

Appendix Chuck Cowan Methodology Chapter

By Dr. Chuck Cowan, co-founder and CEO of <u>Analytic Focus, LLC</u>

It turns out that amicably working out the details of survey design for the surveys and analysis underlying The Surprising Secrets of Highly Happy Marriages involved some of the same type of actions that go into making good marriages. This is the seventh survey in eleven years on which I've supported Shaunti and Jeff with a survey design, and each of our collaborations has involved mutual respect, clear expectations on both sides, some give-and-take – and even a partnership short-hand, since by now we know each other's expertise and language quite well.

For each survey, Shaunti and her team know that my goals include a nationally-representative and properly drawn sample, questions that are not leading, a proper sequence to the questions to ensure that the respondent doesn't get lost in the middle of the survey, and a rigorous, unbiased approach that will, in the end, deliver reliable results for that particular research study.

All of which were particularly challenging for this latest survey. The trick was to figure out how to sample married couples and at the same time get results from each person without their mate looking in. We also had to work in a method for making sure that both halves of the couple were responding, not one half responding twice for both partners. It all had to be anonymous, so the individuals could be fully candid...but we also had to be able to compare the answers of the spouses to each other. This made it much trickier than usual, since all of Shaunti's other surveys have been of individuals, not couples.

We also had to ensure that the survey sample was sufficiently large to deliver a high confidence level, and was selected using random probability methods to be nationally representative. And of course, we had to design questions that would get at what we wanted to study.

Let's first discuss how we designed the questions, and then address the survey sample and process of conducting and analyzing the surveys.

Survey Questions

In any survey, two principles are equally important: establishing sequences of questions that are not leading and ensuring the individual questions are not biased. This applies to all of the interview questions and the more qualitative research that Shaunti starts with before we conduct the survey.

For example, if you are doing an interview and want to know what someone thinks is the best thing about their spouse, you don't start by suggesting a list ("Here are some features people have - which describes the best feature of your spouse?") It might be easier to summarize responses to that sort of question, but the list suggests what good features people might have, and eliminates anything else that might come up spontaneously. If you want to know something - ask it! "What do you like best about your spouse?" No examples, no lead-in, no pussy-footin' to get to the question. No confusing terms like "features". You wouldn't do that in normal conversation - why make the survey or interview questions painful and stilted? The qualitative research had to be open-ended, even though the actual survey had to be multiple choice, to facilitate analysis. But in both cases the questions had to be well-designed to get to an unbiased response.

This was one of the first conversations I had with Shaunti: how do we ask survey questions without suggesting answers, or leading the respondents to particular answers? This became a lengthy and intricate conversation regarding what works and what doesn't. Years of experience guides me (well, okay, decades at this point) and my ear has been trained to be attuned to the leading question. Similarly, years of experience working with individuals and couples guides Shaunti as to what are important issues.

Between the two of us, we've worked out some very well-designed and innovative questionnaires that take a very long time to get "just right" but which deliver useful answers that guide Shaunti in her analysis.

One methodology that we've very successfully employed is that Shaunti comes up with a set of hypotheses before she designs her questionnaire. The hypotheses are based on common patterns that she thinks she is observing in her hundreds of qualitative interviews with all those open-ended questions I mentioned earlier. The hypothesis ends up being a summary statement of a suspected surprising truth that she then tests and will either prove or disprove via the survey.

Once we have the hypotheses (which usually take at least a year to develop), the actual survey questionnaire follows. For a specific hypothesis, what do we need to know and how do we get there? This method eliminates questions that aren't necessary and suggests questions that are.

This method also shows how some questions, worded inappropriately or offered in the wrong sequence, can lead to a foregone conclusion instead of being unbiased and testing both sides of the hypothesis offered. Finally, it gives me insight into what it was that Shaunti really wanted to research in the first place.

Working off a set of hypotheses builds us to a questionnaire that is balanced and concise. And once we have that, we conduct the actual survey. Or, in the case of this book, surveys.

Two Types of Surveys

For this book and this research study, unlike the others, it was necessary to conduct two different types of surveys. Given the unique need to study married couples, the first set of independent surveys needed to be conducted in places with a high concentration of married couples, such as marriage events, workshops, even a couples' cruise. Because a large percentage of marriage-related venues are associated with churches in some way, the respondents had a higher number of church-goers than in the general population and thus we labeled this the "churchgoers' survey."

