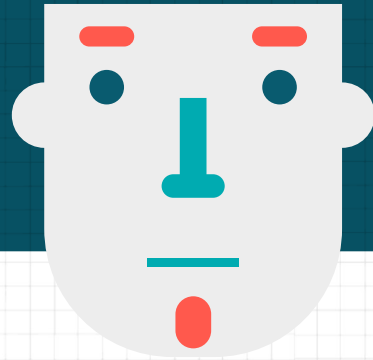
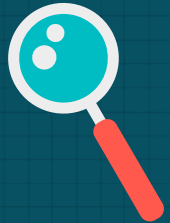
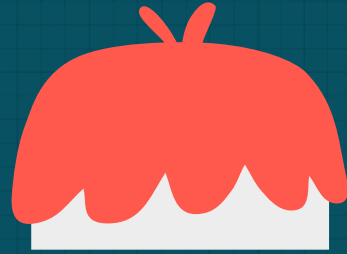


# Identifying Good Measurement



Morling, Ch. 5

# Types of Measures

	Strongly Disagree	Somewhat Disagree	No Opinion	Somewhat Agree	Strongly Agree
I am easygoing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have high standards.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy time alone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I work well with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dislike confrontation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer crowds over intimacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Self-Report

People answer answers about themselves in a questionnaire or interview.



## Observational

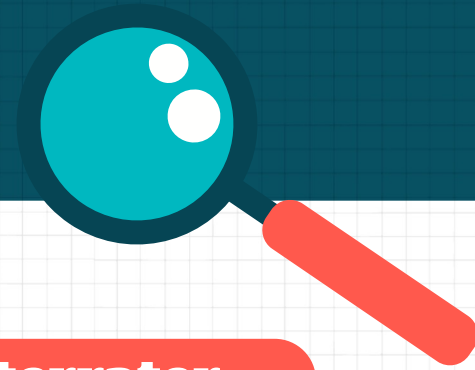
Venus has a beautiful name, but it's hot



## Physiological

Despite being red, Mars is actually cold

# Identifying Good Measurement: **Reliability**



**01**

## **Test-Retest**

The consistency in results every time a measure is used.

**02**

## **Interrater**

The degree to which two or more coders or observers give consistent ratings of a target behavior

**03**

## **Internal Consistency**

The consistency in a pattern of answers, no matter how the question is phrased

# Application: Beck Depression Inventory



## Test-Retest

$r = 0.73 \text{ to } 0.96$



## Interrater

N/A



## Internal Consistency

$r \approx 0.9$

# Identifying Good Measurement: **Validity**



## Face

Does the measure *look* like it measures a given construct?



## Convergent

Does the measure correlate with measures of similar constructs?



## Content

Does the measure capture all parts of a given construct?



## Discriminant

Does the measure *not* correlate with measures of *dissimilar* constructs?



## Criterion

Is the measure associated with the relevant behavioral outcome?

# DSM-5 criteria for a **major depressive episode**

- At least one of the symptoms is 1) depressed mood or 2) loss of interest or pleasure
- Symptoms must be present almost every day for at least 2 weeks
  1. Depressed mood most of the day
  2. Diminished interest or pleasure in all or most activities
  3. Significant unintentional weight loss or gain
  4. Insomnia or sleeping too much
  5. Agitation or psychomotor retardation noticed by others
  6. Fatigue or loss of energy
  7. Feelings of worthlessness or excessive guilt
  8. Diminished ability to think or concentrate, or indecisiveness
  9. Recurrent thoughts of death

# Application: Beck Depression Inventory



## Face

Does the BDI *look* like it measures depression?



## Content

Factor analysis revealed two constructs:  
*cognitive-affective* and  
*somatic-vegetative*



## Criterion

Is the measure associated with the relevant behavioral outcome?



## Convergent

BDI with CES-D, HAM-D, SDS, MADRS, and GDS:  
 $r = 0.66$  to  $0.86$

## Discriminant

BDI is weakly correlated with measures of *dissimilar* constructs  
( $r < 0.4$ )



# Operationalizing **Aggression**

Define rules for coding: write them in the empty “rules” box.

- What counts as aggression?
- Be specific



# Operationalizing **Aggression**

Code for “aggression.”

For each 10 second clip,  
rate how much  
aggression is displayed  
on a scale of 1–10.



# Operationalizing **Aggression**

## Change scale to ratio

- Using tallies: how many times was aggression (as you have operationalized it) present in each clip?

# Operationalizing **Aggression**

## RATIO

Using tallies: how many times was aggression (as you have operationalized it) present in each clip?

