

**Shall I Stay or Shall I Go? The Functional Account of Counterfactuals in Predicting
Electoral Switching**

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Abstract

The use of outgroup-focused rhetoric in political messaging in the aftermath of a perceived failure abounds, even when the reasoning behind those arguments are easily falsified by impartial observers. We apply the functional theory of counterfactual alternatives to investigate the effectiveness of outgroup-focused vs. ingroup-focused messages that elicit the possibility of better outcomes, if only the relevant party had acted in a better way in the past. We tested the following hypotheses: (H1) Endorsement of outgroup-focused counterfactuals is negatively related with political regret. (H2) Endorsement of outgroup-focused counterfactuals is negatively related with electoral switching. (H3) Political regret functions as a mediator in the relationship between outgroup-focused counterfactuals and intentions of electoral switching. Participants ($N = 364$) were randomly allocated to an outgroup- or ingroup-focused counterfactual condition, and asked to rate their endorsement of the counterfactual alternatives. We found evidence that endorsement of ingroup-focused counterfactual alternatives predict future electoral switching intentions, but no evidence of relation to regret. The study adds to our understanding of how the framing of counterfactual alternatives can play a predictive role in future electoral intentions, as well as the practical considerations that follow.

Keywords: counterfactuals, regret, electoral switching, voting behaviour

Shall I Stay or Shall I Go? The Functional Account of Counterfactuals in Predicting Electoral Switching

Every day, people make countless decisions on all manners of issues; occasionally, we make decisions that do not lead us to accomplish the goals we set out for ourselves, and this is precisely when we experience regret (Landman, 1987; Leder et al., 2013). There is one special form of decision, which also qualifies as a form of collective action (Milesi & Catellani, 2011; van Zomeren et al., 2008), that comes around once every few years for citizens of every country – voting. Voting behaviour is different to many of the decisions that we do make on a daily basis: for instance, our personal behaviour is in most cases not expected to make a large difference on the outcome; in addition, voting behaviour is not practiced frequently.

Voting behaviour is also similar to other decisions we make on many levels – emotions and social identity are seen to play an important role (Milesi & Catellani, 2011; Tunç et al., 2022), and outcomes that do not align with our goals elicit regret (Collins et al., 2022) – with political identities playing an important role in voting decisions. As such, there is reason to believe that counterfactual alternatives, acting through the means of regret regulation (Summerville, 2011), can serve to predict or change future voting behaviour (Epstude & Roese, 2008; Milesi & Catellani, 2011; Roese & Olson, 1997), in part due to the role self-relevant political identities play. These self-relevant decisions made in the course of voting can present a threat to the self-concept and other identity-relevant constructs in hindsight, especially if the outcome is not as expected, and does not achieve identity-relevant goals; this manifests in the form of emotions such as regret and anger (Henderson et al., 2010; Tunç et al., 2022), the regulation of which (Markman et al., 1993; Summerville, 2011) can lead to downstream behavioural consequences such as electoral switching or non-participation.

Regret and Collective Action in Political Contexts

Regret is not limited to individual goals – regret as an emotion can be, for example, experienced as “distress over... the outcome of an election” (Landman, 1987, p. 141). If regret is to be understood as a functional emotion which helps us achieve or work towards future goals by altering behaviour, then it follows that regret has effects on future voting intentions.

Two recent studies would suggest that this is the case (Collins et al., 2022; Tunç et al., 2022). Regret is a consistent predictor of *electoral switching* behaviour regardless of whether the source of the regret was to do with electoral participation or party choice (Tunç et al., 2022), which can be defined as voting for a different party/outcome in the following electoral process. Additionally, Collins et al. (2022) have indicated that regret can potentially be an important driver in reducing *electoral non-participation*, behaviour that is typically defined as not participating in the electoral process. Thus, we are able to observe that regret does play a functional emotional role in driving behaviour change within the political context, and thus resulting in goal-directed collective action. Furthermore, social identity has been previously implicated to play a moderating role in the extent to which group-based emotions are perceived and become a predictor of future collective action (Furlong & Vignoles, 2021; van Zomeren et al., 2012, 2018). As such, it would seem logical to suggest that regret could be one of those emotions as well, which would then have an effect on individuals’ willingness to participate in future collective action.

Counterfactual Alternatives and their Functional Impacts

Counterfactuals represent “if only... then...” structures, cognitive constructions that are mental representations of hypothetical alternatives to situations that have happened in the past (Epstude & Roese, 2008; Roese, 1997; Tetlock & Lebow, 2001). Counterfactuals take the form of conditional statements, and its structure can be further broken down into upwards vs.

downwards, additive vs. subtractive, and self- vs. other-referent (for a more detailed treatise, see Epstude & Roese, 2008), which have different implications for the outcome of imagining these counterfactual alternatives (Hilton et al., 2021).

