

**Using the American National Election Study Surveys  
to Test Social Psychological Hypotheses**

Daniel Schneider

Matthew DeBell

Jon A. Krosnick

Stanford University

February 23, 2009

Jon Krosnick is University Fellow at Resources for the Future. Correspondence about this manuscript should be addressed to Jon Krosnick, Stanford University, 432 McClatchy Hall, Stanford, CA 94305 (email: [krosnick@stanford.edu](mailto:krosnick@stanford.edu)).

Since 1948, the American National Election Study (ANES) has been collecting huge datasets allowing social scientists to study the psychology of voting behavior, political attitudes and beliefs, stereotyping, political socialization, the effects of social networks, the impact of the news media on the political process, and much more. Every two years, representative samples of more than 1,000 Americans have been interviewed in depth after the national elections. In Presidential election years, these respondents have been interviewed in depth before the election as well. Panel studies have been conducted to track changes in people's attitudes, beliefs, and behavior, and pilot studies have been conducted to develop new measurements to be used later in the interviews.

The ANES was conceived at the University of Michigan's Institute for Social Research by Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. Some of the most widely cited books on the psychology of voting were written by these scholars using ANES data (e.g., Campbell, Converse, Miller, and Stokes, 1960; Converse 1964; Miller 1974), and the data have been used by numerous other researchers to test hypotheses and produce thousands of books and articles. In 1977, the National Science Foundation (NSF) established the ANES as a national research resource for use by scholars around the world, and NSF has provided funding with long-term grants for the project ever since. The most recent grant, for 2006-2009, marks the first time that the University of Michigan has collaborated with another university (Stanford University) to run the project jointly. In addition to traditional pre-election and post-election in-depth interviews and pilot studies, this cycle marked implementation of an ambitious panel study to track large representative national samples of citizens monthly from January, 2008, through May, 2009. In addition, the ANES is collaborating with the National Longitudinal Survey of

Youth (NLSY) to include political questions in their on-going long-term panel studies tracking huge representative samples of cohorts of Americans.

The ANES is a common and collaborative research instrument of the scientific community. The data are offered publicly and for free shortly after the data collection concludes, and the principal investigators, Board of Overseers, and staff are barred from making personal use of the data before the data are publicly released. Conducting nationally representative, face-to-face interviews is expensive and is essentially impossible for individual researchers with conventionally available funding. The ANES provides many opportunities for researchers in social psychology, personality psychology, cognitive psychology, and other subdisciplines who wish to investigate the psychology of political thinking and action using nationally representative data.

In this chapter, we offer an overview of the ANES and describe the sorts of measurements that have been made in the surveys, how to obtain the data, and how to conduct analysis of the data using common statistical software. We also briefly describe some other large-scale data sources that might be of value to psychologists.

### The Value of Survey Data to Psychologists

From its inception, social psychology has been especially focused on experimental methods for theory testing. Laboratory experimentation has enabled researchers to isolate causal effects and claim strong internal validity by controlling confounding factors. But the generalizability of laboratory-based findings is limited. Replicating findings using the same methodology over time enhances confidence in their reality but leaves uncertain the extent to which the phenomena are relevant to explaining events outside the lab.

Therefore, in the spirit of methodological pluralism, the value of evidence from

experiments can be enhanced by coordinated investigation of the same phenomena via survey data (Kinder and Palfrey, 1993). Surveys allow tracking changes in attitudes, beliefs, and behavior over time, either in individual respondents or in the aggregate of the general population. Such data allow for sophisticated statistical analyses to bolster confidence in the directions of causal relations (Finkel, 1995), and researchers can embed experiments in surveys to simultaneously enhance internal and external validity (Piazza & Sniderman, 1998; Visser, Krosnick, & Lavrakas, 2000). Doing so with general population samples allows researchers to explore the impact of a wide array of possible individual difference moderators of effects, when such investigation is more difficult with more homogeneous conventional lab studies with college student participants (Sears, 1986).

