Climate Nudges, Political Belief, and Small-Sample Exaggeration: Evidence from a Randomised Experiment in Bangladesh

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Abstract:

Behavioural nudges are attractive because they change behaviour without removing choice. Most of the evidence that they work comes from Scandinavian, Western European, and North American samples, and a growing replication literature reports that published effects are smaller than first claimed. This paper reports a randomised survey experiment fielded in the weeks before a national election, testing three climate nudges (a future generation frame, a local salience frame, and a personal footprint frame) on 1,478 Bangladeshi university students. A pilot with 56 respondents found a large and highly significant effect of the future generation nudge, raising allocations to a climate adaptation fund by 1,830 taka. In the full sample, the same design delivered to the same population produced no significant effect: no arm shifted the average allocation, and none shifted the probability that climate entered a respondent's three declared election priorities. The pilot estimate exceeded the full sample estimate by a factor of twenty-three. A design analysis shows the pilot could not have declared significance below 0.87 standard deviations, roughly nine times the largest effect reported in the nudge literature. This average null result conceals systematic variation, however. Political belief moderates the response on both outcomes, jointly and in opposite directions for different nudges, though we report this as exploratory. Prior political belief, gender, and prior exposure to climate events predict behaviour more reliably than random assignment to any nudge. We argue that underpowered pilots are one concrete mechanism behind the replication gap in the nudge literature, and that in this setting choice architecture works on some respondents and not on others, instead of producing a uniform effect on average.

Keywords:

Nudge, choice architecture, climate adaptation, field experiment, replication, statistical power, Bangladesh.