Crucially for our current line of questioning, counterfactuals have been indicated to be functional processes for regulating future behaviour (Epstude & Roese, 2008; Markman et al., 1993; Roese & Olson, 1997), as well as having been previously shown to play a role in cognition related to political contexts (Collins et al., 2022; Epstude et al., 2022; Helgason & Effron, 2022; Milesi & Catellani, 2011). Furthermore, the functional theory of counterfactual thinking proposes that counterfactuals will result in both content-neutral and content-specific pathways that lead to changes in future behaviour intentions (Epstude & Roese, 2008). These behavioural intentions, in turn, are related to future behaviour (Ajzen, 1991; Webb & Sheeran, 2006); thus, it would be reasonable for us to consider that counterfactuals can correspond to real behaviour change, through the regulation of future behaviour in a manner consistent with the previously generated behavioural intentions.

The Role of Counterfactuals in Maintaining Political Support

As previously stated, increased regret has been shown to lead to increased counterfactual seeking (Summerville, 2011), and counterfactual seeking has also been shown to decrease regret. Thus, one can view the relationship between regret and counterfactual-seeking as a homeostatic process: when experiencing regret, we also experience emotional discomfort (Landman, 1987; Wu et al., 2021), which leads to counterfactual seeking. Exposure to these counterfactuals then decrease regret (Summerville, 2011), whilst simultaneously preparing individuals for behavioural change (Epstude & Roese, 2008; Roese & Olson, 1997). As such, counterfactuals may play an important role in both behavioural regulation (i.e. preparation for future collective action) and emotional regulation (i.e. reducing regret), especially when the regret is linked to social identities which are important to us.

Whilst the role of counterfactuals in regulating regret and preparing us for behavioural change has been observed in literature on other topics, the evidence for its effects when it comes to electoral behaviour and collective action is relatively scarce. Outgroup-focused counterfactuals have been observed to play a role in preserving group identification and efficacy after an electoral defeat, which would prepare individuals to participate in future collective action in favour of their existing groups (Milesi & Catellani, 2011). Milesi and Catellani's (2011) findings that outgroup-focused counterfactuals predict both increased perceptions of group identification as well as efficacy as opposed to ingroup-focused counterfactuals only predicting increased group efficacy is particularly interesting, as it suggests that making salient the intergroup context may be more effective in motivating future collective action. Simultaneously, since regret is observed to be a strong predictor of electoral switching (Tunç et al., 2022), we theorise that the capacity of counterfactuals to reduce regret can serve to preserve support for one's existing political inclinations even in the face of electoral defeat. Crucially, we suggest that this process can occur through regulating the emotion of regret, independent of the effects of preserving group identity and efficacy.

The Present Research

Drawing on the theoretical elements presented beforehand, we postulate the counterfactual thinking can predict future voting intentions – specifically, electoral switching intentions – and that the relationship is mediated through the emotion of regret. To test this prediction, we have defined the research question, as well as testable hypotheses as follows:

Research Question

Does counterfactual thinking predict future voting intentions through the mediator variable regret?

Hypotheses.

H1. Endorsement of outgroup-focused counterfactuals is negatively related with political regret.

H2. Endorsement of outgroup-focused counterfactuals is negatively related with electoral switching.

H3. Political regret functions as a mediator in the relationship between outgroup-focused counterfactuals and intentions of electoral switching.

Open Science Practices

We pre-registered the study, alongside predetermined stop-rules for data collection based on a pre-analysis power analysis in G*Power. All key dependent variables, conditions, predetermined analysis methods, and exclusion rules were pre-registered on AsPredicted (#150779). The pre-registration document can be found at https://aspredicted.org/XRB_TRG.

Methodology

The sample was collected through Prolific and consisted of a sample of British participants ($N = 470$, $M_{age} = 49.29$, $SD_{age} = 13.51$); participants were paid £1.60 for their participation. Participants were excluded based on the following criteria: answering "I don't know" for all the fields requiring text input, incomprehensible answers, otherwise disruptive responses, and if they failed to complete the study. Participants who indicate that they are no longer living in the UK and thus cannot participate in the upcoming UK general elections are also excluded from analyses. Furthermore, as we are interested in Conservative Party voters in the UK, participants who indicate that they did not vote for the Conservative Party in the previous UK general election were excluded from analyses because the counterfactuals are constructed to frame Conservative party voters as the ingroup. After exclusion, we retained 364 participants ($M_{age} = 49.90$, $SD_{age} = 13.43$).

When plotting the self-reported political alignments of the retained participants, we see that participants are generally approximately normally distributed in their political

alignments, with a left skew present in the histograms. This was especially true for their political alignments on economic issues ($M_{econ} = 13.28$, $SD_{econ} = 3.43$), where the mean response was over the halfway point of our 20-point scale – 1 being left-wing, and 20 being right-wing. The distributions of the respondents' political alignments were as expected given they all indicated they voted for the Conservative Party in the previous UK general election. The histograms for the self-reported general political alignment, political alignment on social issues, and political alignment on economic issues can be found in Appendix 1. An independent samples Student's t -test found no significant differences in the distribution of political alignments across the two conditions ($t_{general} = .292$, $p_{general} = .770$; $t_{soc} = -.967$, $p_{soc} = .334$; $t_{econ} = -.771$, $p_{econ} = .441$).