### Survey Methodology

The core of survey methodology is probability sampling. In probability sampling all elements of the population have a known probability of being selected. By using scientific sampling approaches and appropriate statistical methods, researchers can produce results that describe the population with a great deal of confidence. In contrast, conducting a study with a so-called convenience sample, whereby large parts of the population have no chance of participation and other probabilities of selection are unknown, a researcher can only know that some effect occurs but not with what prevalence and magnitude in the population.

The most common survey modes used today are face-to-face interviewing, telephone interviewing, mailed self-administered questionnaires, and questionnaires administered on computers via the Internet. Each of these modes has advantages and disadvantages. Face-to-face interviewing yields high response rates and accurate reporting (Holbrook, Green, and Krosnick, 2003), and sensitive questions can be asked by having an interviewer give his or her laptop

computer to the respondent, who puts on headphones, listens to questions being read aloud to him/her, and answers the questions privately by typing answers directly into the computer. Interviewers' laptops can implement complex experimental designs embedded within the questionnaires as well. However, face-to-face interviewing is time-consuming and therefore expensive, because interviewers often have to spend much time traveling to contact the respondents and conduct interviews.

Telephone interviewing has been a major source of data collection in recent decades, and telephone methods such as random digit dialing (RDD) make it relatively straightforward to draw and contact a probability sample of a population by telephone. As with face-to-face interviewing, telephone interviewers use computers that guide them through a questionnaire and implement experimental manipulations in a survey when desired.

Self-administered paper and pencil questionnaires, often mailed to respondents, have been used for large-scale survey operations, but yield low response rates in general population surveys unless particular methods are used to enhance response rates (Dillman, 2000). Paper and pencil questionnaires are not well-suited to complex skip patterns, whereby answers to early questions determine which later questions a person should answer. Some studies have shown that telephone interviewing can produce more accurate results than self-administered paper and pencil questionnaires (Silver and Krosnick, 2001), but there have also been cases where mail surveys provided excellent results (Visser et al., 1996).

Self-administered questionnaires can also be completed via computers and the Internet, and this methodology is now increasingly popular. Internet surveys combine many of the positive features of other survey modes: no interviewers are needed, which saves money; complex filtering and experimental manipulations can be implemented; visual presentation of

response options is routine, perhaps reducing respondent burden, and audio and video material can be practically presented. However, Internet access is not universal among the general population (DeBell and Chapman, 2006), which presents challenges in the use of web-based surveys. Some commercial firms in the U.S. and other countries have recruited representative samples of adults and given computer equipment and Internet access to households without it, thus yielding accurate data via this mode (Chang and Krosnick, 2001a, 2001b).

Regardless of the mode selected, respondent recruitment procedures should be designed to minimize nonresponse bias and maximize the response rate. Nonresponse bias occurs when a sample is systematically different from the population. Response rates – defined as the percentage of eligible sample members who complete a survey (American Association for Public Opinion Research, 2006) – are of interest to survey researchers because they indicate the degree of risk that a survey sample might be unrepresentative. If nearly all sampled individuals complete a survey, and if the survey is designed and implemented optimally, then the potential for nonresponse bias is low. Conversely, if the response rate is low, there is increased potential for nonresponse bias to affect estimates. However, low response rates *per se* are not evidence of nonresponse bias; they merely indicate the possibility of bias, and an accumulating body of studies indicates that if a probability sample is drawn from a population and serious efforts are made to collect data from as many sampled individuals as possible, results appear to be minimally affected by response rates (Keeter et al, 2000; Curtin et al., 2002; Holbrook et al. 2008).

### The Components of the ANES

The ANES consists of three major components: pre- and post-election surveys, panel studies, and pilot studies. We discuss each of these components in the following sections.

*Pre- and Post-Election Surveys* provide long-term time-series measures. In every presidential election year since 1948, the ANES has interviewed a representative sample of American adult citizens before Election Day and has re-interviewed most of the pre-election participants after Election Day. In years of congressional elections through 1998, the survey only implemented post-election interviews; in 2002, pre- and post election interviews were conducted. Respondents were usually interviewed face-to-face in their homes, though some telephone interviewing was done to test the viability of that method. Pre-election interviewing usually started right after Labor Day, and post-election interviewing was usually initiated right after the election and continued in December and January. The pre- and post-election interviews yield the core of the ANES, and many questions have been asked repeatedly in many or every election year to generate a long time-series of measurements of Americans' attitudes on many issues, party identifications, political efficacy, trust in government and the political system, political participation, mass media use, ideology, evaluations of parties, candidates, and the President, and much more.

