

# Partisan In-Group Bias Dynamics Before and After Elections

## [Working draft - please do not circulate]

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### Abstract

Partisanship is one of the most persistent and consequential forms of group identity in democratic societies. A strong partisan in-group bias is documented across a variety of domains, and especially when individuals decide whether to trust, cooperate, and share resources with others. In dozens of countries, citizens strongly discriminate against out-partisans in various contexts with real life consequences, and these behaviours are unmitigated by the social norms that govern other kinds of group-based discriminatory behaviours. Yet we know surprisingly little about the factors that constrain and amplify the partisan in-group bias, and in particular, on the impact of electoral cycles, which are a strong determinant of party identity salience. Here, I provide evidence that partisan in-group bias levels rapidly change when elections take place, using a panel study in which the same 1,100 respondents participated in partisan-cued dictator games a week before and a week after the 2015 Canadian Federal Election. I find that the size of the pre-election partisan in-group bias is cut by a full third within two days of election day. I further find that the bulk of the decline is explained by a decrease in out-group discrimination, whereas in-group favouritism levels remain stable. I also find preliminary evidence of between-party variance in expressions of in-group bias, with supporters of winning / gaining parties showing a relatively large decrease in in-group bias following the election, while partisans whose parties lost office or seats sustain more similar levels of in-group bias to those they had before the election. Finally, I find suggestive evidence that partisans who vote strategically experience a steep decrease in partisan in-group bias levels after the election has concluded, compared with partisans who voted in line with their party identity.

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# 1 Introduction

In almost every democracy, political parties serve as a major source of group identity. Parties by their nature represent the interests of collectives, and voters consequently develop strong attachments to partisan group identities. Those partisan identities govern political behaviours such as voting and opinion formation, but they carry implications far beyond the political realm. Individuals make socially and financially consequential judgments based on partisanship - they tend to trust, materially benefit, and cooperate far more with those who share their own partisan identity than they do with out-partisans (Carlin and Love, 2013; Iyengar and Westwood, 2015; McConnell et al., 2018). In multiple studies, individuals are found to discriminate based on partisan lines equally as much, or more, than they do based on race and ethnicity (Carlin and Love, 2016; Michelitch, 2015; Westwood et al., 2018). In short, a strong and persistent partisan in-group bias in non-political judgments and behaviours is an established empirical regularity.

At the same time, the partisan group identities that underlie such outcomes are also malleable, and their overall prevalence rises and decreases in correlation with the dynamics of political electoral cycles (Michelitch and Utych, 2018). And despite the fluid nature of partisan group identity, we have relatively little insight on whether expressions of partisan in-group bias are also conditioned by proximity to political events. Do citizens favour their co-partisans and discriminate against out-partisans at the same levels before and after elections? Are such change patterns contingent on the identities of winners and losers? And are there other factors that condition partisan-based judgment biases around politically-critical events?

In this paper, I provide evidence that the partisan in-group bias is highly volatile around elections, in predictable patterns, and specifically, that citizens' willingness to discriminate partisan out-group members significantly decreases - on average, by a third - within a few days of a national election taking place. In doing so, I leverage a panel study conducted shortly before and after the 2015 Canadian Federal Election, in which approximately 1,100 respondents participated in a series of dictator games where the recipient's partisan identity was manipulated.

I further theorize that discriminatory giving towards out-partisans changes around elections in ways that are tied to the eventual electoral fortunes of one's in-group, such that supporters of a losing party will sustain high in-group bias levels after an

election relative to other partisans, while supporters of the eventual winners will exhibit a pronounced reduction in out-partisan discrimination, post-election. Results from this study provide preliminary support for these hypotheses.

Finally, I theorize that strategic voters are motivated to tone down expressions of out-group discrimination after having voted for a party other than the one they identify with. I find that after the election, respondents who are likely to have voted strategically increase their level of generosity towards out-partisans at double the rate of those who voted in line with their party ID.

Taken together, these results suggest that the partisan in-group bias in altruistic giving is highly volatile - much more so than partisan attachment, which is normally thought to be its principal cause. They further suggest that changes in partisan-based discrimination on non-political outcomes may also be conditioned by fast changes to the salience of partisan group identities relative to other group attachments, and that motivated reasoning and rapid emotional reactions may differentially impact the importance that different voters ascribe to their partisan identities before - and after - elections.

From a theoretical standpoint, these findings underscore the importance of incorporating a dynamic perspective when studying the non-political consequences of prevalent partisan group identities, and of finding ways to identify face-paced, short-term changes in political attitudes and dispositions. This is nascent research agenda that has already been producing promising contributions (Michelitch, 2015; Oc et al., 2018; Rand et al., 2009), and likely to grow in importance given the dominant role that partisan identities play in a wide range of real life behaviours.

The remainder of this article is organized as follows. In the next section, I briefly review the existing literature relating to dynamic partisan in-group bias, and derive three types of hypotheses. I then describe the study design and the Canadian electoral context, and follow with an analysis of the results. The final section concludes with a discussion of the findings and potential future extensions.

## **2 Theoretical Background**

This section provides a brief overview of the existing literature and findings on partisan group identity, focusing on temporal dynamics. I first review the theoretical foundations of group identity and its implications for individual-level behaviour,

and on material discriminatory behaviour in particular. I then look at the role that partisanship has as a major type of social group identity, and cover existing, static findings on partisan in-group bias. Finally, I review the emerging literature on dynamic partisanship effects and derive hypotheses.

Group identities are a strong determinant of individual-level decision making and of discrimination in particular. Social identity theory explains that viewing oneself and others as members of (different) groups creates strong psychological group attachments, which in turn are expressed in a heightened perception of differences between in-group and out-group members; in viewing in-group members more favourably and developing a sense of shared fate with them; and ascribing negative qualities to out-group members, such as inferiority and ill intent (Tajfel and Turner, 1979; Tajfel, 2010).