Procedure

Participants signed up via Prolific, and were randomly equally distributed into either an outgroup-referent counterfactual condition or an ingroup-referent counterfactual condition. In both conditions, participants were presented with a pre-manipulation block of questions that asked about their voting behaviour in the 2019 UK general election, assessed their regret regarding that decision, and their identification as Conservative Party voters. Thereafter, both conditions were presented with a block of counterfactuals, relating to four topics: *Brexit*, *Internal Relations within the UK*, *Economic Policy*, and *Social Policy*. Two counterfactuals were presented for each topic.

In the outgroup-referent condition, participants were first presented with an outgroup-referent upwards counterfactual (e.g. "If only *politicians from other parties* had not been so focused on their political agendas, the current cost of living crisis *could have been avoided.*") and asked to rank their endorsement of the counterfactual on a scale of 1 to 20. They were then asked to justify their endorsement of the counterfactual statement. In the ingroup-referent condition, participants completed the same procedure, but were presented with ingroup-

referent upwards counterfactuals (e.g. “I think about how the cost-of-living crisis *could have been avoided* if the *Conservative party* addressed the issues more seriously.”) for all the topics.

Thereafter, participants in both conditions were asked to complete a post-manipulation block of questions that assessed their regret regarding their voting decision in the 2019 UK general election, their identification as a Conservative Party voter, and also their efficacy beliefs in the Conservative party. They were then presented with the option to indicate which party they wished to vote for in the next UK general elections, which are scheduled to happen in 2025.

Measures

Voting behaviour and future voting intentions

Participants were presented with the full list of parties which had participated in the 2019 UK¹ general election and asked to indicate the party for which they had voted in the 2019 UK general election in the measure of past voting behaviour. Post-manipulation, participants were once again presented with a list of parties which had been indicated to be participating in the next UK general election, and prompted to indicate the party whom they wished to vote for.

We measured electoral switching intentions by dummy coding these two variables (0 = no switching intentions present, 1 = switching intentions present). Since we had filtered out all those who had voted for different parties in the 2019 UK general election prior to data analysis, this was done by coding all of those who indicated they intended to vote for the Conservative Party in the upcoming UK general election as having *no switching intentions*

¹ For this reason, the Reform Party was not included in the list of parties for which participants could select for the post-measure voting intention measure, even though some participants indicated they would like to vote for said party. Participants selected instead that they do not intend to vote.

and all of those who indicated they intended to vote for a different party (including those who indicated they did not wish to vote in the upcoming elections) as having *electoral switching intentions*.

Decisional regret

Participants were asked to rate their decisional regret in regards to their vote choice in the 2019 UK general elections (i.e. their choice to vote for the Conservative Party). Five items were presented for decisional regret, which were adapted from the Decisional Regret Scale (Brehaut et al., 2003) to be specific to the current situation. Participants were asked to report on a 1 to 20 scale (Evangelidis, 2023) how much they agreed with each regret statement, and we computed the mean decisional regret across the five items for each participant.

We verified the 5-item decisional regret scale using exploratory factor analysis, which confirmed a one-factor structure on the scale with the criteria of eigenvalue ≥ 1.000 . In addition, both the pre- and post-manipulation presentations of the decisional regret showcased good internal reliability (pre-manipulation Cronbach's $\alpha = .900$; post-manipulation Cronbach's $\alpha = .934$).

Outgroup- and ingroup-referent counterfactuals

Participants were presented with counterfactual alternatives that were pre-generated according to the conditions and were asked to rank their endorsement of the counterfactual on a 1 to 20 scale. Afterwards, they were asked to explain their choice in a textbox, which was used to check for our exclusion criteria. Participants' endorsement of individual counterfactuals was then combined across the items to compute a mean endorsement score.

We developed the counterfactuals based on Rye et al.'s (2008) Counterfactual Thinking for Negative Events Scale, customising the counterfactuals such that they corresponded to our participants' status as Conservative Party voters. Exploratory factor analyses yielded a two-factor structure in both the ingroup-referent and outgroup-referent

conditions. In general, items in the *Economic Policy* and *Social Policy* topics loaded onto a separate factor than items in the *Brexit* and *Internal Relations within the UK* topics, with eigenvalues higher than one. As such, we also conducted exploratory analyses, whereby we ran the preregistered analyses separately for each topic. Reliability analyses indicated satisfactory Cronbach's alpha for both conditions (outgroup-referent Cronbach's $\alpha = .723$; ingroup-referent Cronbach's $\alpha = .768$), as well as when we combined the scales across both conditions (Cronbach's $\alpha = .743$).

Results

Analytic Strategy

We applied analytic methods as specified in the pre-registration document to the dataset to analyse the hypotheses. To investigate H1, we correlated the mean counterfactual endorsement in both conditions with the observed change in regret, as defined by subtracting the pre-measure decisional regret score from the post-measure decisional regret score. We then conducted a linear regression of mean counterfactual endorsement on the observed change in regret.

