



# **To Mix or Not to Mix**

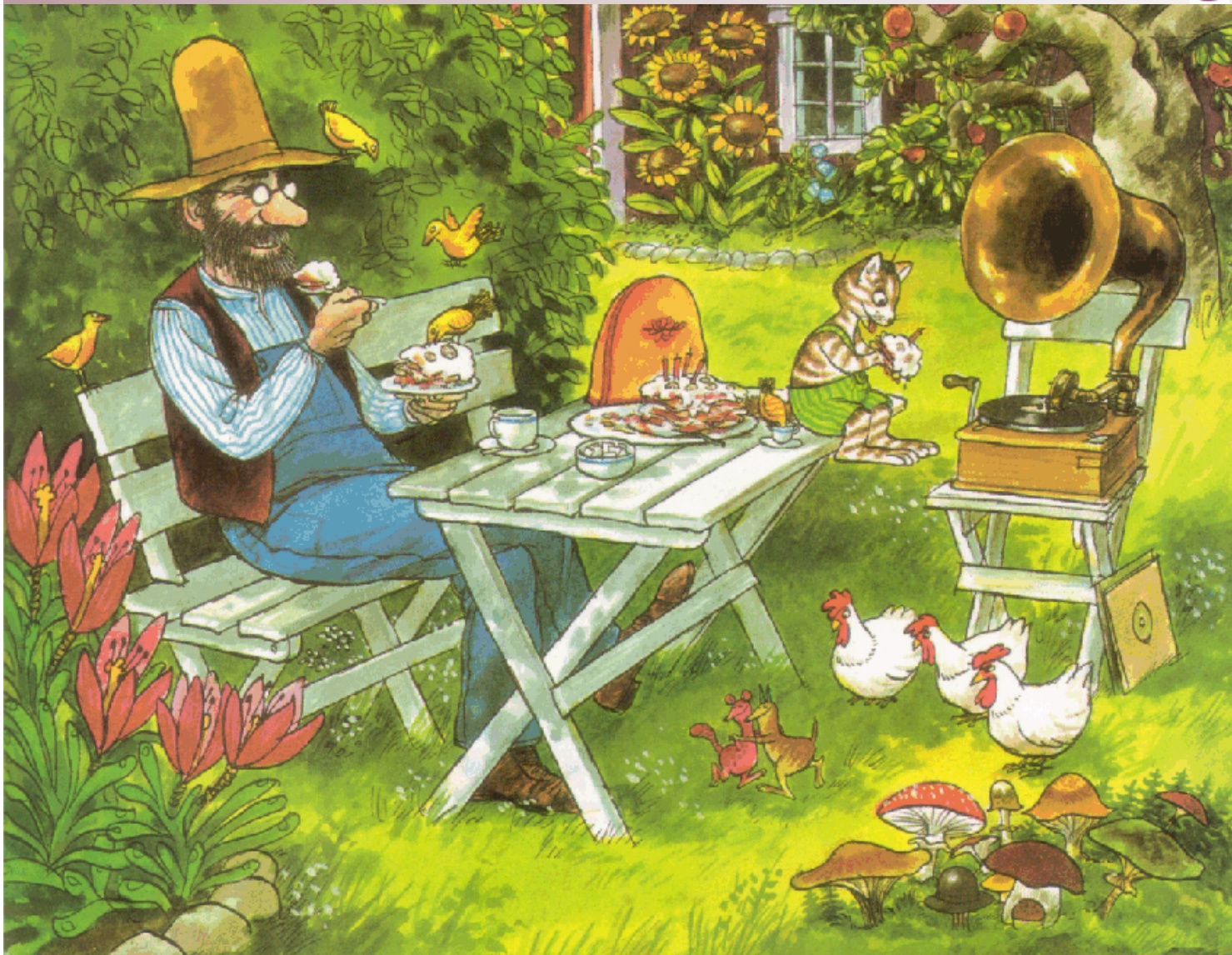
## **Data Collection Modes in Surveys**

**Edith Desiré de Leeuw**

**Stockholm, August 26, 2005**

# HAPPY BIRTHDAY

20 years with  
**JOS**  
2005







Mixing Modes?  
I hope not!

