

# The psychology of self-report: Cognitive and communicative aspects of data collection

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**Time:** Wednesday, 2:00 pm - 5:50pm

**Room:** 107 VPD [corner of Downey Way & Pardee Way, [map](#)]

***Draft syllabus. Details will change.  
The final version of the syllabus lives on Blackboard.***

## What is this class about?

Self-reports of behaviors, feelings, attitudes, and preferences are the dominant source of data in the social and behavioral sciences. Unfortunately, these data are only as meaningful as the answers research participants provide. This class addresses the cognitive and communicative processes underlying question answering in research situations. How do participants make sense of the questions asked? What can, and what can they not, report on? How do question wording, question format and question context influence the obtained answers? How can we improve the validity of behavioral reports? What determines the direction and size of context effects in attitude measurement? What are the advantages and disadvantages of different data collection methods? Throughout, the focus is on the underlying psychological processes and their theoretical and methodological implication. As will become apparent, the psychology of self-report is the psychology of language, judgment, and memory in a communicative context. For a preview of the issues covered see:

Schwarz, N. (2019). Surveys, experiments, and the psychology of self-report. In F. Kardes, P. Herr, & N. Schwarz (Eds.), *Handbook of research methods in consumer psychology* (pp. 17-40). New York: Routledge. [pdf](#)

Note that this class is *not* a class that offers simple prescriptions for questionnaire design – it is a class about the underlying communication, memory, and judgment processes and their implications for questionnaires, experiments, and other data collection methods. For a practical cook book on questionnaire design that is (by and large) compatible with the principles discussed in class I recommend:

Bradburn, N., Sudman, S., & Wansink, B. (2004). *Asking questions* (2<sup>nd</sup> ed.). San Francisco: Jossey Bass.

### ***Learning objectives***

- Understand the tasks involved in answering questions about behaviors, attitudes, and references from the respondent's perspective.
- Understand the basic communicative and cognitive processes involved in these tasks.
- Understand how contextual variables impact these processes and shape the answers collected.
- Learn how to handle these complexities in your own research.

### ***Grading***

Grading is based on class participation (10%), completion of weekly assignment questions and exercises (40%), and a research proposal (50%) that can address any topic covered in class. The weekly assignment questions and exercises will be posted on Blackboard. The most useful option for the research proposal is to apply what you learned in class to your own substantive area of research. There will be multiple opportunities to discuss your research proposal, complete with peer review and class input.

### ***Format***

Each class typically consists of an overview lecture, readings, application exercises, and discussion. Except for the first meeting, a typical class will begin with a discussion of the assigned readings, structured by assignment questions that ask you to apply the readings to specific data collection issues. This is followed by discussions of students' own related data collection problems. After a break, an overview lecture introduces the *next* topic and provides a context for the readings and assignments for the next class. This means, for example, that topic #3 below will be introduced in the second half of class 2 and discussed in the first half of class 3, which ends with an introduction of topic #4. Hence, any given topic below comes up in the second half of one class (lecture) and first half of the next class (discussion & applications). All required readings will be available online.

## **Topics**

### **#1 How the questions shape the answers: Introduction & thematic overview**

The first meeting provides a thematic overview and an opportunity to learn about participants' backgrounds and interests related to self-report issues. It ends with an introduction to topic #2.

#### ***A. Making sense of questions***

### **#2 The logic of conversation in research situations**

Research participants bring the tacit assumptions that guide conversations in daily life to the research situation. We review these assumptions, which researchers routinely violate, and their implications for questionnaire design and experimental procedures.

#### ***Required***

Schwarz, N. (in press). Thinking in a social context: A Gricean perspective. In D. E. Carlston, K. Johnson, & K. Hugenberg (Eds.), *Handbook of social cognition* (2<sup>nd</sup> edition). New York: Oxford University Press

### **Recommended**

Belson, W.A. (1981). *The design and understanding of survey questions*. Aldershot: Gower.

Clark, H. H., & Schober, M. F. (1992). Asking questions and influencing answers. In J. M. Tanur (Ed.), *Questions about questions* (pp. 15-48). New York: Russel Sage.