Such data have allowed psychologists to test a wide range of theory-driven hypotheses. For example, Krosnick and Kinder (1990) studied news media priming using the ANES by focusing on the Iran/Contra scandal. On November 25, 1986, the American public learned that members of the National Security Council had been funneling funds (earned through arms sales to Iran) to the Contras fighting to overthrow the Sandinista government in Nicaragua. Although there had been almost no national news media attention to Nicaragua and the Contras previously, this revelation led to a dramatic increase in the salience of that country in the American press during the following weeks. Krosnick and Kinder (1990) suspected that this coverage might have

primed Americans' attitudes toward U.S. involvement in Nicaragua and thereby increased the impact of these attitudes on evaluations of President Ronald Reagan's job performance.

To test this hypothesis, Krosnick and Kinder (1990) took advantage of the fact that data collection for the survey conducted after the 1986 election was underway before November 25 and continued after that date. They split the survey sample into one group of respondents who had been interviewed before November 25 and others who had been interviewed afterward. As expected, overall assessments of presidential job performance were based much more strongly on attitudes toward U.S. involvement in Nicaragua in the second group than in the first group.

Abelson, Kinder, Peters, and Fiske (1982) used ANES data collected in 1980 to investigate the affective component of political candidate evaluation. Respondents were asked to say whether various specific politicians had ever made them feel a certain emotion (such as being afraid, angry, sad, proud, hopeful, etc.). An exploratory factor analysis revealed that negative and positive emotions loaded on two distinct factors, and the impact of these underlying emotional dimensions on candidate evaluations and preferences was investigated. Evaluations of candidates have been measured in the ANES with a so-called "feeling thermometers," which ask the respondents to indicate how "warm or favorable" or "cold or unfavorable" they feel toward particular politicians on a scale ranging from 0 to 100. Using these measures, Abelson et al. find that both dimensions contributed to overall evaluations of and preferences among politicians, thus enhancing confidence in the notion that positive and negative reactions to people can have partially independent impact on attitudes.

Holbrook, Krosnick, Visser, Gardner, and Cacioppo (2001) used another set of questions in the ANES to investigate how perceived positive and negative features of candidates contribute to overall evaluations. The ANES surveys have often asked respondents to list attributes of the

major parties' candidates running for President that might make the respondent want to vote for or against each person. Holbrook et al. analyzed these data from all presidential elections between 1972 and 1996 to compare two models of the process by which people use candidate attributes to yield overall evaluations. The Symmetric Linear Model (SLM) posits that the difference between the number of positive and negative attributes a candidate is perceived to possess directly predicts overall evaluations. In contrast, the asymmetric, non-linear model (ANM) proposes a more complex reasoning process, whereby positive and negative attributes contribute differently to the overall evaluation, with negative attributes having more impact, and each additional belief having a decreasing marginal effect. The ANM was found to be superior to the simpler SLM.

*Panel Surveys.* Panel surveys interview the same respondents two or more times to investigate individual-level change over time.<sup>1</sup> Analyses of panel data have often investigated stability of attitudes and beliefs and how they develop.

Some ANES panel studies have tracked respondents over longer time periods spanning several elections (1956-1958-1960; 1972-1974-1976; 2000-2002-2004). Other ANES panels have tracked changes over one year periods, such as from 1990 to 1991 to 1992, or changes during a single election campaign season, such as in 1980, when data were collected in January, June, September, and November-December.