Group identities activate stereotypical thinking through at least two psychological pathways. First, they provide a readily available heuristic shortcut for making judgments on others during social interactions, especially in the absence of other information cues (Tversky and Kahneman, 1974). Second, they prime differential affective reactions, amplifying negative emotions towards and evaluations of out-group members (Cuddy et al., 2007; Fiske et al., 2007). The outcome, almost invariably, is an increase the likelihood of discrimination against out-group members (Goette et al., 2006; Mullen et al., 1992), as is often expressed in differential levels of altruistic giving to, and preferential treatment of in-group over out-group members (Michelitch, 2015; Whitt and Wilson, 2007). This tendency to discriminate against out-group members emerges at a very young age (Dunham et al., 2011; Fehr et al., 2008) and can occur almost instantaneously when individuals are assigned to arbitrary groups with no bearing on preexisting personal features (Mullen et al., 1992; Tajfel et al., 1971). These behaviours are often argued to have evolutionary or pre-historic roots, as they are thought to provide in-group members with survival advantages (Choi and Bowles, 2007; Marlowe, 2005), and some evidence suggests that individuals have a genetic predisposition towards expression of in-group bias (Lewis and Bates, 2010).

Perhaps unsurprisingly, such in-group bias is found across a variety of highly salient group identities, including gender (Eckel and Grossman, 1998; Rand et al., 2009), race and ethnicity (Whitt and Wilson, 2007), class (Benenson et al., 2007; Piff et al., 2010), and religion (Brandt and Van Tongeren, 2017; Henrich et al., 2010)

- all of which arguably more deep-rooted and precede partisanship-based group identity (Westwood et al., 2018). And yet, partisan-based in-group bias results in discrimination levels that are consistently as strong, or stronger than those that are accounted for by factors like ethnicity and race based group identities (Carlin and Love, 2013; Michelitch, 2015; Iyengar and Westwood, 2015).

Several explanations have been offered in the literature for the strength of partisan-based group discrimination. First, party stereotypes are a potent source of heuristic judgment because they contain arguably reliable information on policy preferences, group alliances, status, and traits (Carlin and Love, 2013). By providing multiple signals they help to quickly fill out information gaps on others using readily available ‘best guesses’ (Rahn, 1993). Second, parties are a source of social identity above and beyond being a proxy for other attributes (Green et al., 2004; Huddy et al., 2015). Third, and as opposed to other types of groups with no clear personification, the public image of party leaders may be used heuristically to evaluate party supporters. Party leaders who are viewed as selfish, corrupt, or untrustworthy may result in their voters being judged as such by extension (Mondak, 1993). Beyond out-group stereotyping, partisans also strongly adhere to in-group leader cues that further entrench those identities (Druckman et al., 2013). Fourth, partisan identities are not subject to the same degree of social regulation as other identities. As Westwood et al. (2018, 334) explain, “the intensely competitive nature of democratic representation encourages parties to demonstrate overt hostility toward their opponents - hostility that is un-tempered by the social norms of respect and tolerance that regulate competition between most social groups.” Finally, social network homophily (Mutz, 2006) has a compound effect on party-based group identities, because increased polarization and selective exposure to partisan social media and news can exacerbate negative stereotypical thinking on out-partisans with little mitigating counter-effects (Fiorina and Abrams, 2008; Messing and Westwood, 2014).

Partisan identities therefore serve as a major cause of in-group bias, and the empirical findings on the resulting implications are daunting: partisans strongly discriminate against out-partisans in altruistic giving Fowler and Kam (2007); Iyengar and Westwood (2015); Loewen (2010), trust decisions (Carlin and Love, 2013; Michelitch, 2015), and a host of other material outcomes (McConnell et al., 2018).

While the partisan in-group bias is consistently found whenever it is tested for, and appears to be a robust regularity, a host of theoretical arguments and nascent

findings put this consistency into question, and suggest that it should fluctuate over time, and especially around elections and other politically important events. First, partisan-based discrimination is by definition a function of citizens' partisan identification. But partisanship itself is a fluid construct. In particular, partisanship levels rise and fall predictably with electoral cycles (Michelitch and Utych, 2018): partisanship declines after elections, and gradually starts to rise again after a mid-point between the previous election and the subsequent one, creating an inverse U pattern. This pattern is most often attributed to the various effects that electoral competition and election campaigns have on individual-level group identity. Outside of politics, group competition increases the salience of group attachment and identity, and amplifies in-group bias (Brewer and Kramer, 1985; Cikara and Van Bavel, 2014; Whitt and Wilson, 2007). And because elections “are the climax of intense group competition over state resource and policy control” (Michelitch and Utych, 2018, 44) they promote partisan in-group cohesion and out-group threat. Party campaigning is itself cyclical in nature (Box-Steffensmeier and Lin, 1996), and involve mass public mobilization and resource concentration along partisan lines before elections, providing citizens with opportunities to participate in partisan events like rallies, meetings, and social media posting in support of their parties, which in turn strengthen partisan attachment, and frames political conflict along partisan lines (Iyengar and Simon, 2000; Huddy et al., 2015; Lupu, 2013). Moreover, electoral cycles also impact government expenditure in discriminatory ways (Alesina et al., 1997; Golden and Min, 2013; Milesi-Ferretti and Spolaore, 1994), and violence against elected officials (Daniele and Dipoppa, 2017), both of which can further amplify partisan sentiments.

All of these processes suggest that partisan in-group bias should be most strongly expressed in the period of time leading up to elections. What is less clear is what happens to partisan-based discriminatory behaviour once election campaigns cease to operate and elections have concluded. Empirical evidence on post-election in-group bias is scarce and inconclusive: Oc et al. (2018) find mixed patterns of post-election partisan bias change around the 2016 US election<sup>1</sup>; Michelitch (2015) shows that partisan in-group bias in Uganda declines between pre-election and post-election periods, but only between non-coethnic individuals, whereas elections have no impact

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<sup>1</sup>Further, this study uses different mTurk samples before and after the election, making inference challenging.

on partisan bias for coethnics. And in the more contingent context of intra-party factionalism, Rand et al. (2009) document a gradual decline in in-group bias among supporters of opposing primary candidates in the 2008 US Democratic party presidential primaries - a decline that unfolds over several weeks after the nomination has been clinched, such that candidate-based in-group bias disappears only after the Democratic national convention.