Grice, H. P. (1975). Logic and conversation. In P. Cole, & J.L. Morgan (Eds.), *Syntax and semantics, 3: Speech acts* (pp. 41 -58). New York: Academic Press.

Levinson, S. C. (1983). *Pragmatics*. Cambridge, UK: Cambridge University Press.

Schwarz, N. (1996). *Cognition and communication: Judgmental biases, research methods, and the logic of conversation*. Hillsdale, NJ: Erlbaum.

Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition*. Cambridge, MA: Harvard University Press.

Sperber, D., & Wilson, D. (1987). *Precis of Relevance*. *Behavioral and Brain Sciences*, 10, 697-710.

## **#3 What were participants thinking? Cognitive interviewing and improved pretests**

Given the complexities of language comprehension and communication, it is important to employ development techniques that ensure that most participants understand key questions as intended. This week we review these techniques. The Willis (2005) book is an excellent hands-on summary.

### **Required**

Willis, G. (1999). *Cognitive interviewing. A "How To" guide*. National Cancer Institute.

### **Recommended**

Beatty, P. & Willis, G. (2007). Research synthesis: The practice of cognitive interviewing. *Public Opinion Quarterly*, 71, 287-311

DeMaio, T. J., & Rothgeb, J. M. (1996). Cognitive interviewing techniques: In the lab and in the field. In N. Schwarz and S. Sudman (Eds.), *Answering questions: Methodology for determining cognitive and communicative processes in survey research* (pp. 177–195). San Francisco: Jossey-Bass Publishers.

Fowler Jr., F.J., & Cannell, C.F. (1996). Using behavioral coding to identify cognitive problems with survey questions. In N. Schwarz & S. Sudman (Eds), *Answering questions: Methodology for determining cognitive and communicative processes in survey research* (pp. 15-36). San Francisco, CA: Jossey-Bass.

Madans, J., Miller, K., Maitland, A., & Willis, G. (Eds.) (2011). *Question evaluation methods*. New York: Wiley.

Presser, S., Rothgeb, J. M., Couper, M.P., Lessler, J.T., Martin, E., Martin, J., & Singer, E. (Eds.) (2004). *Methods for testing and evaluating survey questionnaires*. New York: Wiley.

Schwarz, N., & Sudman, S. (Eds.) (1996). *Answering questions: Methodology for determining cognitive and communicative processes in survey research*. San Francisco, CA: Jossey-Bass.

Willis, G. (2005). *Cognitive interviewing: A tool for improving questionnaire design*. Thousand Oaks, CA: Sage Publications, Inc.

## **B. Asking and answering questions about behavior**

### **#4 Reporting on one's behavior: Autobiographical memory and options to improve recall**

Researchers often ask for information that people simply can't provide (e.g., "On how many days, if any, did you have a headache last year?", a question from a government health survey). We consider what people may or may not be able to report on and what can be done to make their task more reasonable.

#### **Required**

Belli, R. F. (1998). The structure of autobiographical memory and the event history calendar: Potential improvements in the quality of retrospective reports in surveys. *Memory, 6*, 383-406.

Schwarz, N. & Oyserman, D. (2001). Asking questions about behavior: Cognition, communication and questionnaire construction. *American Journal of Evaluation, 22*, 127-160.

#### **Recommended**

Bradburn, N. M., Rips, L. J., & Shevell, S. K. (1987). Answering autobiographical questions: The impact of memory and inference on surveys. *Science, 236*, 157-161.

Conway, M. A. (1990). *Autobiographical memory: An introduction*. Milton Keynes, UK: Open University Press.

Menon, G. (1994). Judgments of behavioral frequencies: Memory search and retrieval strategies. In N. Schwarz & S. Sudman, S. (Eds.) (1994). *Autobiographical memory and the validity of retrospective reports* (pp. 161- 172). New York: Springer Verlag.

### **#5 What I must have done: Reconstruction and estimation in behavioral reports**

Given the limits of actual recall, respondents are bound to draw on any input that may allow them to arrive at a plausible behavioral report. We consider the nature of these reconstruction and estimation strategies.

### **Required**

Ross, M. (1989). The relation of implicit theories to the construction of personal histories. *Psychological Review*, 96, 341-357.