# Survey Research



- Methods of data collection
  - Face-to-face interviews/ CAPI
  - Telephone interviews/CATI
  - Self-Administered Questionnaires (SAQ)
    - Mail surveys
    - Diaries
    - CASI
    - Web / Internet
    - .....

# Why Mix Modes?

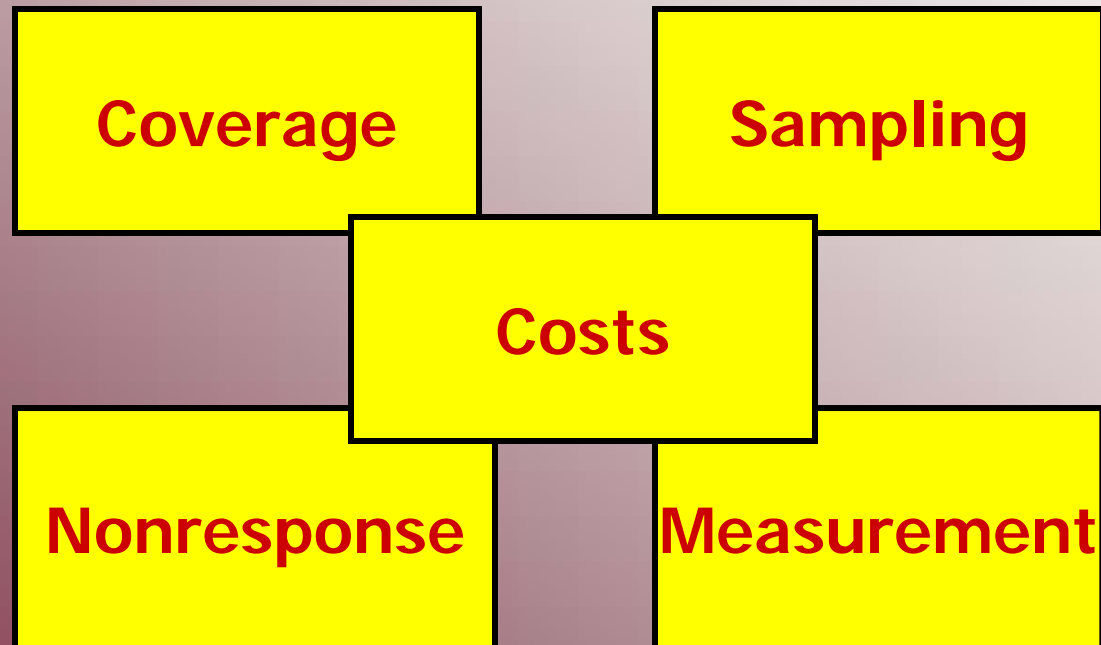


- Optimize data collection procedure
  - Research question
  - Population
- Reduce total survey error
- Respect survey ethics/privacy
- Within available time
- Within available *budget*