From a theoretical standpoint, many of the factors that make partisanship salient leading up to elections are no longer present once they have concluded - partisan resources are reassigned to other activities, media attention shifts towards non-electoral politics - and the source of competition for power has been eliminated once voting has taken place. From this follows that partisan in-group bias should substantially decrease after elections. However, the more nuanced nature of this dynamic has not been the subject of clear theorizing, and along with the contradictory findings from existing evidence, it leaves several important questions open:

First, insofar as a post-election decrease in in-group bias occurs, it is unclear how rapidly it happens. While partisan-based discrimination patterns can fluctuate very rapidly and vanish within days given certain events (Carlin and Love, 2016), campaign-based mobilization may persist after elections when results are in dispute, or because of post-election dynamics like coalition formation (Michelitch, 2015). Comparative findings (Michelitch and Utych, 2018) suggest that overall partisanship levels decline relatively slowly after elections, and almost not at all in highly developed democracies. I therefore promote two opposing hypotheses:

*H1a: pre-election partisan in-group bias levels significantly decrease immediately following an election.*

*H1b: pre-election partisan in-group bias levels are sustained immediately following an election.*

Second, partisan in-group bias in giving can occur through two non-mutually-exclusive processes - one is *in-group favouritism*, which means giving preferential treatment to co-partisans relative to a non-partisan base rate, and the other is *out-group discrimination*, in which out-partisans are discriminated against relative to non-partisans. In non-dynamic studies, partisan in-group bias in giving is alter-

nately found to be the result of out-group discrimination (Carlin and Love, 2016; Iyengar and Westwood, 2015), of in-group favouritism (Westwood et al., 2018, in the case of Belgium), or a mix of both (Carlin and Love, 2013; Fowler and Kam, 2007; McConnell et al., 2018, see also the remaining cases in Westwood et al., 2018). Whether a pre-election the in-group bias stems from in-group favouritism or from out-group discrimination, it is unclear, from a theoretical perspective, if either of those should be more affected than the other by post-election dynamics of reduced partisanship salience, competition, and mobilization resources. Therefore, I am interested in testing the following two (non-mutually-exclusive) hypotheses:

*H2a: in-group favoritism declines immediately following an election, and explains the majority of observed change in in-group bias around election.*

*H2b: out-group discrimination declines immediately following an election, and explains the majority of observed change in in-group bias around election.*

Third, in-group bias change around elections is likely conditioned by the electoral fates of participating parties, and in particular by the identity of winners and losers. Election outcomes evoke strong emotional reactions in supporters of losing parties, such as threat, anger and sadness (McCann, 1997; Pierce et al., 2016; Rand et al., 2009; Stanton et al., 2009) - and these reactions can result in sustained partisan identity salience after results are known, and subsequently, in a continued expression of partisan in-group bias. Conversely, winners experience an opposite set of emotions, singling them out as more likely candidates for substantially reduced partisan-based discriminatory behaviour post-election.<sup>2</sup>

*H3a: Relative to other partisans, supporters of losing parties exhibit the smallest partisan in-group bias change after an election.*

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<sup>2</sup>Suggestive evidence for these divergent patterns is found by (Oc et al., 2018), who expect Republicans and Democrats' in-group bias to take opposite trajectories following the 2016 US election, with Democratic partisans showing greater out-group discrimination after the election, and Republican partisans showing reduced out-group discrimination. While results presented in the paper do not meet conventional levels of statistical significance, they are substantively in line with the authors' argument.

*H3b: Relative to other partisans, supporters of winning parties exhibit the largest partisan in-group bias change after an election.*

Fourth, I expect in-group bias change patterns around elections to be expressed differently for sincere and for strategic voters. The former vote for the party they identify with, while the latter vote for another party for strategic considerations, such as coordinating to win over a least-preferred party or candidate Cox (1997). Voting strategically means acting in violation of one's partisan identity, which, I argue, creates cognitive dissonance that challenges one's previously defined partisan in-group and out-group boundaries. Minimizing this dissonance can be done by updating one's belief about attachment to partisan in-group, or by redefining its boundaries. Therefore, if partisan identity is indeed the main source of in-group bias in giving, then strategic voters should be the most motivated to minimize the degree of discrimination they exhibit towards out-partisans.

*H4: Strategic voters' in-group bias decreases more strongly after elections relative to sincere voters' in-group bias.*

### **3 Study Design**

This study was conducted in Canada during the 2015 Federal Election. The Canadian case sets a high bar for identifying dynamic changes in partisan in-group bias, according to the typology and data offered by Michelitch and Utych (2018): Canada is a highly developed country with a high quality of democracy, very high party permanence over the electoral cycle, and a relatively small effective number of parties in recent elections. Together, these features suggest that electoral cycle fluctuations in partisanship levels should be minimal relative to other democracies, posing a hard test for tests of volatility in election-related partisan in-group bias.

The 2015 election itself was characterized by having the longest campaign period in recent Canadian history (August through mid-October), and by the final outcome being decisive yet highly unpredictable almost up to election day. The incumbent right-wing Conservative Party, which had been in power since 2006, lost its majority and was reduced from 159 seats in the House of Commons to 99. The second

largest party going into the election, the social-democratic New Democratic Party (NDP), which at the beginning of the campaign was seen as most likely to replace the Conservatives, was reduced from 95 seats to 44. The election was won by the centre-left Liberal Party, gaining 148 seats over their previously held 36 and forming a majority government. Two other parties are represented in the Canadian House of Commons: the Bloc Québécois, a Quebec separatist party, gained eight seats to a total of ten, and the Green Party was reduced from two seats to one.