A study by Bannon, Brannon, and Krosnick (2006) used the specific structure of ANES Panel Study of 1990-1992-1994 to address the occurrence of media priming in election campaigns. It also tested an alternative explanation for the priming effect of media coverage on how issues are used by citizens in their overall evaluations of political candidates. Media priming

---

<sup>1</sup> Although the pre-election and post-election waves of the face-to-face ANES studies constitute two-wave panels, few questions have been asked identically in both interviews, thus limiting the study's ability to track changes over

theories postulate that citizens form the evaluations on the level of issues and then combine those into an overall candidate evaluation. However, past research has shown that sometimes respondents engage in rationalization strategies (Rahn, Krosnick, and Breuning, 1994), that is, forming an overall evaluation and then inferring the lower-level issue evaluations from that overall evaluation. During the 1990-1992-1994 election cycle, the change in public attention from the Gulf War to the state of the economy was used by the researchers to check how individuals in the panel study changed their evaluation of the economic policies of the president and how those evaluations translated into changes of the overall evaluation. Using structural equation modeling (SEM), the researchers used the panel data to isolate the direction of causality. They found that while both rationalization and traditional media priming do occur, priming has a much stronger effect. In fact, previous studies might have underestimated the media priming effect because it was counter-balanced by the presence of un-modeled rationalization effects.

*Pilot Studies and other special studies.* ANES Pilot Studies have been conducted to test new measurement methods or to evaluate the effectiveness of questions used in the past. Some of these have focused on methodological research questions. For example, in 1982, a special study was conducted to compare face-to-face interviewing with telephone interviewing and to evaluate whether a switch to telephone interviewing would allow for continued high quality data collection at a reduced price (Shanks, Sanchez, and Morton, 1983). Others have focused more specifically on matters of traditional interest to psychologists.

The 1998 pilot study included questions investigating two personality attributes, need for cognition and need to evaluate. Bizer and his colleagues (Bizer, Krosnick, Holbrook, Wheeler, Rucker, and Petty, 2004; Bizer, Krosnick, Petty, Rucker, and Wheeler, 2000) found that need for

---

time in individuals.

cognition and need to evaluate helped in many ways to illuminate processes of political cognition and action. Respondents high in need for cognition and need to evaluate were more interested in politics and more engaged in the campaign. Those high in need to evaluate had more extreme attitudes, and those high in need for cognition were less likely to be dissatisfied with the experience of taking the survey. Although need for cognition has usually been measured with 18 questionnaire items (Cacioppo, Petty, and Kao, 1984) and need to evaluate has been measured with 16 (Jarvis and Petty, 1996), the ANES implemented 2 optimally-formatted questions measuring need for cognition and three optimally-formatted questions measuring need to evaluate, which yielded remarkably effective measurements.

The 2006 pilot study addressed many topics of interest to psychologists: character judgments, defensive confidence, need for closure, belief in a just world, self monitoring, interpersonal trust, basic values, optimism/pessimism, social networks, tolerance, and many others. More than 20 initial reports on many of these topics can be seen on the ANES web site. This is more than for any prior pilot study, but much work remains to be done with the 2006 dataset.

#### Using the Data from the American National Election Studies

All ANES data sets are available via the Internet at no cost from [www.electionstudies.org](http://www.electionstudies.org). Each data file is accompanied by documentation of the study's design. Many ANES data files provide information about the interviewers and their assessments of the respondents and the interview situations, which can be used to investigate methodological issues. The web site also provides a great deal of other information about the ANES and maintains a bibliography that documents many of the thousands of articles, books, and papers that have used its data.

Choosing to work with the ANES obviously requires that needed questions were asked in the surveys. There is a bit of a chicken and egg problem here – a researcher does not know whether the ANES offers measures suitable to address his or her hypotheses until he or she learns what measures are available, but the task of learning about all available measures administered during many hours of interviewing over many years seems daunting if one does not know in advance that suitable measures will be found there. An efficient solution to this problem is for researchers to get familiar with one of the traditional pre-election/post-election survey questionnaire pairs. Many of the same sorts of items are asked across many years, so becoming familiar with one questionnaire is a good first step toward becoming familiar with many.