Chapter 5 of Tourangeau, Rips & Rasinski (2000). *The psychology of survey response*. New York: Cambridge University Press. "Factual judgments and numerical estimates."

### **Recommended**

Pepper, S. C. (1981). Problems in the quantification of frequency expressions. In D.W. Fiske (Ed.), *Problems with language imprecision* (New Directions for Methodology of Social and Behavioral Science, Vol. 9, pp. 25-56). San Francisco: Jossey-Bass

Schwarz, N. (1999). Frequency reports of physical symptoms and health behaviors: How the questionnaire determines the results. In Park, D.C., Morrell, R.W., & Shifren, K. (Eds.), *Processing medical information in aging patients: Cognitive and human factors perspectives* (pp. 93-108). Mahaw, NJ: Erlbaum.

## **#6 Reporting on feelings: Convergence and divergence in concurrent, retrospective, and prospective reports**

Feelings are fleeting and can only be introspected on while one has them. After a short while, they need to be reconstructed on the basis of one's lay theories. These same theories are also the basis of affective predictions, which usually results in good convergence between expected and remembered feelings – yet, neither may be a good representation of one's actual experience. Because predicted feelings play a key role in decision making, these convergences and divergences have important implications for many basic social science issues.

### **Required**

Schwarz, N., Kahneman, D., & Xu, J. (2009). Global and episodic reports of hedonic experience. In R. Belli, D. Alwin, & F. Stafford (eds.), *Using calendar and diary methods in life events research* (pp. 157-174). Newbury Park, CA: Sage.

### **Recommended**

Robinson, M. D., & Clore, G. L. (2002). Belief and feeling: Evidence for an accessibility model of emotional self-report. *Psychological Bulletin*, 128, 934-960.

Schwarz, N., & Xu, J. (2011). Why don't we learn from poor choices? The consistency of expectation, choice, and memory clouds the lessons of experience. *Journal of Consumer Psychology*, 21, 142-145. – DOI 10.1016/j.jcps.2011.02.006

## **#7 Alternatives to retrospective reports: Diaries and real-time data capture**

Memory issues can be attenuated (and sometimes avoided) through real-time or close-in-time data collection. We consider some options, focusing on experience sampling and diaries. The findings often differ from retrospective reports, which raises important conceptual questions about the conditions under which prospective (e.g., how I will feel), concurrent (how I feel now) and retrospective (how I did feel) reports converge or diverge. In most cases, prospective and retrospective reports show good consistency because they are based on the same lay theories, which also drive choice (decision what to do), resulting in good convergence that suggests considerable validity. However, concurrent measures indicate that the actual in-situ experience may be poorly related to prediction as well as memory and that the observed convergence is to a large extent a product of mental construction.

### ***Required***

Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The Day Reconstruction Method (DRM). *Science*, 306, 1776-1780.

Newman, D.B., & Stone, A.A. (2019). Understanding daily life with ecological momentary assessment. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 259-275). New York: Routledge.

### ***Recommended***

Belli, R. , Alwin, D., & Stafford, F. (Eds.) (2009). *Using calendar and diary methods in life events research*. Newbury Park, CA: Sage.

Mehl, M. R., & Conner, T.S. (Eds.) (2012). *Handbook of research methods for studying daily life*. New York: Guilford.

Stone, A.A., Shiffman, S.S., & DeVries, M.W. (1999). Ecological momentary assessment. In D. Kahneman, E. Diener, & N. Schwarz (eds.), *Well-being: The foundations of hedonic psychology* (pp. 61-84). New York: Russell-Sage.

## **C. Asking and answering questions about attitudes**

## **#8 Attitudes, opinions, and preferences: Conceptual issues and measurement procedures**

We begin with a review of classic attitude concepts, their change over time and reflection in measurement procedures. I recommend you read the required pieces in the order listed.

### **Required**

Schwarz, N. (2008). Attitude measurement. In W. Crano & R. Prislin (eds.), *Attitudes and persuasion* (pp. 41-60). Philadelphia: Psychology Press.