[ELECTION RESULT TABLE]

Strategic voting played a major role in determining the final outcome of the election, as both the NDP and the Liberals attempted to position themselves as most likely to defeat the Conservatives, and courted voters of both parties, of the Green Party, and of non-partisans who were voting against the Conservatives (Kashani and Himmelman, 2015). This created a large-scale coordination problem, as a split NDP-Liberal vote would have likely resulted in a Conservative win (as was the case in the previous two elections). Eventually, strategic voters coalesced around the Liberal Party, but the party's eventual win was not obvious to voters until a few days before the election. In the pre-election survey mentioned above, respondents were asked to estimate the likelihood of any party winning a majority of seats in the House of Commons. As figure 1 illustrates, the mode response for each of the three major parties was 50% a week before the election.

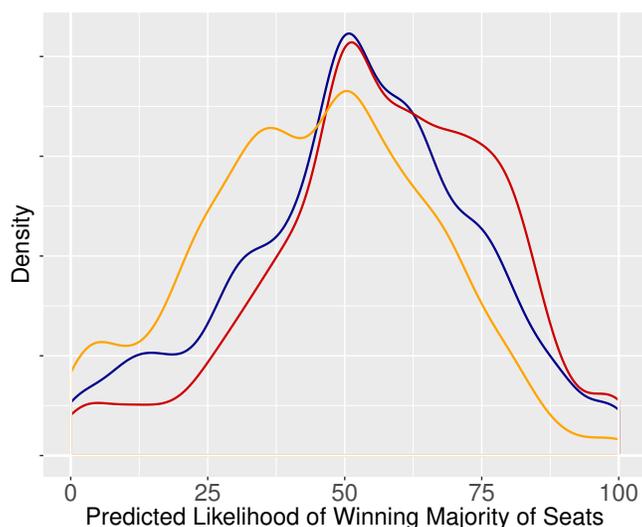


Figure 1: Predicted likelihood of each major party in the 2015 Canadian Federal Election winning a majority of seats. Lines are density plots of response distributions for questions in the pre-election survey. Orange - NDP. Blue - Conservative Party. Red - Liberal Party.

The election was held on October 19 2015.<sup>3</sup> A pre-election online survey was fielded between October 9 and October 16 with a representative sample of 1628 voting-age Canadians who completed the survey and passed attention checks. The same respondents were then contacted again 48 hours after election day, and asked to participate in a follow-up online survey that was fielded between October 21 and October 26. Of the pre-election respondent, 1142 were re-interviewed, resulting in a 70% re-interview rate. Removing several incomplete responses, the effective N for the study is 1120. Descriptive statistics on age, gender, regional distribution, and self-reported party ID are reported in the SI. Re-interview likelihood was not significantly predicted by any of the standard demographic and political variables, nor by responses to the instrument. See SI for full results. Both surveys were available in English and in French.

The main instrument used in this study was a modified dictator game with randomized partisan cues, franchised from previous studies that examined partisan in-group bias in altruistic giving (Fowler and Kam, 2007; Iyengar and Westwood,

<sup>3</sup>The overwhelming majority of votes were cast on election day. Advance polls were open between October 9 and 12 and accounted for 20.8% of all votes cast, according to Elections Canada. Another 3.5% of votes were cast in special ballots, which include voting by mail or in an Elections Canada office.

2015). The full module text is available in the SI. Respondents were asked to divide a hypothetical \$100 between themselves and an anonymous recipient, who was alternately described as being a member of the NDP, Conservative Party, Liberal Party, or the Bloc Québécois.<sup>4</sup> A control condition was also included, in which no information was provided on the partisan identity of the recipient. The module was fielded to all respondents in both the pre-election and post-election surveys. In both surveys, respondents were shown all of the treatment conditions in randomized order. This repeated measure design has been employed in other recent studies of partisan in-group bias (Carlin and Love, 2016; Westwood et al., 2018).<sup>5</sup>

The pre-election survey included various substantive policy preference and questions and a standard battery of demographics questions. A party ID question requested respondents to indicate which federal political party they usually identify with, which I use to identify the respondents' partisan in-group. This item was followed by a 3-point partisanship strength question. Respondents also self-placed themselves on a 0-10 left-right scale. In the post-election survey, respondents indicated whether they voted or not, and to which party. The full wording of the relevant items is available in the SI.

## 4 Results

The basic quantity of interest in the following analysis is the amount given by respondents to a recipient in the dictator game out the amount they are allocated. Because dollar allocations are done out of an allocation of \$100, I use dollar amounts and percentage point proportions interchangeably. To extract the degree of in-group bias in giving, I focus on respondents who indicated a party ID, and compare the amount they give to co-partisan recipients (in-group giving) to the average amount given to out-partisan recipients (out-group giving). A positive difference between in-group giving and out-group giving reflects an in-group bias. Giving more to in-group members relative to a recipient in the control condition is reflective of in-

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<sup>4</sup>The Green Party was not used as a cue.

<sup>5</sup>Repeated exposure to the instrument can potentially result in various demand effects. The randomized order of presentation of the vignettes arguably alleviates some of the concern. A robustness check with fixed effects for response round revealed that [COMPLETE]; full results are available in the SI. Because all respondents in the analyzed sample were shown every treatment condition, random assignment is by design balanced across all relevant variables.

group favouritism, whereas giving less, on average, to out-group members relative to the control condition is reflective of out-group discrimination. In what follows, I examine these quantities before and after the election, and evaluate the magnitude of change.

Table 1 provides the main overall results for the dictator game experiment. Before the election, in the control condition where no partisan cues were provided, respondents allocated on average \$39 to a hypothetical recipient, or almost 40% of the original amount. This proportion remained virtually identical after the election, with a statistically insignificant (evaluated using a two-sided t-test) and substantially marginal change of +0.15 percentage points (pp). Giving to partisan targets, however, noticeably changed before and after the election. Conservative targets were given on average a relatively low \$34.75 prior to the election, and this amount significantly increased by +2.54pp after the election took place. Giving to all other partisans also increased after the election, although the change was substantially smaller and statistically insignificant.