All ANES measures are documented in the codebooks and questionnaires available for each dataset at [www.electionstudies.org](http://www.electionstudies.org). The questionnaires list all the questions asked, often also documenting instructions given to the interviewers about how to ask the questions. The codebooks list every variable in each data set, showing the responses to the questions and also many additional variables about the interview process, the interviewer, and the respondent. The documentation also includes descriptions of sample designs, experiments embedded in the surveys, and information on the data collection modes. Researchers should bear in mind that coding approaches may differ across variables, waves, or years of data collection, so it is important to carefully read the codebook description of every variable one works with.

### *Constructs and Measures*

ANES has measured a wide variety of constructs known or hypothesized to be associated with voter turnout or vote choice and has repeated many such measurements over time. These constructs include the following:

*Identification with political parties and attitudes toward political parties.* Identification with a political party is one of the strongest predictors of voting decisions, so it is among the most widely used variables in public opinion research.<sup>2</sup>

Other questions about partisanship and attitudes toward parties include thermometers measuring warm/cold feelings toward parties, open-ended questions asking what the respondent likes and dislikes about each party, and whether the respondent perceives any differences between the parties in terms of what they stand for.

*Candidate and incumbent evaluations.* Opinions of candidates and incumbent presidents are measured with feeling thermometers and with questions about perceptions of the candidates' personality traits, approval ratings of politicians' job performance, and questions asking if the candidate has elicited various emotions from the respondent, including anger, hope, fear, and pride.

*Issues.* People's attitudes toward various different policy options have been measured in domains such as the economy, the environment, federal spending, foreign relations, racial relations, abortion, gun control, space exploration, capital punishment, social welfare, and much more. Respondents have also been asked open-ended questions about what they view as the country's most important problems.

*Ideology and values.* Religious values, moral traditionalism, attitudes regarding equality, social trust and altruism, cognitive style, and other values and dispositions have been measured

---

<sup>2</sup> ANES measures party identification with a branching question that begins, "Generally speaking, do you think of yourself as a Republican, a Democrat, an independent, or what?" If the respondent answers "Republican" or "Democrat," a followup question asks, "Would you call yourself a strong [Republican/Democrat] or a not very strong [Republican/Democrat]?" If the respondent does not answer "Republican" or "Democrat," a followup question asks, "Do you think of yourself as closer to the Republican Party or to the Democratic Party?" Responses to these questions can be combined to yield a seven-point summary scale: Strong Democrat, not very strong Democrat, independent closer to the Democratic Party, independent, independent closer to the Republican Party, not very strong Republican, strong Republican. However, some research indicates that this 7-point scale is not

in various years.

*System support.* ANES surveys have included many batteries of questions about trust in government, political efficacy, government power, patriotism, and other indicators of general attitudes toward the political system, the nation, or the government.

*Political participation and mobilization.* ANES has asked people to predict whether they will vote, has measured whether they voted via self-reports, and has in some years “validated” the turnout measures by checking to see whether official government records indicate that each respondent did or did not vote. In addition to questions about voting behavior, ANES has regularly asked about political interest, frequency of discussing politics with others, and participation in the election campaigns.

*Expertise.* ANES has measured political expertise using quiz questions that asked respondents to identify the jobs or offices held by particular political actors or to answer factual questions (e.g., which political party has the majority of the seats in Congress).

*Media.* Use of the news media has been measured by asking people how often they have watched television news, read newspapers and magazines, and listened to the radio. Respondents have also been asked how closely they have paid attention to political information in the news.

*Social groups.* Feeling thermometer questions and other questions have been asked to measure attitudes toward social groups and political institutions, such as blacks, whites, Jews, Catholics, farmers, big business, and many others.

*Personal and demographic data.* An extensive array of background variables is provided with most ANES studies, including age, sex, race, ethnicity, educational attainment, income,

---

monotonically related to other variables, so analysts should check for monotonicity before computing statistics with it.

employment status, marital status, home ownership status, geographic area of residence, social class, and more.

*Weighting and Variance Estimation in the ANES*

The ANES does not use simple random samples, so statistical procedures that assume simple random sampling are generally inappropriate for the analysis of ANES data. The extent to which the study design differs from a simple random sample and the extent to which documentation and data files support design-consistent statistical procedures have varied over the decades. In general, specialized statistical steps should be taken when analyzing ANES data. These steps are unfamiliar to most researchers who have not been trained in survey methodology, but they are fairly easy to implement correctly. There are two steps: weight the data, and compute design-consistent estimates of variance (including standard errors).