Bassili, J. (2001). Cognitive indices of social information processing. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (pp. 68-87). Oxford, UK: Blackwell.

### **Recommended**

Dawes, R. M., and T. Smith (1985). Attitude and opinion measurement. In G. Lindzey, & E. Aronson (Eds.), *Handbook of Social Psychology* (Vol. 2, pp. 509-566). New York: Random House.

DeMaio, T. J. (1984). Social desirability and survey measurement: A review. In C. F. Turner & E. Martin (Eds.), *Surveying subjective phenomena* (Vol. 2, pp. 257-281). New York: Russell Sage.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich.

## **#9 Mental construal: Context effects in evaluative judgment**

What determines the emergence, direction, size, and generalization of context effects in evaluative judgment, including attitude reports? Bless & Schwarz present a comprehensive model that extends beyond context effects in self-report. Given its length, it is the only required reading.

### **Required**

Bless, H., & Schwarz, N. (2010). Mental construal and the emergence of assimilation and contrast effects: The inclusion/exclusion model. *Advances in Experimental Social Psychology*, 42, 319-374.

### **Recommended**

Biernat, M. (2005). *Standards and expectancies: Contrast and assimilation in judgments of self and others*. New York: Psychology Press.

Bless, H., Schwarz, N., & Wänke, M. (2003). The size of context effects in social judgment. In J. P. Forgas, K. D. Williams, & W. von Hippel (Eds.), *Social judgments: Implicit and explicit processes* (pp. 180-197). Cambridge, UK: Cambridge University Press.

Lord, C. G., & Lepper, M. R. (1999). Attitude representation theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 31, pp. 265-343). London: Academic Press.

Stapel, D.A., & Suls, J. (Eds.) (2007). *Assimilation and contrast in social psychology*. New York: Psychological Press.

## #10 Attitude reports without intention: Implicit measures

Concerns about the context sensitivity of explicit attitude reports motivated attempts to develop more indirect measures, which have collectively become known as “implicit” measures of attitudes. The contributions to the Wittenbrink & Schwarz volume present how-to guides for all major variants, most of which require reaction time measurement. The class provides a short overview and focuses on more low-tech variants, which can be more easily integrated into diverse data collection efforts. Unfortunately, the hope that implicit measures bypass context effects was illusory. We address the implications of this finding in the next class.

### **Required**

Wittenbrink, B. & Schwarz, N. (2007). Introduction (pp. 1-16). In B. Wittenbrink & N. Schwarz (Eds.) (2007). *Implicit measures of attitudes: Procedures and controversies*. New York: Guilford.

Vargas, P.T., Sekaquaptewa, D., & von Hippel, W. (2007). Armed only with paper and pencil: low tech measures of implicit attitudes (pp. 103-124). In B. Wittenbrink & N. Schwarz (Eds.) (2007). *Implicit measures of attitudes: Procedures and controversies*. New York: Guilford.

### **Recommended**

Wittenbrink, B., & Schwarz, N. (Eds.) (2007). *Implicit measures of attitudes: Procedures and controversies*. New York: Guilford.

Bassili, J. (2001). Cognitive indices of social information processing. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (pp. 68-87). Oxford, UK: Blackwell.

Gawronski, B., & Payne, B. K. (2010). *Handbook of implicit social cognition*. New York: Guilford.

## #11 Intricacies of crowdsourcing

Over the last decade, online experiments have replaced lab experiments in popularity. This week we talk about the numerous ups and downs of this development with a focus on how to run online experiments well, how to ensure data quality, and how to address reviewer concerns.

### **Required**

Hauser, D.J., Paolacci, G., & Chandler, J. (2019). Common concerns with MTurk as a participant pool: Evidence and solutions. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 319-338). New York: Routledge.

Guest: David Hauser will join us on zoom.

### **Recommended**

There are numerous tutorials online. Many students find the ones from CloudResearch particularly helpful:



<https://www.cloudresearch.com/resources/blog/turkprime-video-tutorials-to-get-you-started-with-mechanical-turk/>

## #12 Self-report across cultures

Cultures differ in their dominant cognitive and communicative processes. This has implications for self-report, which are often compounded by language issues. The Schwarz et al reading illustrates cultural differences in mental construal, drawing on the tasks discussed earlier in this class. The Harkness et al chapter presents the current state of the art regarding questionnaire translation and adaptation. One of the best resources are the best practice guidelines developed by an international and interdisciplinary research group, coordinated by Michigan's Survey Research Center (linked below).