To investigate H2, we conducted a logistic regression of the mean counterfactual endorsement on the amount of electoral switching, as defined in the measures section. To investigate H3, we conducted a mediation analysis of mean counterfactual endorsement on the amount of electoral switching, with the observed change in regret as the mediator. This was conducted using the PROCESS Macro developed by Hayes (2022). All of the above analyses were conducted in SPSS, and post-hoc power analyses were conducted using G*Power 3.1.9.7.

The Effect of Counterfactual Endorsement on Political Regret

With H1, we theorised that the endorsement of outgroup-focused counterfactuals would be related to decreased political regret, and endorsement of ingroup-focused

counterfactuals would be related to increased political regret. We found consistent trends in the data, but did not find statistical significance.

The correlation between mean counterfactual endorsement and change in regret in the outgroup-focused counterfactual condition was not found to be statistically significant, but did display a negative correlation coefficient as expected ($r = -.100, p = .183$). The correlation for the ingroup-focused counterfactual condition displayed a positive correlation coefficient ($r = .114, p = .123$). Whilst neither of the correlation coefficients were deemed to be statistically significant at a predetermined significance level of $\alpha = .05$, they did display the directional effect that we had predicted.

The linear regression of the two variables were computed separately for endorsement across both conditions, endorsement in the outgroup-focused condition, and endorsement in the ingroup-focused condition. As to be expected, since the effect manifests in opposite directions across the two conditions, the linear regression computed for endorsement across both conditions was not found to be statistically significant ($t = 0.472, p = .637$). For the linear regressions computed for the separate conditions, the regression coefficients aligned with our findings from above – that the effect was in opposing directions ($b_{outgroup} = -0.011, t_{outgroup} = -1.336, p_{outgroup} = .183; b_{ingroup} = 0.013, t_{ingroup} = 1.549, p_{ingroup} = .123$), but not statistically significant.

The Effect of Counterfactual Endorsement on Electoral Switching

With H2, we theorised that the endorsement of outgroup-focused counterfactuals would not be significantly related to electoral switching behaviour, whereas endorsement of ingroup-focused counterfactuals would be significantly related to increased political regret. This hypothesis was supported by the logistic regressions carried out on the data, given the operationalisation of electoral switching given in the measures section.

An initial logistic regression of the endorsement of counterfactuals across both conditions yielded a significant result at the predetermined significance level of $\alpha = .05$ ($OR = 1.014, p = .013$). This indicated to us that on the whole, increasing endorsement of counterfactuals was related to increased electoral switching intentions, 95%CI [1.003, 1.026]. To further decompose the effect and investigate our hypothesis, we conducted logistic regressions separately for the outgroup-focused and ingroup-focused conditions.

The effect was as we predicted – endorsement of outgroup-focused counterfactuals was not significantly predictive of electoral switching intentions, but endorsement of ingroup-focused counterfactuals was predictive of electoral switching intentions ($OR_{outgroup} = 0.999, p_{outgroup} = .915; OR_{ingroup} = 1.030, p_{ingroup} < .001$). The effect of counterfactual endorsement on electoral switching intentions was almost entirely driven by the ingroup-focused counterfactual condition, 95%CI [1.013, 1.047]. Rather than the endorsement of outgroup-focused counterfactuals negatively predicting electoral switching intentions, it was that the endorsement of ingroup-focused counterfactuals positively predicted electoral switching intentions. The implications of this finding will be further explored in the discussion section, but this finding is compatible with that of Milesi and Catelani (2011), where they found that outgroup-focused counterfactuals predicted continued future engagement in previous collective action, i.e. continuing to vote for the same party or working in support of said party.

Political Regret as a Mediator of the Relationship Between Counterfactual Endorsement and Electoral Switching

With H3, we theorised that the relationship between the endorsement of outgroup-focused counterfactuals and electoral switching intentions was mediated by the experienced change in regret. To test this, we conducted mediation analyses using the PROCESS Macro add-on (Hayes, 2022) in SPSS.

We first computed the mediation analysis with a simple mediation model, consisting of mean counterfactual endorsement across all four topics – *Brexit*, *Internal Relations within the UK*, *Economic Policy*, and *Social Policy* – as the predictor, regret change as the mediator, and electoral switching as the outcome. Condition was also included in the analysis as a covariate, to observe any potential differences between the ingroup-referent and outgroup-referent counterfactual conditions. To make the outcomes clearer, we subsequently computed mediation analyses for each of the conditions separately. A full summary of the mediation models, with the direct (c') and indirect effects can be found in Tables 1.1 to 1.3.

