

# Understanding How People Think: Shared Design Considerations in Quantitative & Qualitative Research

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*Research Design Review – [www.researchdesignreview.com](http://www.researchdesignreview.com) – is an online blog that was first published in November 2009. RDR currently includes over 90 posts concerning quantitative and qualitative research design issues. In 2013, RDR posted five articles that directly speak to common design considerations in quantitative and qualitative research that address the basic goal of understanding how people think. These common concerns include: using effective content analysis procedures to reveal underlying subjective connections (“Content Analysis & Navigating the Stream of Consciousness”); the importance of design approaches targeting people’s stories (“Tell Me What Happened’ & Other Stories”); research designs that incorporate good listening techniques with appropriate, well-constructed questions (“Listening: A Lesson from New Coke”); utilizing qualitative research to examine the thinking that helps explain quantitative data (“Looking Under the Hood”); and Daniel Kahneman’s System 1 (intuitive) and System 2 (cognitive) thinking framework (“Fast & Slow Thinking in Research Design”).*

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# Content Analysis & Navigating the Stream of Consciousness

April 30, 2013

An [article](#) posted on *Research Design Review* back in 2010 discussed the work of [William James](#) and, specifically, his concept that consciousness “flows” like a river or stream. The article goes on to say that James’ “stream of consciousness” is relevant to researchers of every stripe because we all share in the goal of designing research “to understand the subjective links within each individual.” Yet these subjective links come at a price, not the least of which is the [“messiness” of the analysis](#) as we work towards identifying these links and finding meaning that addresses our objectives.



Whether it is the verbatim comments from survey respondents to open-end questions or the transcripts from focus group discussions or ethnographic interviews, the researcher is faced with the daunting job of conducting a content analysis that reveals how people think while at the same time answers the research question and takes the sponsoring client to the next step. An analysis of our research content must, at the minimum, be based on the:

Development of codes grounded in the data

*from which*

Categorical labels or themes are developed & contrasted/compared to categorical constructs

based on what we know related to the research question

*from which*

Agreed-upon codes & labels or themes & the criteria that define these

*codes/labels* are established

*from which*

The entire dataset is coded and sorted by labels/themes

*from which*

Patterns (“linkages”) emerge (or don’t)

*from which*

An analysis of the patterns in conjunction with earlier known research can be conducted

*from which*

Final interpretations & possible generalizations from the data are derived

This simplified version of the process sounds, well, pretty simple, doesn't it? Until, however, you consider the decisions that need to be made along the way. For instance,

- What data sources will you use in the content analysis? If qualitative, do you include just the text responses in the online group discussion or do you integrate the uploaded images and video into the analysis process?
- What unit(s) within the data sources will you include in the analysis?
- Should the coding (and, therefore, the analysis) focus on the manifest (i.e., the visible and obvious) or latent (i.e., the underlying meaning) aspects of the content?
- What level of inference is permissible and how do you control for that?
- Are the categorical labels mutually exclusive (as they should be) and, if not, where is the overlap and what adjustments need to be made to account for that?
- How will patterns be identified and how will this procedure go beyond the fact of mere magnitude?
- What role will earlier known research play in analyzing patterns and drawing conclusions?

Navigating the wide and divergent streams of our participants' consciousness is a noble and necessary goal of all researchers. And the downed trees, boulders, and debris that stand in our way are there to remind us of the difficult task before us.

# “Tell Me What Happened” & Other Stories

June 16, 2013

Storytelling is the ultimate goal of all research. In the end, researchers of all kinds are in the business of understanding how people think, and what better way than to hear their stories. Storytelling may sound like something only qualitative researchers should care about but survey researchers, knowingly or not, are equally concerned about the stories people have to tell. The recent brouhaha over [Gallup's failure](#) to correctly predict the winner of the 2012 presidential election is a case in point. One of the fundamental weaknesses that contributed to the Gallup polls favoring a Romney win is how Gallup went about determining likely voters, including respondents' past voting behavior and how much attention they were paying to the election. Like all pollsters, Gallup simply used the responses to these and other questions to calculate which respondents were most likely to vote in the national election. One of the problems that Gallup ran into, however, is that “many” of the Obama voters claimed not to be paying much attention to the election which, of course, disqualified them as likely voters. In essence, Gallup simply wanted to know each respondent's story pertaining to their likelihood of voting but instead built a model on misguided closed-ended questions. Who knows? Maybe the stories from one question – “Tell me how you feel about voting in the presidential election.” – would have allowed Gallup to more accurately isolate likely voters.



