Outline

1. Why privacy attitudes?

2. How we are approaching the problem

3. TSE and privacy attitudes

4. What we have done so far (preliminary research)?

5. Where we may go next (identified opportunities)

6. Discussion - what are we missing?

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Why privacy attitude measurement?

Increased digitization of life has created new domains where data privacy may increasingly matter to billions of people

a) Behavioral data from online platforms
b) Internet of Things
c) Quantified self
d) Administrative data
e) Survey data
f) Digitization of offline behavior
g) Etc

Why privacy attitude measurement?

Many of the organizations that produce, manage, and interact with data about people increasingly need to understand how those people think about privacy

a) Governments
b) Corporations
c) Academics

Why privacy attitude measurement?

1. Valid, generalizable, and broadly applicable measures of digital privacy attitudes have been elusive so far

   a) No consensus in the substantive literature
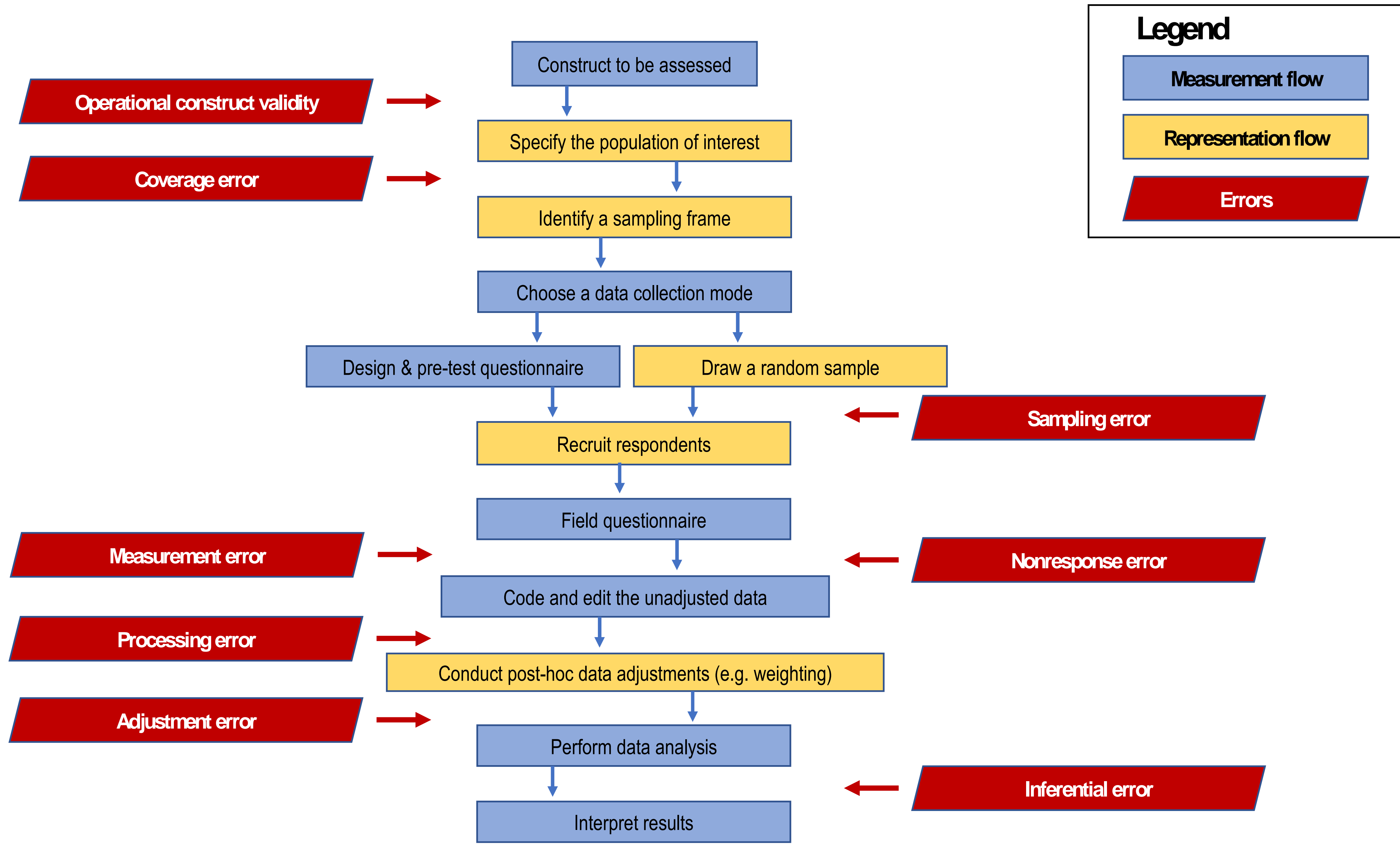   b) No consensus in the methodological literature

How are we approaching the problem?

