** (2.456)	7.309*** (1.872)
R-squared	0.583	0.624	0.578	0.565	0.199
Number of constituencies	977	680	541	782	1,019
<i>Difference Estimates</i>					
Post-assassination: 1991–1989	0.799 (2.349)	-1.931 (2.227)	-18.32*** (4.708)	-0.0144 (2.336)	-0.497 (2.190)
1991: post–pre-assassination	5.817*** (1.777)	-0.288 (2.604)	-2.668 (5.079)	-1.859 (3.926)	0.476 (3.948)
<i>Panel B: likelihood of victory</i>					
Year 1991	-0.018 (0.081)	0.102 (0.086)	-0.144* (0.075)	0.085 (0.066)	-0.025** (0.011)
Post-assassination	0.007 (0.046)	0.043 (0.055)	-0.043 (0.064)	-0.017 (0.030)	0.010 (0.022)
Year 1991 × Post-assassination	0.123 (0.084)	-0.077 (0.072)	-0.011 (0.074)	-0.055 (0.055)	0.020 (0.017)
SC reserved	0.022 (0.030)	-0.001 (0.017)	0.029 (0.027)	-0.034 (0.028)	-0.016*** (0.004)
ST reserved	0.254*** (0.066)	-0.159 (0.101)	-0.105 (0.082)	-0.011 (0.049)	0.021 (0.029)
Number of candidates	-0.001 (0.002)	0.003** (0.001)	-0.002 (0.001)	-0.000 (0.001)	-0.000 (0.000)
Constant	0.362*** (0.057)	0.118* (0.059)	0.328*** (0.070)	0.166*** (0.022)	0.026** (0.012)
R-squared	0.380	0.292	0.364	0.400	0.065
Number of constituencies	1,028	1,028	1,028	1,028	1,028
<i>Difference estimates</i>					
Post-assassination: 1991–1989	0.105* (0.0734)	0.0251 (0.0964)	-0.155*** (0.0544)	0.0298 (0.0227)	-0.00500** (0.0146)
1991: post–pre-assassination	0.130** (0.0522)	-0.0335 (0.0509)	-0.0539 (0.0500)	-0.0721 (0.0679)	0.0292 (0.0201)

Table 11 (continued)

Weighted OLS regression results presented. Weights are given by the number of electors in the relevant constituency. Panel A: Dependent variable is the number of votes received by the party as a proportion of the total number of valid votes cast in the constituency. Panel B: Dependent variable takes the value of 1 if the relevant party wins the seat; 0 otherwise. Standard errors, clustered at the state level in parentheses. Regressions include state fixed effects. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 12 Robustness 4: No Fixed Effects

	Congress(I)	BJP	JD	State-Parties	Others
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: vote shares</i>					
Year 1991	-5.559** (2.410)	-6.483 (6.176)	-17.414*** (4.857)	6.930*** (2.015)	1.815 (1.952)
Post-assassination	3.606 (2.844)	6.504 (8.394)	-6.824 (4.588)	-4.069 (9.460)	1.733 (2.490)
Year 1991 × Post-assassination	6.596*** (1.882)	-0.525 (5.947)	-2.949 (6.446)	-3.746 (3.695)	-1.446 (2.959)
SC reserved	-2.034* (1.185)	5.847*** (1.784)	0.024 (1.906)	-3.912 (2.302)	-2.666** (1.108)
ST reserved	2.028 (3.222)	8.320** (3.318)	-4.613 (4.246)	-10.602 (6.233)	0.862 (3.392)
Number of candidates	-0.154 (0.115)	0.519*** (0.134)	-0.189* (0.097)	-0.792*** (0.196)	0.028 (0.073)
Constant	40.505*** (3.528)	16.969** (7.355)	48.763*** (1.879)	37.457*** (9.529)	8.936*** (2.464)
R-squared	0.115	0.104	0.313	0.120	0.010
Number of constituencies	978	685	543	783	1,020
<i>Difference estimates</i>					
Post-assassination: 1991–1989	1.037 (2.215)	-7.008* (3.664)	-20.36*** (4.953)	3.185 (2.848)	0.370 (2.319)
1991: post–pre-assassination	10.20*** (3.255)	5.979 (4.540)	-9.773** (4.701)	-7.815 (6.716)	0.287 (3.232)
<i>Panel B: likelihood of victory</i>					
Year 1991	-0.008 (0.065)	0.068 (0.089)	-0.170** (0.062)	0.128** (0.062)	-0.018** (0.008)
Post-assassination	0.196* (0.109)	0.081 (0.085)	-0.091 (0.110)	-0.191 (0.164)	0.005 (0.015)
Year 1991 × Post-assassination	0.132 (0.078)	-0.066 (0.071)	-0.012 (0.071)	-0.068 (0.056)	0.014 (0.017)
SC reserved	-0.028 (0.024)	0.049* (0.028)	0.080** (0.036)	-0.078*** (0.025)	-0.024*** (0.007)
ST reserved	0.152* (0.083)	-0.034 (0.069)	-0.038 (0.074)	-0.094* (0.053)	0.014 (0.033)
Number of candidates	-0.003 (0.003)	0.008*** (0.002)	0.003 (0.003)	-0.007 (0.004)	-0.001 (0.000)
Constant	0.282** (0.127)	0.022 (0.057)	0.291** (0.138)	0.365* (0.207)	0.040*** (0.014)
R-squared	0.096	0.046	0.072	0.103	0.009
Number of constituencies	1,028	1,028	1,028	1,028	1,028
<i>Difference estimates</i>					
Post-assassination 1991–1989	0.124* (0.0698)	0.00189 (0.0960)	-0.182*** (0.0583)	0.0604** (0.0290)	-0.00458 (0.0154)
1991: post–pre-assassination	0.327*** (0.0835)	0.0157 (0.0849)	-0.103 (0.0734)	-0.259* (0.149)	0.0185 (0.0142)

Table 12 (continued)

OLS regression results. Panel A: Dependent variable is the number of votes received by the party as a proportion of the total number of valid votes cast in the constituency. Panel B: Dependent variable takes the value of 1 if the relevant party wins the seat; 0 otherwise. Standard errors, clustered at the state level in parentheses. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

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