### **Required**

Harkness, J.A., Villar, A., & Edwards, B. (2010). Translation, adaptation, and design. In J. A. Harkness, M. Braun, B. Edwards, T.P. Johnson, L. Lyberg, P. Ph. Mohler, B.E. Pennell, & T.W. Smith (eds.), *Survey methods in multinational, multiregional and multicultural contexts* (pp. 117-140). New York: Wiley.

Schwarz, N., Oyserman, D., & Peytcheva, E. (2010). Cognition, communication, and culture: Implications for the survey response process. In J. A. Harkness, M. Braun, B. Edwards, T.P. Johnson, L. Lyberg, P. Ph. Mohler, B.E. Pennell, & T.W. Smith (eds.), *Survey methods in multinational, multiregional and multicultural contexts* (pp. 177-190). New York: Wiley.

### **Recommended**

Harkness, J., van de Vijver, F., & Mohler, P. P. (Eds.) (2003). *Cross-cultural survey methods*. New York: Wiley.

Harkness, J., Braun, M., Edwards, T.P. Johnson, L. Lyberg, P. Ph. Mohler, B.E. Pennell, & T.W. Smith (Eds.) (2010). *Survey methods in multinational, multiregional and multicultural contexts*. New York: Wiley.

Survey Research Center. (2016). *Guidelines for best practice in cross-cultural surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan. <http://ccsg.isr.umich.edu>

## #13 Self-report across the life-span

Normal human aging is associated with cognitive changes that affect the processes underlying self-report. Despite a rapidly aging population, this is a largely neglected topic. Similarly neglected is the other end of the age spectrum, where relatively little is known about what kids can report when and under which conditions.

### **Required**

Borgers, N., de Leeuw, E., & Hox, J. (2000). Children as respondents in survey research: Cognitive development and response quality. *Bulletin de Méthodologie Sociologique*, 66, 60-75.

Park, D. C. (2000). The basic mechanisms accounting for age-related decline in cognitive function. In D. Park & N. Schwarz (Eds.), *Cognitive aging. A primer* (pp. 3-22). Philadelphia, PA: Psychology Press.

Schwarz, N., & Knäuper, B. (2000). Cognition, aging, and self-reports. In D. Park & N. Schwarz (Eds.), *Cognitive aging. A primer* (pp. 233-252). Philadelphia, PA: Psychology Press.

### **Recommended**

Schwarz, N., Park, D., Knäuper, B., & Sudman, S. (Eds.) (1999). *Cognition, aging, and self-reports*. Philadelphia, PA: Psychology Press.

### **#14 Review and integration: Judgment and memory from the actor's perspective**

Having reviewed the context sensitive processes underlying memory, judgment, and self-report of behaviors and attitudes, you may wonder what the malleability of self-report means: How should we collect data to get at the "real" thing? And how "real" is that "real thing" to begin with? Do people have stable beliefs and preferences? The Schwarz (2012) chapter addresses these issues; large sections of the chapter will be familiar because they cover material from the earlier sections and provide a review of what we've done in class. Other sections address the more controversial issue of whether or when contextual influences are "noise" that clouds the real thing or are the real thing. The Eagly & Chaiken (2005) reading provides a counter position, defending a dispositional view of attitudes. We begin class with these conceptual issues and discuss their implications for your own research.

### **Required**

Eagly, A.H., & Chaiken, S. (2005). Attitude research in the 21st century: The current state of knowledge. In D. Albarracín, B. T. Johnson, & M. P. Zanna (eds.), *The handbook of attitudes* (pp. 743-768). Mahwah, NJ: Erlbaum.

Schwarz, N. (2012). Why researchers should think "real-time": a cognitive rationale. In M. R. Mehl & T. S. Conner (eds.), *Handbook of research methods for studying daily life* (pp. 22-42). New York: Guilford.