EMPIRICAL TAKEAWAYS

CONCEPTUAL MODELS

→

ELS ACADEMY

WHAT IS A VARIABLE?

A variable is simply an attribute on which cases vary (for instance, high or low).

If not, it is a constant.

TYPES OF VARIABLES

Independent variables

Dependent variables

Mediating variables

Moderating variables

Control variables

→

X

Y

Independent

The presumed cause of change in the dependent Y.

In an experiment, this is the variable that you want to manipulate to observe changes in Y.

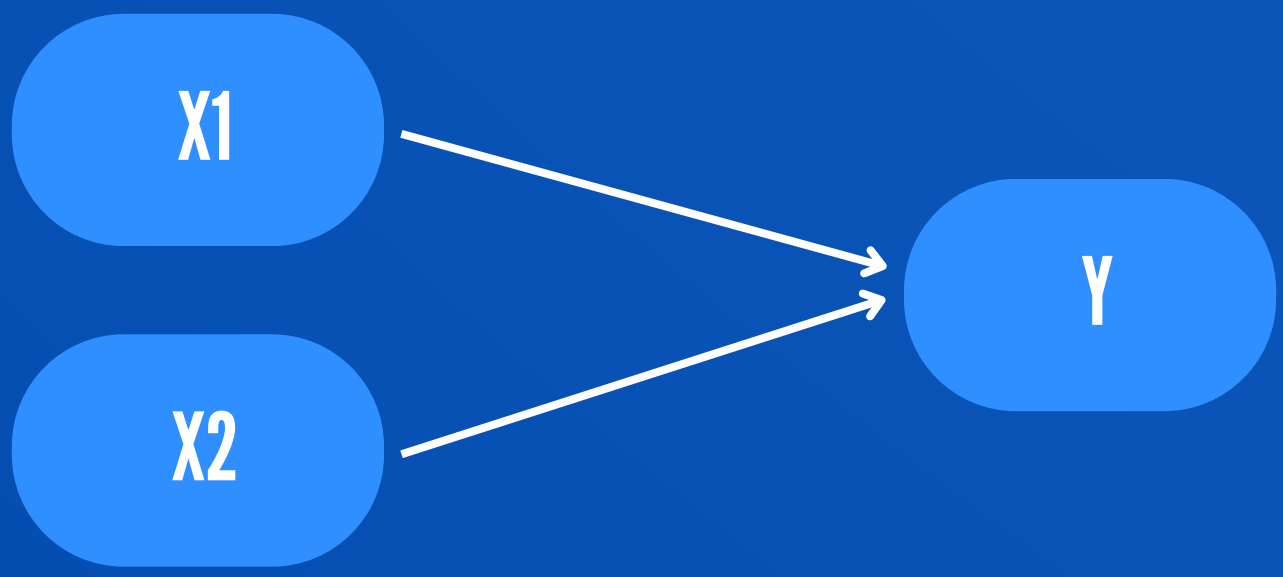
Dependent

This is the response to X.

It is what you want to predict or explain.

CONCEPTUAL MODEL

A graphical representation of the relationship(s) you expect to find between your variables.
You can have multiple independent variables and/or dependent variables, for instance:



MEDIATOR

This is a mediating variable
between a predictor (X) and outcome (Y).

It is an explanation for the cause-effect relationship.

It helps to better understand the mechanism:
the ‘how’ or ‘why’.

