



Correction: The Impact of Incidental Environmental Factors on Vote Choice: Wind Speed is Related to More Prevention-Focused Voting

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Correction to: Political Behavior <https://doi.org/10.1007/s11109-023-09865-y>

This erratum addresses data errors in *The Impact of Incidental Environmental Factors on Vote Choice: How Wind Speed is Related to More Prevention-Focused Voting*.¹ While correcting these errors affects the magnitudes of our estimates of interest, none of the corrections change our primary research conclusion that wind speed is associated with voting decisions only in elections that pit a prevention-focused option against a promotion-focused option.

The errors involve the weather-related control variables for Election 50 and the income data in Study 2, which focused on elections in Switzerland. These data errors stemmed from a mistake in the data merging process. Additionally, the cloud cover data should have been treated as a categorical variable rather than a continuous variable in all of our analyses, and the voter turnout measure we used should

¹ Mo et al. (2023).

The original article can be found online at <https://doi.org/10.1007/s11109-023-09865-y>.

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Table 5 Interaction between wind speed and regulatory focus difference

	Model 1	Model 2	Model 3
Wind speed	0.12 (0.07)	– 0.06 (0.07)	– 0.07 (0.07)
Regulatory focus difference (RFD)	– 8.42*** (1.57)	– 2.29* (1.02)	– 2.46* (0.98)
Wind speed × RFD	0.72*** (0.08)	0.39*** (0.06)	0.40*** (0.05)
Constant	27.87*** (1.79)	36.25*** (2.71)	29.72* (12.43)
<i>Control measures</i>			
Turnout	Y	Y	Y
Canton fixed effects	Y	Y	
Other election day weather indicators		Y	Y
Socioeconomic variables			Y
Number of groups: states	26	26	26
Num. obs	624	624	624

Notes: Dependent variable is prevention-oriented campaign vote share at the canton level. Robust standard errors are in parentheses. Whether the estimated model includes a set of labeled control measures is indicated with a “Y.” *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$ denote significance levels

have been canton-level turnout data rather than national-level turnout data, given that our analyses are at the canton-level. We are grateful to Nicholas Brown for alerting us to these errors, and deeply regret that these errors were made in the first place. Correcting these errors modestly affects the size of the coefficient estimates of wind speed and the coefficient estimates of the interaction term between wind speed and campaign regulatory focus reported in Table 5 and Fig. 2, which uses estimates from Model 3 of Table 5, in the manuscript, as well as the supplementary tables associated with Study 2 (Tables S3, S9, S10, and S13). However, the conclusions of the manuscript remain unchanged.²

Below are the corrected text of the second and third paragraph of the results section of Study 2, as well as the corrected Table 5 and Fig. 2:

Similar to our previous findings, wind speed did not influence turnout ($p=0.35$ – 0.67) when we controlled for other Election Day weather variables and canton fixed effects or canton-level socioeconomic variables (see Table S10 in the Supplemental Materials). Moreover, as hypothesized, wind speed did not have a statistically meaningful effect on support for the prevention-oriented vote choice when the presence of a regulatory focus difference is not taken into account (see Table S9 in the Supplemental Materials); wind speed had

² For transparency, both the updated replication file that corrects the errors (see “Updated Replication File for Political Behavior”) and the original replication file (see “Archive of Replication File for Political Behavior”) can be found here: <https://osf.io/9y4sn/>.

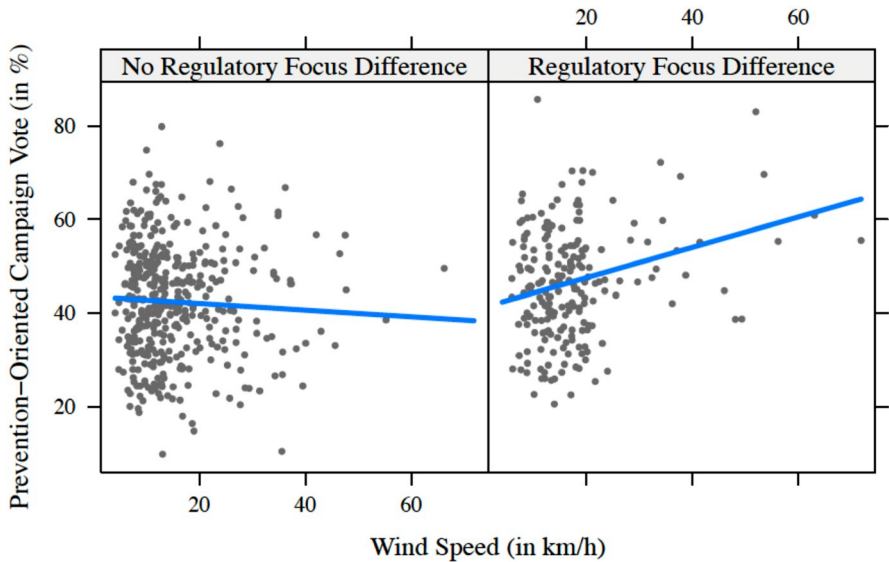


Fig. 2 Plotted relationships between wind speed and prevention-oriented vote for Swiss referendums. The left panel indicates elections for which there was no regulatory focus distinction. The right panel indicates elections for which there was a regulatory focus distinction

