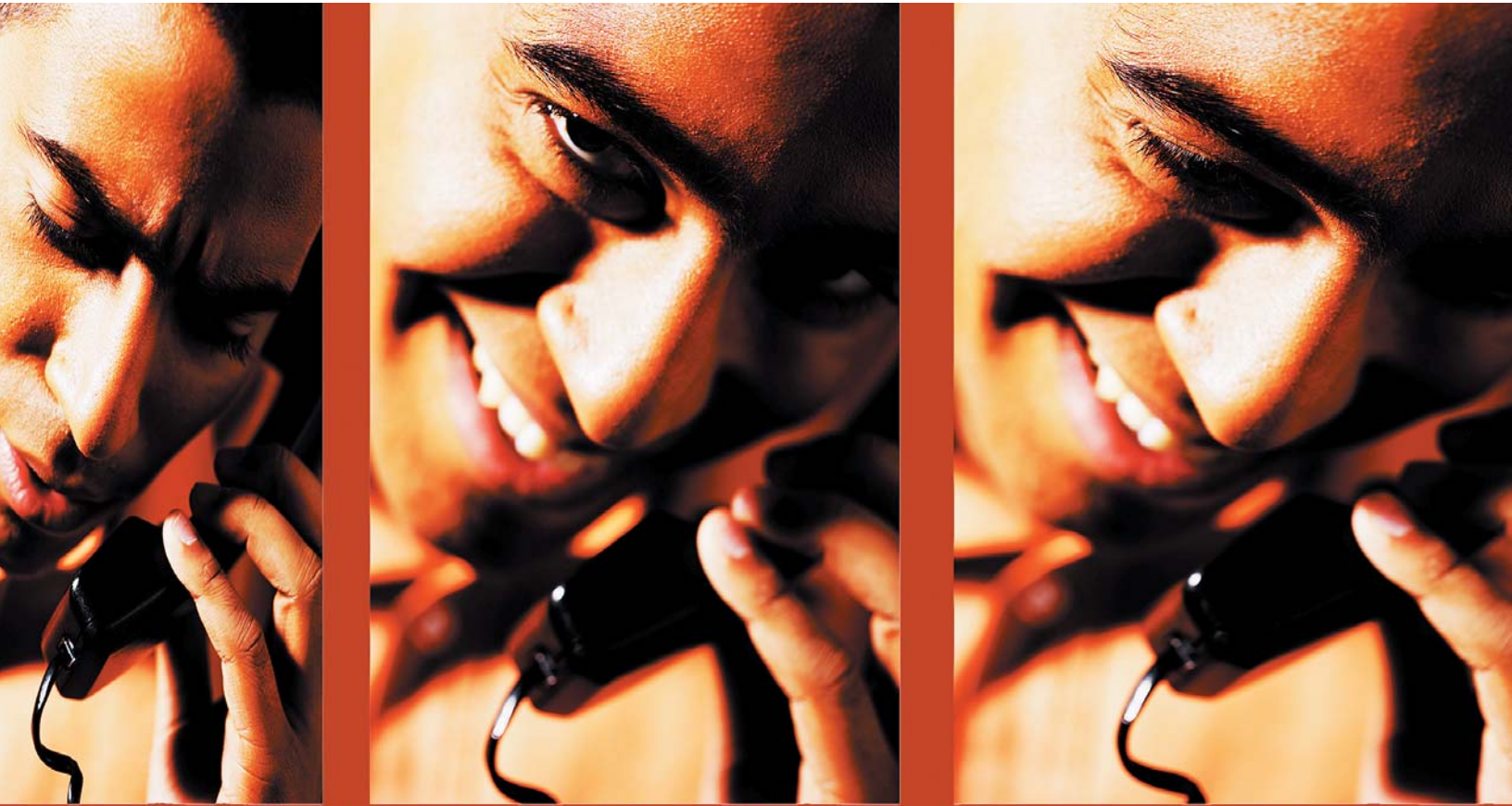


coder seeks content analyst for scientific fling. object: respect

by Ruth M. Corbin, Ph.D.



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Social science has a serious image problem. At least that's what the *National Post* said in its front page headline of May 20, 2006. Social science, it said, was like "the flighty older sister of the academic family, eternally straining to be taken seriously."

All the greater achievement, then, that market research—a social science of the modern age – has been called into the courtrooms and the boardrooms of

the country, for input to high-stakes decisions. It has earned its way by demonstrating allegiance to scientific principles and a commitment to continuous improvement. Now a new opportunity for continuous improvement presents itself: treating "coding" to a scientific overhaul. Progress in this area would also reinforce the growing value of survey evidence in litigation disputes.