“Tell me what happened when you joined the Army.” “Tell me about your professional life.” “Tell me how you became a regular coffee drinker.” These are the inquiries of narrative research. The narrative researcher is focused on participants' stories – what they say, how they say it, why they say it, and the context in which they say it. In narrative research, the story *is* the data. The story is not a vehicle by which to convey meaning from in-depth interviews or group discussions (for example), or provide anecdotal accounts of observations. Rather, the story is the focus, and only by taking in a holistic view of the narrative can the researcher truly interpret the outcomes. By definition, this holistic approach mandates a story told not just by way of a single method but by a variety of methods that serve to complete the “narrative environment.” [Susan Chase](#) (2011) for instance, writes about her study of diversity issues at “City University” and how her understanding of the narrative environment was informed by way of interviews, observations, and content analyses of college publications, the curriculum, and the website.

Everybody loves a good story. But a good story is not worth much in the land of research without a plan for analysis. A good story is just a form of entertainment – something we amuse our clients with to pique their interest in what we do – unless the researcher designs an analytical approach that keeps the story intact while addressing research objectives. [Catherine Riessman](#) talks about thematic analysis (“what” is said), structural analysis (“how” it is said), dialogic/performance analysis (“who” it is said to, “when,” and “why”), and, when visual images are involved, visual analysis (conducted by applying the other analytical schemes). Whatever the strategy for analysis, what is important is that the narrative be understood in its entirety, with the understanding that

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“stories don’t fall from the sky” (Riessman, 2008) but rather are ensconced in the contexts, complexities, and circumstances of the narrator.

Narrative research reminds researchers of the pesky inconvenient truth that research data that lies in a vacuum – stripped of its context, supporting evidence, and interpretation – is pretty pointless. Moderators may engage their group participants with story-telling exercises – “Tell us about the first time you went skydiving.” – that are fun for those on both sides of the mirror, and pollsters may continue to label likely voters by way of a series of closed-ended questions and algorithms, but only a holistic account of the story that is waiting to be told and an honest analysis of the story as data will give the researcher what storytelling can do so well – an understanding of how people think.

Chase, S. E. (2011). Narrative inquiry: Still a field in the making. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research*2 (4th ed.). Thousand Oaks, CA: Sage Publications.

Riessman, C. K. (2008). *Narrative methods for the human sciences*. Thousand Oaks, CA: Sage Publications.

# Listening: A Lesson from “New” Coke

October 30, 2013

Last week, Susan Eliot posted a terrific piece on listening (a common theme on her blog *The Listening Resource*) titled [“Listening For Versus Collecting Data.”](#) In it, she talks about the power imbalance – and, I would add, the insensitive mindset – implied by the idea that researchers are “collecting data from subjects” compared to the more useful notion that we are listening “one human to another.” Eliot goes on to cite [Martin Buber](#) and his distinction of I-Thou and I-It interactions or relationships between people, with Eliot stating “When we look upon the other person as a ‘thou’ (a unique, sentient human being) rather than an ‘it’ (a data repository), we approach the research with a humanistic perspective, one that is likely to net us rich and meaningful data.”



Extolling the virtues of listening seems almost trite (we all claim to “listen” in some shape or form) yet why is it so very difficult? It is difficult, not only among researchers where listening is (should be) a required skill but, among all of us where listening is a fundamental component of human interaction.

The October 18, 2013 *NPR TED Radio Hour* program [“Haves and Have-Nots”](#) presents two important examples on the importance of listening and, more particularly, the negative effects of not listening well. The first is a TED talk given by [Ernesto Sirolli](#) titled “Want to help someone? Shut up and listen!” where he tells the story of an ill-fated attempt to teach people in Zambia how to grow food. Rather than entering the Zambian community with an open mind and listening ears, the aid workers went about trying to “save” the Zambian people with their preconceived notions of what that means. One result was the planting of crops that were subsequently eaten by 200 hippos. Rather than listening to the needs and knowledge of the local people, these Italian aid workers simply made the kinds of decisions they would make back home in Italy. It was from here that Sirolli developed the Enterprise Facilitation economic development system which is a person-centered approach based on the concept of actively listening to the “local passion” rather than attempting to instigate foreign solutions.