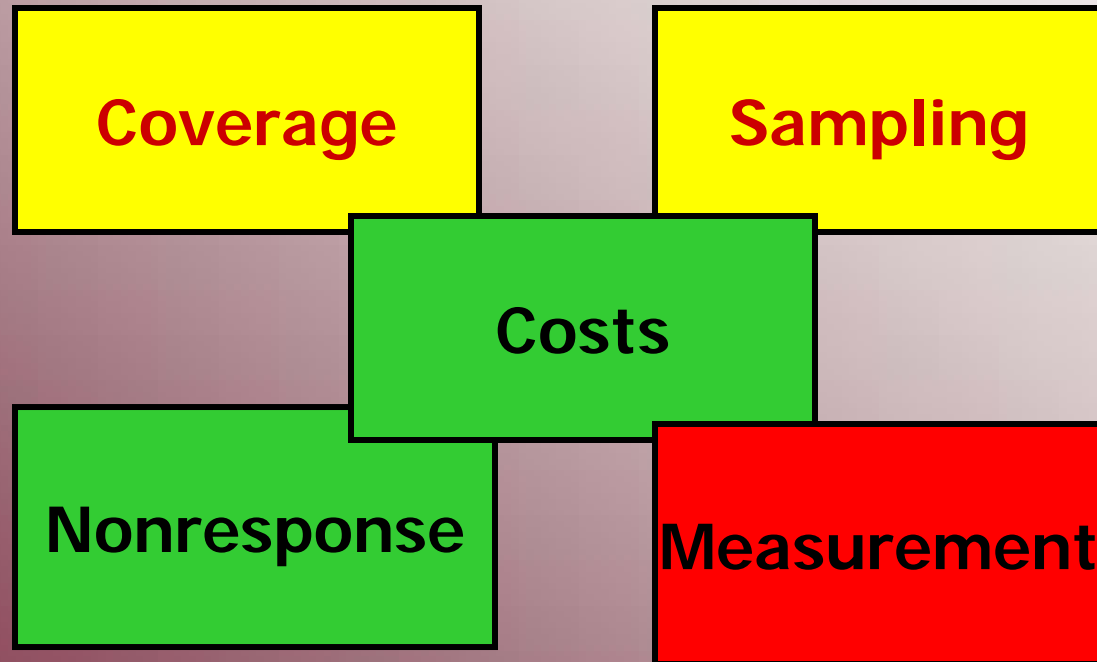
# Best Affordable Method

- Mixed-mode explicit trade-off
  - Costs
  - Errors
- Example: Nonresponse follow-up
  - Mail survey
  - Telephone follow-up
  - Face-to-face for subsample of remaining nonrespondents

