

# Using Control Variables Responsibly

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# Purification Principle

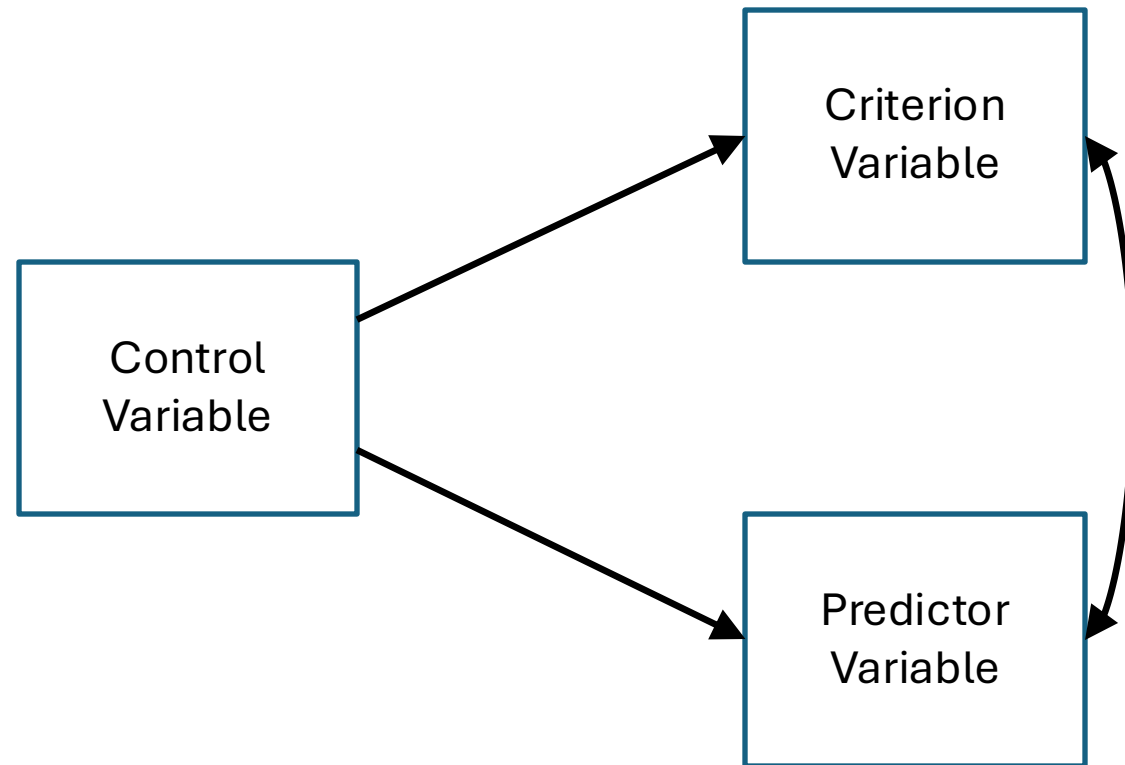
Control variables can remove spuriousness

Provides estimate of “real relationship”

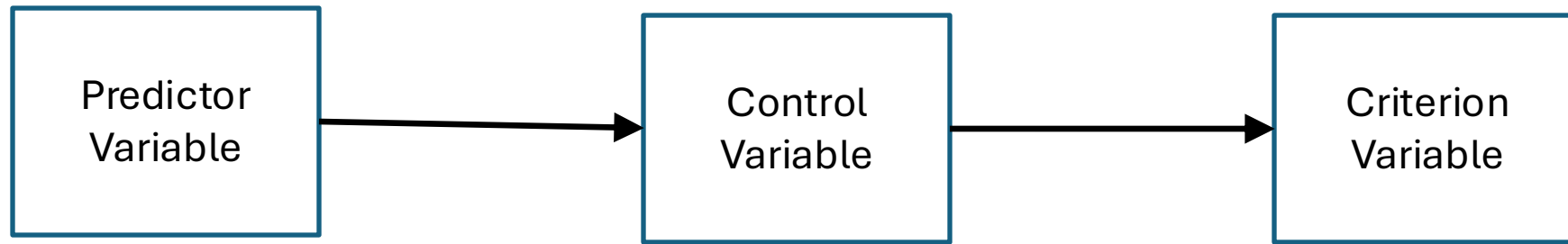
Assumes control variable cause of other variables

Automatic Inference Machine  
(Meehl, 1971)

