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**Reply to Bryan et al.: Variation in context unlikely explanation of non-robustness of noun versus verb results**

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The authors declare no conflict of interest.

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Whether labelled a replication effort or an attempt to gauge robustness (a distinction discussed on page 7113 of our paper (1)), our study found that swapping nouns for verbs in a treatment script does not produce the enormous 11 to 14 percentage-point turnout increase reported by Bryan et al. (2), but instead a precisely estimated zero treatment effect. Because the effects in (2) are many times larger than the 0 to 2 percentage-point effects common in general election voter mobilization experiments, (2) has attracted attention as a powerful demonstration of an important broader claim: extremely minor psychologically-inspired interventions can have outsized behavioral effects.

Bryan et al. (3) explain our zero treatment effect by asserting that the treatment they developed *should* have no effect unless certain conditions hold; we learn from (3) that the election must be high-profile or competitive. However, this is an ex-post argument, entirely absent from their 2011 article. We provide four reasons our null findings are unlikely to stem from political context differences.

First, turnout effects in mobilization experiments are generally *smaller* in high-profile elections because campaign communication environments are saturated and baseline participation rates are high. To see the difficulty in producing a double-digit turnout boost in such contexts, note that in California 2008 (Study 2 in (2)) only 18.2% of the *control* group (verb) did not vote. Under reasonable assumptions, the reported 13.7 percentage-point treatment effect suggests the subtle noun treatment caused a remarkable 75 percentage-point (13.7/18.2) turnout increase among the 18.2 percent who would not have voted absent treatment.

Second, although the reply (3) faults our use of expected competitiveness, when our sample's 31 districts are partitioned by realized closeness there is no evidence of meaningful treatment effects (table S2 in ref. 4). For the subset in which the closest primary contest in a district was decided by less than 5%, the turnout difference between noun and verb groups is just .2 points ( $se=2.7$ ,  $N=829$ ).

Third, their reply (3) presents a new survey in which subjects rank the importance of voting in elections like New Jersey 2009 (Study 3 in (2)) or an uncompetitive House primary. Despite extreme question wording characterizing all primaries as uncompetitive, the survey shows the psychological attachment to voting is relatively invariant across these contexts, and respondents frequently indicate voting in primaries is important. Crucially, because so many subjects say primary voting is important, even if the treatment is effective only among this subset of voters (a very strong assumption), if the true effects are as large as those reported in (2) (table S5 in ref. 4) we should still observe substantial aggregate effects in House primaries.

Fourth, false positives are common in small-scale experiments (in [2],  $N=214$  for NJ,  $N=88$  for CA) (4).

Although we find Bryan et al.'s (3) explanation unconvincing, this exchange is well-timed. The original findings have (to our knowledge) never been successfully replicated, and this November provides ample opportunity to test noun versus verb in the political environment the authors now say is ideal for producing 11 to 14 percentage-point effects.

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