Revision memo:
"Estimating population average treatment effects from experiments with noncompliance"
(DGJCI.2018.0011)

1 Editor's comments

1.1 Definition of SATE

Following R1's guidance, we now call this quantity the sample Complier Average Causal Effect (CACE) (see 2.1 below).

1.2 DAG

1.3 No defier assumption

1.4 Assumption 7

1.5 Conceptualizing PATT-C

1.6 Theorem 1

1.7 Prediction threshold

1.8 Same W

1.9 Formal definition of PATT

2 Reviewer 1 (R1)'s comments

2.1 Definition of SATE

R1 points out that what we have referred to as SATE is inconsistent with how we'd usually define SATE. The quantity we're interested in estimating is the sample local average treatment effect among the compliers, which Freedman 2006 shows can be recovered by scaling the ITT effect by the proportion of treated compliers in the RCT. This estimator is equivalent to the instrumental variables estimator for the LATE proposed by AIR 1996.

Following the guidance of R1 and the Editor, we refer to this quantity in the revised manuscript as the Sample Average Treatment Effect on Treated Compliers (SATE-C) and define its estimator in Eq. (3).

2.2 Estimation of PATT

2.3 Small points

Pg. 2

R1 is correct: a more appropriate thought experiment to our proposed PATT-C is an estimator that reweights the ITT effect to the whole population and then divides by the proportion of treated compliers in the population. We have revised the manuscript accordingly.

Pg. 5

Motivation

Interference

Typos

We fixed the two typos helpfully pointed out by R1.