

PRE-ANALYSIS PLAN FOR

Insincere Belief: Experimental Evidence from Pakistan

Introduction.— How can we detect insincere religious beliefs? Can thought leaders change behavior that is not detectable self-reported answers? We hope to answer these questions, by conducting a field experiment in Pakistan. We combine an objective measure of Ramadan fasting observance and compare it with self-reported intention to fast in Ramadan to examine if conservative and liberal Imams differentially impact actual and intended fasting behavior.

Study Design.— We conduct a randomized evaluation in Pakistan where individuals are exposed to conservative and liberal imams who encourage and discourage individuals to fast in Ramadan, respectively by offering a different interpretation of fasting in Ramadan. Specifically, we randomly assign 607 individuals into three treatment arms with 202 assigned the conservative treatment, 202 the liberal treatment and 203 the placebo message.

Treatment Details.— The first treatment group involves the individuals watching a prominent thought leader in Pakistan (Javed Ahmed Ghamdi) providing a liberal interpretation of the Quranic verses discussing Ramadan fasting. He explicitly encourages all Muslims to postpone fasting, argues that fasting can be postponed in Ramadan both for personal and external reasons, for instance due to the personality or “temperament” of a person or due to external circumstances such as weather and other inconveniences such as travel. Our second treatment group involves the participants watching a prominent thought leader in Pakistan (Tariq Jamil) providing a conservative interpretation of Quranic verses prescribing fasting. He explicitly encourages all Muslims “not to miss a single fast in the month of Ramadan come what may”. In the control group, subjects watched a video describing facts and statistics about the Pakistani economy. To maximize the retention and comprehension, we utilized recent advances in pedagogy through the use of social-emotional learning, with the individuals completing two writing exercises: a 100 word essay summarizing the message and another essay on how they may apply the lessons to their lives. They then engage in a structured discussion on the main messages provided in their treatment group.

Empirical Specification.— The impact of the four treatments will be evaluated by comparing outcomes across groups in a simple regression framework. For each teacher and student-level outcome, the estimation equations are:

$$Y_i = \alpha + \beta \text{ Liberal Imam}_i + \gamma \text{ Conservative Imam}_i + \mathbf{X}_i \mu + \epsilon_i \quad (1)$$

We will compute treatment effects via OLS with robust standard errors. We will provide results with and without all available controls on teacher and student characteristics.

Outcomes Variables. —The first and main variable will be cortisol concentration in blood plasma measured in Ramadan. This will be our proxy for actual fasting in month of Ramadan. Second, we will ask individuals to report whether they fasted to measure self-reported fasting. We will standardize these variables to mean zero and standard deviation one. The third outcome concern measuring lying in a die rolling game.

Heterogeneity Analysis.— We will also assess heterogeneity of our treatment effects by (1) pre-treatment score on die-rolling game (2) pre-treatment religiosity (3) pre-treatment intention to fast in the month of Ramadan (4) pre-treatment life satisfaction

Robustness Analysis.— Check balance on (1) pre-treatment (PSS Cohen Scale) stress (2) pre-treatment cortisol outside Ramadan. Marlowe–Crowne framework will also be used to rigorously speak to social desirability and misreporting concerns.

Hypotheses.— We will test the following hypotheses:

H1: Liberal Imam exposure decreases cortisol concentration measured in Ramadan.

H2: Conservative Imam exposure increases cortisol concentration measured in Ramadan.

H3: Conservative and Liberal Imams exposure is mediated by pre-treatment score in the lying game.

H4: Conservative and Liberal Imams exposure is mediated by pre-treatment religiosity

H5: Conservative and Liberal Imams exposure is mediated by pre-treatment life-satisfaction.