Our first analysis, focusing on the general effect of counterfactual endorsement, showed that the direct effect of mean counterfactual endorsement on electoral switching intentions were significant ($z = 2.515$, $p = .012$). Whilst it is not possible to compute the significance of the indirect effect, the bootstrapped 95% CI[$-.0016$, $.0026$] would indicate to us that the effect crosses over zero, and as such, converting the metric from log-odds to odds would result in a 95% confidence interval for the odds ratio that crosses over one, i.e. the probability of electoral-switching intentions and no electoral-switching intentions are identical. In essence, the indirect effect in the general model, if we assume it to be present, would be a small effect. The path diagrams associated with the mediation models are displayed in Figure 1.

Table 1.1

The general effect of counterfactual endorsement on electoral switching intentions as mediated by change in regret

Effects	Coefficient (Log-Odds)	SE	p	Bootstrapped 95% CI	
				LLCI	ULCI
PREDICTOR:					
Mean counterfactual endorsement					
Direct effect (C')	.0149	.0059	.012	.0033	.0265
Indirect effect (Counterfactual endorsement → Regret change → Electoral switching)	.0004	.0010		-.0016	.0026

Table 1.2

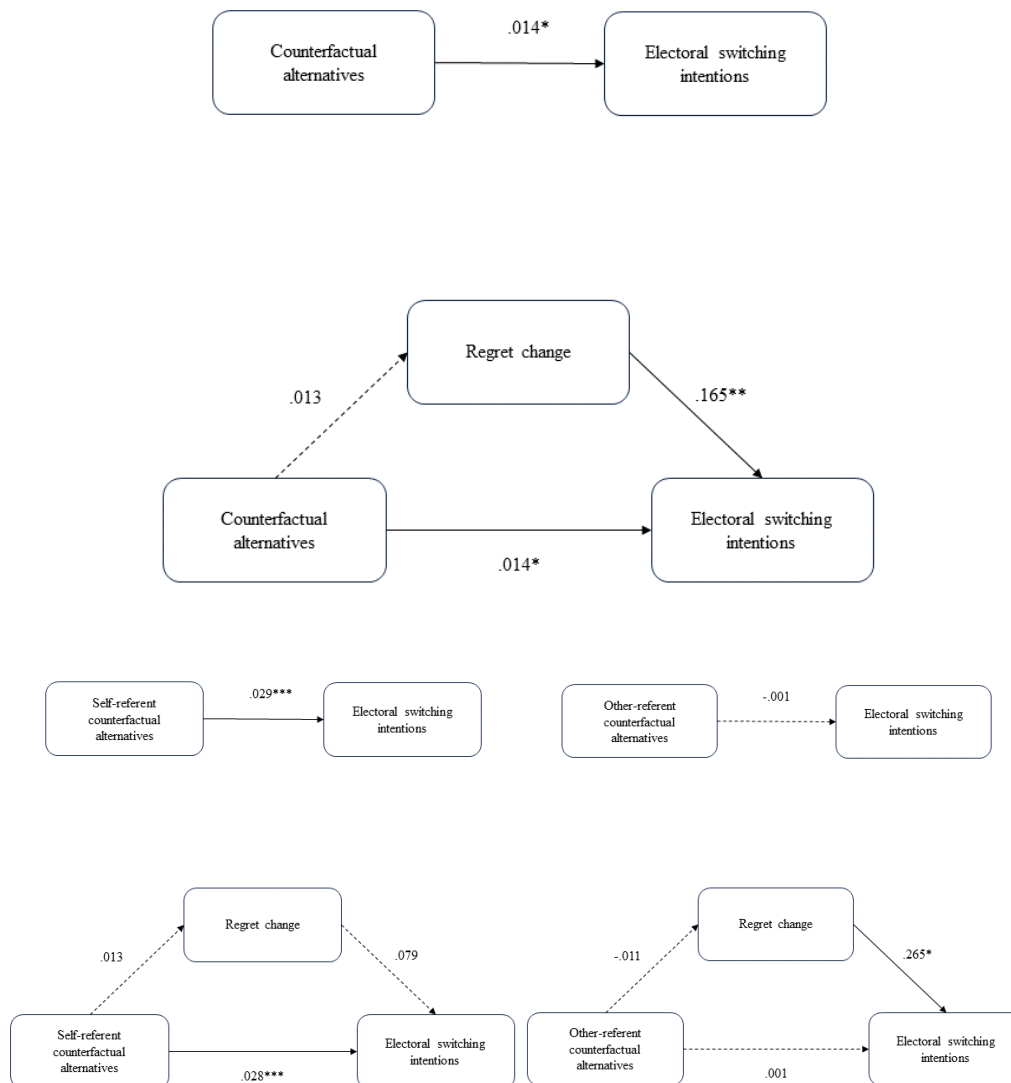
The effect of ingroup-referent counterfactual endorsement on electoral switching intentions as mediated by change in regret

Effects	Coefficient (Log-Odds)	SE	p	Bootstrapped 95% CI	
				LLCI	ULCI
PREDICTOR:					
Mean counterfactual endorsement					
Direct effect (C')	.0283	.0084	<.001	.0118	.0449
Indirect effect (Counterfactual endorsement → Regret change → Electoral switching)	.0010	.0014		-.0012	.0044