no robust statistically significant effect on voting decisions when the voting options did not differ distinctly in their regulatory foci (see Table 5). When we controlled for turnout, canton fixed effects or canton-level socioeconomic variables (i.e., income, unemployment, education, age, percent rural, and race), and other Election Day weather variables, wind speed was not associated with vote choice ($B = -0.07$ to -0.06 , $SE = 0.07$, $p = 0.29-0.38$; see Models 2–3 in Table 5).³

However, there was a wind speed effect when an election featured a regulatory focus distinction; the interaction term between wind speed and campaign regulatory focus difference was statistically meaningful and in the direction we expect ($B = 0.38-0.39$, $SE = 0.05-0.06$, $p < 0.001$; see Models 2–3 in Table 5). The effect of wind speed on election outcomes in favor of prevention-oriented campaigns occurred only when the election featured voting options with distinctively different regulatory focus orientation. The significance of the presence of a regulatory focus distinction becomes clearer when we visualize the relationship between wind speed on Swiss

³ We also examined whether the effect was specifically due to wind speed, as opposed to a broader pattern of weather conditions affecting voting decisions (see Tables S3 in the Supplementary Materials). We found that other weather indicators were generally not correlated with the number of prevention-focused votes without simultaneously also affecting turnout rates. Temperature, dewpoint, and three (out of eight) cloud cover categories were the exceptions. However, given that we are looking at multiple correlations, it is possible to have a spurious significant correlation. Moreover, these were simple bivariate correlations, and not robust tests.

referendums by whether the elections feature a regulatory focus distinction (see Fig. 2, which used estimates from Model 3 of Table 5).

There was one sentence in the second paragraph of the discussion section that briefly touched upon the findings of Study 2. The corrected text is as follows: “For elections that featured a distinction in regulatory focus, considering models with all of our considered covariates, a one km/h increase in wind speed was associated with an increase in votes for the prevention-focused campaign of 0.15 pp for Brexit, 0.79 pp for Scotland Independence, and 0.32 pp for Swiss referendums.”

One sentence in the supplemental file also had to change in light of the data corrections, which refers to Table S13: “If we again take the model with all of our control measures, we see wind speed only affects support for the prevention-oriented vote when there is a regulatory focus distinction ($B_{\text{windspeed} \times \text{RFD}} = 7.62$, $SE = 1.24$, $p < 0.001$; see Model 3 of Table S13).” Tables S3, S9, S10, and S13 also needed to be corrected, and the updated tables are now provided in the updated supplementary file. As noted before, while correcting these errors changed the magnitudes of our estimates of interest, the changes are small and none of our inferences have changed.

We have also added results from two new robustness check analyses to our supplementary file (see Section 7). First, we assess how robust the results of Study 2 are to the exclusion of each of the 24 elections we study. This robustness check verifies that the findings are not sensitive to the exclusion of one data point (see Figure S1); we find that the coefficient for the interaction term is consistently positive and statistically significant at $p < 0.10$. In fact, apart from one case (i.e., the exclusion of Election 40), the p-value is less than 0.001.

Second, we consider an additional model in our analysis of the Brexit remain vote (Table 1) that includes additional political party controls. When we include controls for all major political parties (Conservative, Labor and the Liberal Democrats) as an additional robustness check, the results are unchanged, as shown in column 7 of Table S14.

Finally, as a point of clarification, we described the promotion-focused choice as a “Yes” vote (i.e., “Yes” to Brexit and Scottish Independence) and the prevention-focused choice as a “No” vote (“No” to Brexit and Scottish Independence). We want to clarify that while the ballot options for Scottish Independence were “Yes” and “No,” on the actual ballot for Brexit, voters were given the options of “Remain” and “Leave.” Ballots need not provide “Yes” and “No” options for our theory to apply. Rather, testing our theory only requires a prevention-focused choice pitted against a promotion-focused choice, which was the case for the Brexit referendum. Nevertheless, we could have been more precise in our language.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11109-024-09923-z>.

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Reference

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