# Understanding how respondents answer your survey questions



Comprehension of the question
→ What do specific words/phrases in the question mean?

Retrieval of relevant information
→ What type of strategies are used to retrieve information?

Decision process
→ Does the respondent want to give the information?

Response process
→ Can the respondent match their answer to the response options?

When it comes to the mental process that survey respondents go through when answering a survey question, there is an implicit assumption that each question is answered using what methodologists often term as the 'optimal cognitive response process'.

Based on the work of Tourangeau (1984) the process comprises four components that respondents must engage with when answering a survey question.
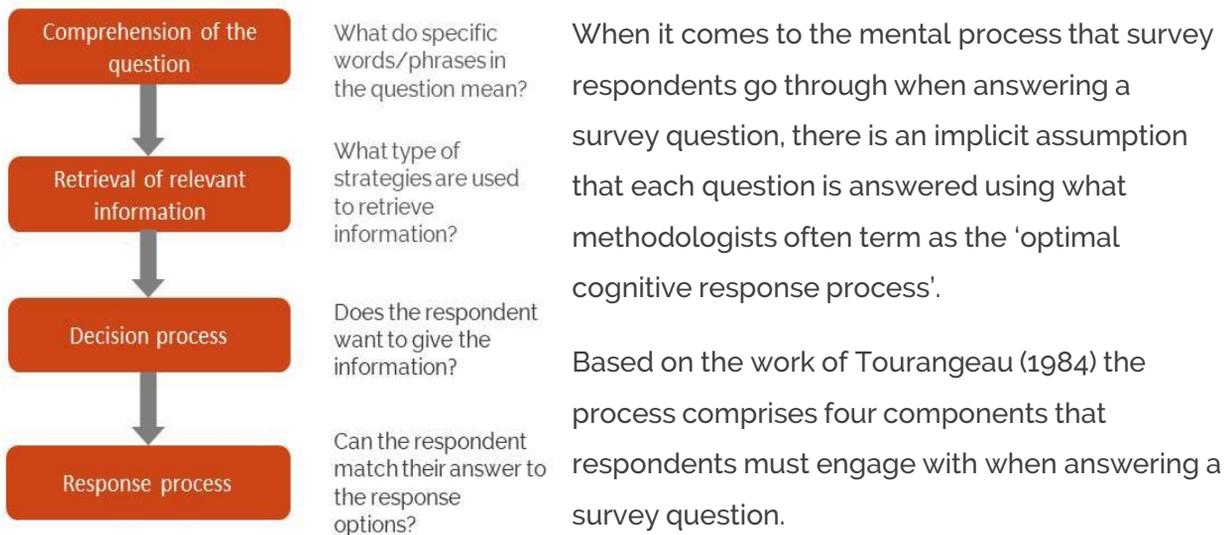
## 1. Comprehension
Respondents must understand the question and any instructions. They must determine what is meant by the question and identify the information that is required to answer the question

## 2. Retrieval
Once respondents have identified the information required, they then need to search their memory for the relevant information

## 3. Judgement
Once retrieved from memory, respondents must assess its relevance and completeness to answer the question

## 4. Response
Once summarised respondents need to map this information on to a response category, editing the judgement for the requested response as necessary

Tourangeau R (1984) Cognitive science and survey methods: A cognitive perspective. *Cognitive aspects of survey design: Building a bridge between disciplines* (pp 73-100) Washington, DC: National Academic Press

The model posits a linear sequence in which respondents answer a survey question. When respondents process through these four stages they are said to have 'optimised' the response process. The implicit assumption being that each respondent will go through this process for each question answered.

Despite the historical importance of this model and its usefulness, how realistic this assumption is must vary by project and in some cases may not be a valid assumption at all.

Since the original model posited, researchers have incorporated elements of other disciplines including, anthropology, and linguistics with the emphasis on the interaction between individuals in society.

Kronsnick (1991) has however, focused on the respondents motivation in completing a survey by applying the notion of *satisficing* in which the individual respondent is not sufficiently motivated to contribute the full effort by processing through each of the four stages to answer the questions, but to cut corners.

## Causes of satisficing

### Task difficulty

Completing the task of answering the question may be difficult for various reasons. These will include, number of words and concepts, word familiarity and words with multiple definitions.

### Respondent ability

Mental ability is one factor of which education is a rough proxy. Limited experience of thinking about the survey topic prior to the survey, are more likely to satisfice, while respondents with pre-existing judgements about the survey topic are less likely to satisfice.

### Respondent motivation

When respondent motivation is low there is the tendency for satisficing to occur. Factors contributing to low motivation include the willingness of respondents to expend significant mental energy to answer the question. Respondents with a feeling of accountability for their responses are less likely to satisfice than those with a low level of accountability. Similarly, respondents that believe that the topic of the survey is not important are more likely to satisfice. Finally, fatigue resulting from the number of questions already answered as well as the, complexity of the questions, is more likely to lead to respondents satisficing.

## Forms of satisficing

Satisficing behaviour takes on a number of different forms when respondents are completing a survey.

### Acquiescence

'Acquiescence response bias,' is the tendency of respondents to agree with the question or statement and is most commonly seen in

Krosnick JA (1991) Response strategies for coping with the cognitive demand of attitude measures in surveys. *Applied Cognitive Psychology*,5 213-236

questions using agree-disagree and true/false response scales. Respondent behaviour will be to agree with the statement regardless of the content of the statement or more likely report 'true' rather than 'false.'

### Straightlining

Straightlining is where respondents provide the same answer to each question and is found predominately in matrix or grid question formats

At its most extreme respondents will not read the individual questions but, simply answer the questions in a straight line.

### Primacy

The primacy effect is where respondents will select the first reasonable answer to a question without carefully reading the question. This tends to be the first reasonable answer in a vertical list of answers or the answer to the left of a horizontal scale.

## How to minimise satisficing

### Task difficulty

1. Ensure all questions are easy to understand. (use simple words, avoid questions with more than 20 words and use of vague terminology
2. Minimise distractions (keep to one question per page for online surveys and keep related questions together
3. Keep the survey short (Only ask necessary questions, ensure web surveys are no longer than 10 minutes

### Respondent motivation

1. Stress the importance of the survey and their responses
2. Provide encouragement at different stages of the survey to increase engagement
3. Keep the survey duration to 10 minutes or less

### Straightlining

1. Avoid using matrix or grid question formats
2. Ask one question per page
3. Reverse response options left to right, right to left

### Primacy

1. Randomise response options for categorical response options
2. Randomise the end of the response scale which is either on the top or left depending on the orientation of the scale

## Summary

Question and survey design can have a significant influence on how respondents respond to answering survey questions.
In the design of a questionnaire researchers should keep two things in mind which are:
1. Make completing the questionnaire as easy as possible
2. Avoid making it easy for respondents to short cut the answering process

## About Health Outcomes Insights

Health Outcomes Insights is an independent research consultancy serving academia, life science researchers, healthcare agencies and the pharmaceutical industry, get targeted answers to patient behaviour, experience and health outcomes across a range of conditions and diseases – with particular expertise in diabetes.

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