

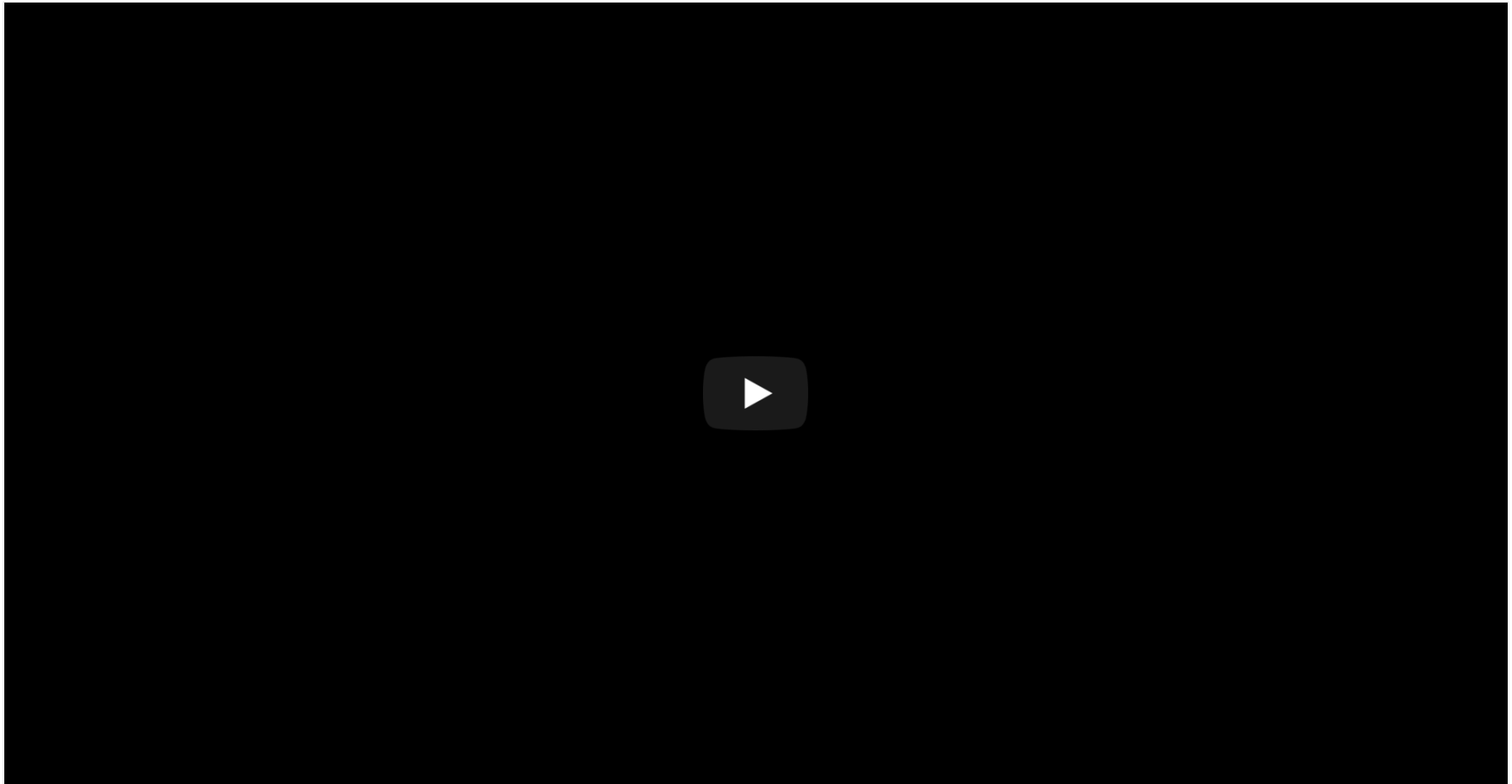


Let's Measure Politics!

Design Political Research: Week 6

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How do you measure the tourists' attitudes?



如果让你做个survey analysis
现在让你来measure这些人的attitude，你应该怎么measure？
关键不是哪个更好，而是对一个概念该怎么想。

Measure the attitudes in four levels:

- Nominal: "A nominal variable has attributes that are merely different, as distinguished from ordinal, interval, or ratio measures" (Babbie 139)

exclusive and exhaustive



- Measure the Chinese tourists' attitudes with normal measurements?