We want to try to develop a set of digital privacy attitude measures that have broad acceptance such that they can be fielded on benchmark surveys (GSS, World Poll, ESS, Eurobarometer, Afrobarometer etc) such that global benchmarks can begin to be created

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How are we approaching the problem?

Our first Privacy Workshop was hosted by Stanford and sponsored by Facebook, the Sloan Foundation, and JPSM

1. 25+ substantive and methodological experts from around the world
   a) Stanford, UC Berkeley, GESIS, NORC, Gallup, Facebook, Google, and others
   b) Working sessions focused on making concrete progress toward defining the problem space and research plans
2. Collaborative groups are currently conducting very preliminary empirical studies aimed at refining and testing current approaches on new sample sources

Construct to be assessed

Operational construct validity

Specify the population of interest

Coverage error

Identify a sampling frame

Choose a data collection mode

Design & pre-test questionnaire   Draw a random sample

Sampling error

Recruit respondents

Field questionnaire

Measurement error   Nonresponse error

Code and edit the unadjusted data

Processing error

Conduct post-hoc data adjustments (e.g. weighting)

Adjustment error

Perform data analysis
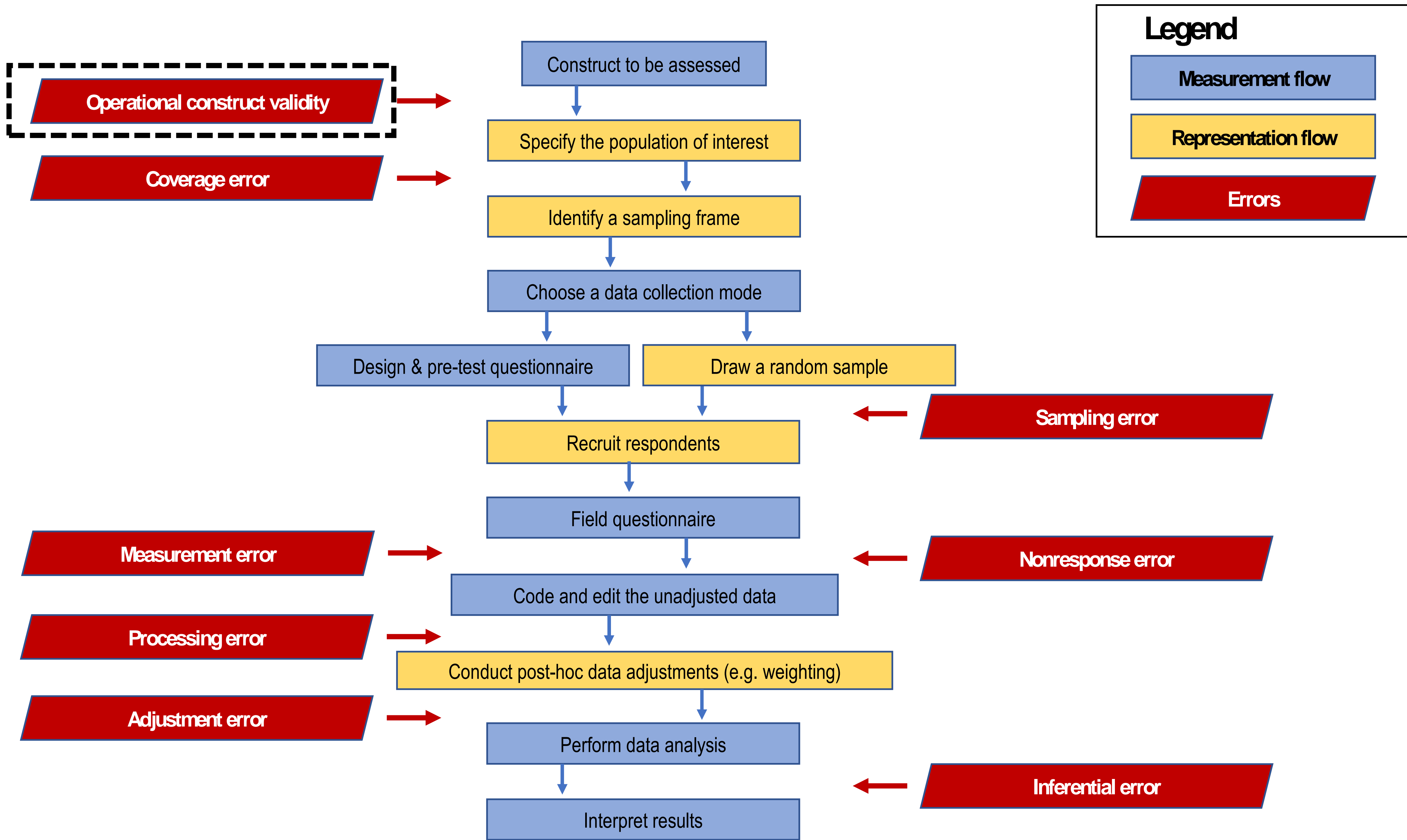
Inferential error

Interpret results

Legend

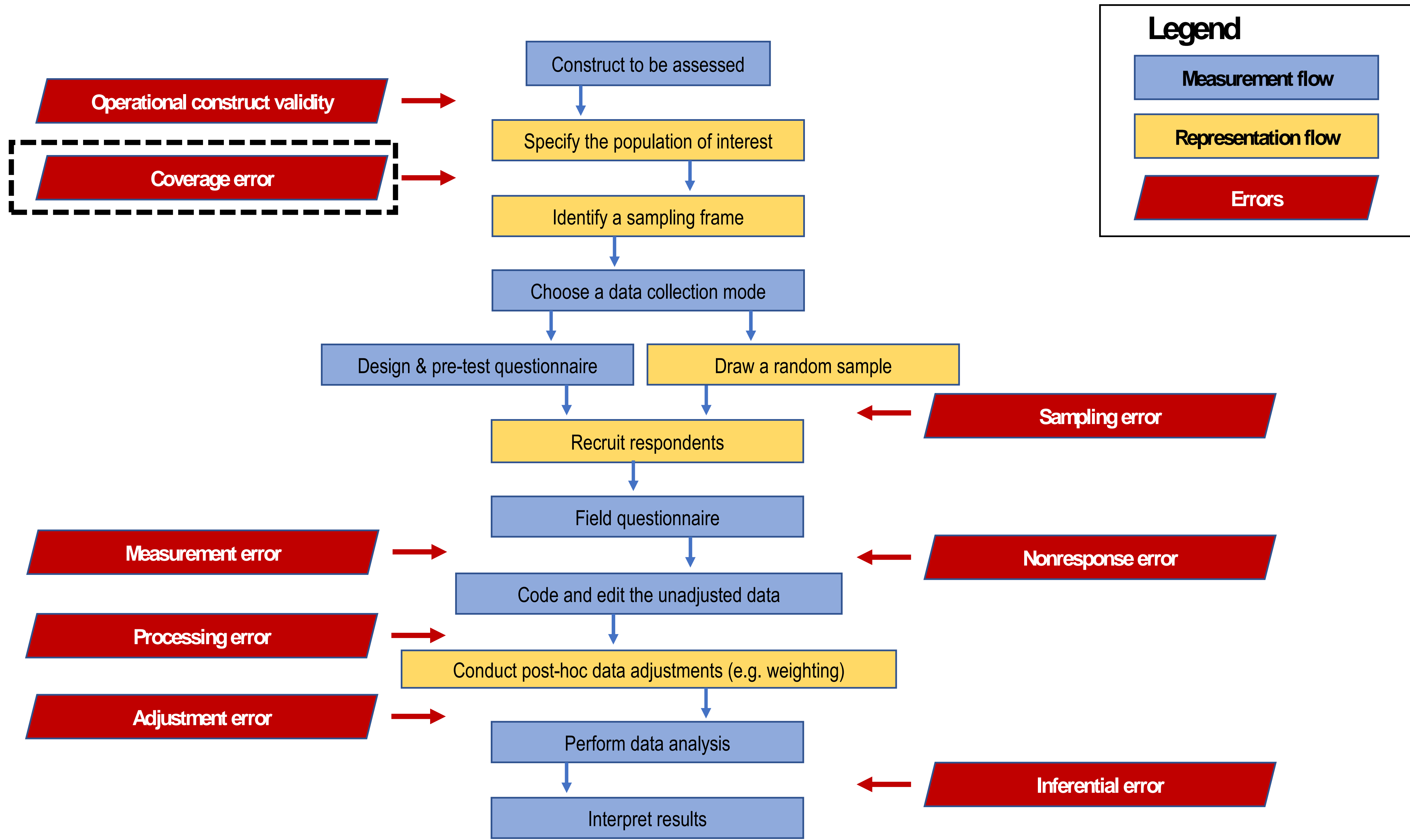Measurement flow

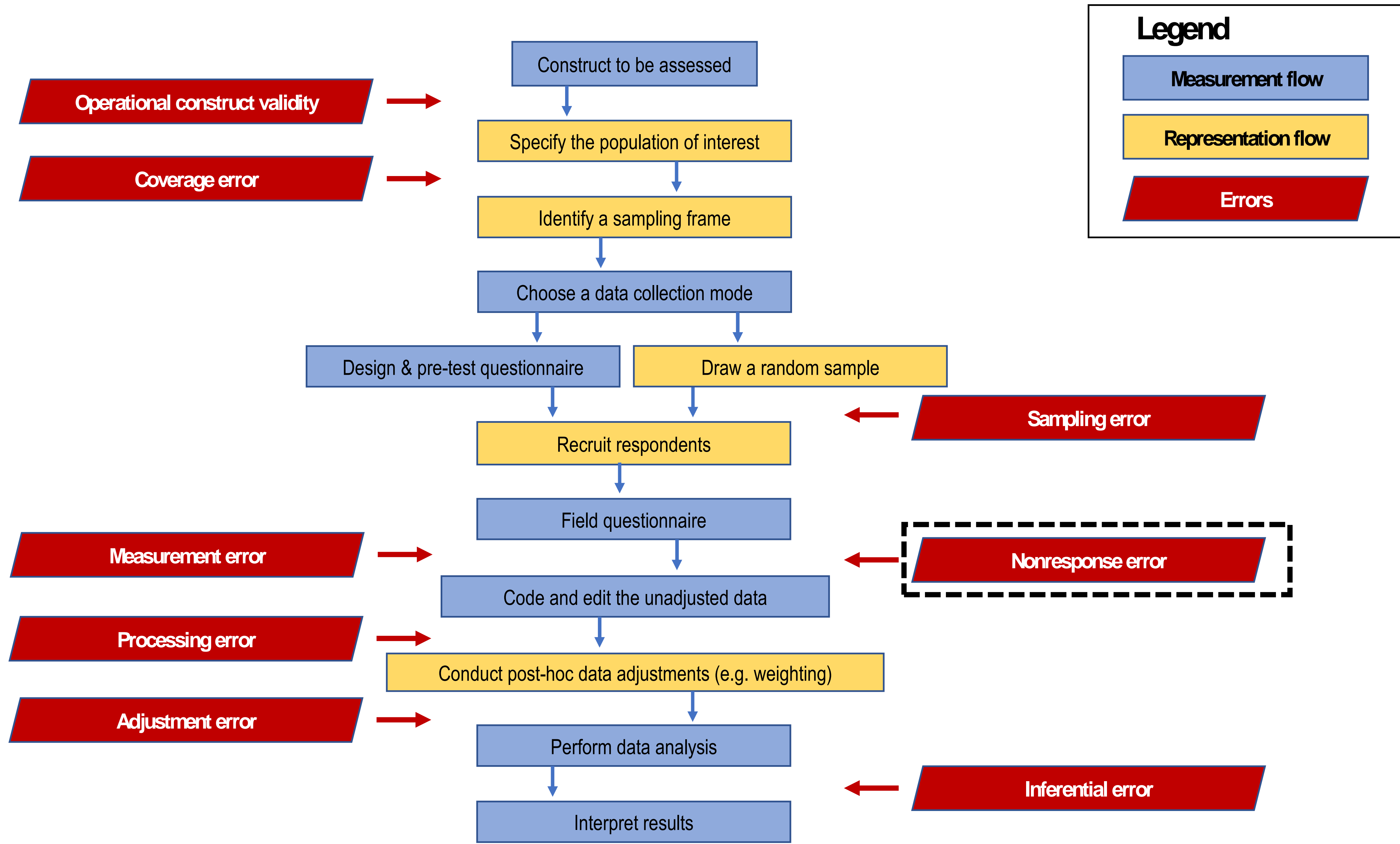Representation flow

Errors

Privacy Attitude Construct Validity?

