The Power of Survey Design

A User's Guide for Managing Surveys, Interpreting Results, and Influencing Respondents

Giuseppe Iarossi
✓ Why I wrote this book

✓ Who should read this book

✓ What this book is all about
Motivation

✓ Historical reason: ambiguity of survey results
Poll finds U.S. split over warrants

WASHINGTON (CNN) -- Though Americans are growing more skeptical of the White House record on civil liberties, the nation is divided over whether the Bush administration should use wiretaps without first obtaining a warrant, a recent poll shows.

Half say warrants unnecessary; most want them

WarrantLESS...
Motivation

✓ Historical reason: ambiguity of survey results

✓ Immediate reason: working with firm level surveys
Book’s Audience

✓ Those that manage surveys
✓ Those that use survey data
What is this book all about?

Two key aspects of survey data:

✓ Questionnaire
✓ Sampling
(1) Questionnaire Design

We know that the way the question is asked will influence respondents...

...but we don’t really grasp how big this effect is
“did you see the broken light?”
“did you see a broken light?”

Source: Loftus and Zanni (1975)
CNN’s question was:
“Do you think the Bush administration was right or wrong in wiretapping these conversations without obtaining a court order?”

Fox’s question was:
“Do you think the president should or should not have the power to authorize the National Security Agency to monitor electronic communications of suspected terrorists without getting warrants, even if one end of the communication is in the United States?”
Wording is only part of the story

... you probably know that using “incentives” or “subsidies” will generate different results...

.... but

(1) Do you think that the order of alternatives might influence respondents?
Response rate distribution when the order or alternative is reversed

Wording is only part of the story

(1) Do you think that the order of alternatives might influence respondents?

(2) Do you think the time of the interview will have an impact?
Armenia 2005

71%  
Tax administration

66%  
Macro instability

64%  
Tax rates

60%  
Cost of finance

52%  
Access to finance

Source: Iarossi et al. (2006)
Rapid appreciation at time of survey

Source: IMF Statistics
Wording is only part of the story

(1) Do you think that the order of alternatives might influence respondents?

(2) Do you think the time of the interview will have an impact?

(3) Do you think that the connotation of the word used might change response pattern?
Negative or positive words influence respondents differently

Source: Schuman and Presser (1981)
Wording is only part of the story

(1) Do you think that the order of alternatives might influence respondents?

(2) Do you think the time of the interview will have an impact?

(3) Do you think that the connotation of the word used might change response pattern?

(4) Do you think that allowing the respondents to “opt out” might generate different results?
“Merry Christmas”

60%  

Don’t care

42%
Wording is only part of the story

(1) Do you think that the order of alternatives might influence respondents?

(2) Do you think the time of the interview will have an impact?

(3) Do you think that the connotation of the word used might change response pattern?

(4) Do you think that allowing the respondents to “opt out” might generate different results

(5) Do you think that using recall questions will generate accurate results?
Accuracy of recall decreases over time

Correct recall (percent)

Retention period (years)

Source: Sudnam, Bradburn and Schwartz, 1996.
Why should we care?

Often the data used comes from **different surveys**, hence not taking this effects into account might bias the results.

Furthermore, apart from the wording of the question there are other factors, **survey fixed effects**, that might taint the accuracy of the data.
Implementing Agency fixed effect on sensitive questions: corruption

Amount of bribes as percent of contract value

El Salvador

China
Other factors influencing results

Some are hard to measure, but at the very least you should be aware of them when you interpret survey data
(2) Representativeness

✓ We all agree that it should be
✓ Not all really recognize how to

Example: representative sample in Eritrea and Nigeria
Two issues on sample design

Size → error → error is important because it gives an idea on the confidence interval

Composition
Gift/informal payment to “get things done”

Payments as percentage of annual sales

Source: Investment Climate Surveys
Two issues of sample design

Size $\rightarrow$ error

Composition $\rightarrow$ keep it representative

$\rightarrow$ to make sure that you present the results of a representative sample in a representative way
South African wages

“Influencing respondents”

I am not advocating we should influence respondents

On the contrary, I want to alert you…

✓ not to influence respondents (if you design surveys)

✓ not to be fooled by survey results (if you read them)
BBC World Service Poll, 2005

23 countries              23,518 respondents

Number of countries favoring new U.N. Security Council members

- Germany: 21
- Japan: 20
- India: 16
- Brazil: 16
- South Africa: 10
Would you favor or oppose each of the following specific countries as permanent members of the Security Council?

- India
- Brazil
- Germany
- Japan
- South Africa