The second example comes from [Jacqueline Novogratz](#) and her talk on “Patient Capitalism.” Again, it is a story of trying to “save” the African people by way of preconceived ideas on how that should be done rather than allowing the local people to develop and define what “saving” means in their situation. Once more, listening is the key; with Novogratz, like Sirolli (who wondered why the Zambian people had allowed them to grow crops only to be eaten by nearby hippos and was told “You never asked.”), emphasizing the important point that effective listening revolves around asking the right questions. Novogratz relates the story of helping local women run a bakery and the decision of what color to paint the bakery building and its surrounds. When she didn’t get any input from these women, she elected to paint the bakery the color blue. Only after it was completed and the question was asked did one woman say, ‘Well, our color is really green.’ From this, Novogratz states, “I learned that listening is not only about waiting [for people to say what is on their minds] but it is also learning about how better to ask questions.”

This is why listening is at the core of all research with human beings. Because listening is, not just about patience and open-mindedness but, equally about asking “better” questions, it is as relevant to survey research designs as it is to qualitative methods. Listening goes beyond the end product – e.g., a response to the researcher’s question – and encompasses the manner and substance of the questions themselves. Just ask [Coca-Cola](#). In making the disastrous decision in 1985 to introduce the “new” Coke after conducting extensive – qualitative and quantitative – research, they quickly understood that they had failed to ask one important research question, ‘How would you feel if the current Coke product was no longer available in the marketplace?’ A “classic” case, you might say, of a research design in need of a comprehensive listening strategy.



# Looking Under the Hood: What Survey Researchers Can Learn from Deceptive Product Reviews

November 26, 2013

[Eric Anderson](#) and [Duncan Simester](#) published a paper in May 2013 titled [“Deceptive Reviews: The Influential Tail.”](#) It talks about their analysis of many thousands of reviews for a major apparel “private label retailer” with the focus on a comparison of reviews made by customers who actually made a prior transaction (i.e., customers who actually purchased the item they were reviewing) and customers who had not made a prior transaction (i.e., customers who reviewed items they had not actually purchased). Their comparisons largely revolved around four key measures or indicators that characterize deception in online reviews and messaging: 1) a greater number of words (compared to reviews from customers who had bought the item); 2) the use of simpler, shorter words; 3) the inappropriate reference to family (i.e., referring to a family event unrelated to the product being reviewed such as “I remember when my mother took me shopping for school clothes...”); and 4) the extraordinary use of exclamation points (i.e., “!!” or “!!!”). Apparently, deceivers tend to overcompensate for their lack of true knowledge and wax eloquent about something they know nothing about. This wouldn’t matter except that deceivers’ deceptive reviews (i.e., reviews from customers who have not purchased the item reviewed) are more likely to be negative (e.g., giving a lower product rating) compared to reviews from actual purchasers, which in turn has the unfortunate proven effect of damaging merchants’ sales.



The Anderson and Simester paper harkens back to the [2011 Research Design Review post](#) concerning the vagueness of survey scale terms such as “very,” “most,” and “somewhat.” This post discusses research showing, for example, that a response of “somewhat likely” can actually be understood by the respondent to mean that the true likelihood of an event occurring is anywhere from 100% to nonexistent (0%). Yet this is not how “somewhat likely” data is typically interpreted and, indeed, it is often combined with “very likely” data to form an umbrella category of “likely” respondents.

Similar to deceptive reviews, quantitative research designs that allow for a wide range of subjectivity and individual interpretation fall victim to portraying false impressions leading to erroneous conclusions. Just as visitors to a website may think they are reading a legitimate product review from an actual purchaser/user, what researchers think they see in their data may not be anywhere near the reality respondents hoped to express in their responses.

