CALIBRATION:
EXPLAINING QCA'S CORNERSTONE

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Calibration is

Fundamental to QCA

But lack of transparency, reproducibility

Aim of presentation
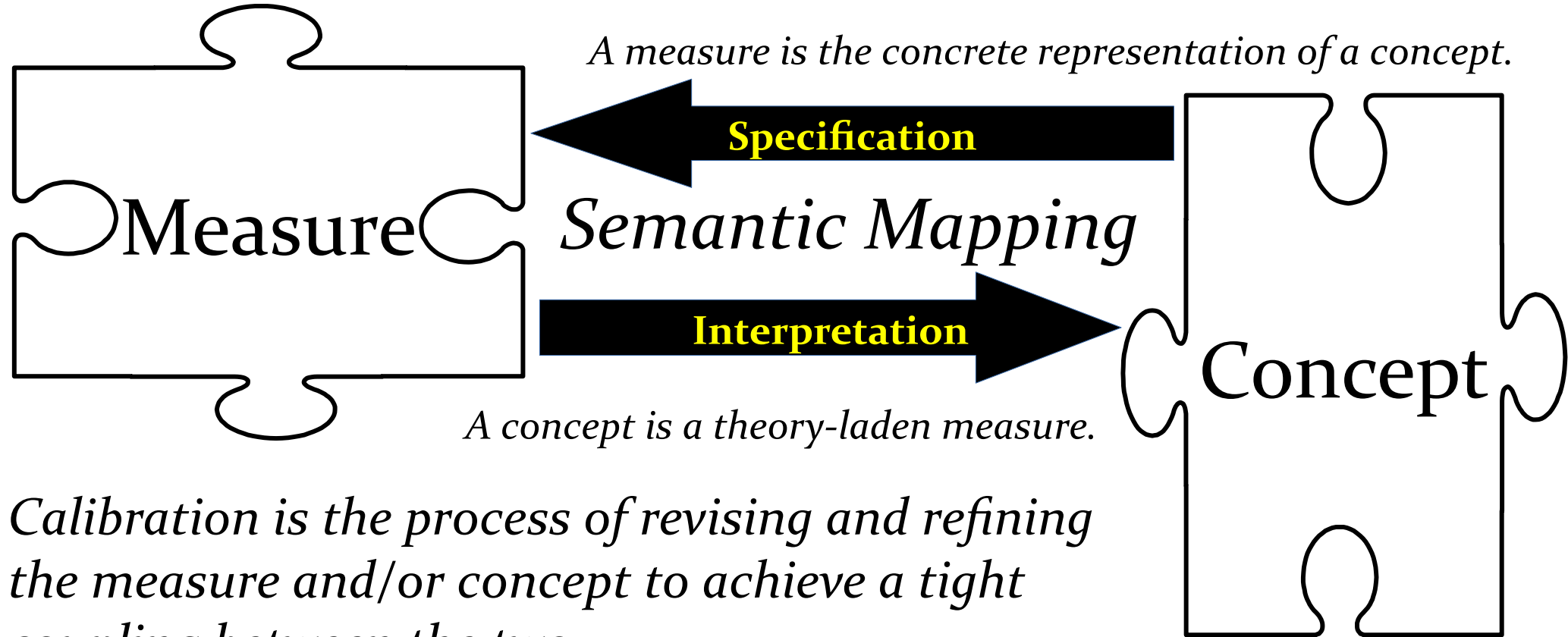
Explain calibration

Develop transparency tools

Interpretation, not data conversion

What does it mean to be Z? *Definition of concept/ condition/ set*

How do we know a Z when we see one? *Measurement of the case*

Qualify cases with adjectives *Happily married couple*

Calibration: Achieving Fit via Iteration

A measure is the concrete representation of a concept.

Specification ←

Semantic Mapping

Interpretation →

A concept is a theory-laden measure.

Measure

Concept

Calibration is the process of revising and refining the measure and/or concept to achieve a tight coupling between the two.

Being a case of Z

Having enough of the characteristics of Z to qualify as Z

Above the crossover point

No such thing as a 0.5-case

Not enough of Z to qualify as Z, but too much of Z to be not-Z

In love but not in love

Logically impossible category

0.5-cases as artifacts of direct method of calibration

At the crossover point, you are in love

Semantical threshold – multiple of them in discrete fuzzy sets

From measurement to concept / condition / set

COLOURFUL SOCIAL REALITY measurement	LOGICAL CATEGORIES concepts	
Having all characteristics of Z	A case of Z	Fully a case of Z
Having most characteristics of Z		Largely a case of Z
Having many characteristics of Z		Mostly a case of Z
Having considerable characteristics of Z		Narrowly a case of Z
Having multiple characteristics of Z	Not a case of Z	Almost a case of Z
Having some characteristics of Z		Somewhat a case of Z
Having few characteristics of Z		Marginally a case of Z
Having no characteristics of Z		Not a case of Z

Fitting the puzzle pieces

Semantical meaning (concept) rather than empirical variation (measurement) decides logical categories (degree of set-membership)

Set-membership values

Are (largely) arbitrary numbers attached to logical categories

Except in the direct method, when performed on continuous data

Don't calibrate based on distributions

Semantical thresholds identify different kinds of cases

Averages, percentiles are not semantical thresholds

Arbitrary criteria

Difference making (truth table minimization) based on arbitrary criteria produces spurious solutions.

Fuzzy sets need not be symmetrical

Fully a case of Z

Partially a case of Z

Not a case of Z