Table 1.3

The effect of outgroup-referent counterfactual endorsement on electoral switching intentions as mediated by change in regret

Effects	Coefficient (Log-Odds)	SE	p	Bootstrapped 95% CI	
				LLCI	ULCI
PREDICTOR:					
Mean counterfactual endorsement					
Direct effect (C')	.0014	.0087	.875	-.0157	.0185
Indirect effect (Counterfactual endorsement → Regret change → Electoral switching)	-.0025	.0025		-.0084	.0012

Figure 1*Path Diagrams for Mediation Models*

Note: The coefficients for the paths drawn towards electoral switching intentions are expressed in log-odds metric. * $p < .05$, ** $p < .01$, *** $p < .001$, all two tailed.

Our subsequent analyses showed that the main driver of the direct effect lies in the ingroup-referent counterfactual condition ($z = 3.364$, $p < .001$), with bootstrapped 95% CI [.0118, .0449]. Mediation analyses can also be interpreted as multiple regression models, and we present a full summary of model coefficients in Tables 1.4 to 1.6.

Examining the logistic regression coefficients from the different analyses presents an interesting pattern of results that is consistent with the outcome of the mediation analyses. In the general analysis, mean counterfactual endorsement and change in regret were both significant predictors ($B_{\text{counterfactual}} = .014$, $p_{\text{counterfactual}} = .012$; $B_{\text{regret}} = .165$, $p_{\text{regret}} = .003$), with change in regret having a larger effect. As the structure of the counterfactuals presented in the two conditions placed the blame on either the Conservative Party or other political actors, this result is to be expected. Theory would suggest that those who endorsed the counterfactuals in the ingroup-referent condition would be more likely to engage in electoral switching, but those who endorsed the counterfactuals in the outgroup-referent condition would

Table 1.4

Multiple logistic regression of mean counterfactual endorsement and change in regret on electoral switching intentions

Predictor	B	SE	p	Exp(B)	95% CI for Exp(B)	
					Lower	Upper
Mean counterfactual endorsement	.014	.006	.012	1.015	1.003	1.027
Change in regret	.165	.056	.003	1.181	1.057	1.318
Condition (Ingroup-referent)	.160	.220	.467	1.174	0.762	1.806

Table 1.5

Multiple logistic regression of mean counterfactual endorsement and change in regret on electoral switching intentions for ingroup-referent condition

Predictor	B	SE	p	Exp(B)	95% CI for Exp(B)	
					Lower	Upper
Mean counterfactual endorsement	.028	.008	<.001	1.029	1.012	1.046
Change in regret	.079	.074	.285	1.082	0.936	1.251

Table 1.6

Multiple logistic regression of mean counterfactual endorsement and change in regret on electoral switching intentions for outgroup-referent condition

Predictor	B	SE	p	Exp(B)	95% CI for Exp(B)	
					Lower	Upper
Mean counterfactual endorsement	.001	.009	.875	1.001	0.984	1.019
Change in regret	.265	.092	.004	1.303	1.088	1.562

Be less likely to engage in electoral switching (Milesi & Catellani, 2011). However, the condition was not a significant predictor of electoral switching, which points to the fact that for some participants, electoral switching intentions may have been relatively established

prior to the study, making it more stable and less likely to change as a result of their exposure to the two counterfactual structures.

A clearer illustration of the aforementioned effect of counterfactual structure can be seen when we examine the outcomes of the logistic regressions for each condition separately. In the ingroup-referent counterfactual condition (see Table 1.5), counterfactual endorsement significantly predicted electoral switching intentions, whereas change in regret did not significantly contribute to predicting electoral switching intentions. For the outgroup-referent counterfactual condition (see Table 1.6) however, this result flipped – change in regret was a significant predictor of electoral switching intention, but counterfactual endorsement was not. It can be argued that this comes down to differences in whom the counterfactual statements indicated were to blame for the current state of the world – in the outgroup-referent condition, this was political actors outside of the Conservative Party, whom participants identified with and had voted for in the previous election. Therefore, endorsement of these counterfactual alternatives would not lead to increased regret as a result of voting for the Conservative Party, and the only element predictive of electoral switching intentions would be variations in how much regret participants felt as a result of their vote choice in the previous general election.

Exploratory Analysis

During descriptive statistical analyses, we found that there were very few participants that self-reported being from a country outside of England within the UK. Of the sample retained for analyses, 92.6% of participants reported being from England – as a result, we theorised that the topic *Internal Relations within the UK* might contribute to the overall effect in a manner that is not consistent with the other topics under investigation. In addition, on factor analyses of both conditions, the topics *Brexit* and *Internal Relations within the UK* both loaded onto a different factor than the topics *Economic Policy* and *Social Policy*. As such, we

conducted exploratory analyses that replicated the preregistered analyses for the ingroup-referent condition, but stratified by topic.