*Weights.* If an ANES dataset includes an analysis weight variable, researchers should use it if they wish to project their results to the population of American adult citizens. It is important to use the weights, because weights adjust the data for unequal probabilities of selection and correct for nonresponse bias, making estimates such as percentages, means, and regression coefficients more accurate as parameter estimates for the entire population. In statistical software such as Stata, SAS, and SPSS, researchers can implement simple instructions to tell the software to use a weight. For example, in SPSS, once the 2006 Pilot Study dataset has been opened, implementing the syntax command “weight by v06p002” tells SPSS to run subsequent analyses using the Pilot Study’s weight variable, V06P002. The name of the weight variable(s) for each study can be found in the study’s codebook.

*Design-consistent estimates.* Running analyses with the weights is sufficient to obtain correct point estimates such as percentages and regression coefficients for the population.

However, by default, most statistical software will calculate sampling errors and statistical significance using procedures designed for simple random samples (SRS). The complex sample designs used in most ANES studies differ in important ways from simple random sampling, so standard errors, confidence intervals, and levels of statistical significance reported using SRS assumptions for ANES data are incorrect. Normally, the use of SRS significance statistics will lead to type-1 errors (i.e., false rejection of the null, or making differences look significant when they are not).

To avoid these errors, data analysts should always use design-consistent statistical procedures when the data support them. Recent ANES datasets support Taylor series methods (Kish, 1965; Lee and Forthofer, 2006) to estimate standard errors, and many statistical programs, including Stata ([www.stata.com](http://www.stata.com)), SAS ([www.sas.com](http://www.sas.com)), SUDAAN ([www.rti.org](http://www.rti.org)), SPSS with the Complex Samples option ([www.spss.com/complex\\_samples](http://www.spss.com/complex_samples)), and AM (<http://am.air.org>) implement these estimation procedures. To use these procedures, the user must specify a stratum variable and a cluster (or primary sampling unit or standard error computation unit) variable in much the same way that analysis weights are defined prior to analysis. For further information about design-consistent estimation, see the software manuals, Lee and Forthofer (2006) and ANES documentation (DeBell et al., 2009).

## CODA

As we hope is clear, the American National Election Studies offer wonderful opportunities for psychologists to test a wide range of hypotheses using best-practices survey methodology and to yield findings of much value to the discipline. We look forward to much more such work in the future.

### *Datasets of Interest*

American National Election Studies (ANES). See [www.electionstudies.org](http://www.electionstudies.org)

Comparative Study of Electoral Systems (CSES). Election studies from around the world include a common module of survey questions that are merged into a single, free dataset. See [www.umich.edu/~cses](http://www.umich.edu/~cses)

European Social Survey (ESS). ESS is conducted in more than 30 countries and includes questions on topics including values, political engagement, well-being, health, security, and national, ethnic, and religious identity. See [www.europeansocialsurvey.org](http://www.europeansocialsurvey.org)

General Social Survey (GSS). GSS has administered demographic, behavioral, and attitudinal questions in the United States on a recurring basis since 1972. See [www.norc.org/GSS+Website](http://www.norc.org/GSS+Website)

International Social Survey Programme (ISSP). ISSP consolidates and coordinates survey data from numerous countries on many topics including social inequality, the role of government, gender roles, religion, and national identity. See [www.issp.org](http://www.issp.org)

Inter-University Consortium for Political and Social Research (ICPSR). ICPSR archives contain numerous datasets of interest for psychological research. See [www.icpsr.umich.edu](http://www.icpsr.umich.edu)

National Annenberg Election Studies (NAES). NAES has used very large samples to track changes in public opinion during campaigns, with particular emphasis on media and political communication. See [www.annenbergpublicpolicycenter.org](http://www.annenbergpublicpolicycenter.org)

Roper Center. The Public Opinion Archives at the Roper Center contain numerous datasets of interest for psychological research. See [www.ropercenter.uconn.edu](http://www.ropercenter.uconn.edu)

World Values Survey (WVS). WVS surveys have focused on politics, religion, economic and social life, happiness, and other areas of concern. See [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)

### *Recommended Reading*

Robinson, John P., Phillip R. Shaver, and Lawrence S. Wrightsman, eds. 1991. *Measures of Personality and Social Psychological Attitudes*. San Diego: Academic Press. Contains the exact wording of numerous sets of questions used to measure dimensions of personality and other psychological constructs.