1. Privacy can mean different things to different people and the interpretation of measures can be highly affected

2. Researcher framing matters a lot (e.g. privacy framed as disclosure risk vs. service access)

3. Context dependence of attitudes and misalignment with survey context is also a risk

Legend

| Measurement flow |
| Representation flow |
| Errors |

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Processing error →

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Adjustment error →

Perform data analysis

← Inferential error

Interpret results

Privacy Attitude Coverage Error?

1. If we want to make inference to general or internet populations then we should be concerned about non-coverage of privacy concerned units that intentionally avoid being covered by sampling frames (online and otherwise)

2. Over-representation of non-privacy concerned units is also a potential problem for many frames where individual units may have multiple records

Legend

- Measurement flow
- Representation flow
- Errors

Operational construct validity →

Construct to be assessed

Specify the population of interest

Coverage error →

Identify a sampling frame

Choose a data collection mode

Design & pre-test questionnaire | Draw a random sample

← Sampling error

Recruit respondents

Field questionnaire

Measurement error → | ← Nonresponse error

Code and edit the unadjusted data

Processing error →

Conduct post-hoc data adjustments (e.g. weighting)

Adjustment error →

Perform data analysis

← Inferential error

Interpret results

Privacy Attitude Nonresponse Error?

Privacy attitudes should be a textbook example for likely nonresponse bias since we expect that people who are concerned about their privacy will be much less likely to participate in surveys