Target	Pre-election	Post-election	Change
No-cue (control)	39.09	39.24	+0.15
Bloc	33.13	34.85	+1.72
Conservative	34.75	37.29	+2.54**
Liberal	37.48	38.27	+0.74
NDP	36.93	38.13	+1.20
In-group giving	41.71	41.07	-0.64
Out-group giving	33.16	35.47	+2.31**
In-group bias	+8.18	+5.51	-2.67***

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 1: Giving in the dictator game, by treatment condition and timing, and overall in-/out-group giving. Figures are mean dollar amounts given to targets. In-group giving is the mean amount given by partisans to a co-partisan target. Out-group giving is the mean of average amounts given by partisans to all out-partisans. In-group bias is the difference between in-group and out-group giving in the dictator game. Figures are dollar amounts out of an initial allocation of \$100.  $p$ -values are from two-sided t-tests.

Extracting the overall degree of in-group bias is done by subtracting the allocation to co-partisans (in-group giving) from the average allocation to out-partisans (out-group giving). By following this process for allocations done before and after the election, *H1a* and *H1b* can be evaluated. While it is immediately clear that a sizable (5.51pp) in-group bias persists after the election, it is only about two thirds of the size of the pre-election in-group bias of 8.18pp - a highly significant difference ( $p = 0.007$ ). These findings, illustrated in Figure 2, support *H1a* - pre-election partisan in-group bias levels significantly decrease immediately after the election.

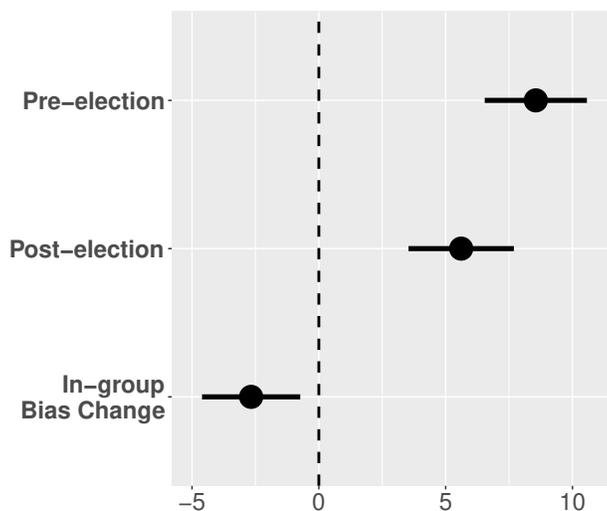


Figure 2: Change in dictator game partisan in-group bias, moving from a week before to a week after the 2015 Canadian Federal Election. Bars are 95% confidence intervals from two-sided t-tests of the difference in pre- and post-election in-group bias.

Evaluating *H2a* and *H2b* is done by examining whether the decline in in-group bias is accounted for by a decrease in in-group favouritism, and/or by a drop in out-group discrimination. Results are reported in Table 2. The size of pre-election in-group favoritism is the difference between in-group giving and giving in the control condition. This difference is +2.83pp and is statistically significant ( $p = 0.005$ )<sup>6</sup>. However, it is substantially smaller than the degree of out-group discrimination

<sup>6</sup>The differences do not fully correspond to direct subtraction or addition of the relevant figures in Table 1 owing to missing observations in some cases.

observed before the election: out-partisans are given on average 5.35pp less than recipients in the control condition ( $p = 0.000$ ). Following the election, both sources of bias persist, but the degree of out-group discrimination is significantly reduced by 2.07pp after the election ( $p = 0.02$ ), while in-group favouritism levels remain stable (-0.57pp,  $p = 0.523$ ). In other words, the bulk of the decline in in-group bias is caused by reduced out-group discrimination, and not by reduced in-group favouritism. Figure 3 illustrates these patterns relative to the (absent) change patterns in no-cue giving. These dynamics support *H2b*, while *H2a* is unsupported by the findings.

Target	Pre-election	Post-election	Change
In-group favouritism	+2.83***	+2.26*	-0.57
Out-group discrimination	-5.35**	-3.29**	+2.07**
<i>Note:</i>	* $p < 0.1$ ; ** $p < 0.05$ ; *** $p < 0.01$		

Table 2: Partisan in-group bias and its sources. Figures are in dollar amounts given to targets. In-group favouritism is the difference between mean in-group giving and giving in the control condition. Out-group discrimination is the difference between mean out-group giving and giving in the control condition.  $p$ -values are from two-sided t-tests.

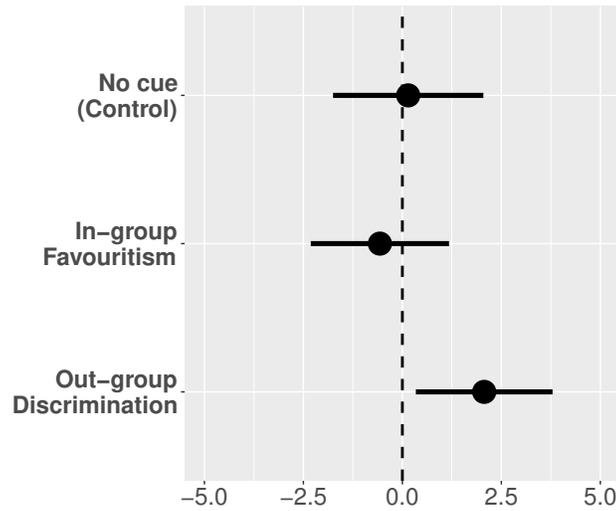


Figure 3: Change in dictator game in-group bias sources, moving from a week before to a week after the 2015 Canadian Federal Election. No cue - mean giving in the control condition. In-group favouritism - difference between respondents' giving to co-partisans and giving in the control condition. Out-group discrimination - difference between respondents' giving to out-partisans and giving in the control condition. Dots are the percentage point change in each measure from before and after the election. Bars are 95% confidence intervals from two-sided t-tests of the difference in pre- and post-election results.