Robinson, John P., Phillip R. Shaver, and Lawrence S. Wrightsman, eds. 1999. *Measures of Political Attitudes*. San Diego: Academic Press. Contains the exact wording of numerous sets of questions used to measure political attitudes, as well as essays on conceptualization and measurement issues in political survey research.

*References*

Abelson, Robert P., Donald R. Kinder, Mark D. Peters, and Susan T. Fiske. 1982. Affective and Semantic Components in Political Person Perception. *Journal of Personality and Social Psychology* 42(4), 619-630.

The American Association for Public Opinion Research. 2006. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 4<sup>th</sup> edition. Lenexa, KS: AAPOR.

Bannon, Brent, Jon A. Krosnick, and Laura Brannon. 2006. *News Media Priming: Derivation or Rationalization?* Paper presented at the American Political Science Association Annual Meeting, Philadelphia, Pennsylvania.

Bizer, George Y., Jon A. Krosnick, Allyson L. Holbrook, S. Christian Wheeler, Derek D. Rucker, Richard E. Petty. 2004. The Impact of Personality on Cognitive, Behavioral and Affective Political Processes: The Effects of Need to Evaluate. *Journal of Personality*. 72(5), 995-1028.

Bizer, George Y., Jon A. Krosnick, Richard E. Petty, Derek D. Rucker, and S. Christian Wheeler. 2000. *Need for Cognition and Need to Evaluate in the 1998 National Election Survey Pilot Study*. URL: <ftp://ftp.nes.isr.umich.edu/ftp/resources/psreport/98pilot/bizer98.pdf>, 01/27/2008.

Cacioppo, John T., Richard E. Petty, and Chuan Feng Kao. 1984. The Efficient Assessment of Need for Cognition. *Journal of Personality Assessment*. 48(3). 306-307.

Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald Stokes. 1960. *The American Voter*. New York: John Wiley & Sons, Inc.

Chang, LinChiat., and Jon A. Krosnick. 2001a. The representativeness of national samples: Comparisons of an RDD telephone survey with matched Internet surveys by Harris Interactive and Knowledge Networks. Paper presented at the American Association for Public Opinion Research Annual Meeting, Montreal, Canada.

Chang, LinChiat., and Jon A. Krosnick. 2001b. The accuracy of self-reports: Comparisons of an RDD telephone survey with Internet Surveys by Harris Interactive and Knowledge Networks. Paper presented at the American Association for Public Opinion Research Annual Meeting, Montreal, Canada.

Converse, Philip E. 1964. The Ideological Character of Mass Participation in American Politics. In *Political Issues and Business in 1964*, ed. Govert Van den Bosch. Ann Arbor, MI: Foundation for Research on Human Behavior.

Curtin, Richard, Stanley Presser, and Eleanor Singer. 2000. The Effects of Response Rate Changes on the Index of Consumer Sentiment. *Public Opinion Quarterly*, 64, 413-428.

DeBell, Matthew, and Chris Chapman. 2006. *Computer and Internet Use by Students in 2003* (NCES 2006-065). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

DeBell, Matthew, David Howell, Jon A. Krosnick, Arthur Lupia, and Pat Luevano. 2009. *Methodology Report for the 2006 ANES Pilot Study*. Palo Alto CA and Ann Arbor MI: Stanford University and the University of Michigan.

Dillman, Don A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. 2<sup>nd</sup> Edition. New York: John Wiley Co.

Finkel, Steven E. 1995. *Causal Analysis with Panel Data*. Thousand Oaks, CA: Sage Publications.