THE TYPICAL CODING PROCESS

Coding is an operation applied to the verbatim responses to open-ended questions in a survey. Coding is a process of categorizing verbatim responses so that they can be quantified and reported in summary form. Coding is frequently assigned to relatively low-paid, sometimes part-time, staff in market research firms.

The coder's job is to assign categories or codes based on a "codebook." A code-

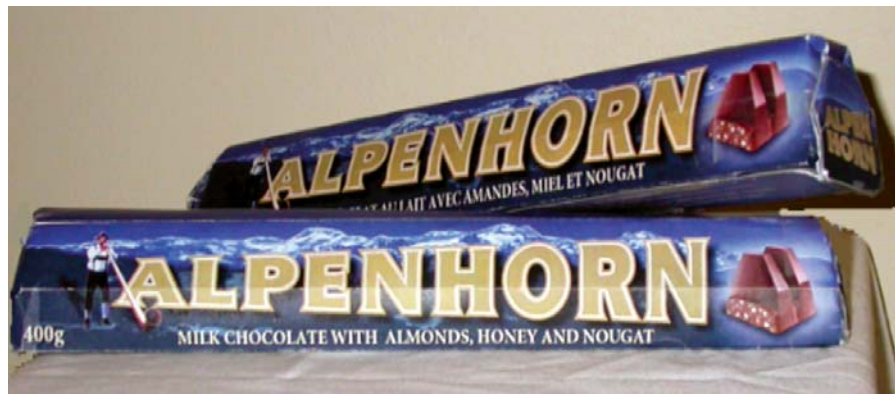
book specifies the list of categories that coders are to use for interpreting respondents' answers. The initial codebook is sometimes set by the project manager before the coding begins, and sometimes established by a senior coder only after a large number of verbatim answers have been reviewed. The codebook can be revised if significant new themes emerge during the process of initial coding.

Coding can be done by humans alone, or can be aided by computer programs that do "key word searches." For coding done by humans, neither the Canadian professional market research body (MRIA), nor the generally recognized world body (ESOMAR) specifies a minimum level of coding verification among its practice guidelines. This is rather astonishing given the subjectivity of coding. Industry practice appears to anticipate that 10% of coding will be verified, in line with the industry's published "10% monitoring or validation" guideline for the original interviews.

THE ROLE OF CODING IN SURVEY EVIDENCE FOR LITIGATION

Surveys designed for litigation are structured scientific investigations. Verbatim responses to open-ended questions are qualitative not quantitative data. Coding overlays them with a quantitative façade, but cannot compensate for the inherent limitations of qualitative data. In particular, verbatim responses may accurately reflect what is top-of-mind with respondents, but cannot claim to capture everything that respondents think, remember, know, or intend to do. Thus, inferences can be drawn from what respondents say, but seldom from what respondents don't say.

By way of example, suppose in a survey of time use, respondents are asked, "what did you do last week-end? [PROBE] Anything else?" After exhaustive probing, the following verbatim answer may emerge: *"Let's see, I went to a movie Friday night, coached my kid's soc-*



cer game on Saturday, then church on Sunday... 'Anything else' you say? Well I painted my den, I don't know if you want to hear about that. Watched some television, and that's about it". But in describing what he did on the weekend, that respondent mentioned nothing about eating or sleeping. Can we therefore infer from his answer that he got no sleep and ate no meals on the weekend? No, it's not plausible. Likely he thought that the interviewer wanted him to report his entertainment and family activities, and not routine survival activities. He may even have forgotten to mention one of his leisure activities, like a bike ride with his neighbour, and the interviewer has no way of knowing what was omitted. In summary, given a verbatim answer obtained by a professional and competent interviewer, we can infer that the respondent did do everything on the weekend that he volunteered in his open-ended answer. But we can make no inferences about whether that is everything he did, based only on the open-ended question. We can draw no conclusion that he did not go for a bike ride, that he did not get any sleep, that he did not barbecue a steak. Verbatim answers generate some facts but not necessarily all the facts, some parts but not necessarily all parts of a person's views on a particular question. Generally speaking, a researcher cannot draw reliable inferences based on what a person did not say, only on what he did say in response to an open-ended question.¹

So, what good are coded open-ended

data in litigation evidence? They contribute two benefits. One is to help bring the real world into the courtroom, adding the colour and particularity of consumers' own words. Another is factual relevance. When the makers of TOBLERONE took action for trade-mark infringement against the manufacturers of a large triangular ALPENHORN chocolate bar with chocolate sections, respondents seeing the infringing chocolate bar said that they thought it was manufactured by TOBLERONE. When asked "why do you say that?" a large percentage referred to the chocolate triangle shape. Since the shape was one of the features in which TOBLERONE claimed trade-mark rights, the verbatim answers were helpful in confirming TOBLERONE's claims before an Ontario Court. The ALPENHORN bar is no longer able to be sold in that packaging.

