



## The Psychology of Survey Questions

### *How Respondents Formulate Their Answers*

It seems to occur all too frequently that just as we are sitting down to a nice, relaxing dinner after a frantic day of rushing around to accomplish all that needed to be done, the telephone rings. On the other end of the line is a high-energy voice wanting "just a few minutes" of our time to ask some questions for a survey that is being conducted. As bad as this can be, what might be worse is to learn that the way we will go about answering those survey questions is deeply steeped in a rich field of psychological research. Indeed, there is a psychological element to the way we are about to construct our responses.

Now granted, many survey questions will not require much investment in the way we come up with a viable answer - our gender, our age, possibly how many children we have (though we might have to stop and consider whether or not stepchildren should be included). But other questions will take at least some level of psychological effort in order to proceed.

The first stop on this journey of the mind is associated with the task of **comprehending** the question being asked. For many of us, this can require breaking the question down almost word-for-word and then reassembling it into a structure with which we are more comfortable. Suppose the question asks about the number of jobs held since completing school. The comprehension task requires that we consider whether the question means all jobs or just those that were full-time, jobs held since graduation from high school or jobs since college graduation, perhaps even whether the job that unfortunately lasted for just two days should be included.

Once arriving at a point of acceptable comprehension, we now shift to the **retrieval** mode, or the stage where we attempt to remember and recall the information that is needed to comply with properly answering the question. Immediately we begin to consider all the jobs we have ever held, including that first job delivering newspapers. The strategy is frequently to think chronologically as a way to bring order to this recall process. To aid in the retrieval of information, we might think about the particular boss or supervisor at each job, or maybe associate key life moments to the job held at the time, such as a wedding or the birth of a child. Certainly, the older one is the more difficult the retrieval stage can be due to potential memory errors as well as having more information to process.

Following the comprehension and retrieval stages, the **judgement** phase sets in. Here, we take the information that has been recalled and work to combine and summarize it into the best possible response. In practice, while we might have tentatively formulated a response, we must also evaluate the intent of the survey question. Does it want an exact number or will a rough estimate be sufficient? Have we sincerely attempted to fashion an accurate response or did we just guess? If we are providing only a best guess, should we round in increments of five or ten or should we provide some random number so as to mask our obvious guessing?

The final stop on our psychological venture is the **reporting** phase. Though we have traveled the comprehension, retrieval and judgement roads to reach a suitable response, we must now provide an answer according to the established criteria of the question. We may choose to avoid the extremes of a rating scale and instead select a middle category to conform to a perceived "average." Perhaps it appears as though we have held a lot of jobs, so we might fudge a little and select a range category that includes a lower number. At the reporting stage, we are required to reconcile our response within the parameters of the question and the structure and format of the answer choices.

Fortunately, most survey questions do not require painstaking efforts in order to reasonably comply with the request for information. As was previously mentioned, many questions require very little in the way of cognitive thought processes. But many surveys will invariably include questions where we, as respondents, must work through a mental procedure of comprehension and understanding, remembering and retrieving, judging and evaluating, and finally responding through reporting. It would appear to be an amazing feat that survey response rates are as high as they are given what we must go through!

### Survey Tip

Measurement error is a chief source of survey error that stems from, among other things, the way respondents comprehend, retrieve, judge, and report their answers.

Setting aside time before launching a survey to pre-test the questionnaire with a small sample of respondents can minimize or eliminate error arising from the underlying processes involved in answering questions. Pre-testing deliberately searches for the causes of potential survey error.

### Did you know...

As global warming concerns continue to rise around the world, many adults in the United States indicate a desire to play a role in battling climate change.

A poll conducted in January 2007 by Harris Interactive among 2,337 U.S. adults reveals that seven in ten respondents are willing to pay a higher price for a new house or condominium that reduces energy use and lowers monthly heating and cooling bills. Twenty-three percent are "definitely willing" while 47% state they are "probably willing" to pay higher housing costs to fight global warming.

More than six in ten respondents express concern for the long-term effects of global warming and climate change. Thirty-six percent are "very concerned" and 25% are "somewhat concerned."

However, two in three respondents are opposed to measures similar to those taken in London that impose a congestion tax to reduce traffic emissions. Sixty-six percent of U.S. adults do not support a tax for American cities that would charge a daily fee to drivers traveling within the boundaries of a congestion zone.

Source: Harris Interactive

Comments, suggestions and questions related to survey research should be directed to Doug Cox - NCDOT Market Research Manager at (919)733-2083.