- * Angry, happy, curious
- * informal, formal
- * emotional, indifferent
- * explicit, implicit (body language)

Assumption? Distinguishable and no combination

Ordinal

- "A level of measurement describing a variable with attributes we can rank-order along some dimension." (Babbie 140)



Negative



Neutral



Positive

- Measure the Chinese tourists' attitudes with normal measurements?

less angry, angry, very angry
less happy, happy, very
happy
peaceful vs aggressive

Assumption:
consistent over observations;
constant distance

Interval

- "A level of measurement describing a variable whose attributes are rank-ordered and have equal distances between adjacent attributes." (Babbie 140)



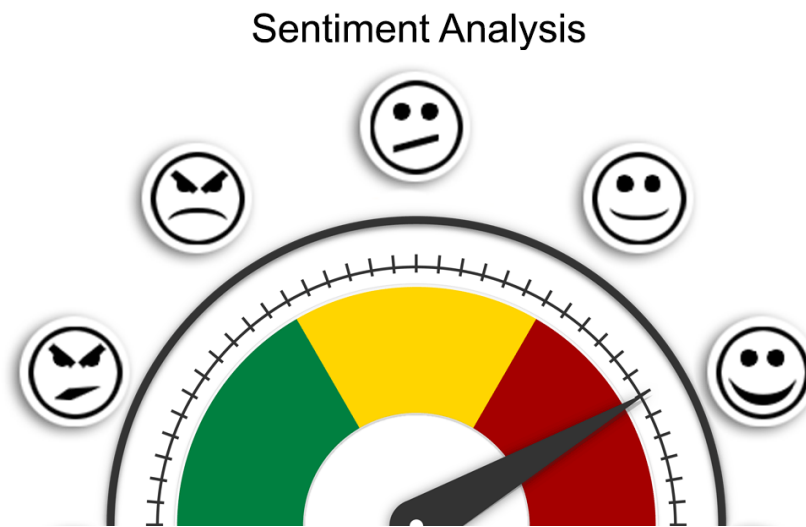
- Measure the Chinese tourists' attitudes with normal measurements?

Survey battery

Assumption: same interval; the intervals are equivalent

Ratio

- "The attributes composing a variable, besides having all the structural characteristics mentioned previously, are based on a true zero point. " (Babbie 140)



- Measure the Chinese tourists' attitudes with normal measurements?

Assumption behind the measurement levels

<i>Level of Measurement</i>	<i>Arithmetic Operations</i>	<i>How to Express the Fact That Jan Earns \$80,000 a Year and Andy Earns \$40,000</i>
Nominal	$= \neq$	Jan and Andy earn <i>different</i> amounts.
Ordinal	$> <$	Jan earns <i>more</i> than Andy.
Interval	$+ -$	Jan earns <i>\$40,000 more</i> than Andy.
Ratio	$\div \times$	Jan earns <i>twice</i> as much as Andy.

Practice: measure national capacity with four types of measurements

- * Definition?
- * Which type of measure?
- * What is the benefit?
- * What information you might lose?
- * What risk are taking?

Measurement Validation

- Precision
- Reliability
- Validity

Precision



- Precision vs. reliability?

Reliability



Validity

"Valid measurement is achieved when scores (including the results of qualitative classification) meaningfully capture the ideas contained in the corresponding concept." (Adcock and Collier 2001, 530)



Face validity



Microwave popcorn;
Light salad dressings;
Flavored fat-Free Yogurt;
Dried Fruit;
Blue corn chips;
Cereal;