To evaluate  $H3a$  and  $H3b$ , I examine in-group bias change by partisanship. I look at the mean in-group bias exhibited separately by Conservative partisans, Liberal partisans, etc., and compare pre- and post-election levels. Table 3 summarizes the results by presenting pre-election in-group bias, and percentage point change in their levels following the election. In-group bias change by party is also illustrated in Figure 4. Before the election, in-group bias levels were strongest among Bloc and NDP supporters, while Liberal partisans exhibited the lowest in-group bias. Those differences, however, are not statistically significant.<sup>7</sup> Following the election, in-group bias levels decrease for all partisans. The smallest decline is for supporters of the losing Conservatives, while the only change that nears conventional levels of statistical significance is for the winning Liberals. Here too, the differences in change across parties are not statistically significant. The most marked decline in in-group bias is among Bloc Québécois supporters, whose party was the only one

<sup>7</sup>Evaluated using a standard linear regression model with party ID fixed effects. See SI for full estimation results.

other than the Liberals to gain seats in the election. Overall, these findings can only provide suggestive evidence in support of  $H3a$  and  $H3b$ , owing to the lack of between-party effects. Substantively, however, they are consistent with them: Conservative partisans hold on to their partisan in-group bias more than other partisans, followed by NDP supporters, whose party lost over half of its seats and remained in opposition. Supporters of the Liberal Party and the Bloc Québécois, both of which gained seats, exhibit a steeper drop in in-group bias following the election.

Partisanship	Pre-election in-group bias	In-group bias change
Bloc	9.34	-5.71
Conservative	8.21	-1.95
Liberal	7.24	-2.9*
NDP	9.03	-2.3
All	8.18	-2.67***

*Note:* \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$

Table 3: Partisan in-group bias, by respondent partisanship. In-group bias is the difference between in-group and out-group giving in the dictator game. Figures are dollar amounts out of an initial allocation of \$100.  $p$ -values are from two-sided t-tests.

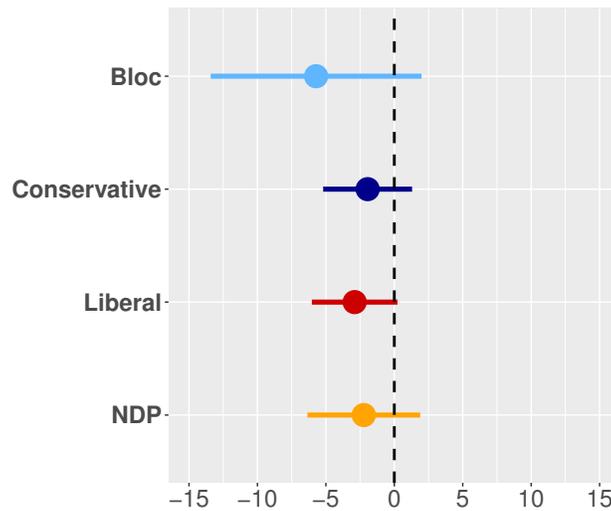


Figure 4: Change in dictator game partisan in-group bias, moving from a week before to a week after the 2015 Canadian Federal Election, by respondents' party ID. Dots are the percentage point change in in-group bias. Bars are 95% confidence intervals from two-sided t-tests of the difference in pre- and post-election in-group bias.

To explore whether strategic voting plays a role in in-group bias, I distinguish between respondents who I identify as having voted strategically, and those who voted sincerely. I broadly follow the identification strategy described by (Blais and Nadeau, 1996): First, I focus exclusively on Liberal, NDP, and Green partisans, as the bulk of strategic coordination in this election occurred among them, and vote switching between those parties can more reliably be interpreted as part of a concerted effort to effectively vote against the Conservative government. In contrast, individuals who identified as Conservative partisans but voted Liberal, did not, in all likelihood, engage in similar strategic calculus as there was no one for them to coordinate against. Second, I only look at those individuals who are NDP partisans who voted Liberal, Liberal partisans who voted NDP, and Green partisans who voted to either of those parties. Ideally, I would have been able to identify strategic voters more precisely using riding-level information on whether vote switching was a viable option, but the respondents' location was not available at this resolution. I am therefore looking at a cruder measure, which arguably makes pattern identification more challenging. This operationalization also ignores by design strategic voting by non-partisans, who are not of interest for the purpose of evaluating partisan in-group

behaviours.

By this operationalization, I find that about 9% of Liberal partisans voted - arguably strategically - for the NDP; 18% of the NDP partisans in the survey voted for the Liberals, and a full 47% of Green partisans voted for either the Liberals or the NDP (in roughly equal proportions). I compare changes in in-group bias between this group of strategic voters and non-strategic voters of those parties. I also make the same comparison to the overall in-group bias levels described above.

Two caveats for these figures are in order: first, because partisanship was evaluated about a week prior to the election, some partisans may have already decided to switch votes for strategic reasons by that point, or were actively debating their choice at the time of the survey, which may have resulted in an under-reporting of preexisting partisanship levels. That is, partisans who already know they are likely to vote for a party other than the one that they identify with may downplay their party ID to minimize inconsistency and cognitive dissonance. This would lead to an underestimation of the true scope of strategic voting in the election. Second, because vote choice was self-reported after the election, it may have resulted in an over-reporting of voting for the winning party, which is a robust empirical regularity (Atkeson, 1999; Carsey and Jackson, 2001; Wright, 1993). This would result of an over-estimation of strategic voting, as some Green and NDP partisans would likely report voting Liberal despite not casting such a vote. It is impossible, within the confines of the current study, to evaluate the existence and degree of under/over-estimation of strategic voting resulting from these process.