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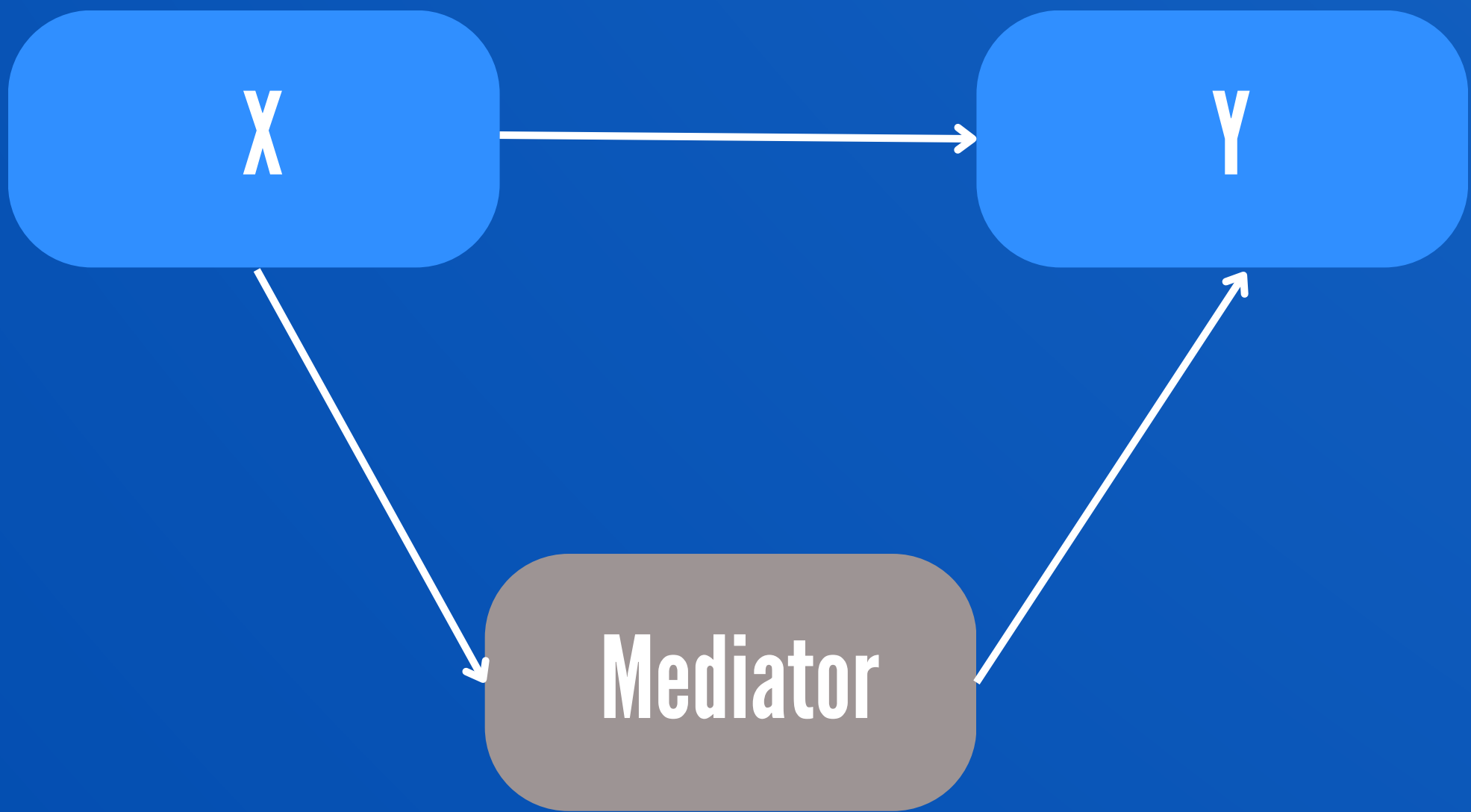
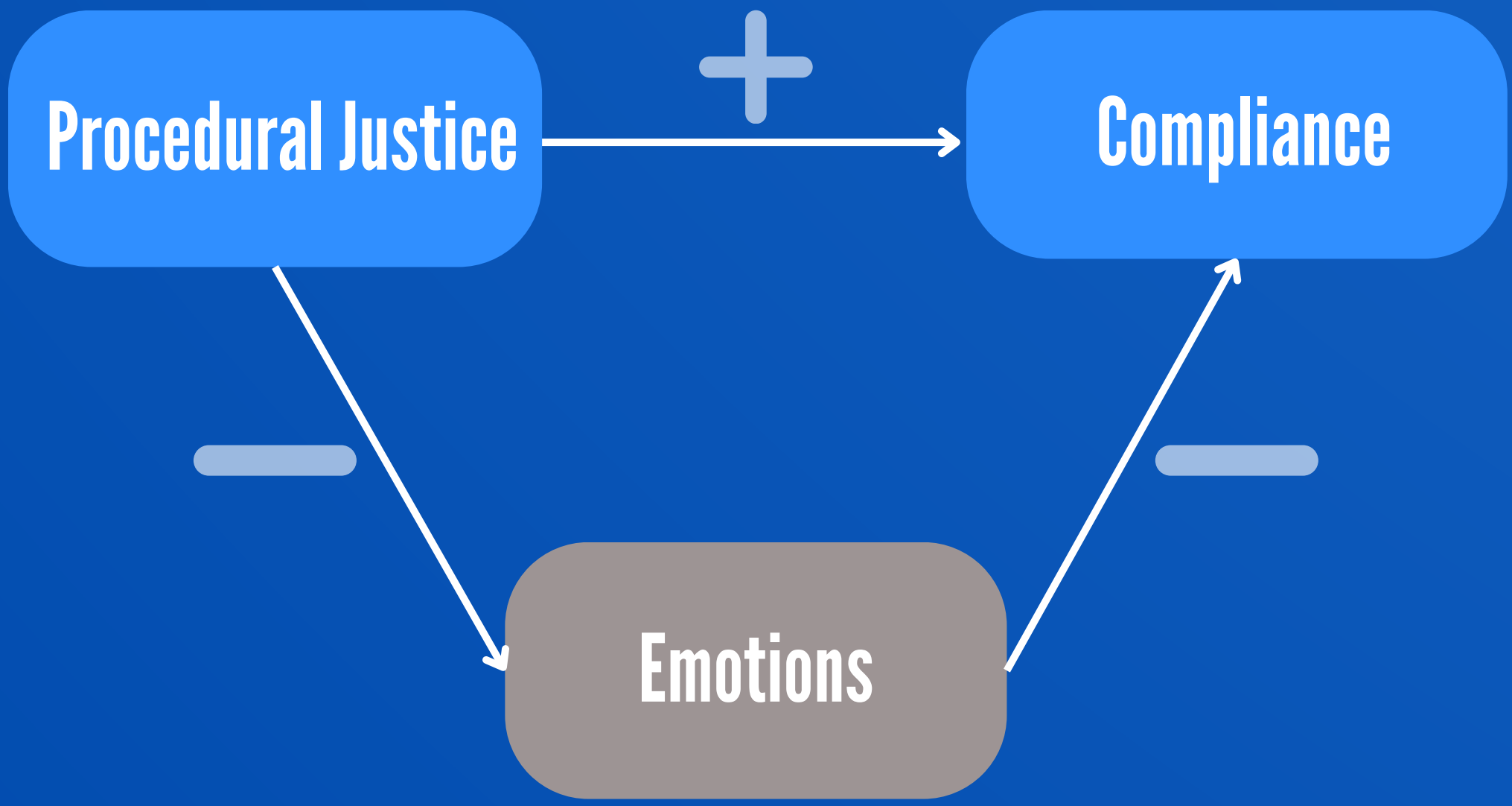