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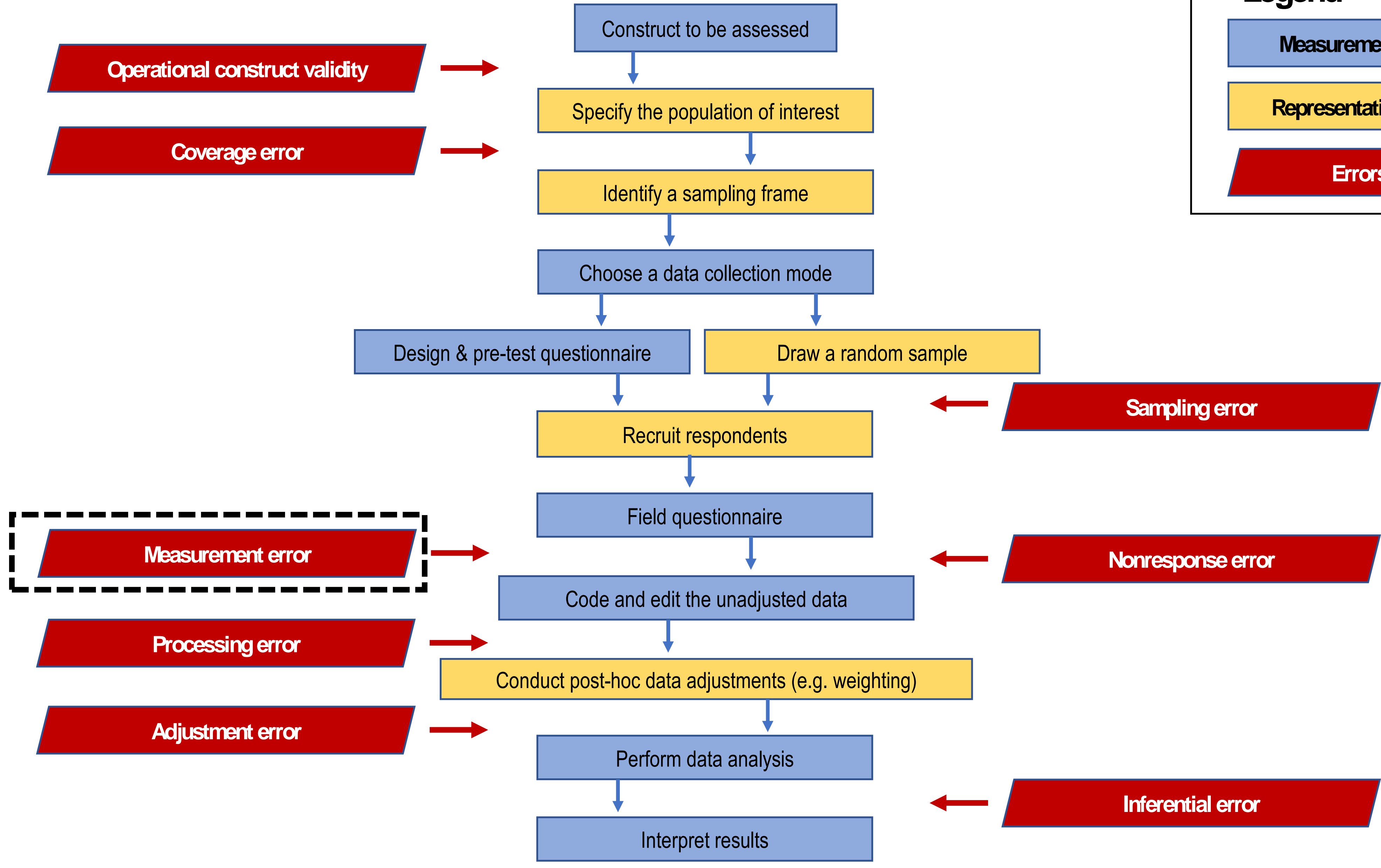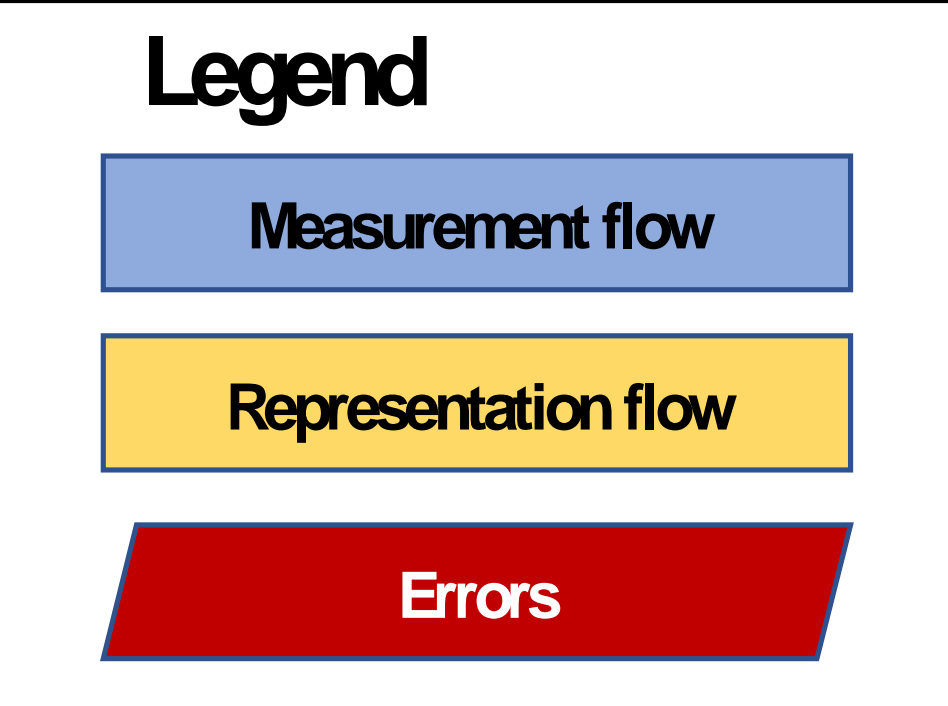
Privacy Attitude Measurement Error?

1. Social desirability bias

2. Potential complexity of question content

3. Cross-national/cultural variation in how certain constructs are understood

4. Device effects on measurement

5. Etc.

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What we have done so far

Following up on the Stanford Workshop, we are actively seeking additional substantive and methodological input from international experts on all facets of privacy attitude measurement, including TSE

    a) U.S. Census
    b) ITSEW
    c) ESRA
    d) JSM

1. Currently conducting very preliminary empirical studies aimed at replicating current approaches on new samples/sample sources

Where we may go next

1. We can do quite a bit using both behavioral and survey data
   a) Correlating things like reported attitudes toward privacy with the actual privacy settings selected by users on online platforms
   b) Survey experiments that reference past user behavior
   c) Leveraging platform changes in privacy settings/interfaces as opportunities to run experiments with pre/post survey measures

2. Facebook can contribute by doing these sorts of studies globally, at large scale, and very fast and then sharing results with our collaborators

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Discussion

1. Are there errors that we haven't thought of yet?

2. Are there cross-national/cross-cultural aspects of privacy attitude measurement that could introduce unforeseen errors?

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