# Balance Costs & Errors

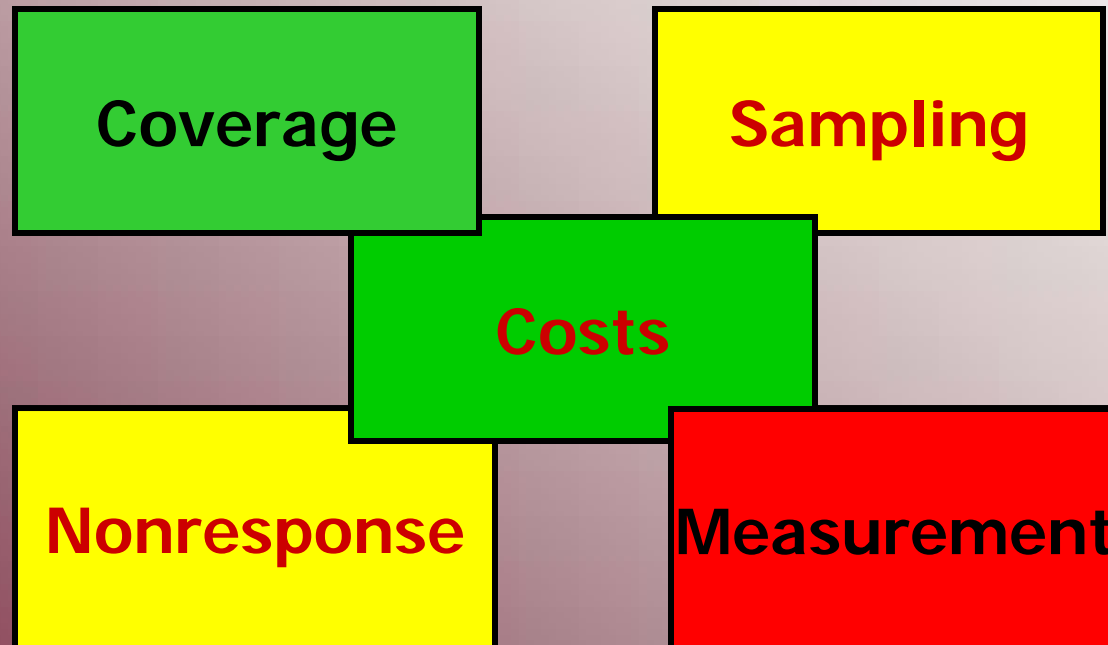


# Nonresponse & Mixed Mode





# Second Example Web



# To Mix or Not to Mix



- Mixing modes has advantages, but
  - Will the answers provided by respondents differ by mode?
  - Can data that are collected through different modes be combined in one study?
    - Cross-sectional?
    - Longitudinal?
  - Can data that are collected through different modes be compared over studies or countries?

# Multi Mode Survey Systems



- Survey more than data collection
- Communication with Respondent
  - Contact Phase
    - Pre-notification
    - Screening
  - Data collection
  - Follow-up
    - Reminders
- Mixed-modes of Communication in One Survey System!

# Contact Phase

## Advance Notification

### Different Mode from Data Collection



#### Rationale

- Correct sampling frame
- Raise response rate
- Enhance credibility and trust

#### Effect on Quality

- Reduce coverage and nonresponse error
- No threats to measurement *if* data collection itself is UNI-modal



# Contact Phase

## Recruitment / Screening

### Different Mode from Data Collection



#### Rationale

- Reduce costs
- Enhance efficiency
- Update or expand contact information for main mode

#### Effect on Quality

- Improved timeliness
- ***If*** pure screening (data collection itself is UNI-modal) no threats to measurement
- ***If*** screening plus first part of data collection different from main mode:
  - risk of mode effects
  - threat to measurement

# Follow-up Phase Reminder(s) in Different Mode from Data Collection



## Rationale

- Raise response rate

## Effect on Quality

- Reduce nonresponse error
- *If* pure reminder (data collection itself is UNI-modal) no threats to measurement
- *If* reminder plus some additional questions, part of data collection different from main mode:
  - risk of mode effects
  - threat to measurement

# Data Collection Phase



- Mixed mode for interaction in Contact Phase and Follow-up Phase mostly Win-Win situation
- More complicated in Data Collection Phase
- Only win-win situation in mixing interview mode with SAQ for sensitive questions
  - E.g. CAPI/CASI
    - Interviewer guidance for nonsensitive questions
    - More privacy, less social desirability sensitive questions

# Implications Mixed Mode in Data Collection Phase



- Risk
  - Introducing mode effects in data set
- Result:
  - Increasing measurement error
- However:
  - Reduction of other errors
    - E.g., Coverage in web-mail
- Careful consideration needed
- Careful design for *optimal mixed mode*



# Problems Mixed Mode in Data Collection Phase



- Incomparability
  - Changing methods over time in longitudinal surveys
    - Confounding of time effects and mode effects
  - Different subgroups different modes (e.g. nonresponse follow-up, web mixes)
    - Confounding
      - Are groups different or is it mode effect (e.g. Soc. Des.)
  - Different samples, different modes (e.g., comparative research, international)

# Main Differences Modes



- Presence or absence of interviewer
- Channels of communication
  - Aural vs Visual
- Also:
  - Different modes, different tradition question format
  - Question format effects

# Design for Mix



- Some studies found hardly any effect mixing
  - Well designed experiments!
- Two Situations:
  - One **main** method, other methods auxiliary
    - Nonresponse follow-up. Some longitudinal designs
  - Truly multiple mode design: modes **equally** important
    - Web mix. Respondents may choose

# Design for Optimal Mix



- One **main** method, other methods auxiliary
  - Use main methods to its maximum potential
  - Auxiliary methods equivalent (e.g. same # response categories, same format) perhaps suboptimal, but avoids measurement error
- Multiple mode design: **equally** important
  - Uni-mode design
    - Same question in same lay-out
  - Universal or generalized design
    - Same stimulus



# Finally



- Much work and discussion needed
  - Designing for Mixed modes
  - Empirically based adjustment
- Research agenda

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**It's Time  
To Start**

August 2005

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