X
Y
Mediator

EXAMPLE OF A PARTIAL MEDIATION MODEL



Source: Murphy, K., & Tyler, T. (2008). Procedural justice and compliance behaviour: The mediating role of emotions. *European Journal of Social Psychology, 38*(4), 652-668.

MODERATOR

This is a moderating variable that changes the effect of X on Y, resulting in an interaction effect.

The cause-effect relationship is dependent on the value of the moderator.

It helps to better understand for whom, when, or where the association applies.

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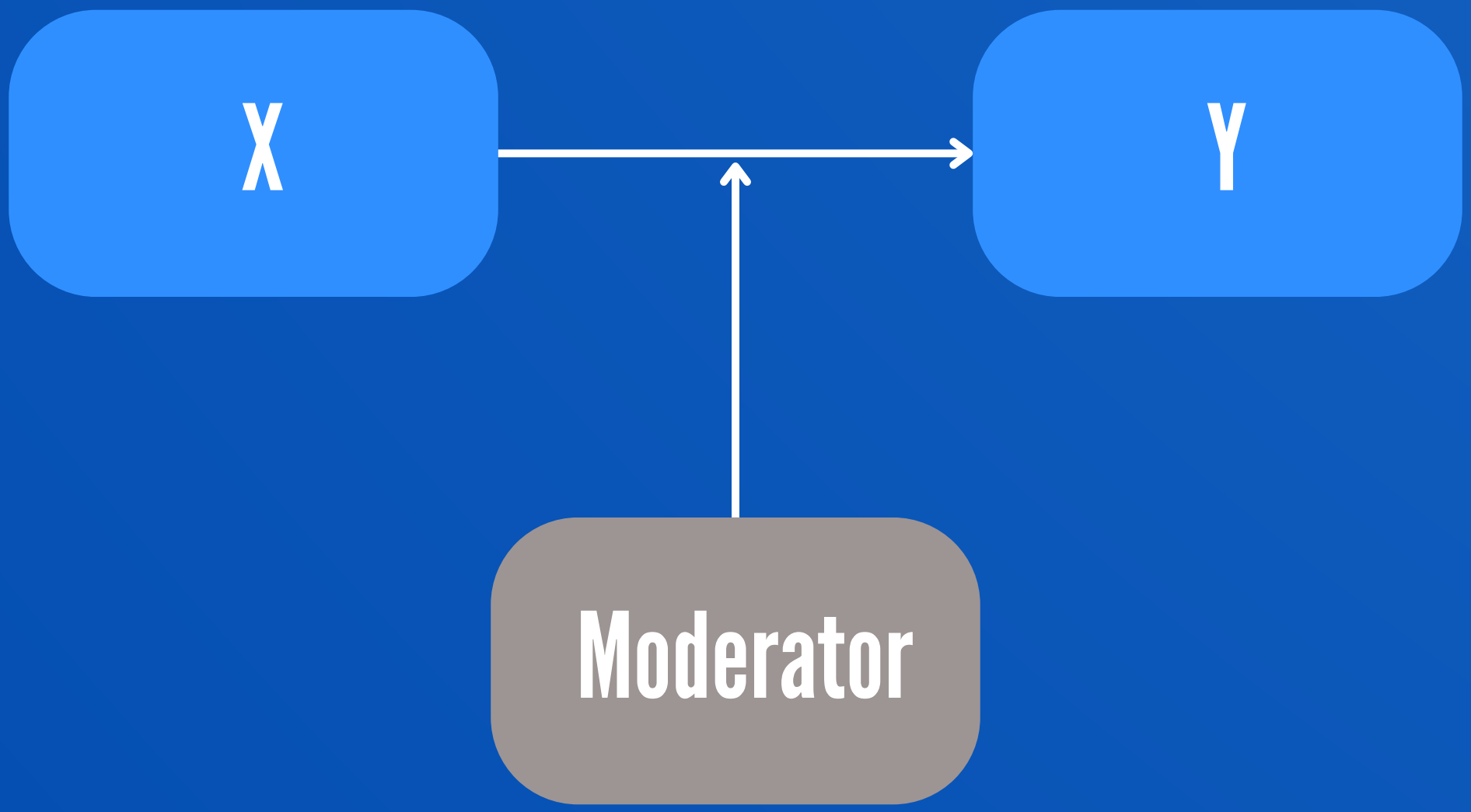
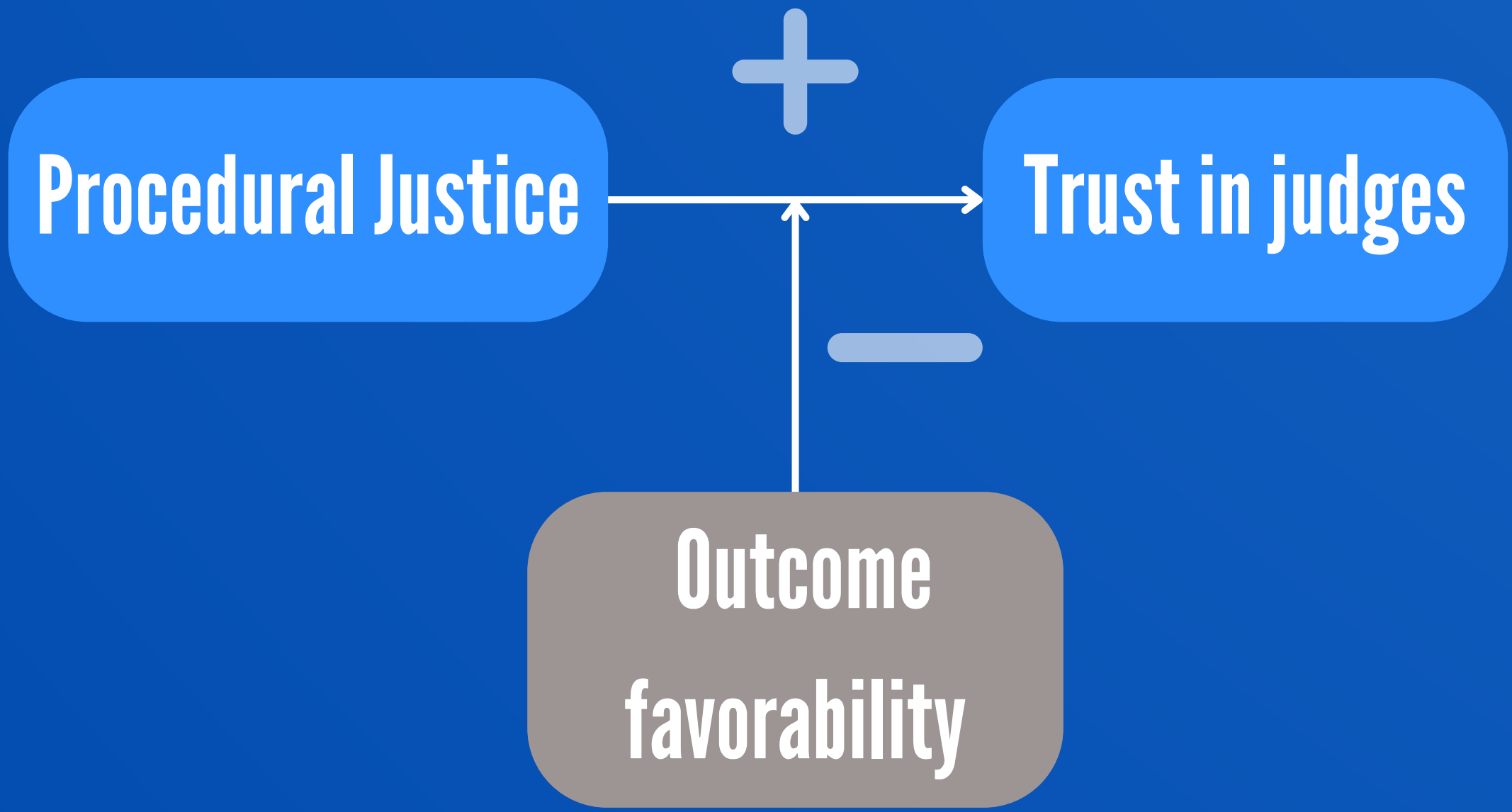
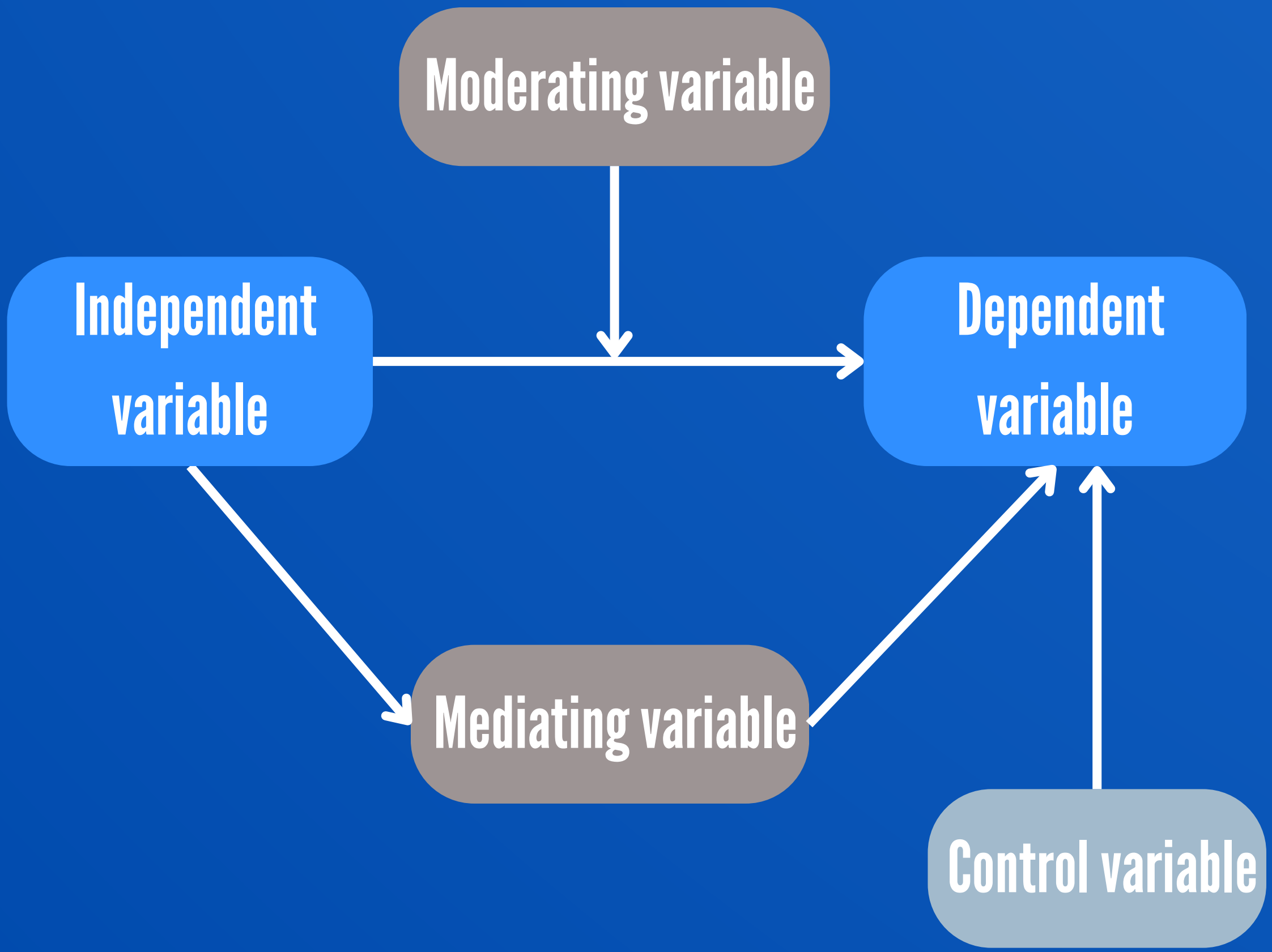

X
Y
Moderator

EXAMPLE OF MODERATION MODEL



Source: Grootelaar, H. A., & van den Bos, K. (2018). How litigants in Dutch courtrooms come to trust judges: The role of perceived procedural justice, outcome favorability, and other sociolegal moderators. *Law & Society Review, 52*(1), 234-268.

DEPICTING THE INTERACTION EFFECT

PUTTING IT ALL TOGETHER