

Exercise 4

Interventions

1. Provide a definition for an intervention in terms of the SCM and the post-intervention distribution.
2. Define static, dynamic, and stochastic interventions. Compare and contrast them.
3. Explain the utility of a shift intervention.
4. Explain a scenario in which one might find a significant result for $E_0 Y_{d_0}$ relative to Y_0 (where d_0 is the optimal rule) but not for the average treatment effect, $E_0 Y_1 - E_0 Y_0$?
5. What is the G-computation formula and what is its purpose?