In summary, because they arise from unconstrained open-ended questions, verbatim responses—assuming they are well-captured—may add a dimension of external validity to the survey findings. Coding them is merely an efficient form of delivering the main messages. Without added quality controls, coded data cannot necessarily lay claim to reliability.

In order to have factual credibility in a litigation setting, coding needs to live up to its potential in validity and reliability. The next two sections describe how this can be done. The concluding theme is to marry coding with the stricter scientific methods of content analysis.

BEST-PRACTICE ENHANCEMENTS TO CODING

Quality control enhancements are an easy and obvious place to start. Current best-practice guidelines include those listed below. It is worthwhile articulating them because of specific challenges which have been raised in critiques of survey evidence in litigation in the past ten years, regarding whether such practices have been followed:

- Coding is only as good as the quality of the verbatim data recorded by interviewers. Errors in spelling and grammar, and the occasional omitted word, are understandable as interviewers type furiously into their CATI programs. But such errors often invite criticism under hostile scrutiny in a litigation situation. Hiring criteria for new interviewers should include fast and accurate word-processing skills; improvement in those areas should be recognized in performance reviews.

- For surveys designed to test a hypothesis, the codebook should be drafted in advance to incorporate the type of answers which would prove or disprove the hypothesis. The sometime-style of letting the codebook emerge from a review of the first large group of verbatims is more appropriate for exploratory studies. Relying on that style alone is inconsistent with the scientific method of hypothesis setting, data analysis, and statistical inference.

- That having been said, the code for “other” responses not germane to the hypothesis under investigation should not be permitted to enclose too high a proportion of answers. For example, if the “other” category captures answers of 65% of respondents without any more detailed knowledge of the nature of their responses, questions will inevitably be raised. Some supportable cap on the size of the “other” category should be set, so that a non-technical reader can be assured that a more detailed revelation of its contents would not materially affect the main conclusions of the data analysis. In summary, while the codebook should be drafted in advance to reflect a proper test of the survey hypothesis, the codebook may be modified if there are unan-

ticipated discoveries of material size.

- A code should not be used twice in the same answer. For example, suppose the code number 8 is used to categorize answers which contain a “specific colour” mention, and the respondent’s answer is “I noticed the red and white background.” In this circumstance, there should be only one code 8 given to that answer and not two code 8’s. Otherwise, there will be ambiguity of interpretation at the data analysis stage. If each colour is independently important to the interpretation of answers, a different category can be opened for each.

- The code for “don’t know” should not normally be used in combination with other substantive codes. If a long verbatim answer with several details ends with “I don’t know what else to say,” it is likely to be misleading to the interpretation of the data to add a “don’t know” code for that respondent.

EXPLOITING MORE OF THE SYNERGIES WITH CONTENT ANALYSIS

In the current expert literature², content analysis has emerged as the scientific alter-ego of coding. It may be defined briefly as the objective, systematic, statistical analysis of message characteristics. It has had wide application to analysis of media content, human interactions, and political speeches to name but a few areas. Its mission to meet the standards of the scientific method is its distinguishing characteristic, differentiating it from the more qualitative or interpretative approaches taken in traditional coding.

As it turns out, the current best practices in survey coding are evolving closer to the scientific practices of content analysis, including initial hypothesis setting, and *a priori design* of the content analysis codebook.

Content analysis still gallops ahead at the reliability frontier. Reliability is the extent to which a measurement procedure yields the same results on different occasions or different samples. Coding as an art form of survey procedures has no published standards of reliability; content analysis does. One of its fundamental

tests is “intercoder reliability,” according to which the work of independent coders is statistically compared to each other. Accommodating a test of “intercoder reliability” requires verifying a much higher percentage of a coder’s work than is normally done in survey practice.

CONCLUSION

Expert content analysis represents the scientific coming-of-age of coding. It constitutes another step in continuous improvement that would help to enhance the image of surveys as conveyers of valid and reliable courtroom evidence. It carries with it another substantial benefit of linking the coding process to all kinds of other research besides surveys, where content analysis has been traditionally done, thereby exposing survey researchers to potential synergies with other techniques. From such synergies comes innovative thinking. The new “MRIA” name for the former “Professional Market Research Society” (the “I” in MRIA is for market “intelligence” of any form) reflects the profession’s commitment to integration of business intelligence sources beyond just surveys. Because content analysis grew up in other areas of social science, it offers expanded perspective, and innovative ideas for continuous improvement.

Want to send your coder out for a little scientific fling? Fix him or her up with a content analyst.

¹ There may be specific exceptions, where open-ended questions have limited ways of being answered.

² An excellent reference text is found in Neuendorf, K. *The Content Analysis Guidebook*. London: Sage Publications, 2002.

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