As survey researchers we are well-advised to take a lesson from researchers such as Anderson and Simester by exploring the indicators – in our research designs as well as our data – that may lead us to deceive ourselves. By routinely “looking under the hood” of our quantitative research with qualitative methods that examine the reality of how and what respondents think, we will be enriched with the true meaning of the constructs our survey data purport to measure.

# Fast & Slow Thinking in Research Design

December 17, 2013

The November/December issue of [ESOMAR](#)'s *Research World* is largely devoted to behavioral economics (BE), an increasingly-popular topic in marketing circles. In it, various researchers



discuss the virtues of embracing a BE model, with repeated reference specifically to [Daniel Kahneman](#) and his System 1-System 2 theory which is the foundation of his 2011 book *Thinking, Fast and Slow*.

The overall takeaway is the idea that marketing researchers would do well to focus their efforts on research that gets at System 1 thinking – intuitive, instinctive, automatic, *fast* thinking – rather than System 2 thinking – deliberative, “effortful,” attentive, *slow* thinking – because of its predominance in many of the decisions people make. Indeed, Kahneman emphasizes in his book that, unbeknownst to many of us, System 1 (automatic, effortless) thinking exerts significant influence on our experiences and is “the secret author of many of the choices and judgments you make” (p. 13)[\[1\]](#). And this, of course, can be a very good thing, allowing us to readily make appropriate judgments when, for example, driving a car on an empty road, calculating simple equations such as  $2 + 2$ , and detecting hostility in someone’s voice.

With System 1 thinking in mind, BE-leaning researchers believe that a greater emphasis on marketing research designs that tap into consumers’ intuitive and emotional side – rather than research methods requiring attentive, cognitive effort, such as structured attitudinal survey questions; or, as one researcher suggested, in-depth interviews more than five minutes in length – have “the potential to increase the accuracy of *predicting* customer behaviour”[\[2\]](#) (italics added).

This might be a good time to sit back and enjoy “a taste of slow.” While a focus on research designs that incorporate behavior and context (such as ethnography) to capture the instinctive, intuitive impulses associated with System 1 thinking makes sense under certain circumstances, BE researchers may want to slow down in accepting the idea that these research designs will improve their ability to predict the very erratic, complicated world of consumer purchase. Kahneman himself clearly talks about “the marvels and the flaws” of intuition. While intuition (System 1 thinking) is great for driving a car on an empty road, it is not so great in more complex, unpredictable situations. In his [interview with Charlie Rose](#), Kahneman uses the example of the stock market, saying: “We know that the stock market is chaotic, is extremely complicated, and it doesn’t have enough regularity for people to learn” – that is, the complicated, irregularity of the stock market makes it impossible to learn a pattern or what will happen next. The fact that the stock market is not “learnable” makes it a poor target for System 1 thinking.

Consumerism and the stock market are not so different. To assume that simply observing consumers at the moment of purchase or capturing their instinctive impulses in response to research stimuli will lead to accurate forecasting of future behavior ignores the fact that the marketplace, and consumers’ place within it, is a very messy irregular environment crowded with uncontrollable factors destined to unseat the most loyal customer. Kahneman alludes to them when he talks, for example, about the impact of store promotions on purchase behavior (i.e., “[anchoring](#)”). The degree

to which the marketplace is not learnable should be reason enough to slow down the rush to rely on System 1 thinking to predict consumer behavior.

Decision making, according to Kahneman, is a “proper mix of intuition and reasoning” – that is, System 1 and System 2 thinking. It may be fine and good to predict consumer acceptance of product advertisements by testing consumers’ reactions to faces depicting different emotions or judging the speed and intensity by which consumers associate certain images with product-related concepts (i.e., researching System 1 thinking for product ads) but relying only on System 1 level thinking for predicting actual purchase may land researchers into the trap of believing, what Kahneman calls, “what you see is all there is” – or, using what you know to make assumptions about what you don’t know – which is illustrated succinctly in [this two-minute video](#).

Research design is difficult because there is no easy solution to the discovery of how people think, especially in the complicated, irregular environment of the marketplace. Whatever the solution, however, it necessitates an appreciation of the many facets of the human mind – the irrational and rational, emotional and cognitive. It requires fast and slow thinking.

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[1] Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.

[2] From John Kearon in Earls, M. (2013). The big behavioural economics debate. *Research World*, 20–27.