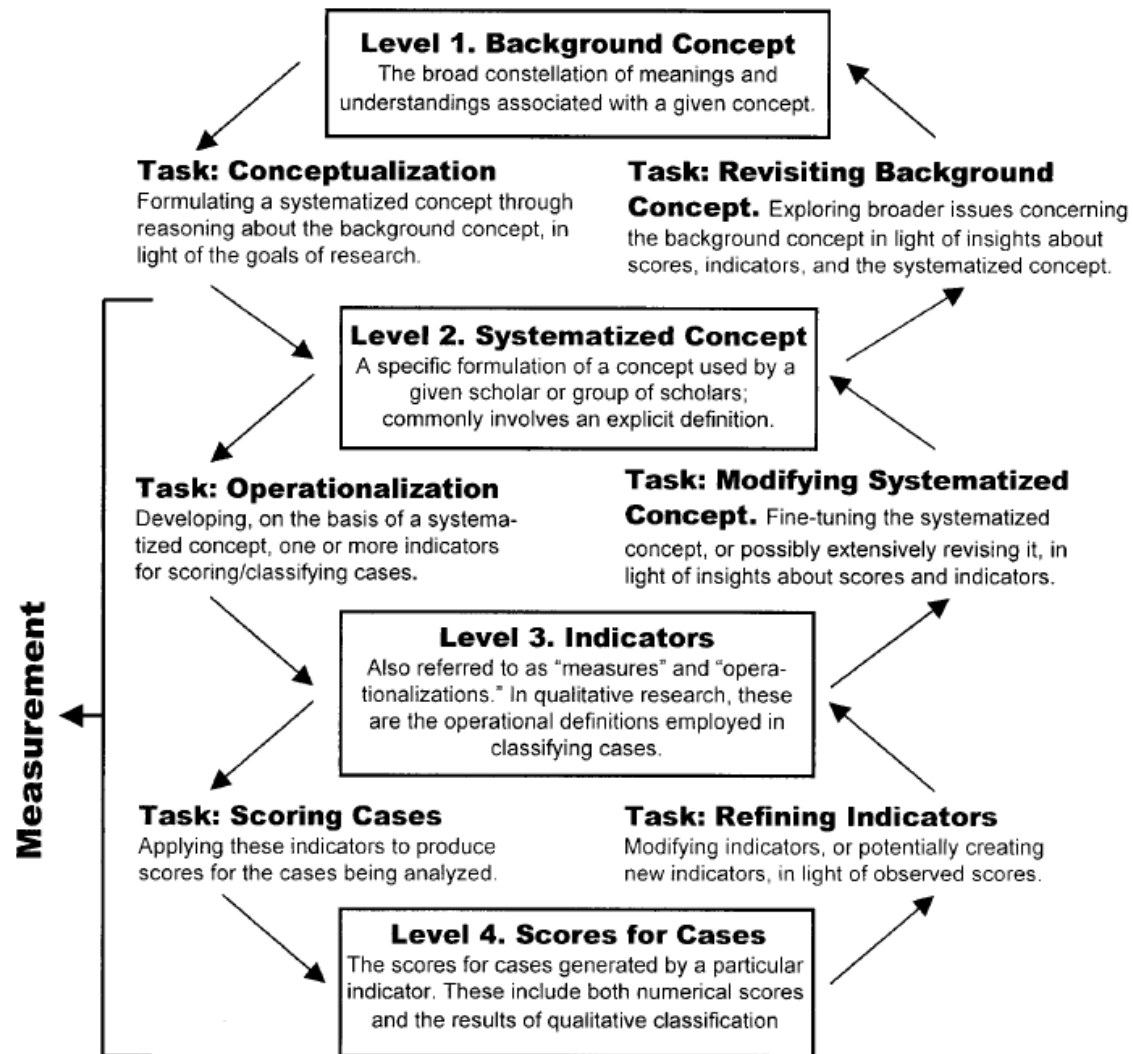
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Precision, reliability, validity



Validity in depth

"Measurement is valid when the scores (level 4 in Figure 1), derived from a given indicator (level 3), can meaningfully be interpreted in terms of the systematized concept (level 2) that the indicator seeks to operationalize." (Adcock and Collier 2001, 531)



Contextual specificity

"Do you like pizza?"



How is a measurement looks like?

Qualitative: Typology



Quantitative: Index vs. Scale

Index-Construction Logic

Here are several types of political actions people may have taken. By and large, the different actions represent similar *degrees* of political activism.

To create an *index* of overall political activism, we might give people 1 point for each of the actions they've taken.

Wrote a letter
to a
public official

Signed a
political
petition

Gave money
to a
political cause

Gave money
to a political
candidate

Wrote a
political letter
to the editor

Persuaded
someone to
change her or
his voting plans

Scale-Construction Logic

Here are some political actions that represent very different degrees of activism: for example, running for office represents a higher degree of activism than simply voting does. It seems likely, moreover, that anyone who has taken one of the more demanding actions would have taken all the easier ones as well.

To construct a *scale* of political activism, we might score people according to which of the following "ideal" patterns comes closest to describing them.

Ran for office	No	No	No	No	Yes
Worked on a political campaign	No	No	No	Yes	Yes
Contributed money to a political campaign	No	No	Yes	Yes	Yes
Voted	No	Yes	Yes	Yes	Yes
	0	1	2	3	4

Likert scale; guttman scale