Counterfactual Endorsement Predicts Regret

When computing correlation and regression coefficients for the effect of counterfactual endorsement on regret across the topics, we found that counterfactual endorsement was a significant predictor of regret change in the topics *Economic Policy* and *Social Policy*, but not in *Brexit* and *Internal Relations within the UK* ($r_{Brexit} = -.088$, $p_{Brexit} = .234$; $r_{Internal} = .091$, $p_{Internal} = .223$; $r_{Econ} = .156$, $p_{Econ} = .035$; $r_{Soc} = .189$, $p_{Soc} = .010$).

The topic *Internal Relations within the UK* was indeed found to contribute to the overall effect in a manner that is not consistent with the other topics, but we also found that the topic *Brexit* produced a correlation coefficient in the opposite direction than in all the other topics. Individuals who had highly endorsed *Brexit*-related counterfactual statements experienced lower changes in regret; given our analyses in this segment focus on the ingroup-referent condition, this presented as a strange finding. One theoretical explanation could be that the event of Brexit and the effects associated with it were seen to be immutable facts of the past, which means that participants exposed to counterfactual alternatives that stated how Brexit could have been better then engaged in more emotional coping.

Counterfactual Endorsement Predicts Electoral Switching Intentions

When computing logistic regressions for the effect of counterfactual endorsement on electoral switching intention across the topics, we found that counterfactual endorsement was a significant predictor of electoral switching intentions in the topics *Economic Policy* and *Social Policy*, but not in *Brexit* and *Internal Relations within the UK*. A full summary of the effects can be found in Table 2.1

Table 2.1

Logistic regression effects of mean counterfactual endorsement across topics on electoral switching intentions for ingroup-referent condition

Topic	B	SE	p	Exp(B)	95% CI for Exp(B)	
					Lower	Upper
<i>Brexit</i>	.003	.005	.535	1.003	0.993	1.013
<i>Internal Relations</i> <i>within the UK</i>	.010	.006	.088	1.010	0.998	1.022
<i>Economic Policy</i>	.038	.007	<.001	1.039	1.024	1.054
<i>Social Policy</i>	.015	.006	.009	1.015	1.004	1.026

Thus, we have observed that counterfactual endorsement does positively predict regret change as well as vote switching intentions in the ingroup-referent condition, but only in the topics of *Economic Policy* and *Social Policy*. Whilst the findings should be interpreted with care since these were post-hoc hypotheses and analyses and could thus have been biased by the sample, it remains an interesting result that the topic of the counterfactual alternative presented seems to moderate the effect of counterfactual endorsement on both regret change and electoral switching intentions. This also seems to suggest that for events that are seen by individuals as having little prospect of change, counterfactual statements may instead be used as a form of emotional coping, rather than playing a functional role in motivating future collective action.

Whilst we consider that the effects reported here are noteworthy enough to be reported, it must be cautioned that these findings were the result of exploratory analyses and should be investigated further as a confirmatory hypothesis before making any inferences as to

whether such an effect exists and if so, why it exists. Nonetheless, it represents a worthwhile finding for future consideration, as it could help further our understanding on how counterfactuals can play a functional role in both emotional regulation and motivating future action.

Discussion

This study adds to a relatively sparse body of literature on how counterfactual alternatives can predict future collective action in the form of electoral switching. We predicted that (H1) endorsement of outgroup-referent counterfactuals would be negatively related with regret change, and that (H2) endorsement of outgroup-referent counterfactuals would be negatively related with electoral switching intentions. Furthermore, we proposed that (H3) change in regret mediates the relationship between endorsement of outgroup-referent counterfactuals and electoral switching intentions.

Counterfactual structure (outgroup- vs ingroup-referent) produced a directional relationship with changes in regret (lower vs. higher), although the effect was not shown to be statistically significant (H1). Endorsement of ingroup-referent counterfactuals corresponded to higher electoral switching intentions (H2). Endorsement of counterfactuals and changes in regret were both separately predictive of electoral switching intentions, and this manifested in different ways depending on the structure of the counterfactuals – counterfactual endorsement was the main predictor of this effect in the ingroup-referent condition, but regret change was the main predictor of this effect in the outgroup-referent condition (H3). Additionally, exploratory analyses lent more support to these hypotheses, and also suggested differential action of counterfactual endorsement in events perceived to be changeable vs. unchangeable.

In sum, endorsement of ingroup-referent counterfactual alternatives does predict increases in regret – albeit not at a statistically significant level - and endorsement of ingroup-referent counterfactual alternatives does predict higher electoral switching intentions.

Endorsement of ingroup-referent counterfactual alternatives does not seem to predict higher electoral switching intentions partially through increased regret. This may in part be a result of differences in the characteristics of the topics for the counterfactual alternatives. Therefore, more research is necessary before we can draw clear conclusions on the path through which counterfactual alternatives affect future electoral behaviour.

Limitations and Future Directions

Whilst we did find that self-referent counterfactuals were a significant predictor of increased electoral switching intentions, outgroup-referent counterfactuals were not found to be a significant predictor of electoral switching intentions. Additionally, there did not seem to be a clear relationship between counterfactual endorsement and change in regret, and it is worth exploring why this may be the case.

