

RESEARCH TERMS: VARIABLES AND HYPOTHESIS

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VARIABLES

- **Variables** are measures that vary.
- **Values** are the ways the variable (data) can vary.

Function	Type of data
Independent = IV = Treatment = Explanatory = “Cause” = X	Binary (the value is 0 or 1, also called a “dummy” variable)
Dependent = DV = Outcome = Effect = Y	Categorical (the values are categories, like religion or level of education)
Control = Confounding	Continuous (the values are a range of numbers)
Intervening	

IV



DV



IV

War



DV

State

Culture



Control

IV

Intervening

DV

War



Taxes



State

HYPOTHESES

- A hypothesis is a proposed test of a theory.
- ***A specific, testable, falsifiable statement describing a relationship between variables.***
 - **Specific and Testable:** A hypothesis examines observable implications of a theory.
 - **Falsifiable:** Science requires you able to prove the hypothesis false.
 - **Variables:** It describes the independent and dependent variables in greater detail.
 - **Relationship:** It makes clear which variable is the proposed cause and how the independent and dependent variables covary.

- *Theory*: Tilly – War made the state
- *Hypothesis*: Thies – “External rivals should allow the state to augment its extractive capacity, while internal rivals should have the opposite effect in Latin America.”
 - In Latin America, as the number of international wars a state participates in increases, its ability to extract resources from the population (tax ratio) increases.
 - As the number of civil wars a state participates in increases, its tax ratio decreases.