Results are reported in Table 4 and in Figure 5. First, respondents identified as having voted strategically have somewhat lower a-priori in-group bias relative to non-strategic voters - 6.15pp in favour of the in-group compared with a 8.12pp (two-sided t-test  $p = 0.396$ ). Second, In-group bias change among strategic voters, while not statistically distinguishable from that of non-strategic voters ( $p = 0.460$ ), is double in size, showing a reduction of 3.73pp after the election, compared with a 1.57pp decline for non-strategic voters, and 2.67pp for all respondents. These results do not provide strong confirmatory evidence for  $H_4$ , but are trending in that direction. It remains open to interpretation whether the lack of significant findings here is a reflection of a true null result or of a false negative owing to an underpowered sample of strategic voters. Future efforts to evaluate the impact of strategic voting on expressions of partisan in-group bias will certainly help inform

this issue .

	Pre-election in-group bias	In-group bias change
Green/Liberal/NDP		
Strategic voters	6.15	-3.73
Rest of voters	8.12	-1.57
All respondents	8.18	-2.67***

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 4: Partisan in-group bias, by vote type. In-group bias is the difference between in-group and out-group giving in the dictator game. Figures are dollar amounts out of an initial allocation of \$100.  $p$ -values are from two-sided  $t$ -tests.

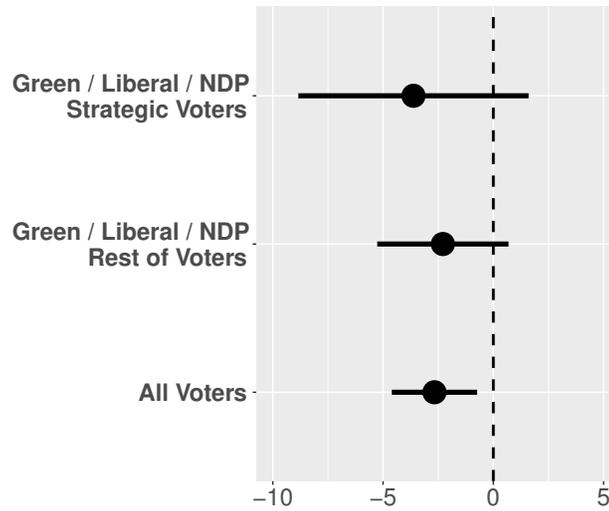


Figure 5: Change in dictator game partisan in-group bias, moving from a week before to a week after the 2015 Canadian Federal Election, by strategic and non-strategic voters. Dots are the percentage point change in in-group bias. Bars are 95% confidence intervals from two-sided  $t$ -tests of the difference in pre- and post-election in-group bias.

## 5 Discussion

Partisanship is one of the most persistent and consequential forms of group identity in modern democratic societies. A strong partisan in-group bias is consistently found in both political and non-political behaviours, and in particular when it comes to individuals' decisions to trust, cooperate, and share resources with others. People strongly discriminate against out-partisans in various contexts, and these patterns are currently unmitigated by the social norms that govern other kinds of group-based discrimination. Yet we know fairly little about the ways in which partisan in-group bias operates, and especially about what factors do constrain and limit it. A first such candidate for exploration are the cyclical dynamics of partisan in-group bias, owing to recent findings on electoral cycle effects on overall partisanship levels. In this paper I examine the existence of rapid changes in partisan in-group bias levels by evaluating the degree to which they fluctuate soon before and after elections. I further explore some of the more intricate, and previously untested patterns of partisan-based discrimination in giving around elections. I find that the size of the proximate pre-election partisan in-group bias is slashed by a third within two days of the election day. I further find that the bulk of that decline is explained by a decrease in out-group discrimination, whereas in-group favouritism levels remain relatively stable before and after the election. I also discuss preliminary evidence of between-party variance in expressions of in-group bias before and after the election, with supporters of winning / gaining parties showing a relatively large decrease in in-group bias, while partisans whose parties lost office or seats exhibit a smaller degree of change, and sustain more similar levels of in-group bias before and after the election. Finally, I find suggestive evidence that partisans who vote strategically experience a steeper decrease in partisan in-group bias levels after the election has concluded, compared to partisans who voted in line with their party identity.

These results shed more light on the nature of citizens' willingness to discriminate against others based on partisan lines. While party identification is a relatively slow moving construct (Michelitch and Utych, 2018) - especially in the Canadian case - it appears that partisanship-induced in-group bias can be more volatile, and that expressions are potentially subject to additional event-dependent contextual effects, such as the specific outcomes of elections (above and beyond their taking place), and individual level choices that constrain partisan group salience and bound-

aries, like strategic vote switching. These are important qualifications - they paint partisan-based discriminatory behaviour as less stable than the social construct that incentivizes it, and they raise further questions on when and why citizens are motivated to exhibit partisan in-group bias. Is it that elections reduce normative barriers for displays of open hostility towards out-partisans? Is it that group-based discriminatory behaviour is more a function of transient emotional states rather than a longstanding and embedded preference? And what subsequently happens to the attitudes and preferences of individuals who capitalize on this moral licensing to discriminate against out-partisans? All of these questions require further research - both around elections and in laboratory settings that allow for greater control over the various moving parts in an electoral cycle, which the current design could not hold constant. Another set of important open questions that is beyond the scope of the current study revolves around what happens to the attitudes and behaviours of individuals who experience partisan-based discrimination: do their reactions depend on whether such behaviours occur during an election period or outside of it? Are they more likely to develop, or feel greater attachment to a partisan identity as a result? And how do such experiences shape their attitudes towards the democratic process?

Even within the scope of the hypotheses discussed here, this study has obvious limitations that warrant replication and expansion. The 2015 Canadian Federal Election is an idiosyncratic context, and establishing these patterns across additional country-election cases would be a necessary first step towards substantiating the volatile nature of partisan in-group bias. Discerning between party-specific effects and attitude change among winning and losing partisans also requires expanding the analytic framework if we are interested in being able to decouple electoral fortunes from specific parties, which is impossible in the context of a single election case. Some of the patterns examined in this paper are also potentially obscured by lack of statistical power, and so a multi-country design could help identify effects that may be too small to detect with just over 1,000 respondents. Finally, there is a host of individual-level factors that could potentially condition expressions of partisan in-group bias and whose impact has not been studied yet, but their analysis is beyond the scope of this paper. These include basic personality traits like agreeableness and emotional stability, attitudes towards democracy, and levels of political knowledge. All of these warrant a separate exploration in the context of how citizens express

partisan in-group bias.