Statistically, there is no problem having a survey with greater representation of a given demographic group, as long as it is weighted correctly in the analysis, and as long as it is fairly representative in other categories, such as age and race/ethnicity (which this one was). For example, many surveys conducted by the Census Bureau oversample minorities to ensure that reliable comparisons can be made between different groups on important measures like unemployment. This weighting of the data to correct nationally for representation can decrease the reliability of the estimates. But because we also did want broader confidence in the data, we compensated for the fact that this survey would sample churchgoers at higher rates by getting a larger number of responses. We ended up with completed surveys of 796 people (398 married couples). More importantly, this survey complements a truly random sample, described below. This gives us a further check on the validity of our findings across both surveys.

To ensure the individuals could be candid, we also worked out several methods for ensuring that answers remained individually anonymous (for example, we never knew people's names, just their keypad number), and that husbands and wives were physically separated so one spouse would never see the other's responses (for example, men in one room, women in another).

Once these our internally-conducted, independent surveys were completed, we moved forward with the type of nationally-representative survey that traditionally has always been the capstone of Shaunti's research projects.

Survey Sample and Process for the Nationally-Representative Survey

A "nationally representative" sample means the respondents are not only distributed representatively by geography, but also by age, religion and race\ethnicity. A few details: Geographic distribution means the survey sample is distributed in the same proportions as the U.S. population in the four Census Regions: Northeast, South, Midwest, and West. At the same time, the survey population has to be distributed as couples are in terms of ages, broadly ten year age bands (20's, 30's, etc.). The survey population also has to be distributed like the U.S. population on race and ethnicity. Race is White, Black, Asian, and Other, whereas ethnicity is primarily Hispanic and non-Hispanic. Finally, the survey population had to have a diverse religious distribution, not just among the major religions but also among those whose belief system is irreligious (in this survey, as in all others we have done together, there has tended to be a higher-than-representative proportion of non-religious survey-takers).

Balancing these distributions across geography, age and race\ethnicity is tricky, but survey firms have been doing this for decades and there is a well-accepted statistical methodology we follow to ensure we have good balance on all of these.

I worked with our long-time survey firm, Decision Analyst, to ensure all those requirements were met – as well as the unique requirements for this survey of couples. This was made possible by their high-quality panel (they know the demographics, including marital status, of the millions of people they would be able to draw from), their survey technology (which allows individual answers to remain anonymous to us and to each other), some individual programming (to tag participants to each other as husband and wife), as well as various other factors.

In the end, we had completed results from 508 people (254 married couples), which delivered a 95% confidence level, with a maximum margin of error of +/-4.3% for individual responses.

Categorizing the Couples By Happiness in Marriage

Since the ultimate purpose of the surveys was to compare what, if anything, the happiest couples did differently from everyone else, every couple was put into one of three "happiness in marriage" categories based on their responses to this survey question:

Are you, personally, generally happy in your marriage these days and enjoying being married? (Choose one answer.)

- 1. Yes!
- 2. Yes, most of the time.
- 3. It depends—sometimes yes, sometimes no.
- 4. Not really.
- 5. No! I am really unhappy.

Based on the answer of each individual, and comparing it to that of their spouse, we put all couples in one of the following three categories, as follows:

1. **Highly Happy couples**- these were couples where *both* the husband and wife, taking surveys separately, independently answered "Yes!" to that question. We wanted to compare everyone else to these couples. In the book these are referred to as the "Yes!" couples or simply the "highly happy" couples.

2. **Mostly happy couples**- hese were couples where one spouse answered "Yes!" and the other "Yes, most of the time," or both spouses answered "Yes, most of the time."

3. **So-so or struggling couples**- these were couples where one or both spouses answered "Sometimes yes, sometimes no," "Not really," or "No!" to that question. If one partner answered that they were happy, but the other partner chose one of those three "no" answers, the couple was put in this "so-so or struggling" category.

The survey was then analyzed to compare the groups to each other and see if the hypothesis was confirmed or not.

In the End....

At the end of this long and rigorous process, we ended up with excellent data that, I believe, has achieved its goal: enabling Shaunti to rigorously test and draw conclusions about whether her hypotheses -- drawn from more than a year of interviews -- were true. Based on the results, many of her hypotheses were confirmed. Some were not, and thus were not included in the book.

As I said at the beginning of this chapter, I always enjoy working with Shaunti and her team on these research projects, which turn into books that I have come to view as important and helpful. I appreciate facilitating the discussion about what we want to know and why, the common goal we want to achieve, and being sure that we are on the same page about what we both want and expect.

Kinda like being happily married, and there's no secret to it.

Dr. Chuck Cowan is the co-founder and CEO of Analytic Focus, an analysis and research firm specializing in statistics, demography, and financial economics, with offices in Washington DC, San Antonio TX, and Birmingham AL.

See more at http://www.analyticfocus.com.