

## Three Levels of Scientific Understanding



## Description

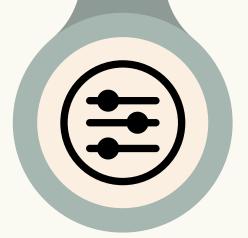
- Facts that are derived from systematically **observed** events.
- Facts that *can* be quantified and classified to help us test for possible relationships.

**Example:** George hugged his mom 5x today and each time he hugged her she gave him a kiss on the forehead.



- When *repeat* observations show that there is a <u>consistent</u> relationship between the occurrence of two events.
- Think CORRELATION

**Example:** Strong correlation between hot weather and an increase in drowning deaths.



## Control

- A functional relationship exists
- Manipulating one event (IV) results in the change in another event (DV) and this change can *only* be attributable to the independent variable. Think **CAUSATION**.

HIGHEST LEVEL

**Example:** A behavior intervention (IV) reliably causes tantrum behavior (DV) to decrease.