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## 6 Supplementary Information

### 6.1 Instrument

Respondents were presented with five variants on the same dictator game vignette. One condition was a control, and did not provide any partisan information. The other four described the recipient as being a member of either the Bloc Québécois, the Conservative Party, the Liberal Party, or the NDP. Order of presentation was randomized, and this procedure was repeated in the pre-election and in the post-election surveys. Respondents indicated how much money they would keep for themselves, and recipient giving was computed by subtracting this response from 100. The vignette text is as follows:

*“Imagine that you are paired with another randomly chosen anonymous individual, and this anonymous individual will never be able to find out your identity. The only thing you know about this individual is that he or she is a registered member of [PARTY NAME] / You know nothing about this anonymous individual.”*

*You must decide how to divide \$100 between yourself and that person. You may keep all, none, or some of the money - the decision is up to you and will be completely anonymous.*

*How much money would you keep for yourself?”*

*[\$0 - \$100 slider]*

### 6.2 Survey Information and Additional Relevant Survey Items

Both surveys used in this study were fielded to an online panel of a representative sample of Canadian voting-age citizens, with sampling quotas to match population-wide proportions on age, gender, language, and provincial population. The survey was fielded through the survey firm ResearchNow, and was conducted on the Qualtrics platform.

As outlined in the paper, the pre-election online survey was fielded between October 9 and October 16 with a representative sample of 1628 voting-age Canadians

who completed the survey and passed attention checks. The same respondents were then contacted again 48 hours after election day, and asked to participate in a follow-up online survey that was fielded between October 21 and October 26. Of the pre-election respondent, 1142 were re-interviewed, resulting in a 70% re-interview rate.

Both the pre-election and the post-election surveys contained additional items that were unrelated to this study, such as reasons for voting, satisfaction with democracy, elaborate political knowledge, and opinions on substantive policy issues. The pre-election survey also included a standard battery of demographics questions. Below are the full text of items that are relevant for the current study. The full text of both surveys is available upon request.

Party ID (pre-election survey):

*“In FEDERAL politics, do you usually identify with the:*

- Bloc Québécois [only presented to respondents residing in Quebec]*
- Conservative Party of Canada*
- Green Party of Canada*
- Liberal Party of Canada*
- New Democratic Party of Canada*
- None of these”*

Party ID strength (pre-election survey):

*“How strongly do you identify with the[PARTY SELECTION]?”*

- Very strongly*
- Fairly strongly*
- Not at all strongly*
- Don't know*

Vote cast (post-election survey):

*“In each election, we find that a lot of people were not able to vote because they were not registered, they were sick, or they did not have the time. Did you vote in the federal election on Monday? Please select the statement that best describes you.*

- *I did not vote*
- *I thought about voting but didnt*
- *I usually vote but didnt*
- *I am sure I voted*
- *Dont remember/Dont know*

*“For which party did you vote?”*

- *Bloc Quebecois [only presented to respondents residing in Quebec]*
- *Conservative Party of Canada*
- *Green Party of Canada*
- *Liberal Party of Canada*
- *New Democratic Party of Canada*
- *None of these*

### 6.3 Descriptive Statistics

		N	% Survey	% Population
Gender	Female	521	47.2	50.4
	Male	583	52.8	49.6
Age	18-34	227	20.3	28.5
	35-54	273	24.4	33.5
	55-64	290	25.6	17.1
	65+	262	23.4	20.9
Region	Atlantic Canada	80	7.1	6.5
	British Columbia	115	10.3	13.1
	Ontario	250	22.3	38.7
	Prairies	327	29.2	18.5
	Quebec	336	30	22.9
	Other/Territories	11	1	0.3
Party ID	Bloc Québécois	88	7.9	
	Conservative	361	32.3	
	Green	54	4.8	
	Liberal	306	27.3	
	NDP	203	18.1	
	Other/none	108	9.6	

Table 5: Descriptive statistics for the re-interview experiment sample. Population figures are based on the 2015 Canadian Census estimates. Partisanship population proportions are not available through the Census.

## 6.4 2015 Canadian Federal Election Results

	Seats Held	Seats Won	Net Change
Bloc	2	10	+8
Conservative	159	99	-60
Green	2	1	-1
Liberal	36	184	+148
NDP	95	44	-51
Total seats	308	338	+30

Table 6: Results of the 2015 Canadian Federal Election for the House of Commons. The overall number of seats in the House of Commons increased from 308 to 338 in the election.

## 6.5 Re-interview Attrition Check

[RE-INTERVIEW REGRESSION TABLE HERE]

## 6.6 Repeated Measure Robustness Check

[separate model for each treatment condition, with round fixed effects as predictors; same for all together]

## 6.7 H3 Estimation Results

[linear model of dg\_pre\_ingroup\_bias - partyid] [linear model of dg\_diff\_ingroup\_bias - partyid]

Table 7

		<i>Dependent variable: Re-interview</i>
Dictator giving: control		0.021 (0.016)
Dictator giving: Conservative		-0.014 (0.012)
Dictator giving: Liberal		0.001 (0.016)
Dictator giving: NDP		-0.021* (0.012)
Dictator giving: Bloc		0.019 (0.013)
Party ID: Conservative		0.602 (0.872)
Party ID: Green		16.940 (2,420.630)
Party ID: Liberal		0.041 (0.831)
Party ID: NDP		17.183 (1,261.431)
Party ID Strength		-0.041 (0.431)
Gender		-0.511 (0.554)
Age (year of birth)		-0.003 (0.016)
Political Knowledge		1.364 (1.140)
Agreeableness (Big 5)		0.178 (0.262)
Conscientiousness (Big 5)		-0.088 (0.287)
Emotional Stability (Big 5)		-0.114 (0.255)
Extraversion (Big 5)	34	-0.234 (0.231)
Openness to Experience (Big 5)		0.132 (0.245)
Constant		8.907