Holbrook, Allyson L., Jon A. Krosnick, Penny S. Visser, Wendi L. Gardner, John T. Cacioppo. 2001. Attitudes toward Presidential Candidates and Political Parties: Initial Optimism, Inertial First Impressions, and a Focus on Flaws. *American Journal of Political Science*. 45(4) 930-950.

Holbrook, Allyson L., Melanie C. Green, and Jon A. Krosnick. 2003. Telephone Versus Face-to-Face Interviewing of National Probability Samples with Long Questionnaires. *Public Opinion Quarterly*, 67, 79-125.

Holbrook, Allyson L., Jon A. Krosnick, and Alison Pfent. 2008. The Causes and Consequences of Response Rates in Surveys by the News Media and Government Contractor Survey Research Firms. In James Lepkowski, Clyde Tucker, J. Michael Brick, Edith D. De Leeuw, Lilli Japoc, Paul J. Lavrakas, Michael W. Link, and Roberta L. Sangster (Eds.), *Advances in Telephone Survey Methodology*. New York: Wiley.

Jarvis, W. Blair G., and Richard E. Petty. 1996. The need to evaluate. *Journal of Personality and Social Psychology*, 70, 72-194.

Keeter, Scott, Carolyn Miller, Andres Kohut, Robert M. Groves, & Stanley Presser. 2000. Consequences of reducing nonresponse in a national telephone survey. *Public Opinion Quarterly*, 64, 125-148.

Kinder, Donald R., and Thomas R. Palfrey. 1993. On Behalf of an Experimental Political Science. In *Experimental Foundations of Political Science*, ed. Donald R. Kinder and Thomas R. Palfrey. Ann Arbor, MI: The University of Michigan Press.

Kish, Leslie. 1965. *Survey Sampling*. New York: John Wiley & Sons, Inc.

Krosnick, J. A., & Kinder, D. R. (1990). Altering popular support for the president through priming: The Iran-Contra affair. *American Political Science Review*, 84, 497-512.

Lee, Eun Sul, and Ronald N. Forthofer. 2006. *Analyzing Complex Survey Data*. Thousand Oaks, CA: Sage Publications.

Miller, Arthur H. 1974. Political Issues and Trust in Government: 1964–1970. *American Political Science Review* 68: 951–72.

Piazza, Thomas and Paul M. Sniderman. 1998. Incorporating Experiments into Computer Assisted Surveys. In *Computer Assisted Survey Information Collection*, ed. , Mick P. Couper, Reginald P. Baker, Jelke Bethlehem, Cynthia Z. F. Clark, Jean Martin, William L. Nicholls, and James M. O'Reilly New York: John Wiley and Sons.

Rahn, Wendy M., Jon A. Krosnick, and Breuning, Marijke 1994. Rationalization and derivation processes in survey studies of political candidate evaluation. *American Journal of Political Science*. 38(3), 582-600.

Sears, David O. 1986. College Sophomores in the Laboratory: Influences of a Narrow Data Base on Social Psychology's View of Human Nature. *Journal of Personality and Social Psychology* 51(3), 515-530.

Shanks, J. Merrill, Maria Sanchez, and Betsy Morton. 1983. *Alternative Approaches to Survey Data Collection for the National Election Studies*, ANES Technical Report Series, No. nes010120.

Silver, Michael D., and Jon A. Krosnick. (2001). An experimental comparison of the quality of data obtained in telephone and self-administered mailed surveys with a listed sample. Paper presented at the American Association for Public Opinion Research Annual Meeting, Montreal, Canada.

Visser, Penny S., Jon A. Krosnick, Paul J. Lavrakas. 2000. Survey Research. In *Handbook of Research Methods in Social and Personality Psychology*, ed. Harry T. Reis and Charles M. Judd. Cambridge: Cambridge University Press.

Visser, Penny S., Jon A. Krosnick, J. Marquette, and M. Kurtin. 1996. Mail Surveys for Election Forecasting? An Evaluation of the Columbus Dispatch Poll. *Public Opinion Quarterly*, 60, 181-227.