Considering we collected a sample of $N = 364$ for this study, should an effect be present, this would seem to be a rather small effect to have not been detected in this study. One explanation for this is that the effects of counterfactual thinking are sensitive to temporal distance – events that occurred in the recent past are more potent than events that occurred in a somewhat distant past (Smallman & McCulloch, 2012; Valenti & Libby, 2017). This may help to explain why our results diverge from Milesi and Catellani (2011), who conducted their study immediately after the regional elections in Lombardy; by contrast, the last UK general election took place four years prior to the current study, and the Brexit referendum itself took place more than six years ago. Future investigations on this topic would have to be conducted soon after an electoral outcome, which unfortunately hampers any efforts to investigate electoral outcomes that may have happened in the more distant past. If we do intend to study outcomes that are further in temporal distance from the present, what may be useful is to frame the outcomes in terms of the recent past or the recent future. E.g. rather than presenting a counterfactual alternative such as “If only Remain voters had not been so focused on their

political agenda, the Brexit process would have been better”, a counterfactual alternative could be framed as “If only Remain voters had not been so focused on their political agenda, the *current* Brexit process would have been better”.

In addition, one of our topics of investigation – *Internal Relations within the UK* – did not prove to be very informative, as in our sample, only 7.4% of participants reported being from Scotland, Wales, or Northern Ireland. We have reason to believe that outcomes on this topic would be significantly different if the sample composition was different (POLITICO, 2023). Future studies that intend to investigate a broad range of political topics in a country with a unique geopolitical situation like the UK should also focus on collecting a diverse sample in terms of geopolitics. Furthermore, whilst we initially intended to collect a 1-20 Likert scale of decision certainty for both the pre- and post-measure of voting behaviour, errors in the survey construction process meant that the semantic anchors were not construed properly; thus, any data we collected on that measure could not be used for the purposes of the current study. This data would have been useful for informing us of more granular differences in decision certainty rather than a discrete, yes/no indicator of electoral switching intentions, which would be more useful in the modelling of real life decision-making – after all, electoral decisions in real life are seldom simple yes/no decisions for a given party.

Theoretical Contributions

The findings of this study have theoretical implications for our understanding of the effects of counterfactual thinking on regret, as well as the specific impact that has on electoral switching intentions. Whilst previous literature has indicated that counterfactual alternatives can help to reduce emotions of regret (Summerville, 2011), the results of this study indicate that the affect-regulation component of counterfactual alternatives is sometimes insignificant when the emotion of regret is closely linked to aspects of identity which are seen as important to the self. In this case, the social identity of being a Conservative Party voter may have

played a part in reducing emotions of regret even prior to being exposed to counterfactual alternatives – i.e. partisans may have engaged in trivialisation or disengaging from their decisions as a way to manage the emotions of regret arising from cognitive dissonance in order to maintain their social identity, especially if the identity is experienced as an important one for their self-concept (Aubert-Teillaud et al., 2023; Cancino-Montecinos et al., 2020; McGrath, 2017).

Further, it seems that the distinction between ingroup- and outgroup-referent counterfactual alternatives did display directional patterns in predicting the emotion of regret, which shows that assigning the blame for an outcome to an external party can indeed reduce the amount of regret experienced by an individual. This, taken in combination with the fact that endorsement of ingroup-referent counterfactuals did predict electoral switching intentions, presents interesting implications for the messaging of political actors in the aftermath of a failure – honest, self-critical assessments can be harmful rather than helpful (Milesi & Catellani, 2011), because if the electorate happens to agree with those sentiments, they are more predisposed to switch their vote in the following election, even if it means sitting out the elections.

This presents an ethical dilemma to political actors – critically self-reflect and communicate your failures to the electorate and risk them switching their votes, or blame the outgroup and potentially retain your support? Whilst this presents a rather pessimistic view of political messaging in contrast to prior research that emphasises the importance of perceived honesty and ethicality of leaders (Aichholzer & Willmann, 2020; Birch & Allen, 2010; Williams et al., 2021), it is nonetheless important to consider for political actors and leaders alike, and presents an interesting account of why political actors such as Donald Trump, Boris Johnson, and Jarosław Kaczyński retain popular support in spite of perceived policy failures.

The role of performance in political messaging should not be neglected (Cels, 2015), and the findings of this study help to further characterise this.

Conclusion

Electoral behaviour is an important case of collective action, and the application of counterfactual alternatives as a frame to understand political psychology is characterised by a growing body of literature. The results of this study add nuance to our understanding of how social emotions and cognitive processes can be predictive of future electoral behaviour. Being critical and honest about your own failings is not always the best course of action for political actors, and sometimes it pays off to levy the blame at an outgroup. In light of today's political climate, this presents a rather grim account for how populist rhetoric and shifting the blame onto others can be more effective than honest and ethical communication.

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Appendix 1: Histograms of Participants' Political Alignments

