

# Propositions

accompanying the dissertation

## **INTEGRATING GENETICS INTO ECONOMICS**

by

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- I. Publicly available tools such as MR-Base make the execution of a Mendelian randomization study too easy, as no specialist knowledge of genetics is required for using such tools (Chapters 2 and 3).
- II. Using genetic propensity scores for individual-level prediction of behavior is premature (Chapter 4).
- III. The best genetic propensity scores for behavior are constructed using all available single nucleotide polymorphisms in a data set rather than only genome-wide significant single nucleotide polymorphisms (Chapters 4 and 5).
- IV. Excise tobacco taxes are an effective policy method to reduce tobacco consumption (Chapter 5).
- V. In high-dimensional optimization problems, such as GREML, the Broyden-Fletcher-Goldfarb-Shanno (BFGS) algorithm is preferred over a Newton method: it requires more iterations, but it is computationally less demanding (Chapter 6).
- VI. The “genes first” approach in heritability studies leads to an underappreciation of the environmental factors shaping behaviour.
- VII. Testing and estimation are separate enterprises with separate goals; the two should not be confused.
- VIII. Explicit correction for multiple-hypothesis testing should become standard in social sciences to decrease the probability of reporting spurious or random results and increase effective knowledge building and credibility in science.
- IX. Often, the exact purpose of robustness checks in empirical studies is often left unclear to give the impression that the results are ‘robust’ to every possible alternative explanation.
- X. Publishing all research findings is more effective for the proliferation of ideas than the current practice of selectively publishing mostly statistically significant results only.
- XI. It is crucially important to know what is unimportant.