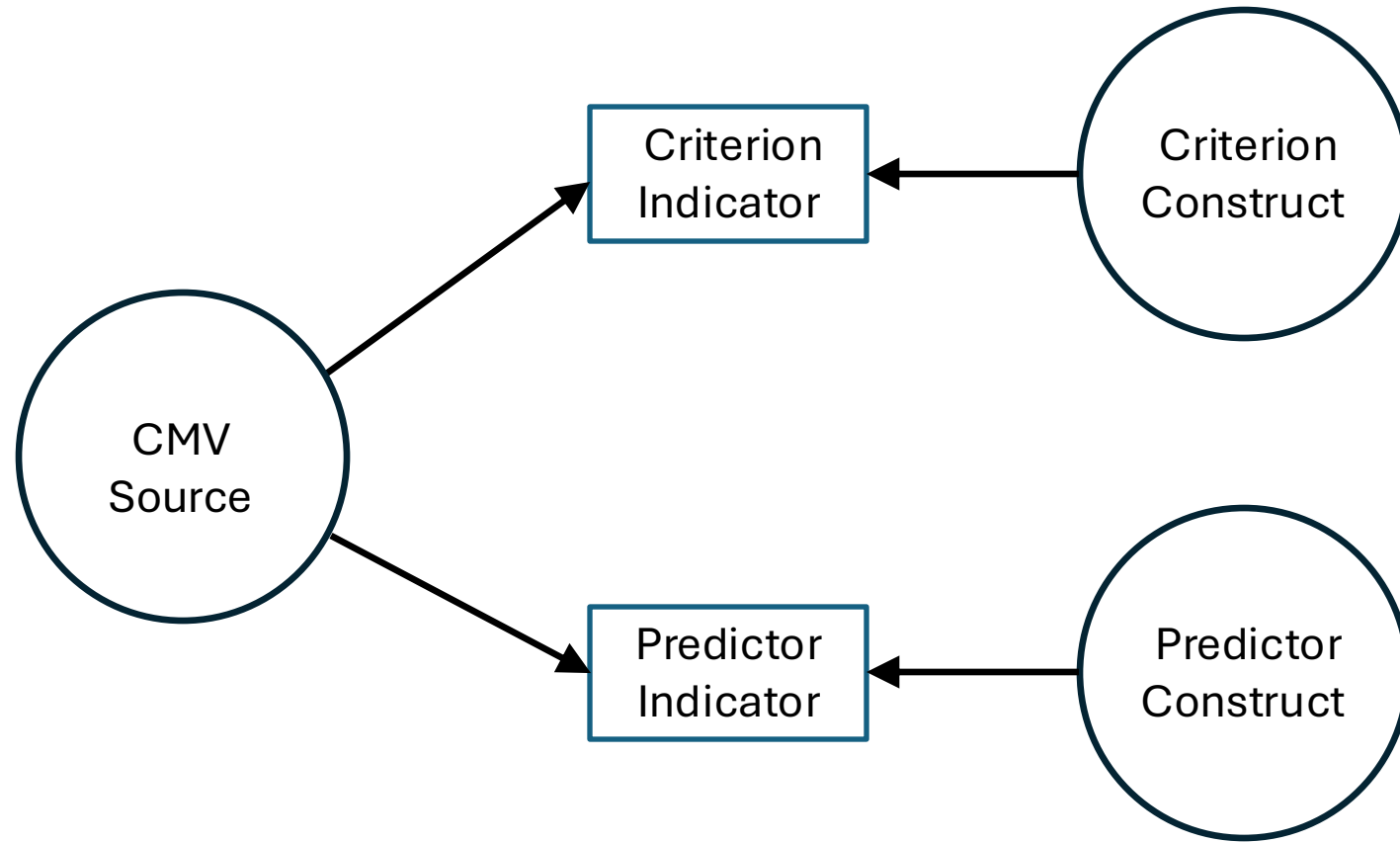
# Underlying Assumption of Control Variable



# Same Statistical Results



# Common Method Variance



# What Are They Good For?

## Test alternative explanations

- Can X-Y relationship be explained by controls

## Basis

- Theory
- Exploratory hypotheses

## Contrast results with and without

- Hierarchical approach

Spector, P. E. (2021). Mastering the use of control variables: The hierarchical iterative control (HIC) approach. *Journal of Business and Psychology*, 36, 737-750.

# Thank You

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