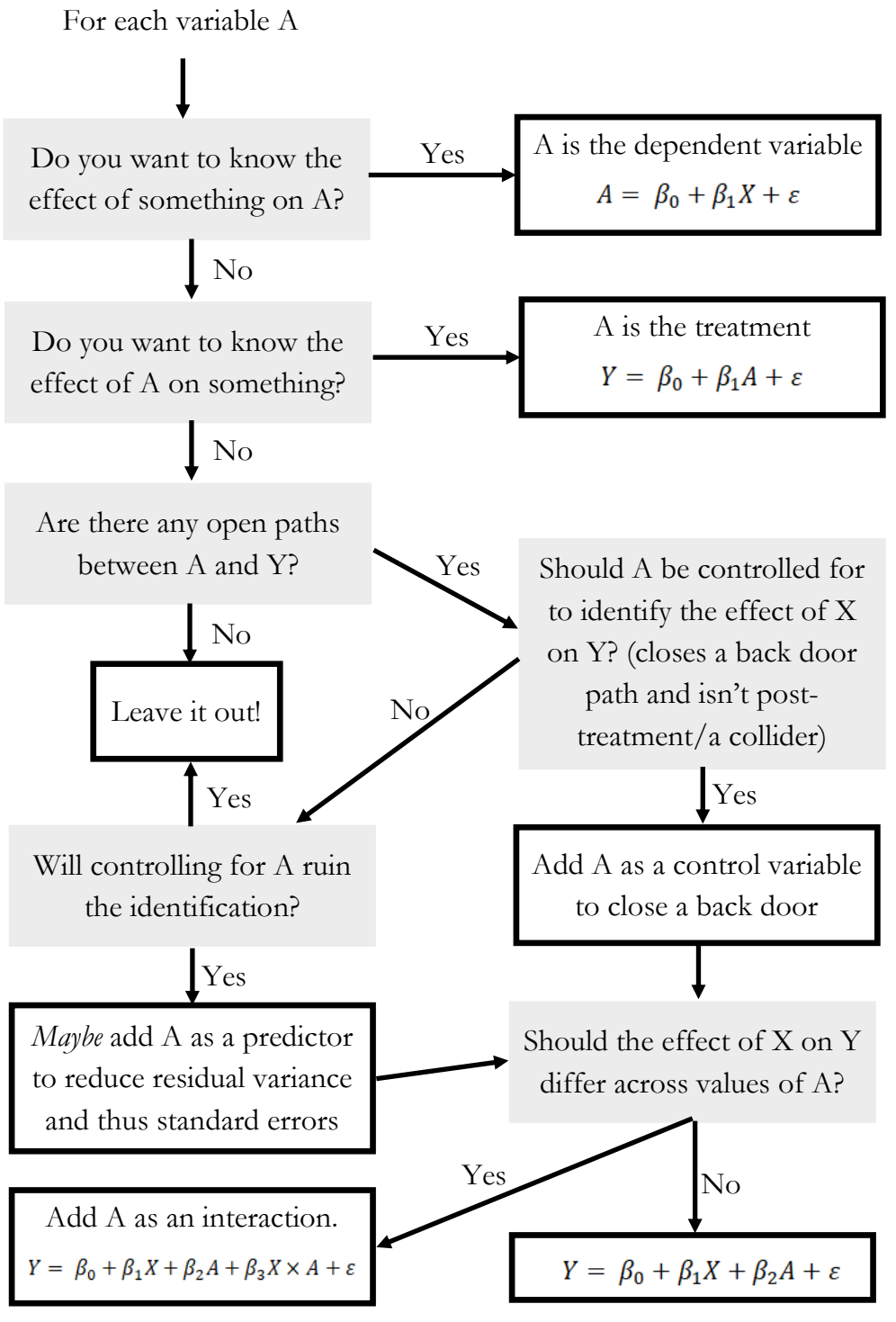
For each variable A
Do you want to know the effect of something on A?
Yes
A is the dependent variable
$A = \beta_0 + \beta_1 X + \varepsilon$
No
Do you want to know the effect of A on something?
Yes
A is the treatment
$Y = \beta_0 + \beta_1 A + \varepsilon$
No
Are there any open paths between A and Y?
Yes
Should A be controlled for to identify the effect of X on Y? (closes a back door path and isn't post-treatment/a collider)
No
Leave it out!
No
Yes
Yes
Add A as a control variable to close a back door
Will controlling for A ruin the identification?
Yes
Maybe add A as a predictor to reduce residual variance and thus standard errors
Should the effect of X on Y differ across values of A?
Yes
No
Add A as an interaction.
$Y = \beta_0 + \beta_1 X + \beta_2 A + \beta_3 X \times A + \varepsilon$
$Y = \beta_0 + \beta_1 X + \beta_2 A + \varepsilon$